

# JPC

## New products 2016



Thermostats for incorporation, **400** and **500°C**,  
IPx4, IPx5, **IPx6** thermostats,  
**Electronic** thermostats and limiters,  
**Corrosive baths** thermostats, housings and sensors,  
**15A 250V** Flow switches,  
**900°C** Ceramic connection blocks

The professional solution: **an extended, rational and consistent range of products**

### Technical catalogue for R&D department



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# General Terms of Sales

## 1. GENERAL

1.1. The General Sales Conditions shall apply to all sales and supplies executed by JPC Controls (hereinafter the "Seller") to the purchaser (hereinafter the "Purchaser") in regards to the products, equipments, materials, supplies, and services (hereinafter the "Products" or the "Product"), as well as, the installation and operation of such Products. These General Sales Conditions shall apply unless otherwise expressly stated in the relevant offer (hereinafter the "Offer") or in acceptance or confirmation of the order (hereinafter the "Order Acceptance"), and in accordance to the conditions specified hereafter. JPC Controls shall not be binding and shall not have any legal effect.

1.2. All orders or issuing of a purchase order (hereinafter the "Order"), as well as the acceptance of the Products and the conditions shall be acknowledged and accepted by the Purchaser, expressly renouncing his own conditions and/or any other similar documentation. It is deemed that Purchaser is informed of the General Sales Conditions upon receipt of the Offer from the Seller together with these General Sales Conditions. Alternatively, it shall be deemed duly communicated if the Purchaser is informed of the General Sales Conditions during the business relationship with the Seller and, in such case, it is considered that the General Sales Conditions are accepted by the Purchaser when the Purchaser issues an Order.

1.3. Until the Contract (hereinafter the "Contract") is duly entered and signed by both parties or there is an Order Acceptance the Seller may modify or remove the Offer, at any time, with prior written notice to the Purchaser.

1.4. Such Contract shall comprise an agreement signed by both Parties, and/or an Order with the respective Acceptance (including, if any, particular conditions in the purchase and any corresponding specifications). The General Sales Conditions and Annexes are in full part of the Contract.

## 2. INTELLECTUAL AND INDUSTRIAL PROPERTY RIGHTS

2.1. The intellectual and industrial property of the Offer and its attached information, including among others, brochures, catalogues, prospectus, technical and/or commercial documents (hereinafter the "Documents") and the Products, as well as the components, plans, designs, "software", etc., any other relating to or likewise, trademarks, patents, industrial designs, business name, domain name, and any other rights and distinguishing marks that hold or may hold any other present or future product, are owned by the Seller or the supplier. The sale of the Products during the execution of the Contract will not derive any right or ownership of the Purchaser.

2.2. It is expressly forbidden for the Purchaser to use Documents for any other purpose than to carry out the Order, including all or partial copy Documents or assign use to a third party, without the prior written consent of the Seller. Likewise, the Purchaser is obliged to not alter, remove, cover and/or destroy any emblem, trademark and/or any other distinguishing mark incorporated in Products.

2.3. The Seller shall keep the information in the Documents confidential and shall not disclose any information unless the person is employed by the Purchaser and is authorized to access information on the Contract and use of the Products. Any disclosure not mentioned above shall require the Seller's express prior written consent.

## 3. EXECUTION OF THE ORDER AND SCOPE OF SUPPLY

3.1. The Purchaser shall submit the purchase orders or Orders in writing to the Seller. The Seller will only be bound to the Purchaser if he totally accepts the order in writing, without any amendments, whether an Offer exists or not and according to the abovementioned Order Acceptance.

The Order will be considered legally binding if the Purchaser does not receive an expressed rejection from the Seller within fifteen (15) days.

3.2. Supply only includes the equipment and material stated in the Order, except in the case that the Seller accepts the Order with documents, information, support or any other additional service included.

3.3. The weights, dimensions, capacities, working, technical specifications and shapes of the Products included in the Documents (brochures, catalogues, prospectus, technical literature, etc.) shall be informative and not binding, except in the case that the Seller accepts a closed specification from the Purchaser, incorporated in the Order's documents, or when set forth by the Seller in the Acceptance order.

3.4. The Seller must be given written notice of any modifications, and/or alterations, and accepted in writing by the Seller. No order shall be cancelled or modified after the date the Order Acceptance is issued, unless the Seller gives prior written consent. In such case, the Purchaser shall bear all costs arising from the cancellation or modification.

## 4. PRICES

4.1. Unless otherwise expressly stated in the Acceptance Order, the sale price is the price set forth in the Offer and/or in such Acceptance Order. The Product price shall be the price on the date of the purchase order, unless otherwise expressly agreed between the Seller and the Purchaser.

4.2. All prices are considered Ex Works Incoterms 2000, unless otherwise expressly stated in the particular conditions.

4.3. Without prejudice to the abovementioned Incoterm, the prices of the Products are based on a net amount, without including VAT or any other tax, rights or fees, which will be added to the invoice with the relevant rates. Unless otherwise expressly agreed in the Acceptance Order, or in an agreement between the Seller and the Purchaser resulting from the business relationship, the prices shall not include packing, transport, shipment, or insurances, and also considered to be placed at the factory of the Seller. Such prices are only valid when all materials are specified in the Order.

4.4. The prices proposed before issuing the Order on the Offers, as well as the commercial, technical and financial documents sent to the Purchaser jointly with the General Sales Conditions, are valid for a period of thirty (30) days from the date of its issue, unless a written notice from the Seller to the Purchaser states an extension period. During this period, the prices of the payment set forth in the Offer are fixed, except if the Product offered consists of imported equipment which may be subject to contingencies in the exchange of currency or subject to the payment of tax and duties, in such case, the prices of the Offer shall be adjusted accordingly.

4.5. The prices set forth in the Offer are composed depending on the conditions of payment specified in the Offer. If such conditions of payment are modified, the Seller may review these prices.

4.6. Unless otherwise agreed in the Order Acceptance, all prices quoted do not include taxes and any payments shall be made in the invoicing currency at on the bank account specified on invoice.

4.7. Once the Order is accepted by the Seller, the Product prices are considered fixed and not subject to review. However, prices may be adjusted when:

- The Seller and the Purchaser by mutual agreement decide to review prices.

- There is a delay in the delivery date or in the acceptance, directly or indirectly due to the Purchaser.

- The scope of the supply is modified due to a Purchaser's request.

- In the event that the prices are not quoted in RMB, the price shall be reviewed as a monetary parity variation of the currency in respect of the RMB may occur during the date of the Order to the delivery date.

## 5. CONDITIONS OF PAYMENT

5.1. The Purchaser accepts to pay according to the conditions of payment included in the Offer, or if such Offer does not exist, or in the Purchaser's Order accepted by the Seller. The conditions of payment previously agreed within an ongoing business relationship agreement between the Seller and the Purchaser may also be applied. Subsidiarily, the payment shall be made under the agreed conditions within the maximum period of thirty (30) days following the date of the invoice.

5.2. The payment shall be made under the agreed conditions, either in the Seller's bank account or by other means of payment agreed. The payment shall be made without any deductions, including non agreed stoppages, discounts, expenses, taxes, rates, or any other. Bank transfer charges and other Bank expenses related to payments received by Purchaser heard by Purchaser.

5.3. Any advanced payment made by the Purchaser shall not include a discount or reduction in the price fixed in the Contract, unless prior agreement in written between both Parties.

5.4. If at the delivery date, installation, operation or the receipt of the Products is delayed due to a foreign reason not caused by the Seller, the conditions of payment shall be kept enforceable.

5.5. In the event of that payment is delayed by purchaser, the Purchaser shall pay the Seller, without request and from the date that the payment matures, any interest for delayed payment due to the delayed payments. Such interest penalty is based on the legal interest rate or a substitute rate plus a quarterly rate of 2% (two per cent). The Purchaser shall bear all financial and/or bank costs arising from any payment made to the Seller. The payment of such interest shall not release the Purchaser to make the remaining payments as stated in agreed conditions.

5.6. In the event that the Purchaser delays payment, the Seller shall stop the shipment of the Products or the execution of the services related to such Products, without prejudice the Seller may request the Purchaser to pay the delayed payments and demand, where necessary, any additional compensation for stoppage of the Products or execution of the agreed services. Moreover, the Seller may terminate the Contract beforehand, by written notice to the Purchaser sent seven (7) days in advance.

5.7. In the event of a delayed payment of the Purchaser, the Seller shall request payment in advance for any new delivery of Products (independent to the agreed conditions).

5.8. In the event of a complaint made by the Purchaser, the Purchaser is not permitted to stop or deduct any amount from the payments agreed.

5.9. If the Seller executes, by expressed request from the Purchaser, any different activities than those stated in the Contract, no modification to the terms nor conditions of the Contract, sale, or Incoterm shall be made. The costs of such additional activities shall be invoiced to the Purchaser separately.

## 6. RETENTION OF PROPERTY

6.1. Unless otherwise agreed, the Products and its possession shall be transferred to the Purchaser at the time such Products are delivered. It shall not be neither returned nor changed, unless otherwise stated in this General Sales Conditions.

6.2. The Seller shall keep the ownership of the Products until the full payment of the agreed price is made including any other payments outstanding, if any, from the Purchaser to the Seller.

## 7. TERM AND DELIVERY CONDITIONS

7.1. The delivery of the sold Products shall be made at the date, place, term and conditions set forth in the Offer or in the Order Acceptance. If the delivery place is not specified in the Order Acceptance, then it shall be understood that the Products shall be in the factory or the warehouse of the Seller. The delivery date binds the Seller, only if the Purchaser has strictly fulfilled the payment schedule, if any. The Purchaser shall bear the risk of the loss, damages, harms, deterioration or destruction of the sold Products since such Products are at the disposal of the Purchaser. If an income quality control inspection is asked by the Purchaser, it must be made on products before shipment. If a modification for any reason is requested on them, no compensation will be made for products yet shipped and not yet received by Purchaser at the date this modification is requested.

7.2. The delivery date shall be modified when:

a) The Purchaser shall not provide the necessary documents to execute the supply in time.

b) The Purchaser requests modifications in the Order, such modifications are accepted by the Seller and, at the Sellers discretion an extension to the delivery term may be requested.

c) In order to complete the supply, it is indispensable for the Purchaser or its subcontractors to carry out work in the time period.

d) The Purchaser shall not fulfill any of the contractual obligations of the Order, especially those related to payments.

e) There is a production or disposal delay of all or any Products items, not directly due to the Seller. In an informative and not limitative way, the following delayed causes are included: suppliers, transport and services strike, failures in the supplies of third parties, failures in transport, flood, storms, disturbs, strikes, lockout in the staff of the Seller or its subcontractors, sabotage, accidental stops in Seller's workshop caused by a break-down, etc.

In cases a), b), c), and d), the postponement in the delivery date shall not modify the schedule of the supply payments due.

## 8. TRANSPORT AND DEPOSIT

8.1. Unless otherwise previously agreed with the Purchaser, the Purchaser shall organize the transport, including loading and unloading, independently and at his own costs and risk, meaning that the Seller is free to any claim or complaint regarding damages or defaults in the Products. The Purchaser shall bear such risks and shall contract the relevant insurance policies.

8.2. If the Products are ready to be supplied or, alternatively, waiting to pass the agreed tests, and the Purchaser, shall not collect them or not agree with the Seller to store them in Seller's premises as stated in the terms and conditions of the deposit agreement, all deposit and storage costs and expenses arising from such delay, shall be born by the Purchaser, including all the stored material risks, as well as damages, harms and loss of profits that the Seller may suffer. It shall be considered that the initial date of deposit be the foreseen delivery.

## 9. INSPECTION AND RECEPTION

9.1. Unless when specified in the Order, inspections and tests during the performance and the final inspection prior to the delivery shall be made by the Seller. Any additional tests requested by the Purchaser shall be specified in the Order, stating conditions, the place and company where such test shall be made, if applicable. Such additional tests shall be approved by the Seller and shall be made on the behalf and at the own risk and costs of the Purchaser.

9.2. Once the Products are delivered, the Purchaser shall verify their content in a term no higher than fifteen (15) days from the receipt, so to check possible defects and/or failures due to the Seller, to check that the Products are in a perfect material estate, and as well as, to verify that Products are in accordance with the delivery note specifications. The Seller shall be informed immediately on the existence of such defects and/or failures.

9.3. If the Products have any defect and/or failure due to the Seller, the Seller shall take the necessary measures to eliminate them. The Seller takes responsibility of the recovery costs of any defective Products, and shall replace them with products of similar characteristics at his own cost as soon as possible, provided that the defect is verified once the Purchaser files the pertinent complaint and form in duly time and before using the purchased Products.

9.4. Unless the Order set forth specifies the test on reception within the terms and conditions agreed by the Seller and the Purchaser, after fifteen (15) days following the receipt of the Products by the Purchaser and if the Seller does not receive any written notice regarding defects or failures, it shall be considered that the Products are in good conditions.

9.5. When, the parties agree to make the test on reception, it shall be considered that the Purchaser has received the Products in good conditions, if the test on reception are not carried out in the agreed period due to the Seller, or if the Purchaser starts to use the Products.

## 10. RETURN OF MATERIALS COMPLAINTS

10.1. In any case, the Seller shall accept the return of materials without a prior consent from the Purchaser. The Purchaser, shall notify the Seller that he desires to make a return within a term of fifteen (15) days from the receipt of the Products, providing that he justifies such return, and agrees with the Seller on the return procedure. In all cases, the Purchaser's complaints against the Seller shall be made in writing and in a certified way.

10.2. The returns or shipment of material to the Seller's installations shall be always made by freight prepaid in the case of reimbursement, substitution or reparation.

10.3. The Seller shall not admit any return of Orders for reasons beyond his control.

10.4. The Seller shall not admit any return of used materials, assembled in other equipments or installations, or subject to be disassembled.

10.5. Likewise, the Seller shall not admit any return of products designed or manufactured specially for the Order.

## 11. WARRANTY

The warranty of the Products is defined in Annex I of these General Sales Conditions.

## 12. LIMITATION OF LIABILITY

12.1. As far as allowed by Law in force, the Seller will not be responsible for any direct or indirect damages that the Purchaser, its employees, directors, successors and/or assigns suffered, in regards to the Contract and as a consequence of the supply of the faulty Products; including but not limited damages for loss of profit, capital cost, cost of stocks, breaks or stoppage of the supply, or in other equipment different than those supplied, deterioration or actions in equipments, systems and Purchaser's or third party buildings, labor accidents, accidents and incidences against the Environmental, etc., even if the Seller is informed about the possibility of such damages. The Purchaser shall release, indemnify and warrant to the Seller on any claim or complaint based on such damages, loss or harm.

12.2. The complete responsibility of the Seller arising from the supply is limited to the value of the Products causing the complaint.

12.3. The Seller shall not be liable in any way for any damages and/or loss of profits when: a) it shall not be solely and exclusively caused by the Products or by the Seller, b) the Purchaser or persons in charge are responsible for such damages and/or loss of profits; c) caused to third parties; d) loss of profits; e) non-earned income of the Purchaser.

12.4. The Purchaser shall bear all damages, including the loss of profits to the Seller caused by: a) the request by the Purchaser to postpone the date of the delivery of Products; b) the total or partial cancellation of the ordered Products; c) delay or not provide the Purchaser with the necessary information, instructions and/or documents to carry out the delivery of the Products, making such delivery impossible or delaying it.

## 13. EXPORT LIMITATIONS

Some of the Products supplied by the Seller may be subject to export control regulations. For such reason, the Purchaser accepts not to sell, lend or deliver to any third party, with or without compensation, temporal or permanently, direct or indirectly by the Purchaser or third parties, the Products and/or elements supplied by the Seller, documents, operating handbooks, and information regarding the Products, unless the prior written approval of the Seller and the relevant authorities. The Purchaser is liable for the fulfillment of such requirement.

## 14. FORCE MAJEURE

14.1. Neither Seller nor the Purchaser shall be liable to each other or third party, for any damages or losses due to the delay, failure or the impossibility to complete its obligations resulting from a force majeure cause, including strikes, lockout, floods, weather, natural disasters, distraint, governments restrictions, delay of a subcontracted supplier or collaborator, epidemic, light, water and oil supply disturbances, etc.

14.2. In the event of force majeure cause, the Seller shall send the Purchaser a notice to inform such circumstances and set forth the time estimated to solve the problem and fulfill the Contract.

14.3. If the fulfillment of all or any of the Seller's obligations arising from the Contract are delayed or postponed for any force majeure cause, for a period more than three (3) months, the Seller shall decide, at any time, without any responsibility to terminate the Contract or the pertinent part of it. The Parties shall try to set an amicably termination of the Contract by mutual consent. If such amicable settlement cannot be reached, the provisions stated in clause 17 of these General Sales Conditions shall be applicable. In any case, the force majeure shall neither obstruct nor delay the payment of any amount owed by both Parties.

## 15. TERMINATION

The purchase may be automatically terminated within full rights at the Seller's choice one (1) month after the payment demand, without payment, and in the event that the Purchaser delays to fulfill its payment obligation, the Purchaser shall immediately return all sold Products to the Seller or the Seller shall take them from the address of the Purchaser, in such case the Purchaser shall bear all cost. The amount already paid, shall be kept by the Seller as a penalty clause, expressly accepted by the Purchaser.

## 16. MISCELLANEOUS

16.1. If part or all of any provision included in the General Sales Conditions shall be declared to be illegal, void or unenforceable, such part or provision will be omitted, and all the other provisions of this General Sales Conditions shall not be affected and shall remain in full force and effect.

16.2. Any of the Product models offered by the Seller shall be modified and/or redesigned in any way, and/or stopped to be manufactured and/or commercialized, at any time, at Seller's convenience due to business, production and/or market reasons.

16.3. The Seller shall provide together with the Products the pertinent invoice related to the purchase, technical documents, if any, and documents to certify the relevant homologation and/or certification of the Products.

## 17. GOVERNING LAW AND JURISDICTION

17.1. These General Sales Conditions are subject to Chinese Law.

17.2. All claims and disputes arising or related to these General Sales Conditions shall be settled amicably by negotiation between both Parties. If such amicable settlement can not be reached, the Parties shall agree to submit all claims or disputes resulting from the interpretation, enforceability and execution of these General Sales Conditions to the courts of the city of Foshan Gao Ming (China), with express waiver of their own forum or other forum which they may recourse.

## ANNEX I

### WARRANTY

1. Unless otherwise agreed in the Offer or in the Order Acceptance, the Seller guarantees to supply the Products free from defects in materials, workmanship or joint for two (2) years from the date of receipt, such date being explicit (overcoming the test on receipt agreed by the Seller and the Purchaser, and sending written notice accepting the Products), or tacit (fifteen (15) days after the shipment to the Purchaser, without any written notice receipt by the Seller to inform any nonconformity, or fifteen (15) days from the date in which the Seller notifies that the Product is available to be sent, whatever occurs before). The abovementioned warranty shall apply providing that the complaint is submitted in written to the Seller within fifteen (15) days from the date in which the Purchaser is aware or knows that there is a default in the Product's.

2. Samples supplied to the Purchaser prior to mass production must be used by him to check the product compliance to his application and relevant standards or regulation. No complaint, return, reimbursement, indemnity, or any compensation of any type will be accepted for non-compliance to application or standards after sample acceptance.

For Products developed on professional customer specifications, customer has the knowledge and responsibility to detect any reasonable hidden defect when samples are submitted for his approval. Therefore, no return, reimbursement, indemnity, or any compensation of any type will be accepted for this reason after sample acceptance.

3. The warranty set forth in the aforesaid clause 1, consists of repairs or replacement (at Seller convenience) of elements recognized as faulty, due to defects in material, defects in workmanship, operation or assembly. The property of the repaired or replaced pieces shall be transferred to the Purchaser at the time of its delivery. The repairs or the replacements are considered to be made in the Seller's workshops, and the Purchaser shall bear all costs and risk of the disassembling, packing, shipment, transport, customs, tax, etc, arising from the consignment of the faulty material in the Seller's workshop. The cost of the disassembling, packing, shipment, transport, customs, tax, etc, arising from the repair or replacement of pieces born by the Seller. However, the Seller and the Purchaser may agree to repair or replace faulty elements in the premises of the Purchaser.

4. The warranty set forth in the aforesaid clauses 1 and 2, is limited to the repair or replacement of the faulty parties, and it shall only be applicable if the Products have been used and maintained according to the specifications provided by the Seller.

5. The repair or replacement of a faulty element of the Product shall not change the commencement date of the whole Product warranty period, stated in clause 1 of this Warranty. However, the repaired or replaced element shall have six (6) months of warranty from the date of its repair or replacement.

6. In any case, the Seller shall not bear the repairs made by non authorized personnel.

7. This warranty shall not apply to damages and/or defects resulting from normal wear of the Products. Moreover, the warranty shall not apply, being considered expired, to damages, defects and failures arising from: a) the improper preservation or maintenance; b) the storage and handling when in incorrect or abusive manner; c) the abuse, misuse or improper use of the Products for the Purchaser or the person in charge, for negligence or disrespect of the recommendations or technical instructions provided by the Seller, or its operating manuals; d) the use of inappropriate liquids and gas; e) the inappropriate flow or pressure; f) any assembly variations in the quality of electrical supply (voltage, frequency, disturbances, etc.); g) any modification introduced in the supply, or made in Products by the Purchaser or by a third party not involved with the Seller and without the Seller's approval, installations made or later modified not respecting the technical specifications of the Products; g) any combination of Products with materials or equipments not approved or expressly recommended by the Seller, b) and in general, any cause not due to the Seller. The Seller's warranty for Products or components of such Products acquired from a third party is strictly limited to the terms and conditions stated by the suppliers to the Seller.
























8. Likewise, the warranty shall be considered expired, if both parties agree to start a Product assisted by the Seller's collaborators, and this Product is able to work without such assistance or, in case of failure, measures to mitigate damages are not taken.

9. When the warranty set forth in clause 1 of this Warranty consists of a replacement, that due to its urgency shall be made immediately, the Purchaser is obliged to return the faulty piece or element no later than fifteen (15) days from the delivery date of the new piece or element. In case of a non-returnable replacement piece or element, the delivered piece or element shall be invoiced.
















# New products 2016

## Summary

Thermostats for incorporation			
8G		Bulb and capillary thermostat for incorporation, with new 100-400°C temperature range. (Also available with 3 way connector).	9-10
KO-V		Din rail mounting bulb and capillary thermostat. Downside electrical connection block.	11
KZ-3		Manual reset high limit thermostat, fail safe, calibration from 20 to 500°C.	12
Mechanical control thermostats inside enclosures			
Y035	<b>IP44</b>	<b>PC-ABS</b>	Ambient temperature thermostat, pig tail sensor. Miniature plastic enclosure IP44, with internal adjustment. One M20 cable gland for round or oblong cables. Also available with outside adjustment knob.
			
Y039	<b>IP44</b>	<b>PC-ABS</b>	Bulb and capillary thermostat. Miniature plastic enclosure IP44, with internal adjustment. One M20 cable gland for round or oblong cables. Also available with outside adjustment knob.
			
Y049	<b>IP44</b>	<b>PC-ABS</b>	Rod thermostat. Miniature plastic enclosure IP44, with internal adjustment. One M20 cable gland for round or oblong cables. With metal pocket or plastic pocket. Also available with outside adjustment knob.
			
Y0D8	<b>IP55</b>	<b>PC-ABS</b>	Ambient temperature thermostat, IP55 plastic enclosure, for heat tracing, pig tail sensor. Internal adjustment, one pilot light, and additional internal connection block. 1, 2 or 3 M20 cable glands for round or oblong cables. Also available with outside adjustment knob.
			
Y0A9	<b>IP55</b>	<b>PC-ABS</b>	Bulb and capillary thermostat, IP55 plastic enclosure with internal adjustment, and additional internal connection block. One pilot light, 1, 2 or 3 M20 cable glands for round or oblong cables. Also available with outside adjustment knob.
			
Y0B9	<b>IP55</b>	<b>PC-ABS</b>	Rod thermostat, IP55 plastic enclosure, with internal adjustment, and additional internal connection block. One pilot light, 1, 2 or 3 M20 cable glands for round or oblong cables. Also available with outside adjustment knob.
			
Y2B, Y2K	<b>IP55</b>	<b>PC-ABS</b>	Ambient temperature thermostat IP55 plastic enclosure, pig tail bulb, two pilot lights, reduced width, external adjustment or internal adjustment under transparent cover.
			
Y2D, Y2L	<b>IP55</b>	<b>PC-ABS</b>	Bulb and capillary thermostat, IP55 plastic enclosure, two pilot lights, reduced width, external adjustment or internal adjustment under transparent cover.
			
Y2H, Y2P	<b>IP55</b>	<b>PC-ABS</b>	Pipe mounting thermostat, IP55 plastic enclosure, two pilot lights, reduced width, external adjustment and internal adjustment under transparent cover.
			
Y1B8G	<b>IP65</b>	<b>Aluminum</b>	Ambient measurement thermostat, pig tail bulb, inside IP65, IK10 aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under window. Also available with internal adjustment knob, full aluminum enclosure.
			















Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Summary

Y1I8G	<b>IP65</b> 	<b>Aluminum</b>	Bulb and capillary thermostat, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	25
Y1S8G	<b>IP65</b> 	<b>Aluminum</b>	Rod thermostat, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	26-27
Y1I8G	<b>IP65</b> 	<b>Aluminum</b>	Pipe mounting thermostat, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	28
Y1I8C	<b>IP65</b> 	<b>Aluminum</b>	3 poles bulb and capillary thermostat, IP65, IK10, aluminum enclosure, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	29
Y1S8C	<b>IP65</b> 	<b>Aluminum</b>	3 poles rod thermostat, IP65, IK10, aluminum enclosure, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	30-31
Y1I8C	<b>IP65</b> 	<b>Aluminum</b>	3 poles pipe mounting thermostat, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	32
YF7GNC	<b>IP66</b> 	<b>PA66+ PC</b>	Ambient temperature control thermostat, pig tail bulb, IP66, IK10, PA66 housing with polycarbonate transparent cover.	33
YF9GNC	<b>IP66</b> 	<b>PA66+ PC</b>	Bulb and capillary thermostat, IP66, IK10, PA66 housing with polycarbonate transparent cover.	34-35
YF4GNC	<b>IP66</b> 	<b>PA66+ PC</b>	Rod thermostat, IP66, IK10, PA66 housing with polycarbonate transparent cover.	36-37
YF8GNC	<b>IP66</b> 	<b>PA66+ PC</b>	Adjustable set point bulb and capillary thermostat, IP66, IK10, PA66 housing with polycarbonate transparent cover, with extension for direct mounting on 1"1/2 immersion heater.	38-39
YF5GPP	<b>IP66</b> 	<b>PP or PVDF</b>	Adjustable set point rod thermostat, with high corrosion resistance IP66 enclosure in Polypropylene, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Also available with PVDF enclosure.	40-41
<b>Electronic temperature control thermostats inside enclosures</b>				
Y1A2P	<b>IP65</b> 	<b>Aluminum</b>	Low differential electronic room thermostat, NTC sensor, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under window. Also available with internal adjustment knob, full aluminum enclosure.	45
Y1I2P	<b>IP65</b> 	<b>Aluminum</b>	Low differential electronic thermostat, distant NTC sensor, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under crystal clear window. Also available with internal adjustment knob, full aluminum enclosure.	46-47
















Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Summary

Y1S2P	IP65	Aluminum		Low differential electronic thermostat, probe sensor, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	48-49
Y112P	IP65	Aluminum		Adjustable set point electronic limiter, probe sensor, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	50
YF62NC	IP66	PA66+PC		Ambient temperature control electronic thermostat, low differential, IP66, IK10, PA66 housing with polycarbonate transparent cover.	51
YF92NC	IP66	PA66+PC		Electronic thermostat, low differential with remote sensor, IP66, IK10, PA66 housing with polycarbonate transparent cover.	52
YF42NC	IP66	PA66+PC		Low differential electronic rod thermostat, with PA66 body and crystal clear cover, using standard 1/2" fitting stainless steel pockets. For low-corrosive liquids.	53-54
YF82NC	IP66	PA66+PC		Adjustable set point electronic thermostat with low differential, IP66, IK10, PA66 housing with polycarbonate transparent cover, with extension for direct mounting on 1"1/2 immersion heater.	55-56
YF52PP	IP66	 PP or PVDF		Low differential electronic rod thermostat, with high corrosion resistance IP66 enclosure in Polypropylene, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Also available with adjustable range and manual reset. Also available with PVDF enclosure.	57-58
Manual reset mechanical limiters inside enclosures					
Y1G8L	IP65	Aluminum		Bulb and capillary manual reset high limit thermostat, fail safe, IP65, IK10, aluminum enclosure, two M20 cable glands for round or oblong cables. Non-adjustable manual reset under transparent window with pilot light. Also available with internal reset button under aluminum cover (Without window).	61
Y1S8L	IP65	Aluminum		Rod type manual reset high limit thermostat, fail safe, IP65, IK10, aluminum enclosure, two M20 cable glands for round or oblong cables. Internal non-adjustable manual reset with reset under transparent window Also available with internal reset button under aluminum cover (Without window).	62-63
Y118L	IP65	Aluminum		Pipe mounting type manual reset high limit thermostat, fail safe, IP65, IK10, aluminum enclosure, two M20 cable glands for round or oblong cables. Internal non-adjustable manual reset with reset under transparent window Also available with internal reset button under aluminum cover (Without window).	64
YF9LNC	IP66	PA66+PC		Manual reset bulb and capillary thermostat, fail safe, non-adjustable set point, IP66, IK10, PA66 housing with polycarbonate transparent cover.	65
YF4LNC	IP66	PA66+PC		High limit manual reset rod thermostat, fail safe, non-adjustable set point, with PA66 body and transparent cover, using standard 1/2" fitting stainless steel, for low-corrosive liquids.	66
YF8LNC	IP66	PA66+PC		High limit manual reset thermostat, fail safe, for direct mounting on immersion heaters, non-adjustable set point, with PA66 body and transparent cover, for low-corrosive liquids.	67











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# Summary

YF5LPP	IP66	 PP or PVDF		High limit manual reset thermostat, fail safe, non-adjustable set point, with high corrosion resistance IP66 enclosure in Polypropylene, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Also available with PVDF enclosure.	68-69
Manual reset electronic limiters					
Y1B2L	IP65	Aluminum		Ambient high limit manual reset thermostat, IP65, IK10, aluminum enclosure, two M20 cable glands for round or oblong cables. Adjustable set point and manual reset under transparent window. Also available with internal adjustment and reset button under aluminum cover (Without window).	73
Y1I2L	IP65	Aluminum		Adjustable manual reset electronic limiter, distant NTC sensor, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure.	74-75
Y1S2L	IP65	Aluminum		Adjustable set point electronic limiter, probe sensor, IP65, IK10, aluminum enclosure, one pilot light, two M20 cable glands for round or oblong cables. Adjustment under transparent window. Also available with internal adjustment knob, full aluminum enclosure (IP65).	76-77
Y1I2L	IP65	Aluminum		Adjustable electronic limiter, pipe mounting. Adjustment under window. Also available with adjustment under aluminum cover (Without window).	78
YF63NC	IP66	PA66+PC		Ambient temperature manual reset adjustable electronic limiter, IP66, IK10, PA66 housing with polycarbonate transparent cover.	79
YF93NC	IP66	PA66+PC		Distant sensor manual reset adjustable electronic limiter, IP66, IK10, PA66 housing with polycarbonate transparent cover.	80-81
YF43NC	IP66	PA66+PC		Probe sensor manual reset adjustable electronic limiter, IP66, IK10, PA66 housing with polycarbonate transparent cover.	82-83
YF83NC	IP66	PA66+PC		Adjustable set point electronic limiter, IP66, IK10, PA66 housing with polycarbonate crystal clear cover, with extension for direct mounting on 1"1/2 immersion heater.	84-85
YF53PP	IP66	 PP or PVDF		Electronic limiter, probe sensor, adjustable manual reset, with high corrosion resistance IP66 enclosure in Polypropylene, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Also available with PVDF enclosure.	86-87
Housings for immersion heaters and temperature sensors					
Y3S5 Y3S6	IP65	AISI 304 AISI 316		-Y3S5 Deep drawn Stainless steel immersion heater enclosure, 105 x 105 x 102 mm. -Y3S6 Deep drawn stainless steel immersion heater enclosure, IP65, 105 x 105 x 109 mm with built-in hexagon 58mm on flats for fitting.	91
Y3C6	IP66	 PP or PVDF		IP66 Immersion heater connection box made of high corrosion resistance polypropylene, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Fits dia. 45, 48, 50, 52, 54mm heater tubes in stainless steel, titanium, ceramic, quartz or PTFE. - The full range of YF thermostats can be added to the heating elements - Can be equipped with 6 way internal connection block. - Can also be used with traditional immersion heater fittings. -Also available in PVDF and PA66.	92

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# Summary

TYPP	IP66	 PP or PVDF	<p>Probe temperature sensor, with high corrosion resistance housing in Polypropylene, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.</p> <p>-Probe in stainless steel coated with PTFE or in titanium</p> <p>-Can be fitted with NTC, Pt100, Pt1000, thermocouple and transmitters</p> <p>-Also available with PVDF enclosure</p> <p>-Also available for less corrosive liquids, with PA66 body and crystal clear cover.</p>	93-94
				
Y3D1	IP66	AISI 304 AISI 316	<p>1"1/2 fitting, 304 or 316 stainless steel, for immersion heater, with gasket and rotation washer, for 1, 2 or 3 heating elements, with or without pocket.</p>	95-96
				
Flow switches, flow controllers, and accessories for flow switches				
RAX			<p>3/4" nut paddle flow switch with 16A 250V built-in relay (Patented).</p>	99-100
66R1TP			<p>PVC Tees for 3/4"flow switch mounting, for DN50 and DN63 pipes.</p>	101
9BW1			<p>Irrigation flow control with timer for home gardens.</p>	102
Connection blocks and connection accessories				
BC			<p>Very high temperature ceramic connection block, with stainless steel terminals and screws, and electric contact protection cap in ceramic. Exceeds fire proof specifications for cables upon NFC32-070 standard. Provides electric connection continuity after 2 hours at 920°C. Available in 2 and 3 ways.</p>	105-106
66KG3635			<p>Connector for bulb and capillary thermostat types 8G, KQ, KT, KZ</p>	107-108
BF3F3			<p>16x16x44mm auxiliary neutral connection block, 3 ways, with M4 screws for enclosures Y0A, Y0B, Y0C and Y2A to Y2P.</p>	107-108
Various				
49C, 49JE, 9DHT			<p>Technical over-molding of thermostats.</p>	111-112



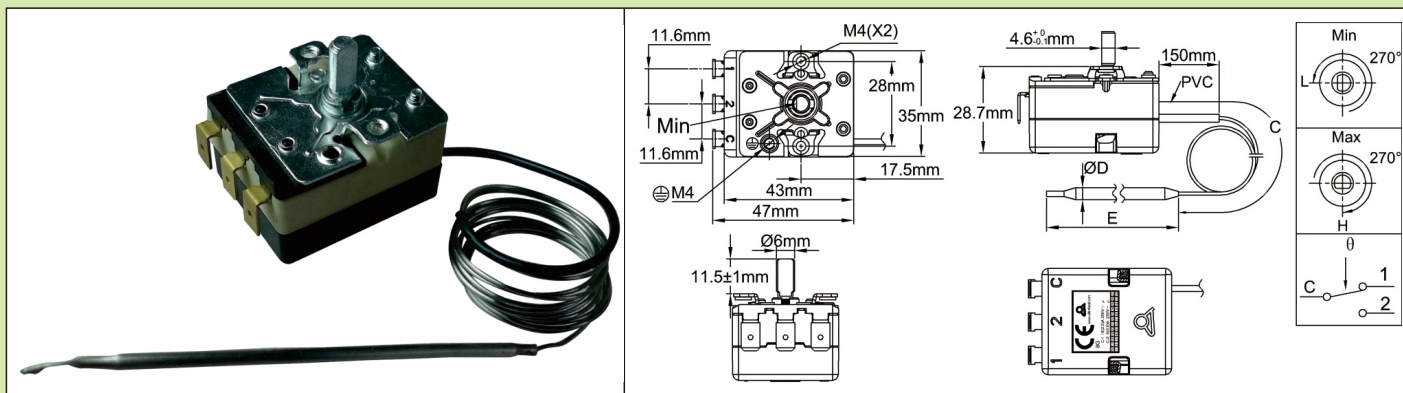
# Thermostats **for incorporation**



## Type 8G.

### Single pole control thermostat, bulb and capillary

- 2016 improvements:
- New temperature ranges,
  - Reduced differential,
  - Ground terminal,
  - Power rating up to 20A 250V,
  - Aligned terminals, compatible with 3 way connectors.



**Housing dimensions:** 43 x 35 x 29 mm (without terminals)

**Bulb and capillary:** stainless steel, with 1500 mm long PVC sleeve on the capillary. Capillary minimum bending radius is 5 mm. No capillary sleeve for temperature ranges above 400°C (750°F)

**Temperature sensing element:** Oil filled bulb and capillary.

**Caution:** Temperature ranges above 400°C (750°F) are filled with sodium-potassium eutectic. In case of breakage of the bulb or capillary, this liquid may self-ignite at room temperature in the presence of water or moisture.

**Terminals:** 6.35 x 0.8 quick connect terminals, 90° bended. Straight terminals or terminals with M4 screws also available on request. (MOQ apply). Terminal positions and alignment allow the use of a connector with flat or bended terminals.

**Adjustment:** Dia. 6 mm shaft with 4.6 mm flat, length 11.5 mm. Other lengths, screw driver adjustment or fixed setting available on request.

**Mounting:** Front bracket with 2 x M4 threads, 28 mm distance

**Grounding:** M4 thread on mounting bracket

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): **6A 250V**, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles

### Main references

Reference	Temperature range °C (°F)	Capillary length (C, mm)	Bulb diameter (D, mm)	Bulb length (E, mm)	Differential °C (°F)	Max temperature on bulb °C (°F)
8GB-35035AO60001	-35+35°C (-30+95°F)	1500	6	120±5	1,6±1°C (2,9±2°F)	60°C (140°F)
8GB-35035AA60001	-35+35°C (-30+95°F)	250	6	120±5	1,6±1°C (2,9±2°F)	60°C (140°F)
8GB-10040AO60001	-10+40°C (15-105°F)	1500	6	107±5	1,5±1°C (2,7±2°F)	70°C (158°F)
8GB-10040AA60001	-10+40°C (15-105°F)	250	6	107±5	1,5±1°C (2,7±2°F)	70°C (158°F)
8GB004040AQ30001	4-40°C (40-105°F)	250	Pig tail style, dia. 30mm coil	55±10	1±0.5°C (1,8±1°F)	70°C (158°F)
8GB004040AA80001	4-40°C (40-105°F)	250	8	85±5	1±0.5°C (1,8±1°F)	70°C (158°F)
8GB004040AO60001	4-40°C (40-105°F)	1500	6	120±5	1±0.5°C (1,8±1°F)	70°C (158°F)
8GB004040AA60001	4-40°C (40-105°F)	250	6	120±5	1±0.5°C (1,8±1°F)	70°C (158°F)
8GB000060AO60001	0-60°C (32-140°F)	1500	6	86±5	2.5±1°C (4,5±1,8F)	80°C (176°F)
8GB000060AA80001	0-60° (32- 140°F)	250	8	63±5	2.5±1°C (4,5±1,8F)	80°C (176°F)
8GB000090AO60001	0-90°C (32-195°F)	1500	6	98±5	2.5±1°C (4,5±1,8F)	120°C (250°F)
8GB030090AO60001	30-90°C (85-195°F)	1500	6	98±5	2.5±1°C (4,5±1,8F)	120°C (250°F)
8GB030090AA80001	30-90°C (85-195°F)	250	8	63±5	2.5±1°C (4,5±1,8F)	120°C (250°F)
8GB030110AO60001	30-110°C (85-230°F)	1500	6	86±5	2.5±1°C (4,5±1,8F)	140°C (284°F)
8GB030110AA80001	30-110°C (85-230°F)	250	8	55±5	2.5±1°C (4,5±1,8F)	140°C (284°F)
8GB050200AO60001	50-200°C (120-390°F)	1500	6	65±5	4±2°C (7±3.6F)	230°C (446°F)
8GB050300AO30001	50-300°C (120-570°F)	1500	3	145±5	10°C±2°C (18±3.6F)	330°C (626°F)
8GB100400AO30001	100-400°C (210-750°F)	1500	3	93±5	10°C±2°C (18±3.6F)	430°C (800°F)
8GB100500AE40000	100-500°C (210-930°F)	500	4	235±5	10°C±2°C (18±3.6F)	550°C (1000°F)
8GB100500AG40000	100-500°C (210-930°F)	750	4	235±5	10°C±2°C (18±3.6F)	550°C (1000°F)
8GB100500AN40000	100-500°C (210-930°F)	1400	4	235±5	10°C±2°C (18±3.6F)	550°C (1000°F)

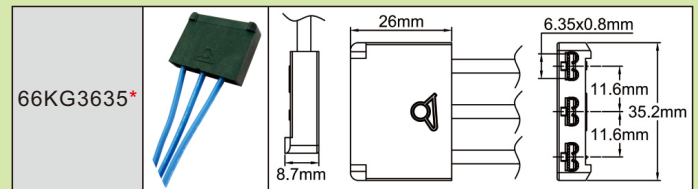
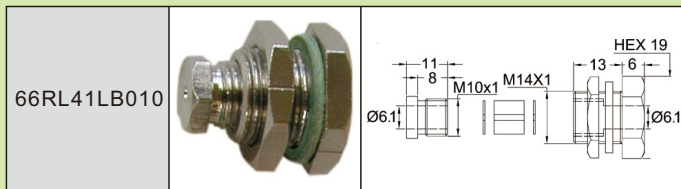
Other temperature ranges available on request.

## Type 8G.

### Single pole control thermostat, bulb and capillary

Capillary stuffing box with flat fiber gasket and M14 nut. Silicone seal. Nickel plated brass body. Max temperature 220°C.

3 way connector. Exists unassembled, with female terminals non-crimped, or assembled, with crimped wires, length, gauge and style upon customer request.



\* The 16 character full reference is issued upon customer wire types and length specs

Many other accessories are available: pockets, flanges, fittings: see the full list in catalogue #1.

### Usual knobs and bezels.

°C Printing							
0-10	-35+35°C	-10+40°C	4-40°C	0-60°C	0-90°C		
66MZ0000010502FW	66MZ006-350352FW	66MZ006-100402FW	66MZ0060040402FW	66MZ0060000602FW	66MZ0060000902FW		
30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C		
66MZ0060300901FW	66MZ0060301101FW	66MZ0060502001FW	66MZ0060503001FW	66MZ0061004007FW	66MZ0061005007FW		
°F Printing							
0-10	-30+95°F	15-105°F	40-105°F	32-140°F	32-195°F		
66MZ0000010502FX	66MZ006-350352FX	66MZ006-100402FX	66MZ0060040402FX	66MZ0060000602FX	66MZ0060000902FX		
85-195°F	85-230°F	120-390°F	120-570°F	210-750°F	210-930°F		
66MZ0060300901FX	66MZ0060301101FX	66MZ0060502001FX	66MZ0060503001FX	66MZ0061004007FX	66MZ0061005007FX		
<b>Modern design soft grip knob, dia.41mm. Polycarbonate and rubber.</b>	<b>Skirt knob, dia 50mm, black ABS.</b>	<b>US 2" size knob, dia. 50mm. Black PA66.</b>	<b>Miniature knob dia. 10mm. Black PA66.</b>	<b>Black or chromed ABS bezel, for dia. 41 mm knobs.</b>	<b>Black or chromed ABS bezel, for dia. 50mm knobs.</b>	<b>Stainless steel bezel for knobs dia. 41 mm</b>	<b>Stainless steel bezel for knobs dia. 50 mm</b>
66MZ*	66MU*	66MP*	66MQ	Black: 66EN1 Chromed: 66EN3	Black: 66EN5 Chromed: 66EN6	66EN2**	66EN4**

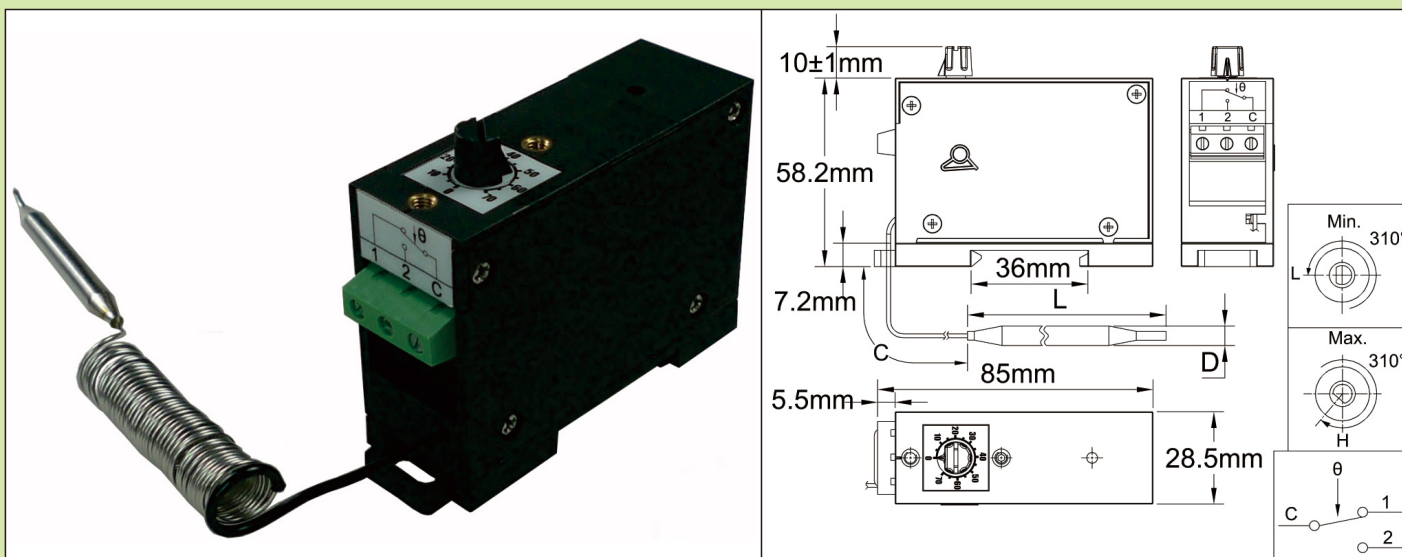
\*Full knob reference with printing has 16 characters. Many others knobs are available, see the full knob list at the end of catalogue N°1.

\*\* Low cost versions also available in Nickel or Chrome plated steel

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# Types KO-V

## Single pole control thermostat, bulb and capillary, DIN rail mounting



**Housing dimensions:** 85 x 58.2 x 28.5mm (Knob not included)

**Bulb and capillary:** Copper or stainless steel depending of temperature range, standard capillary length 1500 mm. Capillary minimum bending radius 5mm.

**Temperature sensing element:** Liquid filled bulb and capillary.

**Terminals:** 3 way screw terminal

**Adjustment:** Dia. 6 mm shaft with 4.6 mm flat, length 10mm, equipped with miniature knob and printed dial.

**Mounting:** on 35mm DIN rail, upon EN500022

**Rating:** 16A (1/4 HP) 250VAC, 16A 400V res.

**Contacts:** SPDT (snap action contact)

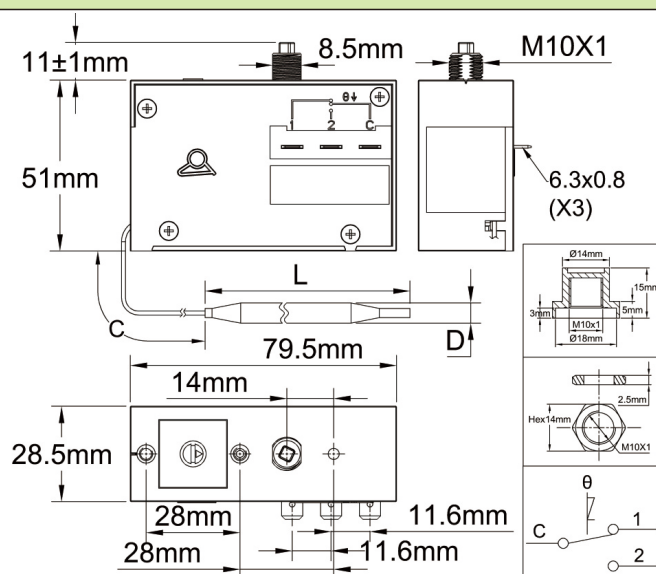
**Electrical life:** >100,000 cycles at nominal rating

### Main references

References with standard differential	Temperature range (°C/°F)	Capillary length (mm)	Bulb diameter(mm)	Bulb length(mm)	Differential(°C/°F)	Max temperature on bulb (°C/°F)
KOA-25025220V	-25+25°C (-15+80°F)	1500	6.4	152	3±2°C (5.5±3.6 °F)	50°C (120°F)
KOA-10015220V	-10+15°C (15-60°F)	1500	6.4	152	3±2°C (5.5±3.6 °F)	50°C (120°F)
KOA000050200V	0-50°C (32-120°F)	1500	6.4	152	3±2°C (5.5±3.6 °F)	60°C (140°F)
KOA000070520V	0-70°C (32-160°F)	1500	4.8	130	5±3°C (9±5.4 °F)	160°C (320°F)
KOA000070120V	0-70°C (32-160°F)	3000	4.8	130	5±3°C (9±5.4 °F)	160°C (320°F)
KOA020090500V	20-90°C (70-195°F)	1500	4.8	130	5±3°C (9±5.4 °F)	160°C (320°F)
KOA020090100V	20-90°C (70-195°F)	3000	4.8	130	5±3°C (9±5.4 °F)	160°C (320°F)
KOA010150500V	10-150°C (50-300°F)	1500	4.8	130	5±3°C (9±5.4 °F)	160°C (320°F)
KOA010150100V	10-150°C (50-300°F)	3000	4.8	130	5±3°C (9±5.4 °F)	160°C (320°F)
KOA080200000V	80-200°C (175-390°F)	1500	4	100	10±4°C (18±7 °F)	320°C (610°F)
KOA050300000V	50-300°C (120-570°F)	1500	4	100	10±4°C (18±7 °F)	320°C (610°F)
KOA010450720V	10-450°C (50-840°F)	1500	4.8	120	20±6°C (36±11 °F)	760°C (1400°F)
KOA010450920V	10-450°C (50-840°F)	3000	4.8	120	20±6°C (36±11 °F)	760°C (1400°F)
KOA060500700V	60-500°C (140-930°F)	1500	4.8	120	20±6°C (36±11 °F)	760°C (1400°F)
KOA060500900V	60-500°C (140-930°F)	3000	4.8	120	20±6°C (36±11 °F)	760°C (1400°F)
KOA180600700V	180-600°C (360-1110°F)	1500	4.8	120	20±6°C (36±11 °F)	760°C (1400°F)
KOA180600900V	180-600°C (360-1110°F)	3000	4.8	120	20±6°C (36±11 °F)	760°C (1400°F)
KOA280700700V	280-700°C (540-1290°F)	1500	3	300	20±6°C (36±11 °F)	760°C (1400°F)

Caution: Bulbs and capillaries of ranges above 400°C are filled with sodium potassium eutectic. If they leak or are broken, this liquid will ignite if in contact with water.

**Single pole manual reset limiter, bulb and capillary, fail safe, SPDT contact**



**Housing dimensions:** 79.5 x 51 x 28.5mm (6.3 quick connect terminals and manual reset button not included)

**Housing dimensions:** 75.0 x 51 x 26.5mm (0.5 quick connect terminals and manual reset button not included)  
**Bulb and capillary:** copper or stainless steel depending on temperature range, standard capillary length 1500 mm. Capillary minimum bending radius 5mm.

**Temperature sensing element:** liquid filled bulb and capillary.

**Terminals:** 3 tabs 6.35 x 0.8 mm

**Adjustment:** Non-adjustable set point, factory sealed

**Trip off at freezing temperature:** lower than -10°C. Consult factory if ambient temperature can decrease to lower values.

**Mounting:** by 2 M4 screws, 28mm distance or by M10x1 bushing.

**Rating:** 16A (1/4 HP) 250VAC, 16A 400V res.

**Contact:** SPDT (snap action contact), manual reset

**Electrical life:** >100,000 cycles at nominal rating.

**Accessories:** M10x1 nut and manual reset cap are included.

**Options:** Fixed setting can be replaced by screw driver with limited adjustment possibilities.

## Main references

References	Possible calibration span (°C/°F)	Capillary length (C,mm)	Bulb diameter(D, mm)	Bulb length(L,mm)	Max temperature on bulb (°C/°F)
KZF050***230V	0-50°C (32-120°F)	1500	6.4	152	60°C (140°F)
KZF050***530V	10-150°C (50-300°F)	1500	4.8	130	160°C (320°F)
KZF050***130V	10-150°C (50-300°F)	3000	4.8	130	160°C (320°F)
KZF050***030V	50-300°C (120-570°F)	1500	4	100	320°C (610°F)
KZF050***730V	60-500°C (140-930°F)	1500	4.8	120	760°C (1400°F)
KZF050***930V	60-500°C (140-930°F)	3000	4.8	120	760°C (1400°F)

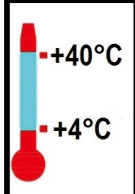
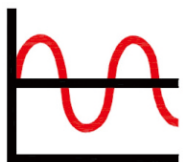
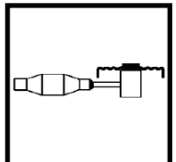
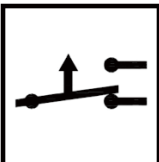

\*\*\*= Calibration value in °C


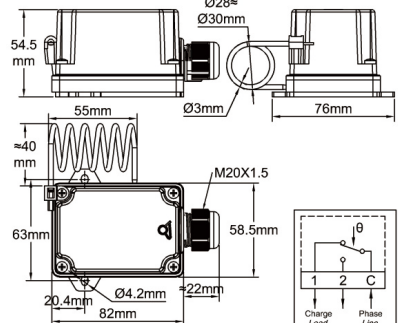

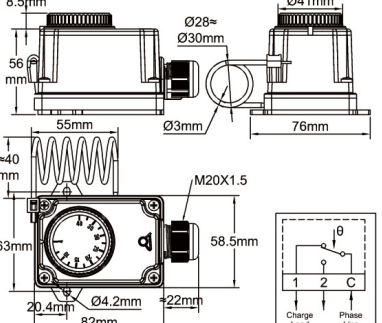
Caution: Bulbs and capillaries of ranges above 400°C are filled with sodium potassium eutectic. If they leak or are broken, this liquid will ignite if in contact with water.

# **Mechanical control thermostats inside enclosures**



# Pigtail bulb room thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP44	Control	Mechanical	SPDT	Ambient		Y035 & Y036
Material						
PC-ABS						

 <p><b>Y035: Internal adjustment</b></p>		 <p><b>Y036: External adjustment</b></p>	
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**Housing:** IP44, black PC-ABS, fiber glass reinforced, UL94V0. High impact and UV resistance. 2 removable wall mounting lugs.

**Cable input:** One M20 cable gland.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. °F values available as an option.

**Sensing element:** Liquid filled bulb, coiled on the side of enclosure.

**Adjustment range:** 4-40°C (40-105°F)

**Electrical connections:** 3 screw terminal connection block

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4 mm screws, 63 mm distance.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2)

(C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)



For more technical information ask 8G thermostat technical data sheet.

## References

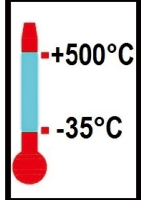
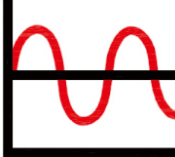
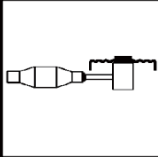


Temperature ranges °C (°F)	Internal	External adjustment	Differential °C (°F)	Max temperature on bulb °C (°F)
4-40 (40-105)	Y035GB004040QB3J	Y036GB004040QB3J	1±0.5°C (1,8±1°F)	60 (140)

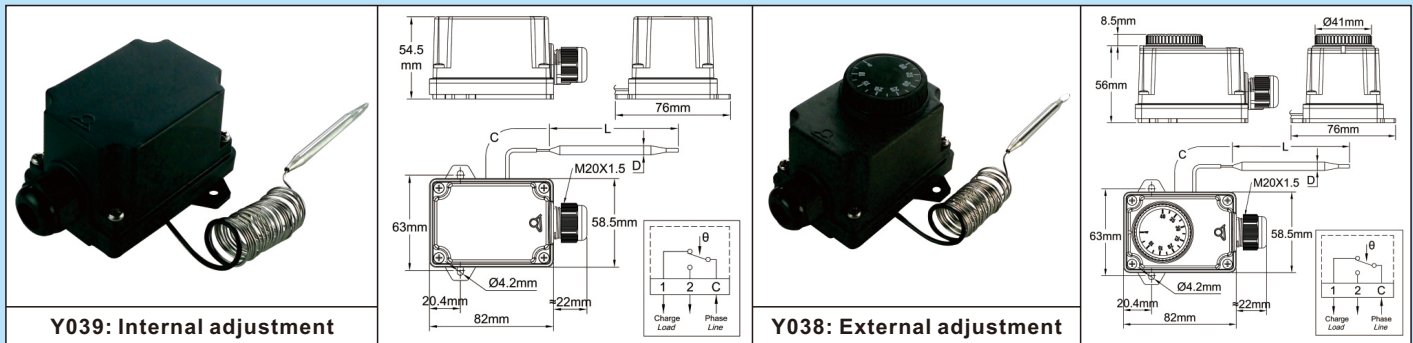
°F printing: replace last character (J) by K

## Knob printings

°C Printing	
4-40°C	40-105°F
	

# Bulb and capillary thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP44	Control	Mechanical	SPDT	Remote		Y038 & Y039
Material						
PC-ABS						



**Housing:** IP44, black PC-ABS, fiberglass reinforced, UL94V0. High impact and UV resistance. 2 removable wall mounting lugs.

**Electrical input:** One M20 cable gland.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. °F values available as an option

**Sensing element:** Liquid filled bulb, distance measurement with capillary.

**Temperature adjustment ranges:** -35+35°C (-30+95°F), 4-40°C (40-105°F), 30-90°C (85-195°F), 30-110°C (90-230°F), 50-200°C (120-390°F), 50-300°C (120-570°F), 100-400°C (210-750°F), 100-500°C (210-930°F).

**Electrical connections:** 3 screw terminal connection block

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4 mm screws, 63 mm distance.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2) : 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)


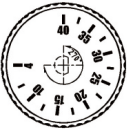
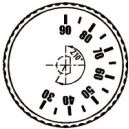


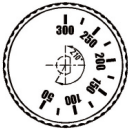







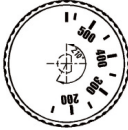

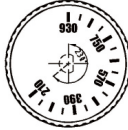
For more technical information see 8G thermostat technical data sheet

## References

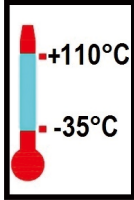
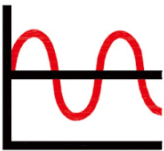
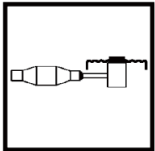


Temperature	Internal adjustment	External adjustment	Bulb diameter (D, mm)	Bulb length (L, mm)	Differential °C (°F)	Max temperature on bulb °C (°F)
-35+35°C (-30+95°F)	Y039GB-35035AO6J	Y038GB-35035AO6J	6	98	1,6±1°C (2,9±2°F)	55 (130)
4-40°C (40-105°F)	Y039GB004040AO6J	Y038GB004040AO6J	6	140	1±0.5°C (1,8±1°F)	60 (140)
30-90°C (85-195°F)	Y039GB030090AO6J	Y038GB030090AO6J	6	87	2.5±1°C (4,5±1,8°F)	120 (250)
30-110°C (90-230°F)	Y039GB030110AO6J	Y038GB030110AO6J	6	93	2.5±1°C (4,5±1,8°F)	150 (300)
50-200°C (120-390°F)	Y039GB050200AO6J	Y038GB050200AO6J	6	59	4±2°C (7±3.6°F)	250 (480)
50-300°C (120-570°F)	Y039GB050300AO3J	Y038GB050300AO3J	3	145	10±5 (18±9)	350 (660)
100-400°C (210-750°F)	Y039GB100400AO3J	Y038GB100400AO3J	3	93	10±5 (18±9)	430 (800)
100-500°C (210-930°F)	Y039GB100500AO4J	Y038GB100500AO4J	4	235	10±5 (18±9)	550 (1000)


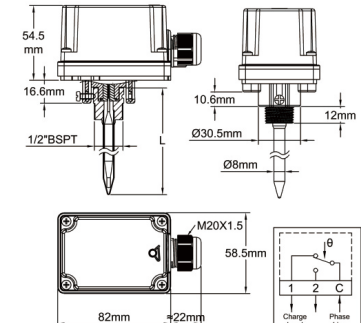

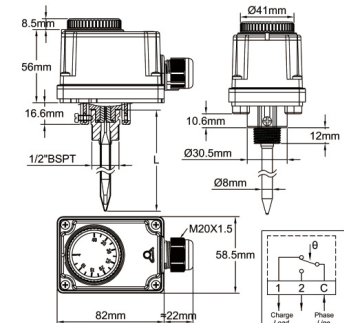
°F printing: replace last character (J) by K

## Knob printings

°C Printing							
-35+35°C	4-40°C	30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C
							
°F Printing							
-30+95°F	40-105°F	85-195°F	90-230°F	120-390°F	120-570°F	210-750°F	210-930°F
							

## Rod thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP44	Control	Mechanical	SPDT	Rod		<b>Y048 &amp; Y049</b>
Material						
PC-ABS						

			
<b>Y049: Internal adjustment</b>		<b>Y048: External adjustment</b>	

**Housing:** IP44, black PC-ABS, UL94V0. High impact and UV resistance. 2 removable wall mounting lugs.

**Cable input:** One M20 cable gland.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. °F values available as an option.

**Sensing element:** Liquid filled bulb, located inside a backside mounted pocket in 304L stainless steel or nickel plated brass.

**Adjustment ranges:** -35+35°C (-30+95°F), 4-40°C (40-105°F), 30-90°C (85-195°F), 30-110°C (90-230°F)

**Rod length:** 90, 230, 300 mm. Other length on request

**Electrical connections:** 3 screw terminal connection block

**Mounting:** by the 1/2" BSPT pocket fitting

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2)

(C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

**Option:** Short plastic pocket for swimming pool applications

For more technical information see 8G thermostat technical data sheet

### Main references with external\* adjustment and nickel plated brass pocket

Temperature ranges °C (°F)	References with rod length L=90 mm	References with rod length L=230 mm	References in °C with rod length L=300 mm	Differential °C (°F)	Max temperature on rod °C (°F)
- 35+35°C (-30+95°F)		Y048GB-35035N23J	Y048GB-35035N30J	1,6±1°C (2,9±2°F)	55 (130)
4-40°C (40-105°F)		Y048GB004040N23J	Y048GB004040N30J	1±0.5°C (1,8±1°F)	60 (140)
30-90°C (85-195°F)	Y048GB030090N09J	Y048GB030090N23J	Y048GB030090N30J	2.5±1°C (4,5±1,8F)	120 (250)
30-110°C (90-230°F)	Y048GB030110N09J	Y048GB030110N23J	Y048GB030110N30J	2.5±1°C (4,5±1,8F)	150 (300)


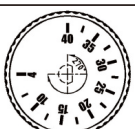
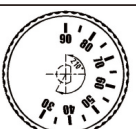

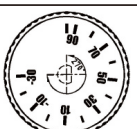
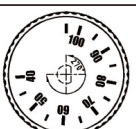
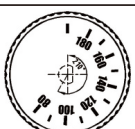

### Main references with external\* adjustment and AISI 304 pocket

Temperature ranges °C (°F)	References with rod length L=90 mm	References with rod length L=230 mm	References in °C with rod length L=300 mm	Differential °C (°F)	Max temperature on rod °C (°F)
- 35+35°C (-30+95°F)		Y048GB-35035I23J	Y048GB-35035I30J	1,6±1°C (2,9±2°F)	55 (130)
4-40°C (40-105°F)		Y048GB004040I23J	Y048GB004040I30J	1±0.5°C (1,8±1°F)	60 (140)
30-90°C (85-195°F)	Y048GB030090I09J	Y048GB030090I23J	Y048GB030090I30J	2.5±1°C (4,5±1,8F)	120 (250)
30-110°C (90-230°F)	Y048GB030110I09J	Y048GB030110I23J	Y048GB030110I30J	2.5±1°C (4,5±1,8F)	150 (300)

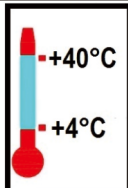
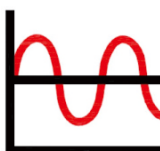
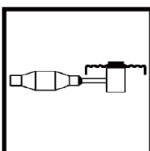
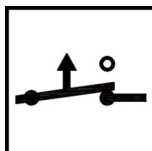

\*Internal adjustment: replace Y048 by Y049

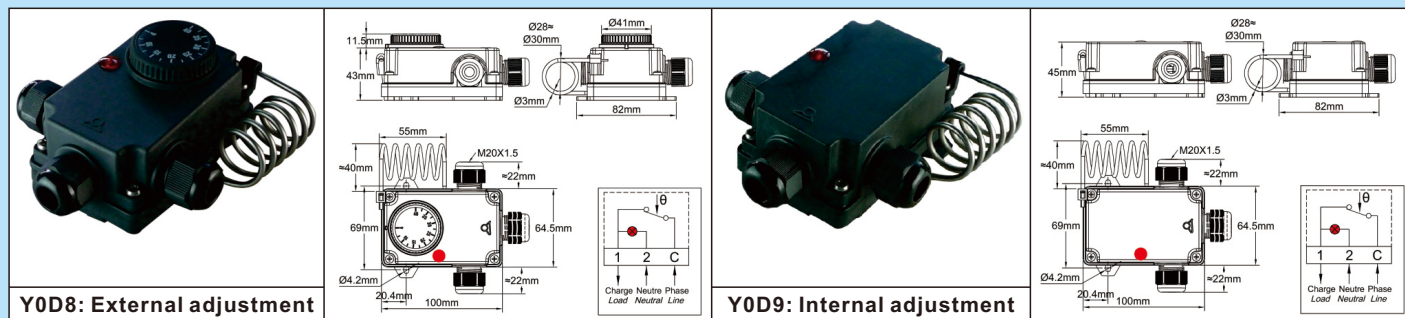
°F printing: replace last character (J) by K

### Knob printings

°C Printing				°F Printing			
-35+35°C	4-40°C	30-90°C	30-110°C	-30+95°F	40-190°F	90-195°F	90-230°F
							

# **“Pigtail” bulb room thermostat, with built-in pilot light and 2 or 3 M20 cable glands**

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP55	Control	Mechanical	SPNC	Ambient		Y0D8 & Y0D9
Material						
PC-ABS						



## **Applications**

Ambient temperature control in professional premises where good protection against liquid splashes or dust is requested. Output with 2 or 3 cable glands, allowing direct connection of heat tracing cables for freeze protection.

## **Main features**

**Housing:** Reduced height, IP44, black PC-ABS fiberglass reinforced, UL94V0. High impact and UV resistance. 2 removable wall mounting lugs.

**Cable input:** M20 cable glands. Delivered with 2 or 3 cable glands. **Special cable glands for oblong or flat heat tracing cables are available on request.** Positioning the cable glands allows variations in the mounting position.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. °F values available as an option.

**Sensing element:** Liquid filled “pigtail” bulb, mounted on the side of plastic housing

**Adjustment ranges:** 4-40°C (40-105°F).

**Electrical connections:** On screw terminals. (It is possible to connect 2 wires 1.5mm² on each terminal). **One main terminal and 3 auxiliary terminals are available for neutral connection. This allows, for example, connecting two trace heaters.**

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4mm screws, 69 mm distance.

**Contact:** SPNC (open on temperature rise).

**Pilot light:** Neon, 230V, standard in red, parallel connection on the load

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Electrical rating, inductive loads:**

6A 250V, 50 ~60Hz: >100000 cycles

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 8G thermostat technical data sheet


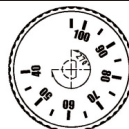
## **Main references with 3 cable glands\***

Temperature ranges °C (°F)	Internal adjustment	External adjustment	Differential	Max temperature on bulb
4-40 (40-105)	Y0D9LD104040QB3J	Y0D8LD104040QB3J	1±0.5°C (1,8±1°F)	60°C (140°F)

\*2 cable gland version: replace LD by KD in the reference

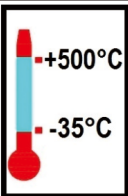
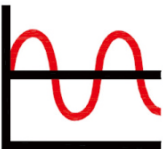
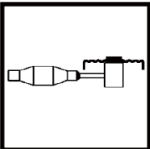


°F printing: replace last character (J) by K



## **Knob printings**

°F Printing	°C Printing
40-105°F	4-40°C
	

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Bulb and capillary thermostats, with built-in pilot light and 2 or 3 M20 cable glands

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP55	Control	Mechanical	SPNC	Ambient		Y0A8 & Y0A9
Material						
PC-ABS						

	
Y0A8: External adjustment	Y0A9: Internal adjustment

## Applications

Distance temperature control in professional premises where good protection against liquid splashes or dust is requested. Output with 2 or 3 cable glands, allowing direct connection of heat tracing cables, radiators or immersion heaters.

**Housing:** Reduced height, IP44, black PC-ABS fiberglass reinforced, UL94V0. High impact and UV resistance. 2 removable wall mounting lugs.

**Cable input:** M20 cable glands. Delivered with 2 or 3 cable glands. **Special cable glands for oblong or flat heat tracing cables are available on request.** Positioning the cable glands allows variations in the mounting position

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. °F values available in option

**Sensing element:** Liquid filled bulb, distance measurement with capillary.

**Temperature adjustment ranges:** -35+35°C (-30+95°F), 4-40°C (40-105°F), 30-90°C (85-195°F), 30-110°C (90-230°F), 50-200°C (120-390°F), 50-300°C (120-570°F), 100-400°C (210-750°F), 100-500°C (210-930°F).

**Capillary length:** 1.5 m

**Electrical connections:** On screw terminals. (It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal). **One main terminal and 3 auxiliary terminals are available for neutral connection. This allows, for example, connecting two heat trace heaters.**

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4mm screws, 69mm distance.

**Pilot light:** Neon, 230V, standard in red, parallel connection on the load

**Contact:** SPNC (open on temperature rise).

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles, 20A 250V, 50 ~60Hz: ≥ 50000 cycles, 10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Electrical rating, inductive loads:**

6A 250V, 50 ~60Hz: >100000 cycles

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 8G thermostat technical data sheet

## Main references with 3 cable glands\*

Temperature ranges °C (°F)	Internal adjustment	External adjustment	Bulb diameter (D, mm)	Bulb length(L, mm)	Differential°C (°F)	Max temperature on bulb °C (°F)
-35+35°C (-30+95°F)	Y0A9LD135035AO6J	Y0A8LD135035AO6J	6	98	3±2 (5.5±4)	55 (130)
4-40°C (40-105°F)	Y0A9LD104040AO6J	Y0A8LD104040AO6J	6	140	2.5±1.5 (4.5±2.5)	60 (140)
30-90°C (85-195°F)	Y0A9LD130090AO6J	Y0A8LD130090AO6J	6	87	4±3 (7±5.5)	120 (250)
30-110°C (90-230°F)	Y0A9LD130110AO6J	Y0A8LD130110AO6J	6	93	5±3 (9±7)	150 (300)
50-200°C (120-390°F)	Y0A9LD150200AO6J	Y0A8LD150200AO6J	6	59	8±5 (14±9)	250 (480)
50-300°C (120-570°F)	Y0A9LD150300AO3J	Y0A8LD150300AO3J	3	135	10±5 (18±9)	350 (660)
100-400°C (210-750°F)	Y0A9LD1A0400AO3J	Y0A8LD1A0400AO3J	3	93	15±5 (27±9)	430 (800)
100-500°C (210-930°F)	Y0A9LD1A0500AO4J	Y0A8LD1A0500AO4J	4	235	10±5 (18±9)	550 (1000)

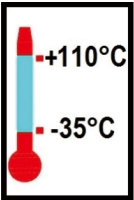
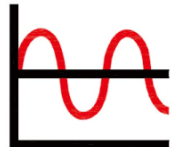
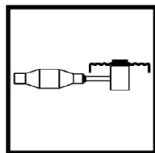
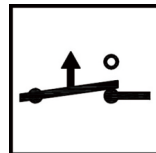

\*2 cable gland version: replace LD by KD in the reference


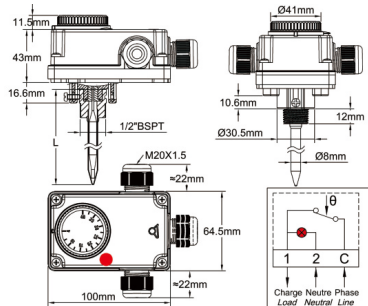

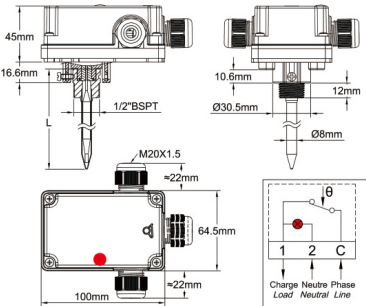
°F printing: replace last character (J) by K

## Knob printings

°C Printing							
-35+35°C	4-40°C	30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C
°F Printing							
-30+95°F	40-105°F	85-195°F	90-230°F	120-390°F	120-570°F	210-750°F	210-930°F

# Rod thermostats, with built-in pilot light and 2 or 3 M20 cable glands, stainless steel or nickel plated brass pocket

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP55	Control	Mechanical	SPNC	Rod		Y0B8 & Y0B9
Material						
PC-ABS						

			
Y0B8: External adjustment		Y0B9: Internal adjustment	

## Applications

Ambient temperature control in professional premises where good protection against liquid splashes or dust is requested. Output with 2 or 3 cable glands, allowing direct connection of heat tracing cables for freeze protection.

**Housing:** Reduced height, IP44, black PC-ABS fiberglass reinforced, UL94V0. High impact and UV resistance. 2 removable wall mounting lugs.

**Cable input:** M20 cable glands. Delivered with 2 or 3 cable glands. **Special cable glands for oblong or flat heat tracing cables are available on request.** Positioning the cable glands allows variations in the mounting position

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. °F values available in option

**Sensing element:** Liquid filled "pigtail" bulb, mounted on the side of plastic housing

**Adjustment ranges:** 4-40°C (40-105°F).

**Electrical connections:** On screw terminals. (It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal). **One main terminal and 3 auxiliary terminals are available for neutral connection. This allows, for example, connecting two heat trace heaters.**

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4mm screws, 69 mm distance.

**Contact:** SPNC (open on temperature rise).

**Pilot light:** Neon, 230V, standard in red, parallel connection on the load

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Electrical rating, inductive loads:**

6A 250V, 50 ~60Hz: >100000 cycles

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 8G thermostat technical data sheet

## Main references with nickel plated brass pocket and 3 cable glands \*

Temperature ranges °C (°F)	Adjustment	References in °C with rod length L=90 mm**	References in °C with rod length L=230 mm**	References in °C with rod length L=300 mm**	Differential Differential °C (°F)	Max temperature on rod
-35+35°C (-30+95°F)	External		Y0B8LD135035N23J	Y0B8LD135035N30J	3±2 (5.5±4)	55°C (130°F)
4-40°C (40-105°F)	External		Y0B8LD104040N23J	Y0B8LD104040N30J	2.5±1.5 (4.5±2.5)	60°C (140°F)
30-90°C (85-195°F)	External	Y0B8LD130090N09J	Y0B8LD130090N23J	Y0B8LD130090N30J	4±3 (7±5.5)	120°C (250°F)
30-110°C (90-230°F)	External	Y0B8LD130110N09J	Y0B8LD130110N23J	Y0B8LD130110N30J	5±3 (9±7)	150°C (300°F)
-35+35°C (-30+95°F)	Internal		Y0B9LD135035N23J	Y0B9LD135035N30J	3±2 (5.5±4)	55°C (130°F)
4-40°C (40-105°F)	Internal		Y0B9LD104040N23J	Y0B9LD104040N30J	2.5±1.5 (4.5±2.5)	60°C (140°F)
30-90°C (85-195°F)	Internal	Y0B9LD130090N09J	Y0B9LD130090N23J	Y0B9LD130090N30J	4±3 (7±5.5)	120°C (250°F)
30-110°C (90-230°F)	Internal	Y0B9LD130110N09J	Y0B9LD130110N23J	Y0B9LD130110N30J	5±3 (9±7)	150°C (300°F)

\*2 cable gland version: replace LD by KD in the reference






°F printing: replace last character (J) by K

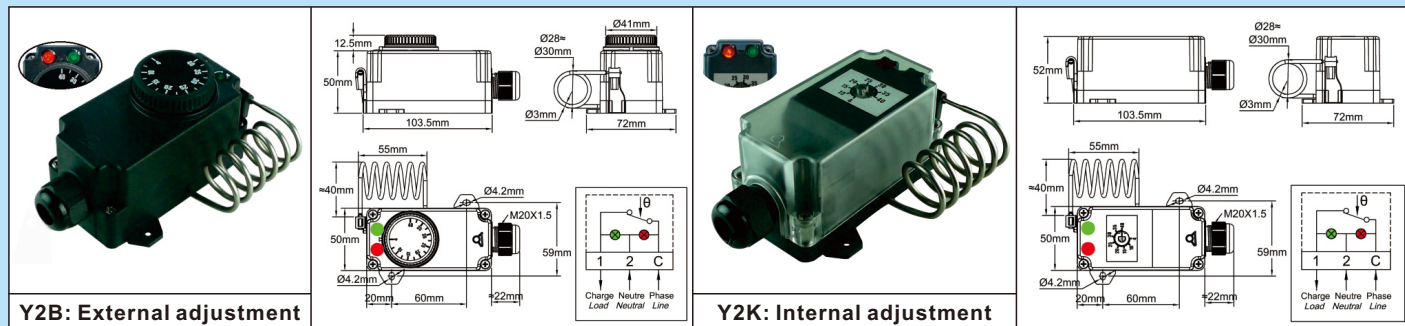
\*\* AISI 304 pocket; replace N by I in the reference

## Knob printings

°C Printing				°F Printing			
-35+35°C	4-40°C	30-90°C	30-110°C	-30+95°F	40-105°F	85-195°F	85-230°F

## “Pigtail” bulb room thermostats, with 2 built-in pilot lights

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP55	Control	Mechanical	SPNC	Ambient		Y2B & Y2K
Material						
PC-ABS						



**Housing:** PC-ABS, fiber glass reinforced, UL94V0. High impact and UV resistance, with waterproof gasket on thermostat shaft for external adjustment types. Internal adjustment types have a PC transparent cover, to visualize the pilot lights and the set point adjustment.

**Cable input:** M20 cable gland, Black PA66, for cables from 6 to 12 mm dia.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. External adjustment types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F values are available as an option.

**Sensing element:** Liquid filled “pigtail” bulb, mounted on the side of plastic housing.

**Adjustment ranges:** -35+35°C (-30+95°F), 4-40°C (40-105°F) .

**Pilot lights:** Allow to visualize the power supply and thermostat contact position (230V Phase and Neutral power supply is mandatory for pilot lights).

**Electrical connections:** On screw terminals. (It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal). As an **option, an auxiliary connection block can be added, providing 3 neutral terminals.**

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4mm screws, on a 59 x 60mm diagonal.

**Contact:** SPNC (open on temperature rise).

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Electrical rating, inductive loads:**

6A 250V, 50 ~60Hz: >100000 cycles

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet.

### Main references

Temperature adjustment ranges °C (°F)	References with external adjustment	References with internal adjustment	Differential °C (°F)
4-40°C (40-105°F)	Y2B8GD004040QB3J	Y2K8GD004040QB3J	1,6±1°C (2,9±2°F)

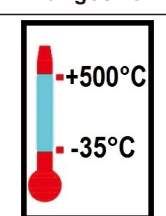
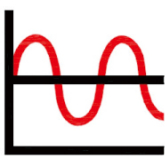
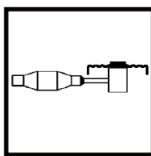
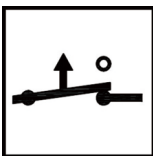

°F printing: replace last character (J) by K

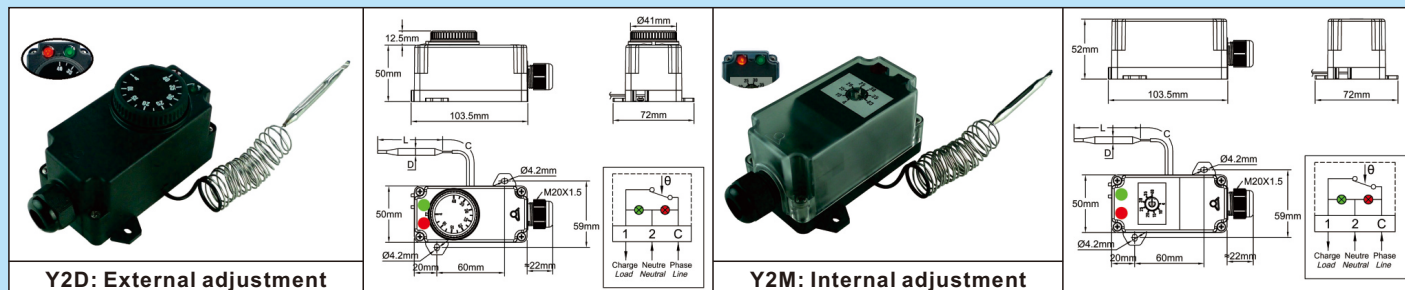
Version with auxiliary 3 way neutral terminal: replace D0 by D1 in the reference

### Knob printings

°C Printing	°F Printing
4-40°C	40+105°F

# Bulb and capillary thermostats, with 2 built-in pilot lights

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP55	Control	Mechanical	SPNC	Remote		Y2D & Y2M
Material						
PC-ABS						



**Housing:** PC-ABS, fiberglass reinforced, UL94V0. High impact and UV resistance, with waterproof gasket on thermostat shaft for external adjustment types. Internal adjustment types have a PC transparent cover, to visualize the pilot lights and the set point adjustment.

**Cable input:** M20 cable gland, Black PA66, for cables from 6 to 12 mm dia.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. External adjustment types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F values are available in option.

**Sensing element:** Liquid filled bulb, distance measurement with capillary..

**Temperature adjustment ranges:** -35+35°C (-30+95°F), 4-40°C (40-105°F), 30-90°C (85-195°F), 30-110°C (90-230°F), 50-200°C (120-390°F), 50-300°C (120-570°F), 100-400°C (210-750°F), 100-500°C (210-930°F).

**Capillary length:** 1.5 m

**Pilot lights:** Allow to visualize the power supply and thermostat contact position (230V Phase and Neutral power supply is mandatory for pilot lights)

**Electrical connections:** On screw terminals. (It is possible to connect 2 wires 1.5mm² on each terminal). **In option, an auxiliary connection block can be added, providing 3 neutral terminals.**

**Mounting:** Wall mounting, by two side lugs with holes for dia. 4mm screws, on a 59 x 60mm diagonal.

**Contact:** SPNC (open on temperature rise).

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles, 20A 250V, 50 ~60Hz: ≥ 50000 cycles, 10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Electrical rating, inductive loads:**

6A 250V, 50 ~60Hz: >100000 cycles

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet.



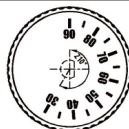


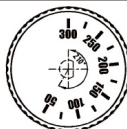

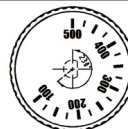





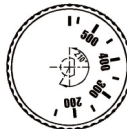


## Main references

Temperature ranges °C (°F)	External adjustment	Internal adjustment	Bulb diameter (D, mm)	Bulb length (L, mm)	Differential °C (°F)	Max temperature on bulb °C (°F)
-35+35°C (-30+95°F)	Y2D8GD035035AO6J	Y2M8GD035035AO6J	6	98	1,6±1 (2,9±2)	55 (130)
4-40°C (40-105°F)	Y2D8GD004040AO6J	Y2M8GD004040AO6J	6	140	1±0.5 (1,8±1)	60 (140)
30-90°C (85-195°F)	Y2D8GD030090AO6J	Y2M8GD030090AO6J	6	87	2.5±1 (4,5±1,8)	120 (250)
30-110°C (90-230°F)	Y2D8GD030110AO6J	Y2M8GD030110AO6J	6	93	2.5±1 (4,5±1,8)	150 (300)
50-200°C (120-390°F)	Y2D8GD050200AO6J	Y2M8GD050200AO6J	6	59	4±2 (7±3.6)	250 (480)
50-300°C (120-570°F)	Y2D8GD050300AO3J	Y2M8GD050300AO3J	3	145	10±5 (18±9)	350 (660)
100-400°C (210-750°F)	Y2D8GD0A0400AO3J	Y2M8GD0A0400AO3J	3	93	10±5 (18±9)	430 (800)
100-500°C (210-930°F)	Y2D8GD0A0500AO4J	Y2M8GD0A0500AO4J	4	235	10±5 (18±9)	550 (1000)

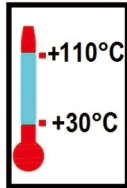
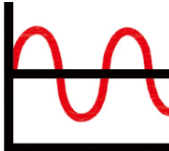
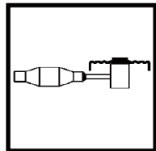
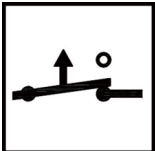
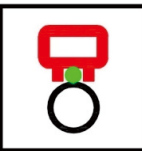
Version with auxiliary 3 way neutral terminal: replace D0 by D1 in the reference

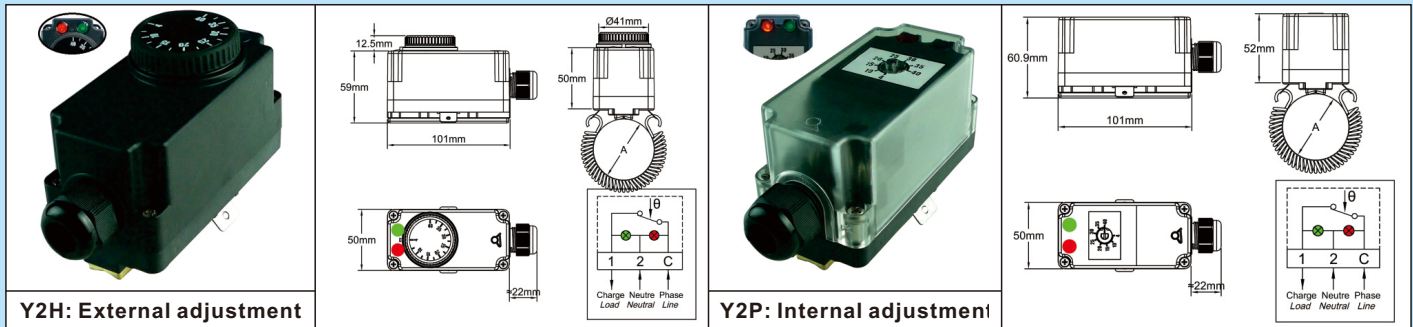
°F printing: replace last character (J) by K

## Knob printings

°C Printing							
-35+35°C	4-40°C	30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C
							
°F Printing							
-30+95°F	40-105°F	85-195°F	90-230°F	120-390°F	120-570°F	210-750°F	210-930°F
							

# Dia. 30 to 70mm pipe-mounting thermostats, with 2 built-in pilot lights

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP55	Control	Mechanical	SPNC	Pipe		Y2H & Y2P
Material						
PC-ABS						



This thermostat is designed with a V shaped temperature sensitive nickel plated brass backside to improve thermal contact with the pipe, and two lugs for spring mounting. Suitable for pipes of 30 to 70 mm diameter.

**Housing:** PC-ABS, fiberglass reinforced, UL94V0. High impact and UV resistance, with waterproof gasket on thermostat shaft for external adjustment types. Internal adjustment types have a PC transparent cover, to visualize the pilot lights and the set point adjustment.

**Cable input:** ISO M20 cable gland, Black PA66, IP67, for cables from 6 to 12 mm dia.

**Set point adjustment:** By °C printed knob for external adjustment models, by screw driver and printed dial on internal adjustment models. External adjustment types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F values are available in option.

**Sensing element:** Liquid filled capillary, inside the nickel plated brass part in contact with the pipe.

**Adjustment ranges:** 30-90°C (85-195°F), 30-110°C (85-230°F)

**Pilot lights:** Allow to visualize the power supply and thermostat contact position (Phase and Neutral power supply is mandatory for pilot lights).

**Electrical connections:** On screw terminals. (It is possible to connect 2 wires 1.5mm² on each terminal). In option, an auxiliary connection block can be added, providing 3 neutral terminals.

**Mounting:** By spring on pipe.

**Contact:** SPNC (open on temperature rise).

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Electrical rating, inductive loads:**

6A 250V, 50 ~60Hz: >100000 cycles

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet.





## Main references

Temperature adjustment range °C (°F)	References with external adjustment	References with internal adjustment	Differential °C (°F)
30-90°C (85-195°F)	Y2H8GD030090AA8J	Y2P8GD030090AA8J	2.5±1 (4,5±1,8)
30-110°C (85-230°F)	Y2H8GD030110AA8J	Y2P8GD030110AA8J	2.5±1 (4,5±1,8)

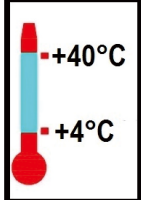
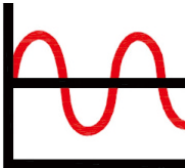
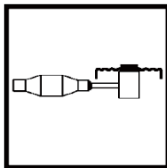
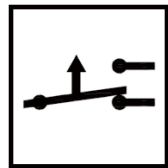

Version with auxiliary 3 way neutral terminal: replace D0 by D1 in the reference

°F printing: replace last character (J) by K

## Knob printings

°C Printing		°F Printing	
30-90°C	30-110°C	85-195°F	90-230°F
			

## “Pigtail” bulb room thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models		
IP65, IK10	Control	Mechanical	SPDT	Ambient		Y1A8G & Y1B8G		
Material								
Aluminum								

						
<b>Y1B8G: External adjustment (With pilot light)</b>		<b>Y1A8G: Internal adjustment (Without pilot light)</b>				

### Applications

- Wall mounting for indoor or outdoor temperature control of cold rooms.
- Temperature control of industrial or commercial premises.
- Outdoor temperature control of antifreeze heaters.
- Green houses and livestock stables temperature control.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps the temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Set point adjustment ranges:** 4-40°C (40-105°F)

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Action:** Temperature control.

**Sensing element:** Liquid filled “pigtail” bulb, mounted on the side of plastic housing.

**Electrical connections:** Inside, on screw terminal connection block.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Cable input and output:** Two M20 cable glands, Black PA66.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance.

**Identification:** Metallic identification label, riveted.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)


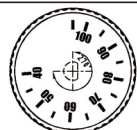
For more technical information see 8G thermostat technical data sheet (catalog 1).

### Main references

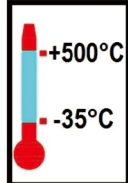
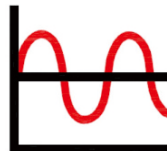
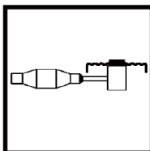
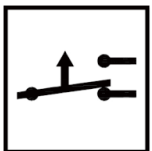

Temperature adjustment ranges °C (°F)	References with external adjustment	References with internal adjustment	Differential °C (°F)
4-40°C (40-105°F)	Y1B8G4040AQ30001J	Y1A8G4040AQ30001J	1,6±1°C (2,9±2°F)



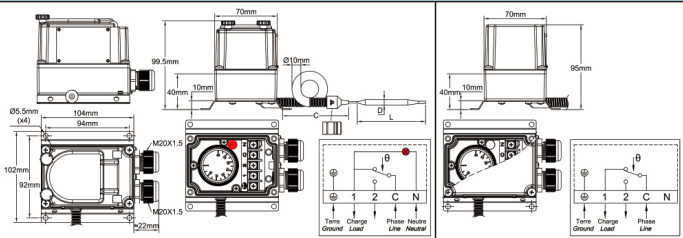
°F printing: replace last character (J) by K

### Knob printings

°C Printing	°F Printing
4-40°C	40+105°F
	

# Bulb and capillary thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65, IK10	Control	Mechanical	SPDT	Remote		Y1I8G & Y1R8G
Material						
Aluminum						

		
Y1I8G: External adjustment (With pilot light)	Y1R8G: Internal adjustment (Without pilot light)	

## Applications

Remote control in usual industrial applications and environments, not hazardous areas.

Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Set point adjustment ranges:** -35+35°C (-30+95°F); -10+40°C (15-105°F); 4-40°C (40-105°F); 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F); 100-500°C (210-930°F)

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Action:** Temperature control.

**Sensing element:** Liquid expansion bulb and capillary. The capillary is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section).

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Cable input and output:** Two M20 cable gland, Black PA66.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance

**Identification:** Metallic identification label, riveted.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles, 20A 250V, 50 ~60Hz: ≥ 50000 cycles, 10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)













For more technical information ask 8G thermostat technical data sheet.













## Main references

Temperature range °C (°F)	Reference with external adjustment	Reference with internal adjustment	Capillary length (C, mm)	Bulb diameter (D, mm)	Bulb length (L, mm)	Differential °C (°F)	Max temperature on bulb °C (°F)
-35+35°C (-30+95°F)	Y1I8G5035AO6000J	Y1G8G5035AO6000J	1500	6	120±5	1,6±1°C (2,9±2°F)	60°C (140°F)
-10+40°C (15-105°F)	Y1I8G0040AO6000J	Y1G8G0040AO6000J	1500	6	107±5	1,5±1°C (2,7±2°F)	70°C (158°F)
4-40°C (40-105°F)	Y1I8G4040AO6000J	Y1G8G4040AO6000J	1500	6	120±5	1±0,5°C (1,8±1°F)	70°C (158°F)
0-60°C (32-140°F)	Y1I8G0060AO6000J	Y1G8G0060AO6000J	1500	6	86±5	2,5±1°C (4,5±1,8°F)	80°C (176°F)
0-90°C (32-195°F)	Y1I8G0090AO6000J	Y1G8G0090AO6000J	1500	6	98±5	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	Y1I8G3090AO6000J	Y1G8G3090AO6000J	1500	6	98±5	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-110°C (85-230°F)	Y1I8G3110AO6000J	Y1G8G3110AO6000J	1500	6	86±5	2,5±1°C (4,5±1,8°F)	140°C (284°F)
50-200°C (120-390°F)	Y1I8G5200AO6000J	Y1G8G5200AO6000J	1500	6	65±5	4±2°C (7±3,6°F)	230°C (446°F)
50-300°C (120-570°F)	Y1I8G5300AO3000J	Y1G8G5300AO3000J	1500	3	145±5	10°C±2°C (18±3,6°F)	330°C (626°F)
100-400°C (210-750°F)	Y1I8GA400AO3000J	Y1G8GA400AO3000J	1500	3	93±5	10°C±2°C (18±3,6°F)	430°C (800°F)
100-500°C (210-930°F)	Y1I8GA500AN4000J	Y1G8GA500AN4000J	1400	4	235±5	10°C±2°C (18±3,6°F)	550°C (1000°F)

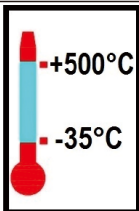
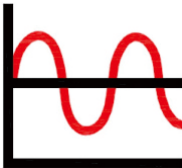
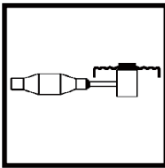
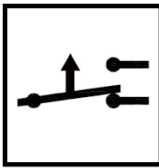
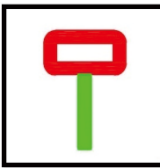
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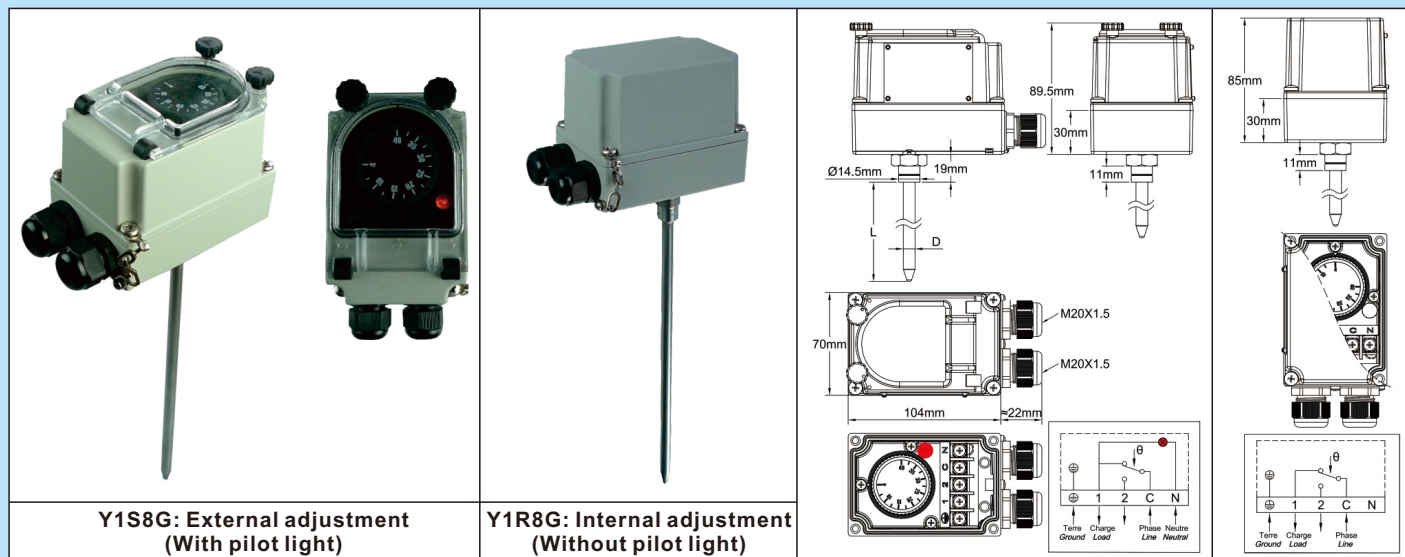
## Knob printings

°C Printing					
0-10	-35+35°C	-10+40°C	4-40°C	0-60°C	0-90°C
					
30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C
					

°F Printing					
0-10	-30+95°F	15-105°F	40-105°F	30-140°F	30-195°F
					
85-195°F	85-230°F	120-390°F	120-570°F	210-750°F	210-930°F
					

## Rod thermostats, temperature control

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models		
IP65, IK10	Control	Mechanical	SPDT	Rod		Y1S8G & Y1R8G		
Material								
Aluminum								



### Applications

These **liquid expansion** rod thermostats can be installed inside pockets as immersion thermostats in pipelines and containers, and for monitoring temperature in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).  
-Internal adjustment is convenient for products that must not be frequently adjusted.

#### **-Insensibility to strong vibrations**

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Set point adjustment ranges:** -35+35°C (-30+95°F); -10+40°C (15-105°F); 4-40°C (40-105°F); 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F); 100-500°C (210-930°F)

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Action:** Temperature control, On-Off action.

**Sensing element:** Liquid expansion rod. This rod has a non-temperature sensing zone named dead zone which allows thermal insulation crossing. An increased diameter under the thermostat head allows mounting pockets, coolers or brackets (See pockets in the accessories section)

**Electrical connections:** Inside, on screw terminal connection block.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Cable input and output:** Two M20 cable glands, Black PA66.

**Identification:** Metallic identification label, riveted.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet (catalog 1).

# Rod thermostats, temperature control

(P2)

## Main references\*

Temperature range °C (°F)	Reference with external adjustment	Reference with internal adjustment	Rod length *(L, mm)	Rod diameter (D, mm)	Temperature sensing length (mm)	Differential°C (°F)	Max temperature on rod °C (°F)
-35+35°C (-30+95°F)	Y1S8G5035AO1023J	Y1R8G5035AO1023J	230	10	140	1,6±1°C (2,9±2°F)	60°C (140°F)
-35+35°C (-30+95°F)	Y1S8G5035AO1030J	Y1R8G5035AO1030J	300	10	140	1,6±1°C (2,9±2°F)	60°C (140°F)
-10+40°C (15-105°F)	Y1S8G0040AO1023J	Y1R8G0040AO1023J	230	10	140	1,5±1°C (2,7±2°F)	70°C (158°F)
-10+40°C (15-105°F)	Y1S8G0040AO1030J	Y1R8G0040AO1030J	300	10	140	1,5±1°C (2,7±2°F)	70°C (158°F)
4-40°C (40-105°F)	Y1S8G4040AO1023J	Y1R8G4040AO1023J	230	10	140	1±0,5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	Y1S8G4040AO1030J	Y1R8G4040AO1030J	300	10	140	1±0,5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	Y1S8G4040AO1045J	Y1R8G4040AO1045J	450	10	140	1±0,5°C (1,8±1°F)	70°C (158°F)
0-60°C (32-140°F)	Y1S8G0060AO1023J	Y1R8G0060AO1023J	230	10	87	2,5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	Y1S8G0060AO1030J	Y1R8G0060AO1030J	300	10	87	2,5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	Y1S8G0060AO1045J	Y1R8G0060AO1045J	450	10	87	2,5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	Y1S8G0060AO1060J	Y1R8G0060AO1060J	600	10	87	2,5±1°C (4,5±1,8°F)	80°C (176°F)
0-90°C (32-195°F)	Y1S8G0090AO1023J	Y1R8G0090AO1023J	230	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	Y1S8G0090AO1030J	Y1R8G0090AO1030J	300	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	Y1S8G0090AO1045J	Y1R8G0090AO1045J	450	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	Y1S8G0090AO1060J	Y1R8G0090AO1060J	600	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8G3090AO1023J	Y1R8G3090AO1023J	230	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8G3090AO1030J	Y1R8G3090AO1030J	300	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8G3090AO1045J	Y1R8G3090AO1045J	450	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8G3090AO1060J	Y1R8G3090AO1060J	600	10	87	2,5±1°C (4,5±1,8°F)	120°C (250°F)
30-110°C (85-230°F)	Y1S8G3110AO1023J	Y1R8G3110AO1023J	230	10	83	2,5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	Y1S8G3110AO1030J	Y1R8G3110AO1030J	300	10	83	2,5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	Y1S8G3110AO1045J	Y1R8G3110AO1045J	450	10	83	2,5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	Y1S8G3110AO1060J	Y1R8G3110AO1060J	600	10	83	2,5±1°C (4,5±1,8°F)	140°C (284°F)
50-200°C (120-390°F)	Y1S8G5200AO1023J	Y1R8G5200AO1023J	230	10	59	4±2°C (7±3,6°F)	230°C (446°F)
50-200°C (120-390°F)	Y1S8G5200AO1030J	Y1R8G5200AO1030J	300	10	59	4±2°C (7±3,6°F)	230°C (446°F)
50-200°C (120-390°F)	Y1S8G5200AO1045J	Y1R8G5200AO1045J	450	10	59	4±2°C (7±3,6°F)	230°C (446°F)
50-200°C (120-390°F)	Y1S8G5200AO1060J	Y1R8G5200AO1060J	600	10	59	4±2°C (7±3,6°F)	230°C (446°F)
50-300°C (120-570°F)	Y1S8G5300AO0823J	Y1R8G5300AO0823J	230	8	165	10°C±2°C (18±3,6°F)	330°C (626°F)
50-300°C (120-570°F)	Y1S8G5300AO0830J	Y1R8G5300AO0830J	300	8	165	10°C±2°C (18±3,6°F)	330°C (626°F)
50-300°C (120-570°F)	Y1S8G5300AO0845J	Y1R8G5300AO0845J	450	8	165	10°C±2°C (18±3,6°F)	330°C (626°F)
50-300°C (120-570°F)	Y1S8G5300AO0860J	Y1R8G5300AO0860J	600	8	165	10°C±2°C (18±3,6°F)	330°C (626°F)
100-400°C (210-750°F)	Y1S8GA400AO0823J	Y1R8GA400AO0823J	230	8	165	10°C±2°C (18±3,6°F)	430°C (800°F)
100-400°C (210-750°F)	Y1S8GA400AO0830J	Y1R8GA400AO0830J	300	8	165	10°C±2°C (18±3,6°F)	430°C (800°F)
100-400°C (210-750°F)	Y1S8GA400AO0845J	Y1R8GA400AO0845J	450	8	165	10°C±2°C (18±3,6°F)	430°C (800°F)
100-400°C (210-750°F)	Y1S8GA400AO0860J	Y1R8GA400AO0860J	600	8	165	10°C±2°C (18±3,6°F)	430°C (800°F)
100-500°C (210-930°F)	Y1S8GA500AN0830J	Y1R8GA500AN0830J	300	8	250	10°C±2°C (18±3,6°F)	550°C (1000°F)
100-500°C (210-930°F)	Y1S8GA500AN0845J	Y1R8GA500AN0845J	450	8	250	10°C±2°C (18±3,6°F)	550°C (1000°F)
100-500°C (210-930°F)	Y1S8GA500AN0860J	Y1R8GA500AN0860J	600	8	250	10°C±2°C (18±3,6°F)	550°C (1000°F)

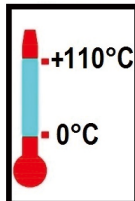
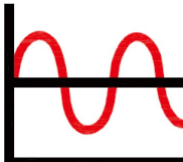
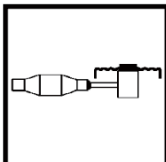
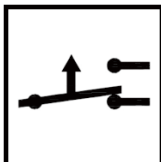
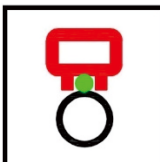
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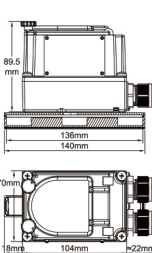
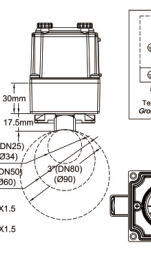
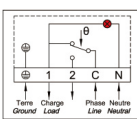
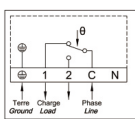
\*Above 200°C we recommend to use a rod cooler reference 66RF07015 or 66RF0701F12 between the rod and the enclosure (see accessories). Caution: This cooler reduces the usable rod length by 70mm

## Knob printings

°C Printing					
0-10	-35+35°C	-10+40°C	4-40°C	0-60°C	0-90°C
30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C
°F Printing					
0-10	-30+95°F	15-105°F	40-105°F	32-140°F	32-195°F
85-195°F	85-230°F	120-390°F	120-570°F	210-750°F	210-930°F

# Pipe mounting thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65 IK10	Control	Mechanical	SPDT	Pipe		Y118G & Y108G
Material						
Aluminum						

**Y118G: External adjustment  
(With pilot light)**

**Y108G: Internal adjustment  
(Without pilot light)**

## Applications

Pipes surface temperature control in usual industrial applications and environments, (No suitable for hazardous areas)  
Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

Set point adjustment ranges: 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F);

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Action:** Temperature control, On-Off action

**Sensing element:** Liquid expansion bulb inside aluminum bracket in contact with the pipe surface.

The bracket design provides optimized thermal contact with 34 mm (1", DN25), 60 mm (2", DN50) and 90 mm (3", DN80) outside diameter tubes. For intermediate sizes, we recommend the use of thermal grease

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allows to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover

**Cable input and output:** Two M20 cable glands, Black PA66.

**Mounting:** The thermostat housing can be fixed on the pipe by worm drive hose clamps (DIN3017), nylon cable ties (Tie wraps upon EN50146, for applications at permanent temperature lower than 85°C), or specific stainless steel punched band (see accessories at the end of this catalog)

**Identification:** Metallic identification label, riveted.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2)

(C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)









For more technical information ask 8G thermostat technical data sheet

## Main references

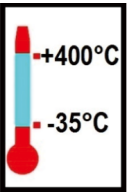
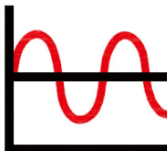
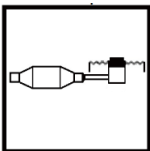
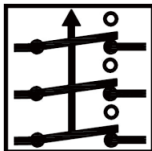



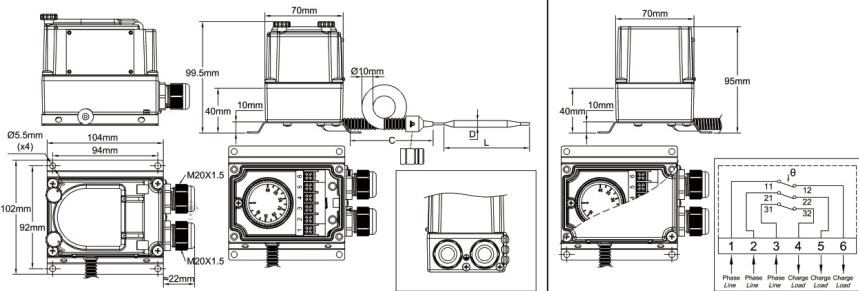
Temperature adjustment ranges °C (°F)	Reference with external adjustment	Reference with internal adjustment	Differential °C (°F)	Max. temperature on tube °C (°F)
0-60°C (32-140°F)	Y118G000060AA80J	Y108G000060AA80J	2.5±1°C (4,5±1,8F)	80°C (176°F)
0-90°C (32-195°F)	Y118G000090AA80J	Y108G000090AA80J	4±3°C (7±5.5 °F)	120°C (250°F)
30-90°C (85-195°F)	Y118G030090AA80J	Y108G030090AA80J	4±3°C (7±5.5 °F)	120°C (250°F)
30-110°C (85-230°F)	Y118G030110AA80J	Y108G030110AA80J	5±3°C (9±5.5 °F)	150°C (300°F)

°F printing: replace last character (J) by K.

## Knobs printing

°C Printing				°F Printing			
0-60°C	0-90°C	30-90°C	30-110°C	32-140°F	32-195°F	85-195°F	85-230°F
							

## 3 Pole bulb and capillary thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65, IK10	Control	Mechanical	3PNC	Remote		Y1I8C & Y1R8C
Material						
Aluminum						
						
Y1I8C: External adjustment		Y1R8C: Internal adjustment				

### Applications

Remote control in usual industrial application and environment, not hazardous areas, when it is requested to control a 3 phases heating circuit.

Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Set point adjustment ranges:** -35+35°C (-30+95°F); -10+40°C (15-105°F); 4-40°C (40-105°F); 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available in option

**Action:** Temperature control.

**Sensing element:** Liquid expansion bulb and capillary. The capillary is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section).

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** External screw terminal.

**Cable input and output:** Two M20 cable gland, Black PA66.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance

**Identification:** Metallic identification label, riveted.

**Contact:** 3PST, open on temperature rise

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)










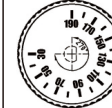



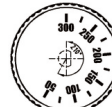




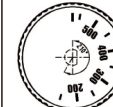
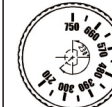
For more technical information ask 8C thermostat technical data sheet.

### Main references

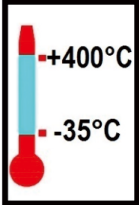
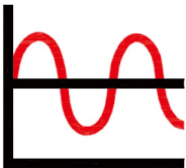
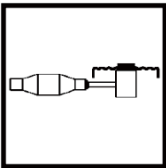
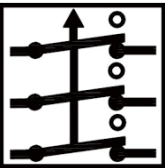

Temperature range °C (°F)	Reference with external adjustment	Reference with internal adjustment	Capillary length (C, mm)	Bulb diameter (D, mm)	Bulb length (L, mm)	Differential °C (°F)	Max temperature on bulb °C (°F)
-35+35°C (-30+95°F)	Y1I8C5035AO6000J	Y1G8C5035AO6000J	1500	6	120±5	1,6±1°C (2,9±2°F)	60°C (140°F)
-10+40°C (15-105°F)	Y1I8C0040AO6000J	Y1G8C0040AO6000J	1500	6	107±5	1,5±1°C (2,7±2°F)	70°C (158°F)
4-40°C (40-105°F)	Y1I8C4040AO6000J	Y1G8C4040AO6000J	1500	6	120±5	1±0.5°C (1,8±1°F)	70°C (158°F)
0-60°C (32-140°F)	Y1I8C0060AO6000J	Y1G8C0060AO6000J	1500	6	86±5	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-90°C (32-195°F)	Y1I8C0090AO6000J	Y1G8C0090AO6000J	1500	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	Y1I8C3090AO6000J	Y1G8C3090AO6000J	1500	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-110°C (85-230°F)	Y1I8C3110AO6000J	Y1G8C3110AO6000J	1500	6	86±5	2.5±1°C (4,5±1,8°F)	140°C (284°F)
50-200°C (120-390°F)	Y1I8C5200AO6000J	Y1G8C5200AO6000J	1500	6	65±5	4±2°C (7±3.6°F)	230°C (446°F)
50-300°C (120-570°F)	Y1I8C5300AO3000J	Y1G8C5300AO3000J	1500	3	145±5	10°C±2°C (18±3.6°F)	330°C (626°F)
100-400°C (210-750°F)	Y1I8CA400AO3000J	Y1G8CA400AO3000J	1500	3	93±5	10°C±2°C (18±3.6°F)	430°C (800°F)

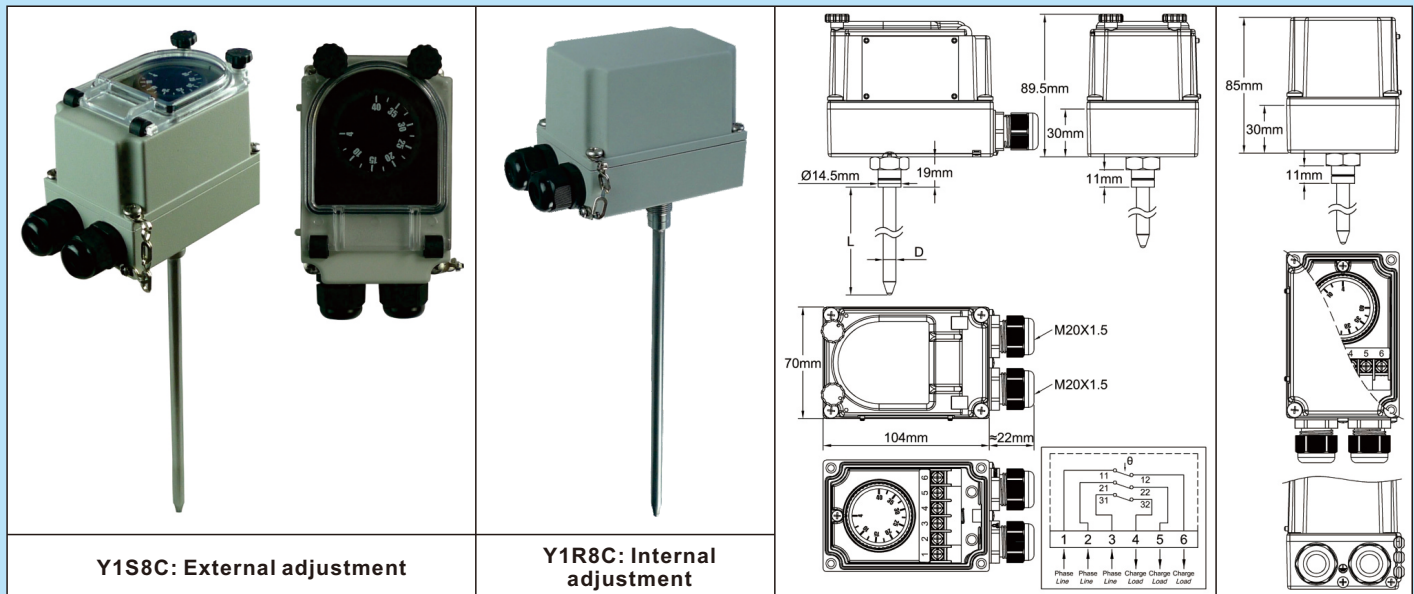
°F printing: replace last character (J) by K

### Knob printings

°C Printing					°F Printing				
-35+35°C	-10+40°C	4-40°C	0-60°C	0-90°C	-30+95°F	15-105°F	40-105°F	30-140°F	30-195°F
									
30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	85-195°F	85-230°F	120-390°F	120-570°F	210-750°F
									

## 3 pole rod thermostats, temperature control

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65, IK10	Control	Mechanical	3PST	Rod		<b>Y1S8C &amp; Y1R8C</b>
Material						
Aluminum						



### Applications

These **liquid expansion** rod thermostats can be installed inside pockets as immersion thermostats in pipelines and containers, and to control temperature in air ducts, in usual industrial application and environment, on 3 phase heating circuits (Not suitable for hazardous areas).

- Internal adjustment is convenient for products that must not be frequently adjusted.

**- Insensibility to strong vibrations**

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Set point adjustment ranges:** -35+35°C (-30+95°F); -10+40°C (15-105°F); 4-40°C (40-105°F); 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available in option.

**Action:** Temperature control, On-Off action

**Sensing element:** Liquid expansion rod. This rod has a non-temperature sensing zone named dead zone which allows thermal insulation crossing. An increased diameter under the thermostat head allows mounting pockets, coolers or brackets (See pockets in the accessories section)

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** External screw terminal.

**Cable input and output:** Two M20 cable gland, Black PA66.

**Identification:** Metallic identification label, riveted.

**Contact:** 3PST, open on temperature rise

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 8C thermostat technical data sheet

# 3 pole rod thermostats, temperature control

(P2)

## Main references\*

Temperature range °C (°F)	Reference with external adjustment	Reference with internal adjustment	Rod length *(L, mm)	Rod diameter (D, mm)	Temperature sensing length(mm)	Differential °C (°F)	Max temperature on rod °C (°F)
-35+35°C (-30+95°F)	Y1S8C5035AO1023J	Y1R8C5035AO1023J	230	10	140	1,6±1°C (2,9±2°F)	60°C (140°F)
-35+35°C (-30+95°F)	Y1S8C5035AO1030J	Y1R8C5035AO1030J	300	10	140	1,6±1°C (2,9±2°F)	60°C (140°F)
-10+40°C (15-105°F)	Y1S8C0040AO1023J	Y1R8C0040AO1023J	230	10	140	1,5±1°C (2,7±2°F)	70°C (158°F)
-10+40°C (15-105°F)	Y1S8C0040AO1030J	Y1R8C0040AO1030J	300	10	140	1,5±1°C (2,7±2°F)	70°C (158°F)
4-40°C (40-105°F)	Y1S8C4040AO1023J	Y1R8C4040AO1023J	230	10	140	1±0,5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	Y1S8C4040AO1030J	Y1R8C4040AO1030J	300	10	140	1±0,5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	Y1S8C4040AO1045J	Y1R8C4040AO1045J	450	10	140	1±0,5°C (1,8±1°F)	70°C (158°F)
0-60°C (32-140°F)	Y1S8C0060AO1023J	Y1R8C0060AO1023J	230	10	87	2,5±1°C (4,5±1,8F)	80°C (176°F)
0-60°C (32-140°F)	Y1S8C0060AO1030J	Y1R8C0060AO1030J	300	10	87	2,5±1°C (4,5±1,8F)	80°C (176°F)
0-60°C (32-140°F)	Y1S8C0060AO1045J	Y1R8C0060AO1045J	450	10	87	2,5±1°C (4,5±1,8F)	80°C (176°F)
0-60°C (32-140°F)	Y1S8C0060AO1060J	Y1R8C0060AO1060J	600	10	87	2,5±1°C (4,5±1,8F)	80°C (176°F)
0-90°C (32-195°F)	Y1S8C0090AO1023J	Y1R8C0090AO1023J	230	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
0-90°C (32-195°F)	Y1S8C0090AO1030J	Y1R8C0090AO1030J	300	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
0-90°C (32-195°F)	Y1S8C0090AO1045J	Y1R8C0090AO1045J	450	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
0-90°C (32-195°F)	Y1S8C0090AO1060J	Y1R8C0090AO1060J	600	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8C3090AO1023J	Y1R8C3090AO1023J	230	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8C3090AO1030J	Y1R8C3090AO1030J	300	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8C3090AO1045J	Y1R8C3090AO1045J	450	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
30-90°C (85-195°F)	Y1S8C3090AO1060J	Y1R8C3090AO1060J	600	10	87	2,5±1°C (4,5±1,8F)	120°C (250°F)
30-110°C (85-230°F)	Y1S8C3110AO1023J	Y1R8C3110AO1023J	230	10	83	2,5±1°C (4,5±1,8F)	140°C (284°F)
30-110°C (85-230°F)	Y1S8C3110AO1030J	Y1R8C3110AO1030J	300	10	83	2,5±1°C (4,5±1,8F)	140°C (284°F)
30-110°C (85-230°F)	Y1S8C3110AO1045J	Y1R8C3110AO1045J	450	10	83	2,5±1°C (4,5±1,8F)	140°C (284°F)
30-110°C (85-230°F)	Y1S8C3110AO1060J	Y1R8C3110AO1060J	600	10	83	2,5±1°C (4,5±1,8F)	140°C (284°F)
50-200°C (120-390°F)	Y1S8C5200AO1023J	Y1R8C5200AO1023J	230	10	59	4±2°C (7±3,6F)	230°C (446°F)
50-200°C (120-390°F)	Y1S8C5200AO1030J	Y1R8C5200AO1030J	300	10	59	4±2°C (7±3,6F)	230°C (446°F)
50-200°C (120-390°F)	Y1S8C5200AO1045J	Y1R8C5200AO1045J	450	10	59	4±2°C (7±3,6F)	230°C (446°F)
50-200°C (120-390°F)	Y1S8C5200AO1060J	Y1R8C5200AO1060J	600	10	59	4±2°C (7±3,6F)	230°C (446°F)
50-300°C (120-570°F)	Y1S8C5300AO0823J	Y1R8C5300AO0823J	230	8	165	10°C±2°C (18±3,6F)	330°C (626°F)
50-300°C (120-570°F)	Y1S8C5300AO0830J	Y1R8C5300AO0830J	300	8	165	10°C±2°C (18±3,6F)	330°C (626°F)
50-300°C (120-570°F)	Y1S8C5300AO0845J	Y1R8C5300AO0845J	450	8	165	10°C±2°C (18±3,6F)	330°C (626°F)
50-300°C (120-570°F)	Y1S8C5300AO0860J	Y1R8C5300AO0860J	600	8	165	10°C±2°C (18±3,6F)	330°C (626°F)
100-400°C (210-750°F)	Y1S8CA400AO0823J	Y1R8CA400AO0823J	230	8	165	10°C±2°C (18±3,6F)	430°C (800°F)
100-400°C (210-750°F)	Y1S8CA400AO0830J	Y1R8CA400AO0830J	300	8	165	10°C±2°C (18±3,6F)	430°C (800°F)
100-400°C (210-750°F)	Y1S8CA400AO0845J	Y1R8CA400AO0845J	450	8	165	10°C±2°C (18±3,6F)	430°C (800°F)
100-400°C (210-750°F)	Y1S8CA400AO0860J	Y1R8CA400AO0860J	600	8	165	10°C±2°C (18±3,6F)	430°C (800°F)
100-500°C (210-930°F)	Y1S8CA500AN0830J	Y1R8CA500AN0830J	300	8	250	10°C±2°C (18±3,6F)	550°C (1000°F)
100-500°C (210-930°F)	Y1S8CA500AN0845J	Y1R8CA500AN0845J	450	8	250	10°C±2°C (18±3,6F)	550°C (1000°F)
100-500°C (210-930°F)	Y1S8CA500AN0860J	Y1R8CA500AN0860J	600	8	250	10°C±2°C (18±3,6F)	550°C (1000°F)

\*F printing: replace last character (J) by K

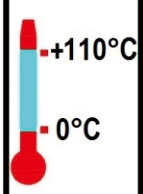
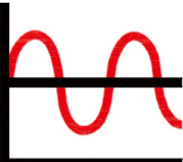
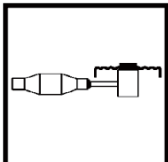
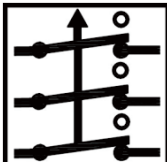
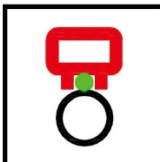
\*Above 200°C we recommend to use a rod cooler reference 66RF07015 or 66RF0701F12 between the rod and the enclosure (see accessories). Caution: This cooler reduces the usable rod length of 70mm

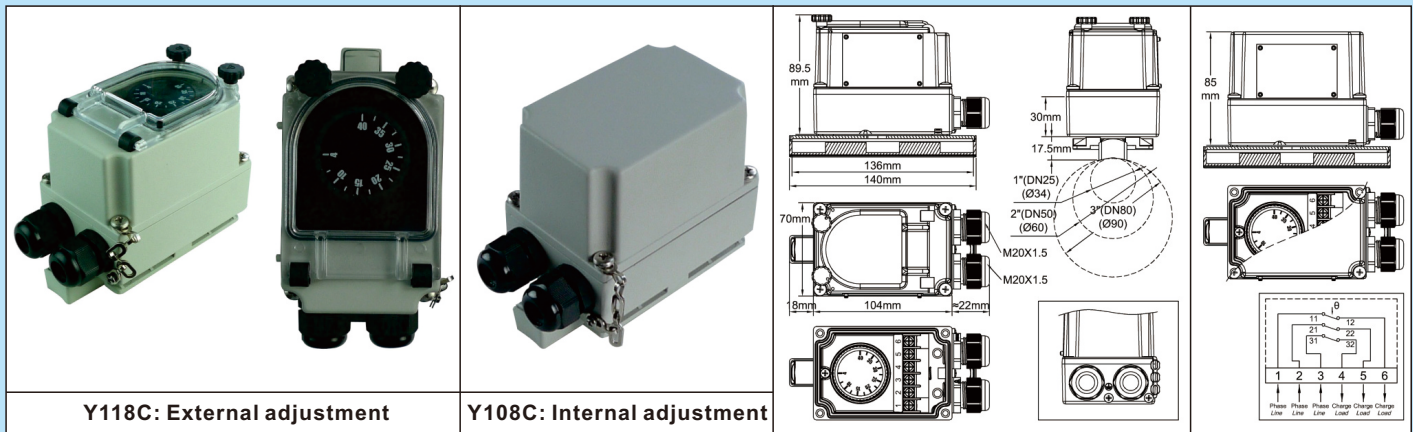
## Knob printings

°C Printing				
-35+35°C	-10+40°C	4-40°C	0-60°C	0-90°C
30-90°C	30-110°C	50-200°C	50-300°C	100-400°C

°F Printing				
-30+95°F	15-105°F	40-105°F	30-140°F	30-195°F
85-195°F	85-230°F	120-390°F	120-570°F	210-750°F

## Pipe mounting 3 pole thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65,IK10	Control	Mechanical	3PST	Pipe		<b>Y118C &amp; Y108C</b>
Material						
Aluminum						



### Applications

Pipes surface temperature control in usual industrial applications and environments, to control 3 pole heating circuits (No suitable for hazardous areas)

Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

Set point adjustment ranges: 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F);

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option

**Action:** Temperature control, On-Off action

**Sensing element:** Liquid expansion bulb inside aluminum bracket in contact with the pipe surface.

The bracket design provides optimized thermal contact with 34 mm (1", DN25), 60 mm (2", DN50) et 90 mm (3", DN80) outside diameter tubes. For intermediate sizes, we recommend the use of thermal grease

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** External screw terminal.

**Cable input and output:** Two M20 cable glands, Black PA66.

**Mounting:** The thermostat housing can be fixed on the pipe by worm drive hose clamps (DIN3017), nylon cable ties (Tie wraps upon EN50146, for applications at permanent temperature lower than 85°C), or specific stainless steel punched band (see accessories at the end of this catalog)

**Identification:** Metallic identification label, riveted.

**Contact:** 3PST, open on temperature rise

**Electrical rating, resistive loads:**

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)









For more technical information see 8C thermostat technical data sheet

### Main references

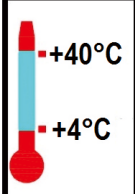
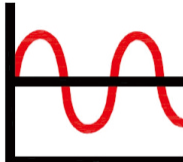
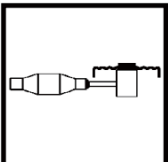
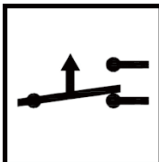

Temperature adjustment ranges °C (°F)	Reference with external adjustment	Reference with internal adjustment	Differential °C (°F)	Max. temperature on tube °C (°F)
0-60°C (32-140°F)	Y118C000060AA80J	Y108C000060AA80J	2.5±1°C (4,5±1,8F)	80°C (176°F)
0-90°C (32-195°F)	Y118C000090AA80J	Y108C000090AA80J	4±3°C (7±5.5 °F)	120°C (250°F)
30-90°C (85-195°F)	Y118C030090AA80J	Y108C030090AA80J	4±3°C (7±5.5 °F)	120°C (250°F)
30-110°C (85-230°F)	Y118C030110AA80J	Y108C030110AA80J	5±3°C (9±5.5 °F)	150°C (300°F)

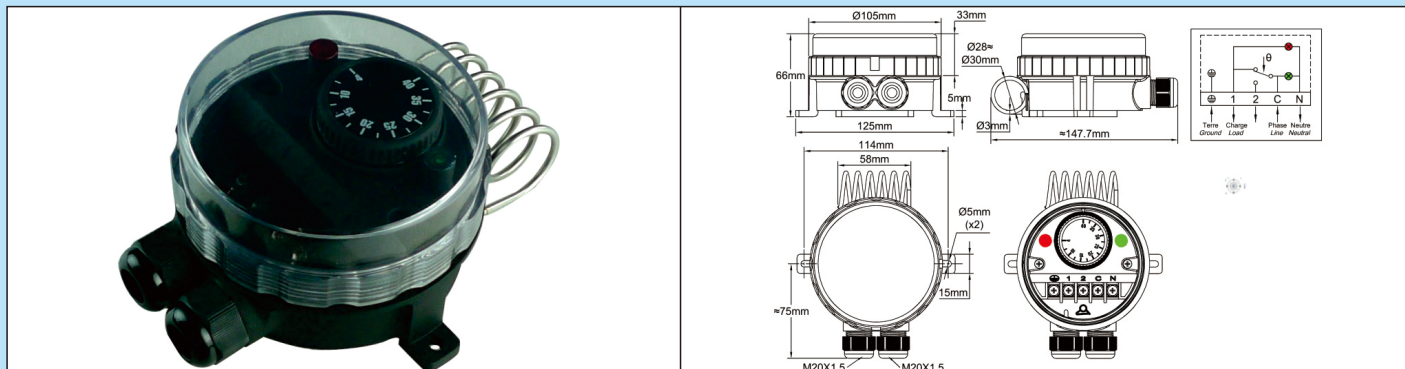
°F printing: replace last character (J) by K

### Knobs printing

°C Printing				°F Printing			
0-60°C	0-90°C	30-90°C	30-110°C	32-140°F	32-195°F	85-195°F	85-230°F
							

## “Pigtail” bulb room thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Control	Mechanical	SPDT	Ambient		YF7GNC
Material						
Aluminum						



### Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

- Wall mounting for indoor or outdoor temperature control of cold rooms.
- Temperature control of industrial or commercial premises.
- Outdoor temperature control of antifreeze heaters.
- Green houses and livestock stables temperature control.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Action:** Temperature control. On-Off action

**Sensing element:** Liquid filled “pigtail” stainless steel bulb, mounted on the top side of the plastic housing.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

Set point adjustment ranges: 4-40°C (40-105°F)

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside.

**Contact:** SPDT

**Electrical rating, resistive loads:**

- Open on temperature rise contact (C-1)  
16A 250V, 50 ~60Hz: >100000 cycles,  
20A 250V, 50 ~60Hz: ≥ 50000 cycles,  
10A 400V, 50 ~60Hz: ≥ 50000 cycles.
- Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

- Open on temperature rise contact (C-1): 2.6A 250V, 50 ~60Hz: >100000 cycles
- Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)



For more technical information ask 8G thermostat technical data sheet.

### Main references

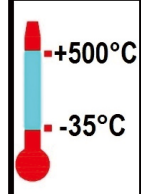
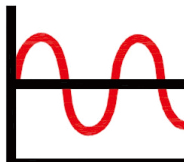
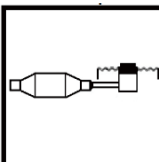
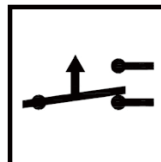
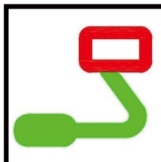
Temperature adjustment ranges °C (°F)	Reference	Differential °C (°F)
4-40°C (40-105°F)	YF7GNC04040023ZJ	1,6±1°C (2,9±2°F)

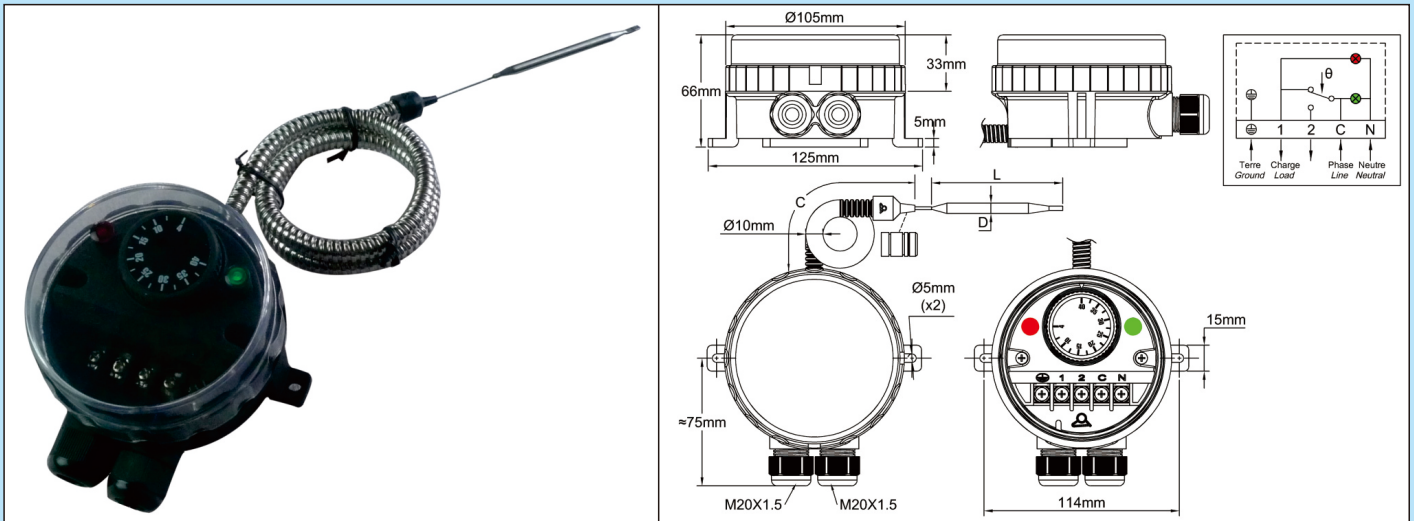
°F printing: replace last character (J) by K

### Knob printings

°C Printing	°F Printing
4-40°C	40+105°F
	

## Bulb and capillary thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Control	Mechanical	SPDT	Remote		YF9GNC
Material						
PA66 & PC						



### Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

Remote control in usual industrial application and environment, not hazardous areas.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Action:** Temperature control. On-Off action.

**Sensing element:** Liquid expansion bulb and capillary. The capillary is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section).

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

**Set point adjustment ranges:** -35+35°C (-30+95°F); -10+40°C (15-105°F); 4-40°C (40-105°F); 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F); 100-500°C (210-930°F)

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 2.6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet.

# Bulb and capillary thermostats

(P2)

## Main references

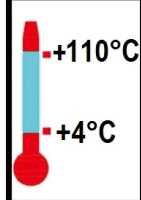
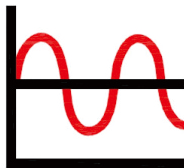
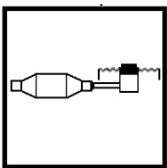
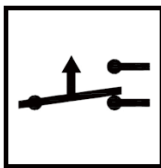
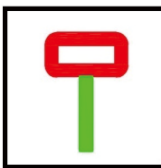
Temperature range °C (°F)	References	Capillary length (C, mm)	Bulb diameter (D, mm)	Bulb length (E, mm)	Differential °C (°F)	Max temperature on bulb °C (°F)
-35+35°C (-30+95°F)	YF9GNC35035156ZJ	1500	6	120±5	1,6±1°C (2,9±2°F)	60°C (140°F)
-10+40°C (15-105°F)	YF9GNC10040156ZJ	1500	6	107±5	1,5±1°C (2,7±2°F)	70°C (158°F)
4-40°C (40-105°F)	YF9GNC04040156ZJ	1500	6	120±5	1±0.5°C (1,8±1°F)	70°C (158°F)
0-60°C (32-140°F)	YF9GNC00060156ZJ	1500	6	86±5	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-90°C (32-195°F)	YF9GNC00090156ZJ	1500	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF9GNC30090156ZJ	1500	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-110°C (85-230°F)	YF9GNC30110156ZJ	1500	6	86±5	2.5±1°C (4,5±1,8°F)	140°C (284°F)
50-200°C (120-390°F)	YF9GNC50200156ZJ	1500	6	65±5	4±2°C (7±3.6°F)	230°C (446°F)
50-300°C (120-570°F)	YF9GNC50300153ZJ	1500	3	145±5	10°C±2°C (18±3.6°F)	330°C (626°F)
100-400°C (210-750°F)	YF9GNCA0400153ZJ	1500	3	93±5	10°C±2°C (18±3.6°F)	430°C (800°F)
100-500°C (210-930°F)	YF9GNCA0500144ZJ	1400	4	235±5	10°C±2°C (18±3.6°F)	550°C (1000°F)

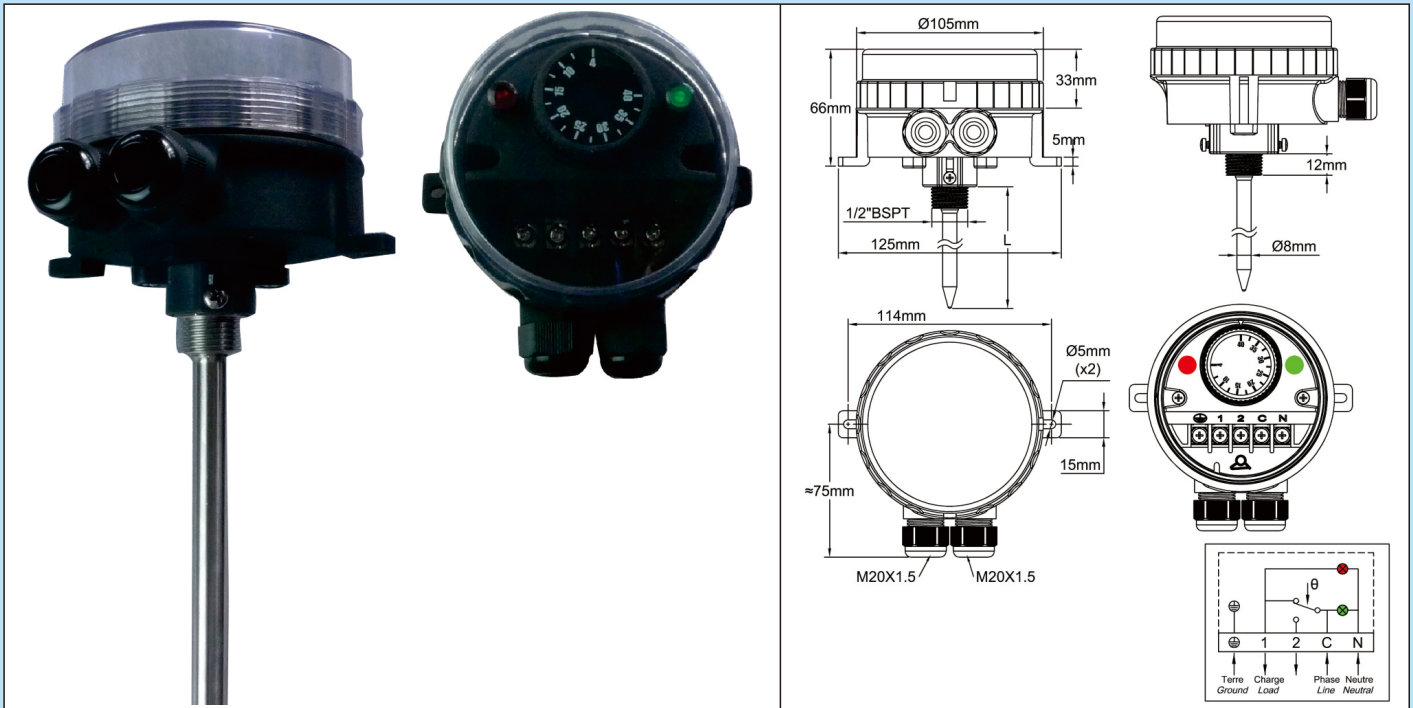
°F printing: replace last character (J) by K

## Knob printings

°C Printing					
0-10	-35+35°C	-10+40°C	4-40°C	0-60°C	0-90°C
30-90°C	30-110°C	50-200°C	50-300°C	100-400°C	100-500°C
°F Printing					
0-10	-30+95°F	15-105°F	40-105°F	32-140°F	32-195°F
85-195°F	85-230°F	120-390°F	120-570°F	210-750°F	210-930°F

## Rod thermostats, temperature control

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Control	Mechanical	SPDT	Rod		YF4GNC
Material						
PA66 & PC						



### Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

These **liquid expansion** rod thermostats can be installed inside pockets as immersion thermostats in pipelines and containers, and for monitoring temperature in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Action:** Temperature control. On-Off action.

**Sensing element:** Liquid expansion bulb and capillary inside nickel plated brass pocket. Thread 1/2" BSPT. Tube outside diameter 10mm. Located at the bottom of the housing, 2 screws are used to secure standard pockets. (See the compatible stainless steel and brass pockets range in the accessories section)

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

**Set point adjustment ranges:** 4-40°C (40-105°F); 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F).

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm² on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** By the pocket thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside.

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 2.6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet.

# Rod thermostats, temperature control











(P2)

## Main references

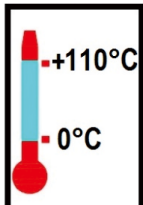
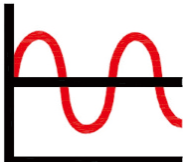
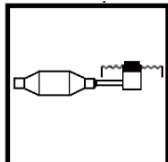
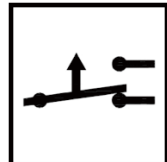
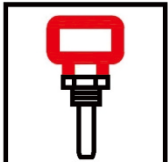
Temperature range °C (°F)	References	Pocket length (L, mm)	Temperature sensing length(mm)	Differential°C (°F)	Max temperature on rod °C (°F)
4-40°C (40-105°F)	YF4GNC04040231ZJ	230	140	1±0.5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	YF4GNC04040301ZJ	300	140	1±0.5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	YF4GNC04040451ZJ	450	140	1±0.5°C (1,8±1°F)	70°C (158°F)
4-40°C (40-105°F)	YF4GNC04040601ZJ	600	140	1±0.5°C (1,8±1°F)	70°C (158°F)
0-60°C (32-140°F)	YF4GNC00060231ZJ	230	87	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	YF4GNC00060301ZJ	300	87	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	YF4GNC00060451ZJ	450	87	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	YF4GNC00060601ZJ	600	87	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-90°C (32-195°F)	YF4GNC00090231ZJ	230	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	YF4GNC00090301ZJ	300	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	YF4GNC00090451ZJ	450	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	YF4GNC00090601ZJ	600	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF4GNC30090231ZJ	230	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF4GNC30090301ZJ	300	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF4GNC30090451ZJ	450	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF4GNC30090601ZJ	600	87	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-110°C (85-230°F)	YF4GNC30110231ZJ	230	83	2.5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	YF4GNC30110301ZJ	300	83	2.5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	YF4GNC30110451ZJ	450	83	2.5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	YF4GNC30110601ZJ	600	83	2.5±1°C (4,5±1,8°F)	140°C (284°F)

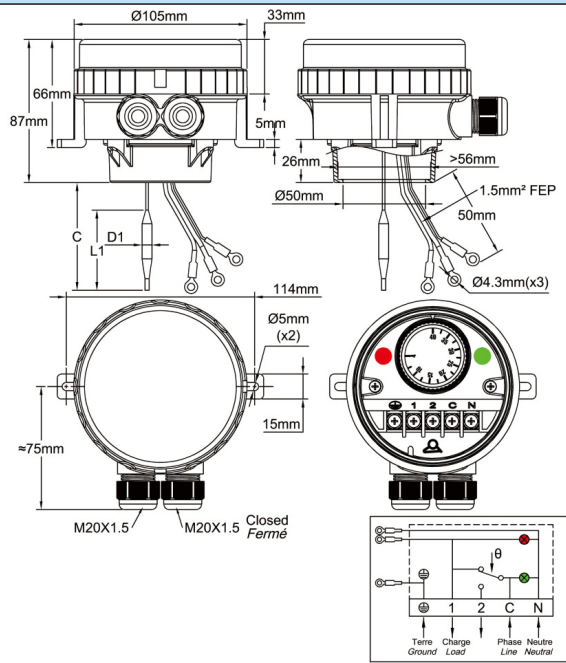
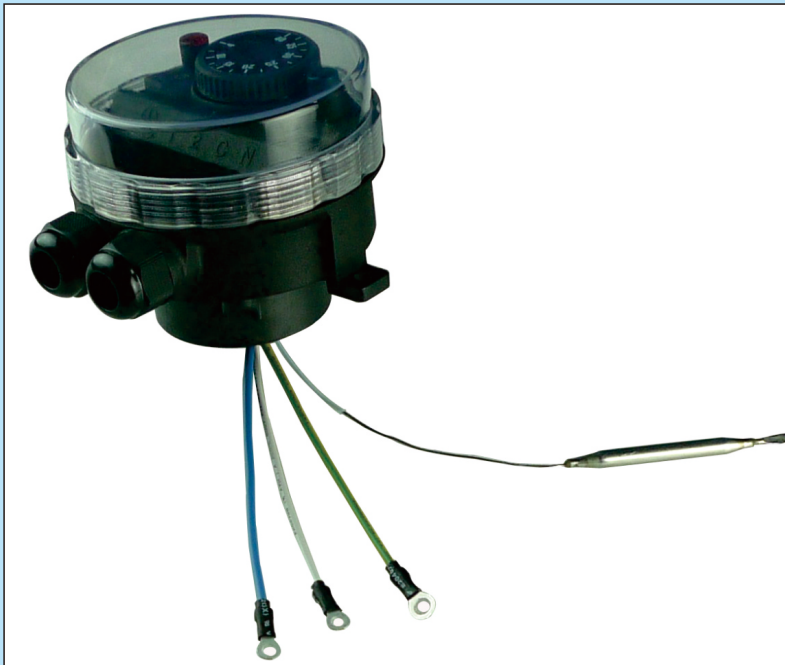
°F printing: replace last character (J) by K

## Knob printings

°C Printing				
4-40°C	0-60°C	0-90°C	30-90°C	30-110°C
				
°F Printing				
40-105°F	32-140°F	32-195°F	85-195°F	85-230°F
				

# Immersion heater thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Control	Mechanical	SPDT	Immersion heater		YF8GNC
Material						
PA66 & PC						



## Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

Fully wired sub assembly for use on immersion heater elements, 1 1/2 or M45x2 with double thread or rotation ring. Applications in usual industrial applications and environments, non-hazardous areas.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. A removable adapter is screwed at the bottom of the enclosure. It fits the usual immersion heater fittings. . Mechanical impact resistance: IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Action:** Temperature control. On-Off action

**Sensing element:** Liquid expansion bulb and capillary. The bulb and the capillary go out by the bottom of the enclosure to fit in the heater pocket.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

**Set point adjustment ranges:** 0-60°C (32-140°F); 0-90°C (32-195°F); 30-90°C (85-195°F); 30-110°C (85-230°F).

**Cable input and output:** Two M20 cable glands, built-in black PA66. One of them is closed.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm² on each terminal.

**Earthing:** Internal screw terminal and wire with round hole terminal for the immersion heater.

**Mounting:** By the immersion heater thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside

**Contact:** SPDT

**Electrical rating, resistive loads:**

-Open on temperature rise contact (C-1)

16A 250V, 50 ~60Hz: >100000 cycles,

20A 250V, 50 ~60Hz: ≥ 50000 cycles,

10A 400V, 50 ~60Hz: ≥ 50000 cycles.

-Close on temperature rise contact (C-2): 6A 250V 50 ~60Hz: >100000 cycles

**Electrical rating, inductive loads:**

-Open on temperature rise contact (C-1): 2.6A 250V, 50 ~60Hz: >100000 cycles

-Close on temperature rise contact (C-2): 0.6A 250V 50 ~60Hz: >100000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 8G thermostat technical data sheet.

# Immersion heater thermostats









(P2)

## Main references

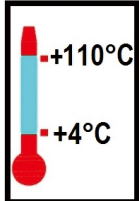
Temperature range °C (°F)	References	Capillary length (C, mm)	Bulb diameter (D1, mm)	Bulb length (L1, mm)	Differential°C (°F)	Max temperature on bulb °C (°F)
0-60°C (32-140°F)	YF8GNC00060026ZJ	200	6	86±5	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	YF8GNC00060036ZJ	300	6	86±5	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	YF8GNC00060046ZJ	400	6	86±5	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-60°C (32-140°F)	YF8GNC00060056ZJ	500	6	86±5	2.5±1°C (4,5±1,8°F)	80°C (176°F)
0-90°C (32-195°F)	YF8GNC00090026ZJ	200	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	YF8GNC00090036ZJ	300	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	YF8GNC00090046ZJ	400	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
0-90°C (32-195°F)	YF8GNC00090056ZJ	500	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF8GNC30090026ZJ	200	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF8GNC30090036ZJ	300	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF8GNC30090046ZJ	400	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-90°C (85-195°F)	YF8GNC30090056ZJ	500	6	98±5	2.5±1°C (4,5±1,8°F)	120°C (250°F)
30-110°C (85-230°F)	YF8GNC30110026ZJ	200	6	86±5	2.5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	YF8GNC30110036ZJ	300	6	86±5	2.5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	YF8GNC30110046ZJ	400	6	86±5	2.5±1°C (4,5±1,8°F)	140°C (284°F)
30-110°C (85-230°F)	YF8GNC30110056ZJ	500	6	86±5	2.5±1°C (4,5±1,8°F)	140°C (284°F)

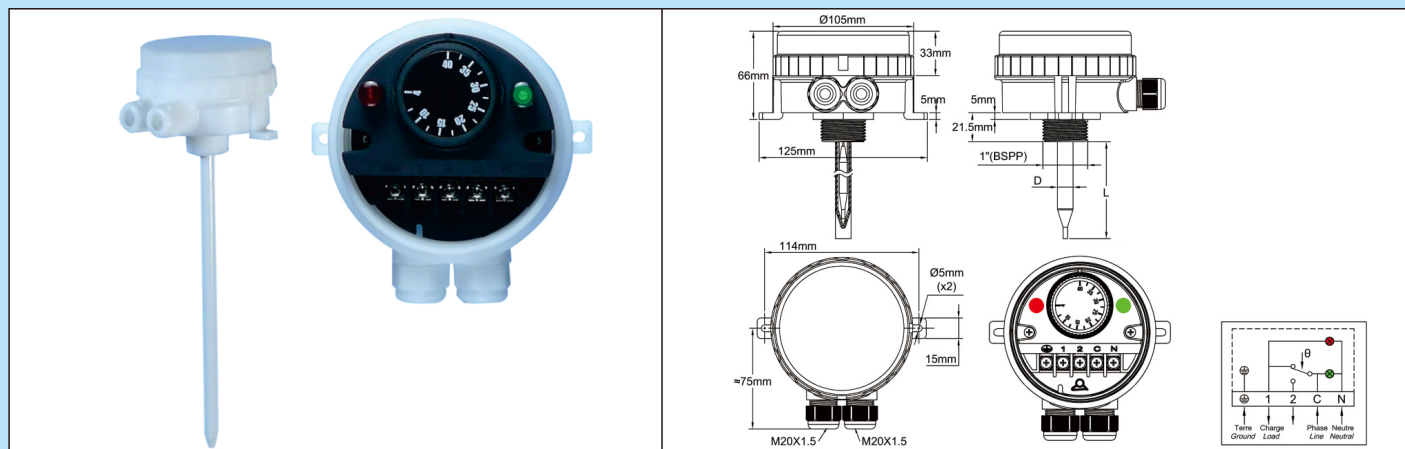
°F printing: replace last character (J) by K

## Knob printings

°C Printing			
0-60°C	0-90°C	30-90°C	30-110°C
			
°F Printing			
32-140°F	32-195°F	85-195°F	85-230°F
			

**Adjustable set point rod thermostat**, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Control	Mechanical	SPDT	Rod		YF5G



### Main applications

Temperature control for surface treatment or **corrosive** liquid baths, sea water environment, livestock premises.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight), dia. 105mm, height 66mm (excluding accessories and cable glands), made of plastic. Includes an adjustable thermostat that can be set after unscrewing the cover. To eliminate the enclosure risk of corrosion, there is no metallic part in contact with the external environment. Cover gasket and cable gland stuffing sets are made in EPDM. Rod seal is made of fluorocarbon elastomer FKM (Viton). The cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Electrical connections:** Cable input/output by two M20 cable glands. Electrical connection on screw terminals

**Temperature Adjustment:** Inside, with °C printed knob. (°F printed knobs available as an option). Knobs have an invisible device to reduce the temperature range span.

**Sensing element:** Liquid filled bulb,

**Adjustment ranges:** 4-40°C (32- 104°F) ; 0-60°C (32-140°F) ; 30-90°C (85-195°F); 30-110°C (90-230°F)

**Rod dimensions:** Outside diameter (D) before optional sleeving is 10mm. Length (L): 450mm, 600mm (300mm, 800mm and 1000mm on request )

**Rod material and sleeving:**

- SUS 316L without sleeving
- Titanium
- SUS 316L with shrunk PTFE sleeve, thickness 0.4 to 0.6mm

**Mounting:**

- By the 1" BSPT thread (Mounting through wall is watertight when used with the 1" nut and seal. See accessories)
- By a rotatable plastic bracket, enabling mounting on tank edge (See accessories)
- By the 2 legs on the side (2 holes dia 5 mm center distance 113 mm)

**Electrical contact:** SPDT

**Electrical rating, resistive load:**

- Open on temperature rise contact (C-1) 16A(2.6) 250VAC
- Close on temperature rise contact (C-2) 6A(0.6) 250VAC
- Electrical life >100.000 cycles.
- Power supply and power output pilot lights (Neutral is mandatory).

**Cover and housing material options:**

- Black PA66, glass filled body, and polycarbonate (PC) transparent cover, suitable for most applications in medium low to medium corrosive liquids, up to 90 °C. Allows viewing constantly input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance.
- Orange PP (polypropylene) body, with transparent polycarbonate (PC) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).
- Orange PP (polypropylene) body, with opaque orange PP (polypropylene) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK8).
- White PVDF body with opaque white PVDF cover: For use in liquid baths at temperatures above 90 °C and up to 110°C or strong oxidizing chemicals such as chrome electrolyte or nitric acid solution (HNO3). Reduced mechanical strength (IK8).

**Rod protection options (see also table below)**

- Stainless steel 316L-Ti without coating
- Stainless steel 316L, with FEP chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PFA chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposited coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposited coating, thickness 0.2 to 0.4mm

**Adjustable set point rod thermostat, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.**

(P2)

**Main references with SS 316L rod, coated with shrunk PTFE**

Temperature ranges °C (°F)	Rod length (L, mm)	Black PA66 housing, crystal clear PC cover	Orange PP housing, crystal clear PC cover	Orange PP housing, orange opaque PP cover	White PVDF housing, white opaque PVDF cover	Differential °C (°F)	Max temperature on rod °C (°F)
4-40°C (32-104°F)	450	YF5GNCS04040451P	YF5GPCS04040451P	YF5GPPS04040451P	YF5GVVS04040451P	2±1 °C (3±1,5 °F)	50°C (122°F)
0-60°C (32-140°F)	450	YF5GNCS00060451P	YF5GPCS00060451P	YF5GPPS00060451P	YF5GVVS00060451P	3,5±2,5°C (6±4,5°F)	90°C (195°F)
30-90°C (85-195°F)	450	YF5GNCS30090451P	YF5GPCS30090451P	YF5GPPS30090451P	YF5GVVS30090451P	4±3°C (7±5,5°F)	120°C (250°F)
30-110°C (90-230°F)	450	YF5GNCS30110451P	YF5GPCS30110451P	YF5GPPS30110451P	YF5GVVS30110451P	5±3 °C (9±7°F)	150°C (300°F)
4-40°C (32-104°F)	600	YF5GNCS04040601P	YF5GPCS04040601P	YF5GPPS04040601P	YF5GVVS04040601P	2±1 °C (3±1,5 °F)	50°C (122°F)
0-60°C (32-140°F)	600	YF5GNCS00060601P	YF5GPCS00060601P	YF5GPPS00060601P	YF5GVVS00060601P	3,5±2,5°C (6±4,5°F)	90°C (195°F)
30-90°C (85-195°F)	600	YF5GNCS30090601P	YF5GPCS30090601P	YF5GPPS30090601P	YF5GVVS30090601P	4±3°C (7±5,5°F)	120°C (250°F)
30-110°C (90-230°F)	600	YF5GNCS30110601P	YF5GPCS30110601P	YF5GPPS30110601P	YF5GVVS30110601P	5±3 °C (9±7°F)	120°C (250°F)

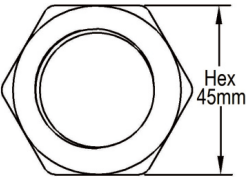
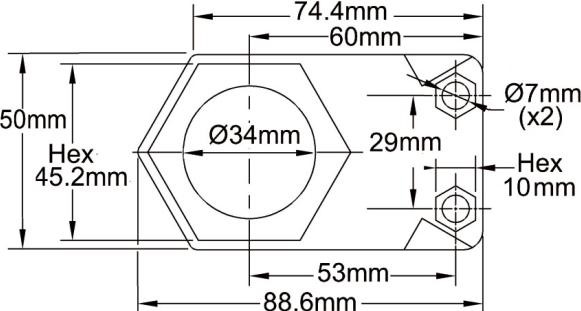
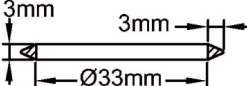
**Reference modifications vs options**

Rod length			Rod protection coating						
300mm	800mm	1000mm	316L sans gainage	316L-Ti sans gainage	Titane	316L+ FEP 0.2 ~ 0.4mm*	316L+ PFA 0.2 ~ 0.4mm*	316L+ PTFE 0.05 ~ 0.1mm*	316L+ ETFE 0.2 ~ 0.4mm*
xxxxxxxxxxx30xx	xxxxxxxxxxx80xx	xxxxxxxxxxxA0xx	xxxxxxxxxxxxxxxxU	xxxxxxxxxxxxxxxxV	xxxxxxxxxxxxxxxxW	xxxxxxxxxxxxxxxxQ	xxxxxxxxxxxxxxxxR	xxxxxxxxxxxxxxxxS	xxxxxxxxxxxxxxxxT

\* MOQ 100 pieces

Versions with °F printed knobs: replace S by T in the reference (7<sup>th</sup> character)

**Accessories**

1" BSPP Nut, 5mm thickness	Bracket for tank side mounting, thickness 10mm (Assembly made with 1" nut)	1" gasket for through wall waterproof mounting with 1" nut
		
Reference in PA66: 66YFHN1N	Reference in PA66: 66YFMB1N	Reference in FKM (Viton): 66YGA1F
Reference in PP: 66YFHN1P	Reference in PP: 66YFMB1P	
Reference in PVDF: 66YFHN1V	Reference in PVDF: 66YFMB1V	

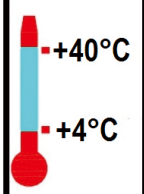
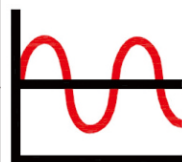
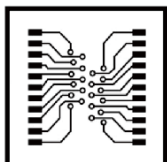
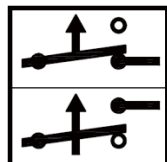

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

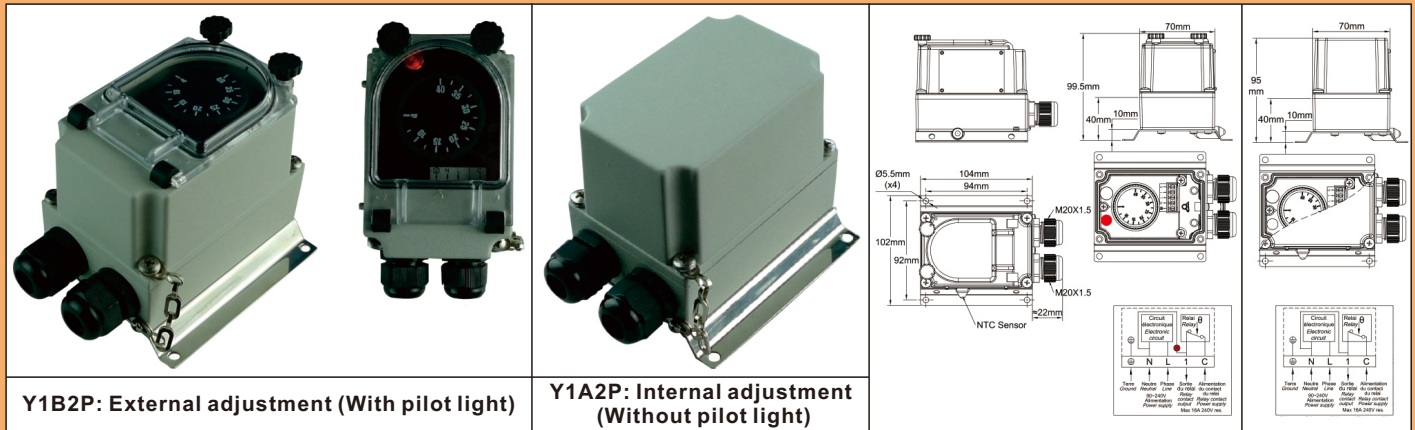


# Electronic **temperature** control thermostats inside enclosures



# Electronic room thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65, IK10	Control	Electronic	SPNO or SPNC	Ambient		Y1A2P & Y1B2P
Material						
Aluminum						



## Applications

- Wall mounting for indoor or outdoor temperature control of cold rooms.
- Temperature control of industrial or commercial premises.
- Outdoor temperature control of antifreeze heaters.
- Green houses and livestock stables temperature control.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps the temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Operation:** Microprocessor electronic control thermostat.

**Adjustment ranges:** -35-35°C (-30+95°F), 0-10°C (32-50°F), 4-40°C (40-105°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Sensing element:** NTC probe, mounted on the side of plastic housing.

**Cable input and output:** Two M20 cable glands, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance.

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. (Contact action can be set on the circuit board.) Products are shipped in standard with contact open on temperature rise action, for use in heating applications.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)





For more technical information ask 2PE2N6 thermostat technical data sheet.

## Main references

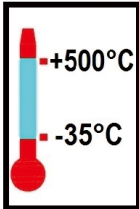
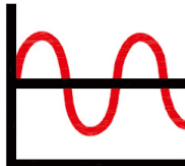
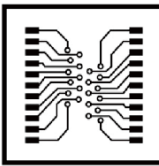
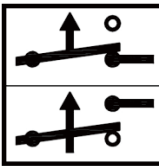

Temperature adjustment ranges °C (°F)	References with external adjustment	References with internal adjustment	Differential °C (°F)
-35-35°C (-30+95°F)	Y1B2PN6F235035AJ	Y1A2PN6F235035AJ	0,5-0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1B2PN6F204040AJ	Y1A2PN6F204040AJ	0,5-0,8°C (0.9~1.4°F)

°F printing: replace last character (J) by K

## Knob printings

°C Printing		°F Printing	
-35+35°C	4-40°C	-30+95°F	40+105°F
			

## Electronic temperature control, remote sensor

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models		
IP65,IK10	Control	Electronic	SPNO or SPNC	Remote		Y1I2P & Y1G2P		
Material								
Aluminum								

					
<b>Y1I2P: External adjustment (With pilot light)</b>		<b>Y1G2P: Internal adjustment (Without pilot light)</b>			

### Applications

Temperature control with reduced differential, on-off action, in usual industrial applications and environments, not hazardous areas. Internal adjustment is convenient for products that must not be frequently adjusted. Use of electronic sensor allows **measurement at a long distance**, which is not possible with bulb and capillary types.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Operation:** Microprocessor electronic control thermostat.

**Adjustment ranges:** -35-35°C (-30+95°F); 0-10°C (32-50°F); 4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F); 100-500°C (210-930°F).

**Differential:** Differential is preset at the minimum value, but can be increased with a potentiometer located under the set point adjustment knob.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Sensing element:** NTC or Pt100 probe, mounted on the side of plastic housing. The sensor cable is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section). Standard cable length 2m. Other lengths on request.

**Cable input and output:** Two M20 cable glands, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance.

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. (Contact action can be set on the circuit board.) Products are shipped in standard with contact open on temperature rise action, for use in heating applications.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet.

# Electronic temperature control, remote sensor

(P2)



















## Main references

Temperature adjustment ranges°C (°F)	Temperature sensor	References with external adjustment	References with internal adjustment	Differential °C (°F)
-35+35°C (-30+95°F)	NTC (10KOhms @25°C)	Y1I2PN6F2350352J	Y1G2PN6F2350352J	0,5~0,8°C (0.9~1.4°F)
0-10°C (32-50°F)	NTC (10KOhms @25°C)	Y1I2PN6F2000102J	Y1G2PN6F2000102J	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	NTC (10KOhms @25°C)	Y1I2PN6F2040402J	Y1G2PN6F2040402J	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	NTC (10KOhms @25°C)	Y1I2PN6F2300902J	Y1G2PN6F2300902J	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	NTC (10KOhms @25°C)	Y1I2PN6F2301102J	Y1G2PN6F2301102J	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Pt100	Y1I2PP6F2502002J	Y1G2PP6F2502002J	0,5~0,8°C (0.9~1.4°F)
50-300°C (120-570°F)	Pt100	Y1I2PP6F2503002J	Y1G2PP6F2503002J	0,5~0,8°C (0.9~1.4°F)
100-400°C (210-750°F)	Pt100	Y1I2PP6F2A04002J	Y1G2PP6F2A04002J	0,5~0,8°C (0.9~1.4°F)
100-500°C (210-930°F)	Pt100	Y1I2PP6F2A05002J	Y1G2PP6F2A05002J	0,5~0,8°C (0.9~1.4°F)

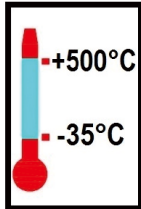
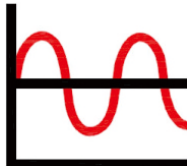
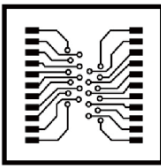
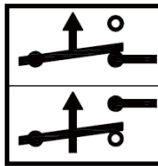

°F printing: replace last character (J) by K.

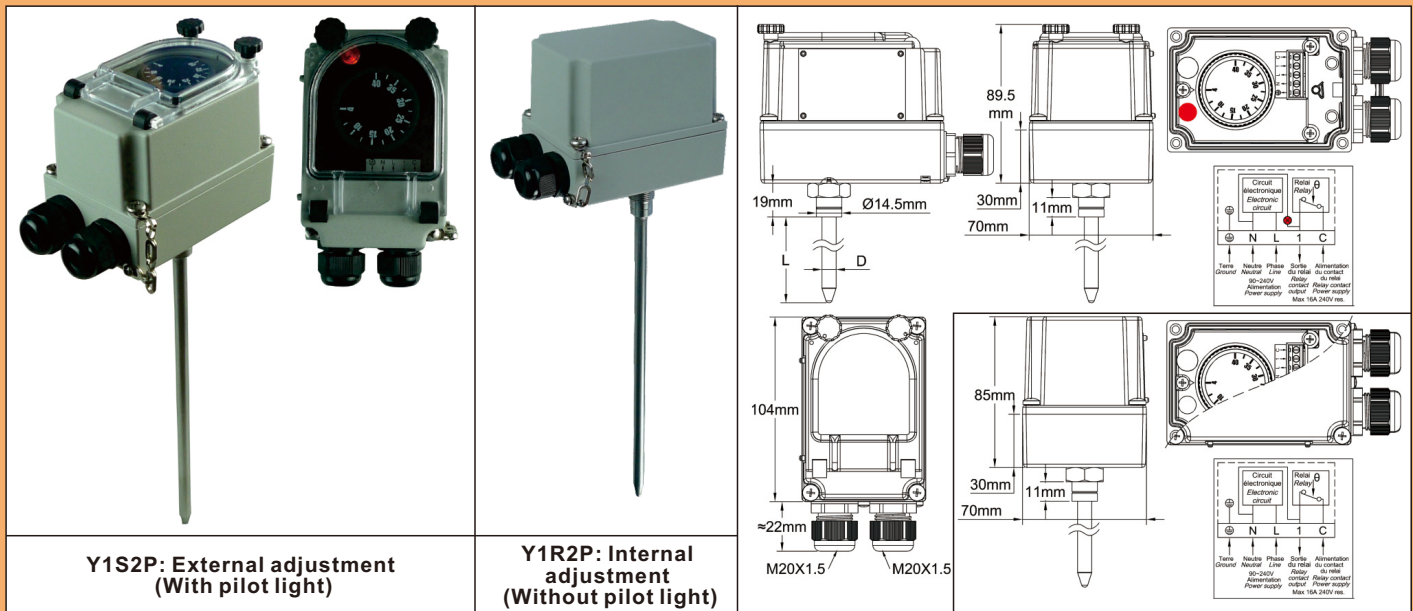
Character 15 gives the sensor cable length (2m).

## Knob printings

°C Printing				
-35+35°C	0-10°C	4-40°C	30-90°C	30-110°C
				
50-200°C	50-300°C	100-400°C	100-500°C	
				
°F Printing				
-30+95°F	32-50°F	40-105°F	85-195°F	85-230°F
				
120-390°F	120-570°F	210-750°F	210-930°F	
				

## Electronic temperature control, rod

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65,IK10	Control	Electronic	SPNO or SPNC	Rod		Y1R2P & Y1S2P
Material						
Aluminum						



### Applications

These rod thermostats with **electronic sensor** can be installed inside pockets as immersion thermostats in pipelines and containers, and for monitoring temperature in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).

**Very low differential. On-Off action**

**Internal adjustment is convenient for products that must not be frequently adjusted.**

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Operation:** Microprocessor electronic control thermostat.

**Adjustment ranges:** -35-35°C (-30+95°F) ; 0-10°C (32-50°F) ; 4-40°C (40-105°F) ; 30-90°C (85-195°F) ; 30-110°C (85-230°F) ; 50-200°C (120-390°F) ; 50-300°C (120-570°F) ; 100-400°C (210-750°F) ; 100-500°C (210-930°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Sensing element:** NTC or Pt100 sensor located at the end of a dia.8mm stainless steel rod. An increased diameter under the thermostat head allows mounting pockets, coolers or brackets (See pockets in the accessories section)

**Cable input and output:** Two M20 cable glands, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. (Contact action can be set on the circuit board.) Products are shipped in standard with contact open on temperature rise action, for use in heating applications.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 2PE2N6 thermostat technical data sheet

# Electronic temperature control, rod

(P2)

Main references (Rod dia. 8mm)\*

Temperature adjustment ranges °C (°F)	References with external adjustment	References with internal adjustment	Temperature sensor	Rod length*(L, mm)	Differential °C (°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035BJ	Y1R2PN6F235035BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0,9~1,4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035CJ	Y1R2PN6F235035CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0,9~1,4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035DJ	Y1R2PN6F235035DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0,9~1,4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035EJ	Y1R2PN6F235035EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0,9~1,4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035FJ	Y1R2PN6F235035FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0,9~1,4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035GJ	Y1R2PN6F235035GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0,9~1,4°F)
0-10°C (32-50°F)	Y1G2PN6F2000102J	Y1R2PN6F200010CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0,9~1,4°F)
0-10°C (32-50°F)	Y1S2PN6F200010CJ	Y1R2PN6F200010EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0,9~1,4°F)
0-10°C (32-50°F)	Y1S2PN6F200010EJ	Y1R2PN6F200010FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0,9~1,4°F)
0-10°C (32-50°F)	Y1S2PN6F200010FJ	Y1R2PN6F200010GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0,9~1,4°F)
4-40°C (40-105°F)	Y1S2PN6F204040BJ	Y1R2PN6F204040BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0,9~1,4°F)
4-40°C (40-105°F)	Y1S2PN6F204040CJ	Y1R2PN6F204040CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0,9~1,4°F)
4-40°C (40-105°F)	Y1S2PN6F204040DJ	Y1R2PN6F204040DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0,9~1,4°F)
4-40°C (40-105°F)	Y1S2PN6F204040EJ	Y1R2PN6F204040EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0,9~1,4°F)
4-40°C (40-105°F)	Y1S2PN6F204040FJ	Y1R2PN6F204040FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0,9~1,4°F)
4-40°C (40-105°F)	Y1S2PN6F204040GJ	Y1R2PN6F204040GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090BJ	Y1R2PN6F230090BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090CJ	Y1R2PN6F230090CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090DJ	Y1R2PN6F230090DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090EJ	Y1R2PN6F230090EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090FJ	Y1R2PN6F230090FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090GJ	Y1R2PN6F230090GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090HJ	Y1R2PN6F230090HJ	NTC (10KOhms @25°C)	600	0,5~0,8°C (0,9~1,4°F)
30-90°C (85-195°F)	Y1S2PN6F230090JJ	Y1R2PN6F230090JJ	NTC (10KOhms @25°C)	800	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110BJ	Y1R2PN6F230110BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110CJ	Y1R2PN6F230110CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110DJ	Y1R2PN6F230110DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110EJ	Y1R2PN6F230110EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110FJ	Y1R2PN6F230110FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110GJ	Y1R2PN6F230110GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110HJ	Y1R2PN6F230110HJ	NTC (10KOhms @25°C)	600	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110JJ	Y1R2PN6F230110JJ	NTC (10KOhms @25°C)	800	0,5~0,8°C (0,9~1,4°F)
30-110°C (85-230°F)	Y1S2PN6F230110KJ	Y1R2PN6F230110KJ	NTC (10KOhms @25°C)	1000	0,5~0,8°C (0,9~1,4°F)
50-200°C (120-390°F)	Y1S2PP6F250200EJ	Y1R2PP6F250200EJ	Pt100	230	0,5~0,8°C (0,9~1,4°F)
50-200°C (120-390°F)	Y1S2PP6F250200FJ	Y1R2PP6F250200FJ	Pt100	300	0,5~0,8°C (0,9~1,4°F)
50-200°C (120-390°F)	Y1S2PP6F250200GJ	Y1R2PP6F250200GJ	Pt100	450	0,5~0,8°C (0,9~1,4°F)
50-200°C (120-390°F)	Y1S2PP6F250200HJ	Y1R2PP6F250200HJ	Pt100	600	0,5~0,8°C (0,9~1,4°F)
50-200°C (120-390°F)	Y1S2PP6F250200JJ	Y1R2PP6F250200JJ	Pt100	800	0,5~0,8°C (0,9~1,4°F)
50-300°C (120-570°F)	Y1S2PP6F250300FJ	Y1R2PP6F250300FJ	Pt100	300	0,5~0,8°C (0,9~1,4°F)
50-300°C (120-570°F)	Y1S2PP6F250300GJ	Y1R2PP6F250300GJ	Pt100	450	0,5~0,8°C (0,9~1,4°F)
50-300°C (120-570°F)	Y1S2PP6F250300HJ	Y1R2PP6F250300HJ	Pt100	600	0,5~0,8°C (0,9~1,4°F)
100-400°C (210-750°F)	Y1S2PP6F2A0400FJ	Y1R2PP6F2A0400FJ	Pt100	300	0,5~0,8°C (0,9~1,4°F)
100-400°C (210-750°F)	Y1S2PP6F2A0400GJ	Y1R2PP6F2A0400GJ	Pt100	450	0,5~0,8°C (0,9~1,4°F)
100-400°C (210-750°F)	Y1S2PP6F2A0400HJ	Y1R2PP6F2A0400HJ	Pt100	600	0,5~0,8°C (0,9~1,4°F)
100-500°C (210-930°F)	Y1S2PP6F2A0500FJ	Y1R2PP6F2A0500FJ	Pt100	300	0,5~0,8°C (0,9~1,4°F)
100-500°C (210-930°F)	Y1S2PP6F2A0500GJ	Y1R2PP6F2A0500GJ	Pt100	450	0,5~0,8°C (0,9~1,4°F)
100-500°C (210-930°F)	Y1S2PP6F2A0500HJ	Y1R2PP6F2A0500HJ	Pt100	600	0,5~0,8°C (0,9~1,4°F)






\*°F printing: replace last character (J) by K

\*Above 200°C we recommend to use a rod cooler reference 66RF07015 or 66RF0701F12 between the rod and the enclosure (see accessories). Caution: This cooler reduces the usable rod length by 70mm

## Knob printings

°C Printing				°F Printing			
-35+35°C	4-40°C	30-90°C	30-110°C	-30+95°F	40-105°F	85-195°F	85-230°F
50-200°C	50-300°C	100-400°C	100-500°C	120-390°F	120-570°F	210-750°F	210-930°F

# Pipe mounting electronic temperature control

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65, IK10	Control	Electronic	SPNO or SPNC	Pipe		Y112P & Y102P
Material						
Aluminum						



## Applications

Pipes surface temperature control in usual industrial applications and environments, **when a low differential is requested** (No suitable for hazardous areas)

Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps the temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

Set point adjustment ranges: 4-40°C (40-105°F) ; 30-90°C (85-195°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Action:** Temperature control, On-Off action

**Sensing element:** NTC sensor inside aluminum bracket in contact with the pipe surface.

The bracket design provides optimized thermal contact with 34 mm (1", DN25), 60 mm (2", DN50) and 90 mm (3", DN80) outside diameter tubes. For intermediate sizes, we recommend the use of thermal grease.

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allows to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover

**Cable input and output:** Two M20 cable glands, Black PA66.

**Mounting:** The thermostat housing can be fixed on the pipe by worm drive hose clamps (DIN3017) nylon cable ties (Tie wraps upon EN50146, for applications at permanent temperature lower than 85°C), or specific stainless steel punched band (see accessories at the end of this catalog).

**Identification:** Metallic identification labels, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. The version with contact closing on temperature rise is used to switch on an alarm or a cooling device. The version with contact opening on temperature rise is used to switch off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet.

## Main references

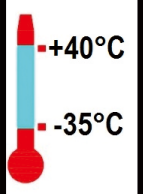
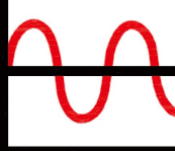
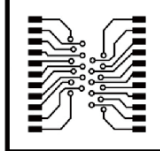
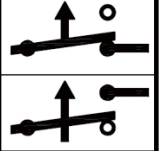

Temperature adjustment ranges °C (°F)	Open on temperature rise contact		Close on temperature rise contact		Differential °C (°F)	Max. temperature on tube °C (°F)
	Reference with external adjustment	Reference with internal adjustment	Reference with external adjustment	Reference with internal adjustment		
4-40°C (40-105°F)	Y112PN6F204040AJ	Y102PN6F204040AJ	Y112PN6G204040AJ	Y102PN6G204040AJ	0,5~0,8°C (0.9~1.4°F)	100°C (212°F)
30-90°C (85-195°F)	Y112PN6F230090AJ	Y102PN6F230090AJ	Y112PN6G230090AJ	Y102PN6G230090AJ	0,5~0,8°C (0.9~1.4°F)	100°C (212°F)

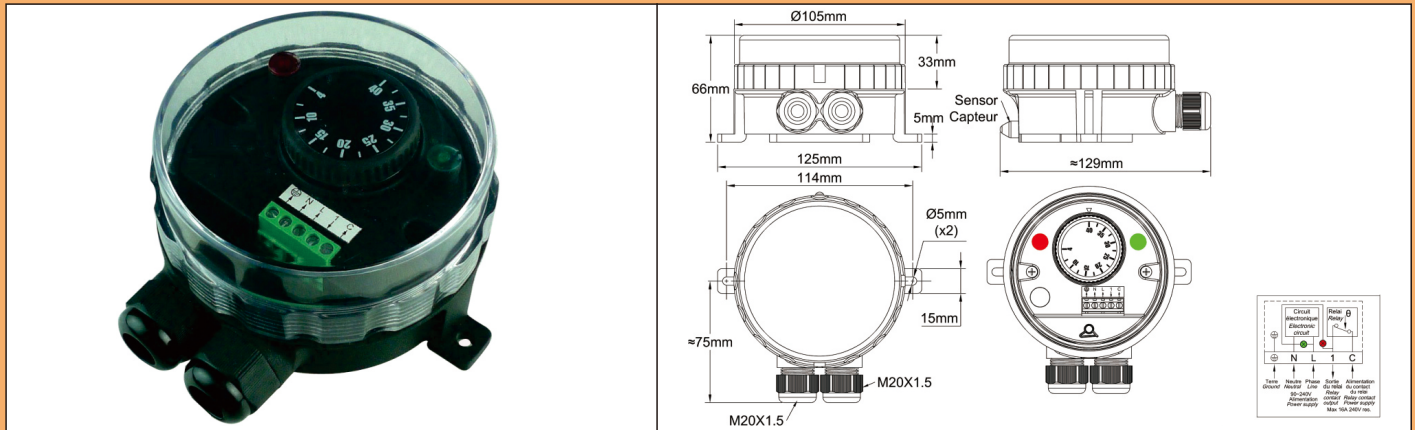
°F printing: replace last character (J) by K.

## Knobs printing

°C Printing		°F Printing	
4-40°C	30-90°C	40-105°F	85-195°F

# Electronic room thermostats

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Control	Electronic	SPNO or SPNC	Ambient		<b>YF62NC &amp; YF64NC</b>
Material						
PA66 & PC						



## Applications

- **Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights.**

- Wall mounting for indoor or outdoor temperature control of cold rooms.
- Temperature control of industrial or commercial premises.
- Outdoor temperature control of antifreeze heaters.
- Green houses and livestock stables temperature control.

- **Very small differential**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Operation:** Microprocessor electronic thermostat,

**Sensing element:** NTC probe, mounted on the top of the plastic housing.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and line 230V power supply is mandatory for these pilot lights.

**Set point adjustment ranges:** -35-35°C (-30+95°F), 0-10°C (32-50°F), 4-40°C (40-105°F).

**Differential:** Differential is preset at the minimum value, but can be increased with a potentiometer located under the set point adjustment knob.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside.

**Contact:** SPST, 16A (2.6), 250VAC. Open or close on temperature rise. Model with contact closing on temperature rise is used for refrigeration. Version with contact opening on temperature rise is used for heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)







For more technical information ask 2PE2N6 thermostat technical data sheet.

## Main references

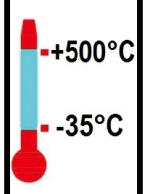
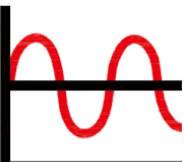
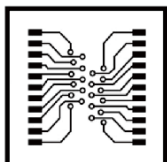
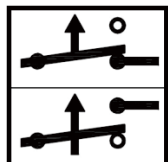

Temperature adjustment ranges °C (°F)	References with SPNC, open on temperature rise contact	References with SPNO, close on temperature rise contact	Minimum differential °C (°F)
-35+35°C (-30+95°F)	YF62NC350350000J	YF64NC350350000J	0,5~0,8°C (0.9~1.4°F)
0+10°C (32-50°F)	YF62NC000100000J	YF64NC000100000J	0,5~0,8°C (0.9~1.4°F)
+4+40°C (40-105°F)	YF62NC040400000J	YF64NC040400000J	0,5~0,8°C (0.9~1.4°F)

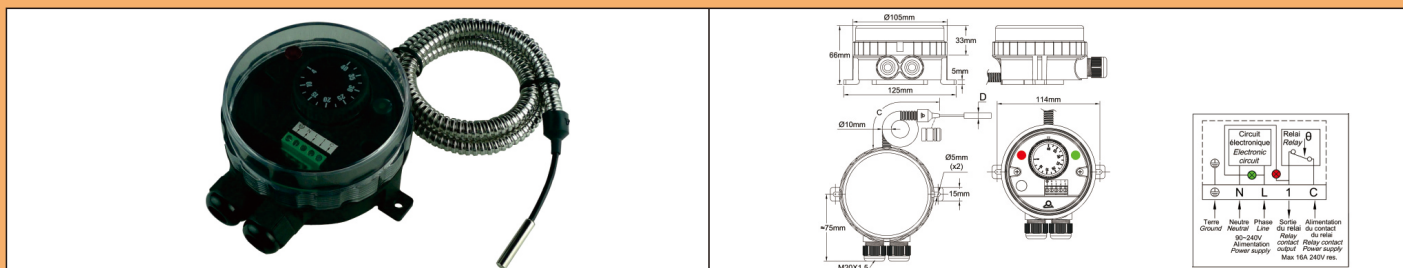
°F printing: replace last character (J) by K

## Knob printings

°C Printing			°F Printing		
-35+35°C	0-10°C	4-40°C	-30+95°F	32-50°F	40+105°F
					

# Electronic thermostats, remote sensor, IP66 enclosure in PA66 and PC

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Control	Electronic	SPNO or SPNC	Remote		YF92NC & YF94NC
Material						
PA66 & PC						



## Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights.**

Temperature control with reduced differential, on-off action, in usual industrial applications and environments, not hazardous areas. Use of electronic sensor allows **measurement at long distances**, which is not possible with bulb and capillary types.

**-Very small differential**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Operation:** Microprocessor electronic thermostat,

**Sensing element:** NTC or Pt100 sensor, diameter D= 5mm. The sensor cable is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section). Standard cable length 2m. Other lengths on request.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and line 230V power supply is mandatory for these pilot lights.

**Set point adjustment ranges:** -35-35°C (-30+95°F) ; 0-10°C (32-50°F) ; 4-40°C (40-105°F) ; 30-90°C (85-195°F) ; 30-110°C (85-230°F) ; 50-200°C (120-390°F) ; 50-300°C (120-570°F) ; 100-400°C (210-750°F) ; 100-500°C (210-930°F).

**Differential:** Differential is preset at the minimum value, but can be increased with a potentiometer located under the set point adjustment knob.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. Model with contact closing on temperature rise is used for refrigeration. Version with contact opening on temperature rise is used for heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 2PE2N6 thermostat technical data sheet



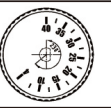

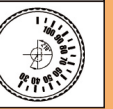

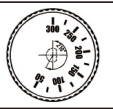


## Main references









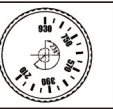
Temperature adjustment ranges°C (°F)	Temperature sensor	References with SPNC, open on temperature rise contact	References with SPNO, close on temperature rise contact	Differential °C (°F)
-35+35°C (-30+95°F)	NTC (10KOhms @25°C)	YF92NC350352051J	YF94NC350352051J	0,5~0,8°C (0.9~1.4°F)
0-10°C (32-50°F)	NTC (10KOhms @25°C)	YF92NC000102051J	YF94NC000102051J	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	NTC (10KOhms @25°C)	YF92NC040402051J	YF94NC040402051J	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	NTC (10KOhms @25°C)	YF92NC000902051J	YF94NC000902051J	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	NTC (10KOhms @25°C)	YF92NC301102051J	YF94NC301102051J	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Pt100	YF92NC502002051J	YF94NC502002051J	0,5~0,8°C (0.9~1.4°F)
50-300°C (120-570°F)	Pt100	YF92NC503002051J	YF94NC503002051J	0,5~0,8°C (0.9~1.4°F)
100-400°C (210-750°F)	Pt100	YF92NCA04002051J	YF94NCA04002051J	0,5~0,8°C (0.9~1.4°F)
100-500°C (210-930°F)	Pt100	YF92NCA05002051J	YF94NCA05002051J	0,5~0,8°C (0.9~1.4°F)

°F printing: replace last character (J) by K

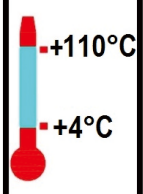
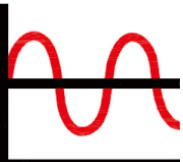
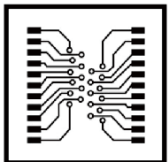
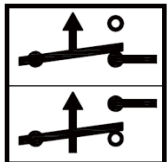
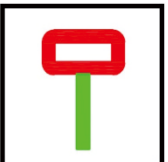
Character 12 gives the sensor cable length (2m)

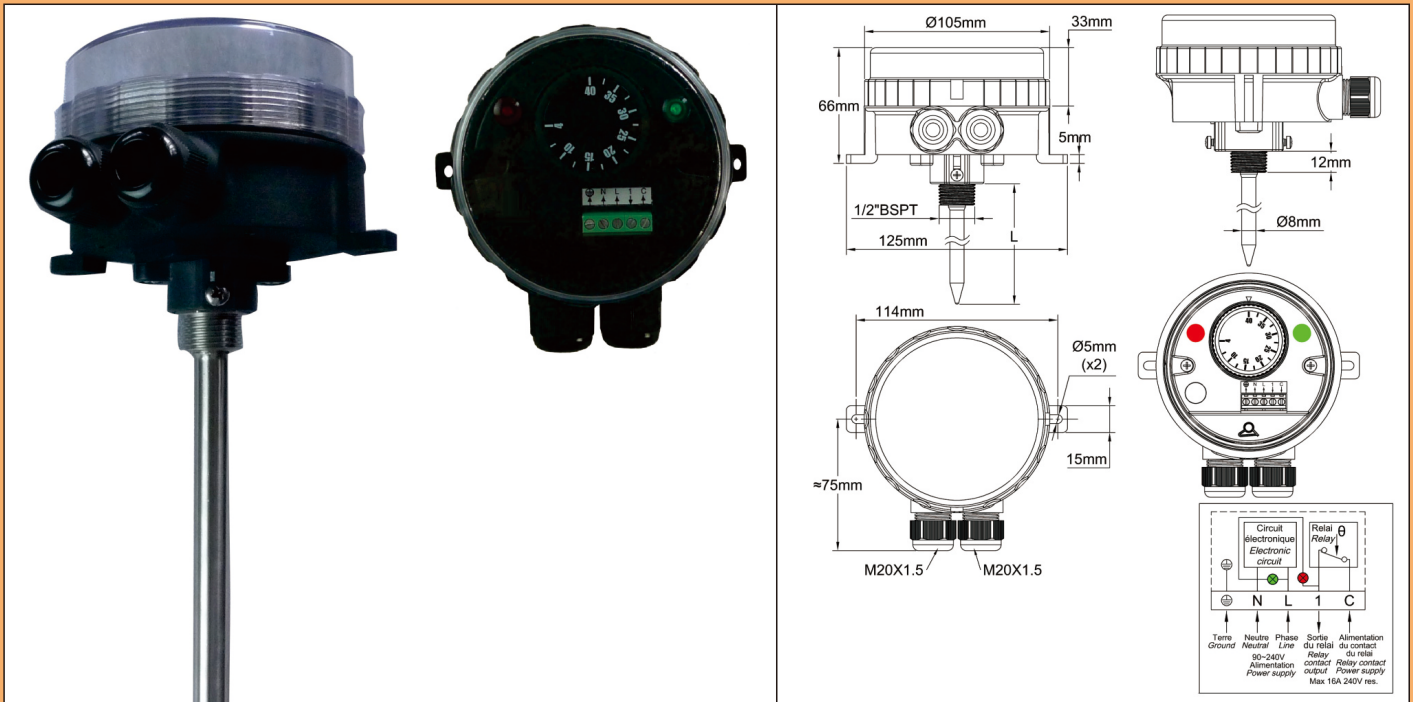
## Knob printings

°C Printing				
-35+35°C	0-10°C	4-40°C	30-90°C	30-110°C
				
50-200°C	50-300°C	100-400°C	100-500°C	
				

°F Printing				
-30+95°F	32-50°F	40-105°F	85-195°F	85-230°F
				
120-390°F	120-570°F	210-750°F	210-930°F	
				

## Electronic thermostats, rod sensor

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Control	Electronic	SPNO or SPNC	Probe		<b>YF42NC &amp; YF44NC</b>
Material						
PA66 & PC						



### Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

Temperature control with reduced differential, on-off action, in usual industrial application and environment, not hazardous areas. These **electronic** rod thermostats are installed inside pockets as immersion thermostats in pipelines and containers, and for monitoring temperature in air ducts. (Not suitable for hazardous areas).

**-Very small differential**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Operation:** Microprocessor electronic thermostat, on-off action

Set point adjustment ranges: 4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F).

**Differential:** Differential is preset at the minimum value, but can be increased with a potentiometer located under the set point adjustment knob.

**Sensing element:** Dia. 5mm NTC sensor (10KOhms @25°C), inside nickel plated brass pocket. Thread 1/2" BSPT. Tube outside diameter 8mm. Maximum temperature on the probe: 120°C (250°F). Located at the bottom of the housing, 2 screws are used to secure standard pockets. (See the compatible brass pockets range in the accessories section).

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and line 230V power supply is mandatory for these pilot lights.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm² on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** By the pocket thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. Model with contact closing on temperature rise is used for refrigeration. Version with contact opening on temperature rise is used for heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet.

# Electronic thermostats, rod sensor


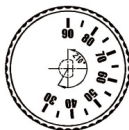




(P2)

## Main references

Temperature adjustment ranges °C (°F)	References with SPNC contact, open on temperature rise	References with SPNO contact, close on temperature rise	Pocket length (L, mm)	Temperature sensing length (mm)	Differential °C (°F)
4-40°C (40-105°F)	YF42NC04040118UJ	YF44NC04040118UJ	110	50	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF42NC04040178UJ	YF44NC04040178UJ	170	50	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF42NC04040238UJ	YF44NC04040238UJ	230	50	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF42NC04040308UJ	YF44NC04040308UJ	300	50	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF42NC04040458UJ	YF44NC04040458UJ	450	50	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF42NC04040608UJ	YF44NC04040608UJ	600	50	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF42NC30090118UJ	YF44NC30090118UJ	110	50	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF42NC30090178UJ	YF44NC30090178UJ	170	50	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF42NC30090238UJ	YF44NC30090238UJ	230	50	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF42NC30090308UJ	YF44NC30090308UJ	300	50	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF42NC30090458UJ	YF44NC30090458UJ	450	50	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF42NC30090608UJ	YF44NC30090608UJ	600	50	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF42NC30110118UJ	YF44NC30110118UJ	110	50	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF42NC30110178UJ	YF44NC30110178UJ	170	50	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF42NC30110238UJ	YF44NC30110238UJ	230	50	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF42NC30110308UJ	YF44NC30110308UJ	300	50	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF42NC30110458UJ	YF44NC30110458UJ	450	50	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF42NC30110608UJ	YF44NC30110608UJ	600	50	0,5~0,8°C (0.9~1.4°F)

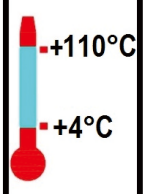
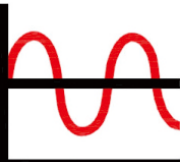
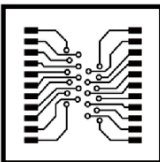

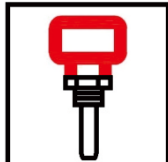
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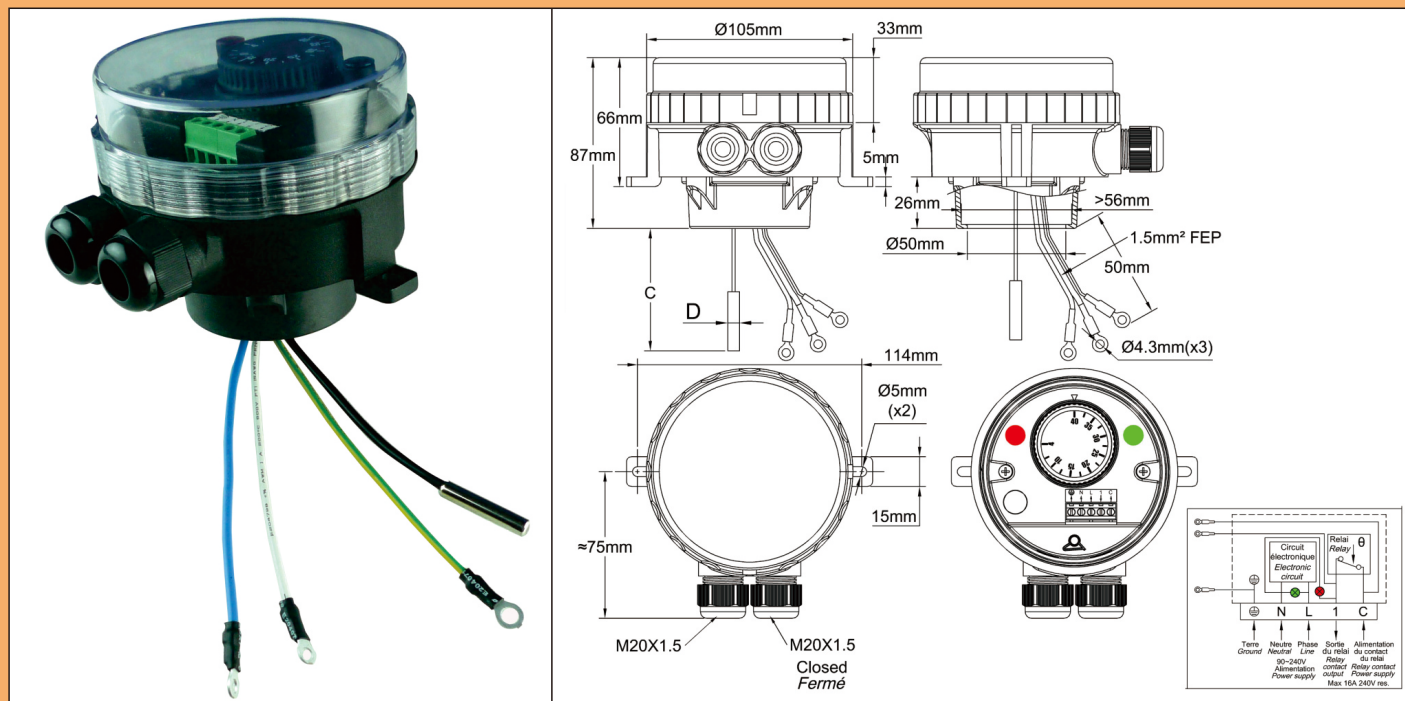
## Knob printings

°C Printing			°F Printing		
4-40°C	30-90°C	30-110°C	40-105°F	85-195°F	85-230°F
					

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Electronic thermostats for immersion heaters

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Control	Electronic	SPNC	Immersion heater		YF82NC
Material						
PA66 & PC						



## Applications

**-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

Fully wired sub assembly for direct mounting on immersion heater elements, 1"1/2 or M45x2 with double thread or rotation ring. Applications in usual industrial applications and environments, non-hazardous areas.

**-Very small differential**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. A removable adapter is screwed at the bottom of the enclosure. It fits the usual immersion heater fittings. .Mechanical impact resistance : IK10. High UV resistance..

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available in option

**Operation:** Microprocessor electronic thermostat, on-off action .

**Set point adjustment ranges:** 4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F).

**Differential:** Differential is preset at the minimum value, but can be increased with a potentiometer located under the set point adjustment knob.

**Sensing element:** The 5x 30mm NTC sensor (10KOhms @25°C) goes out by the bottom of the enclosure to fit in the immersion heater pocket.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and line 230V power supply is mandatory for these pilot lights.

**Cable input and output:** Two M20 cable glands, built-in black PA66. One of them is closed.

**Electrical connections:** Inside, on screw terminal connection block.

**Earthing:** Internal screw terminal and 1.5mm² FEP insulated wire with round hole terminals for the immersion heater.

**Mounting:** By the immersion heater thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside.

**Contact:** SPNC. 16A (2.6), 250VAC. Contact open on temperature rise

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet

# Electronic thermostats for immersion heaters







(P2)

## Main references

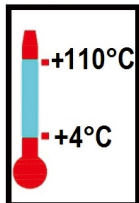

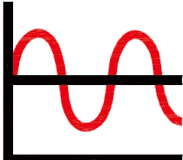
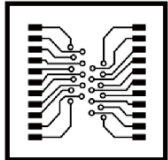
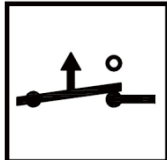
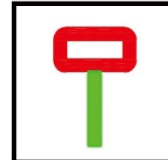
Temperature adjustment ranges °C (°F)	References with SPNC contact, open on temperature rise	NTC sensor cable length (C, mm)	Minimum differential °C (°F)
4-40°C (40-105°F)	YF82NC04040118UJ	110	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF82NC04040178UJ	170	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF82NC04040238UJ	230	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF82NC04040308UJ	300	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF82NC04040458UJ	450	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF82NC04040608UJ	600	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF82NC30090118UJ	110	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF82NC30090178UJ	170	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF82NC30090238UJ	230	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF82NC30090308UJ	300	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF82NC30090458UJ	450	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF82NC30090608UJ	600	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF82NC30110118UJ	110	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF82NC30110178UJ	170	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF82NC30110238UJ	230	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF82NC30110308UJ	300	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF82NC30110458UJ	450	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF82NC30110608UJ	600	0,5~0,8°C (0.9~1.4°F)

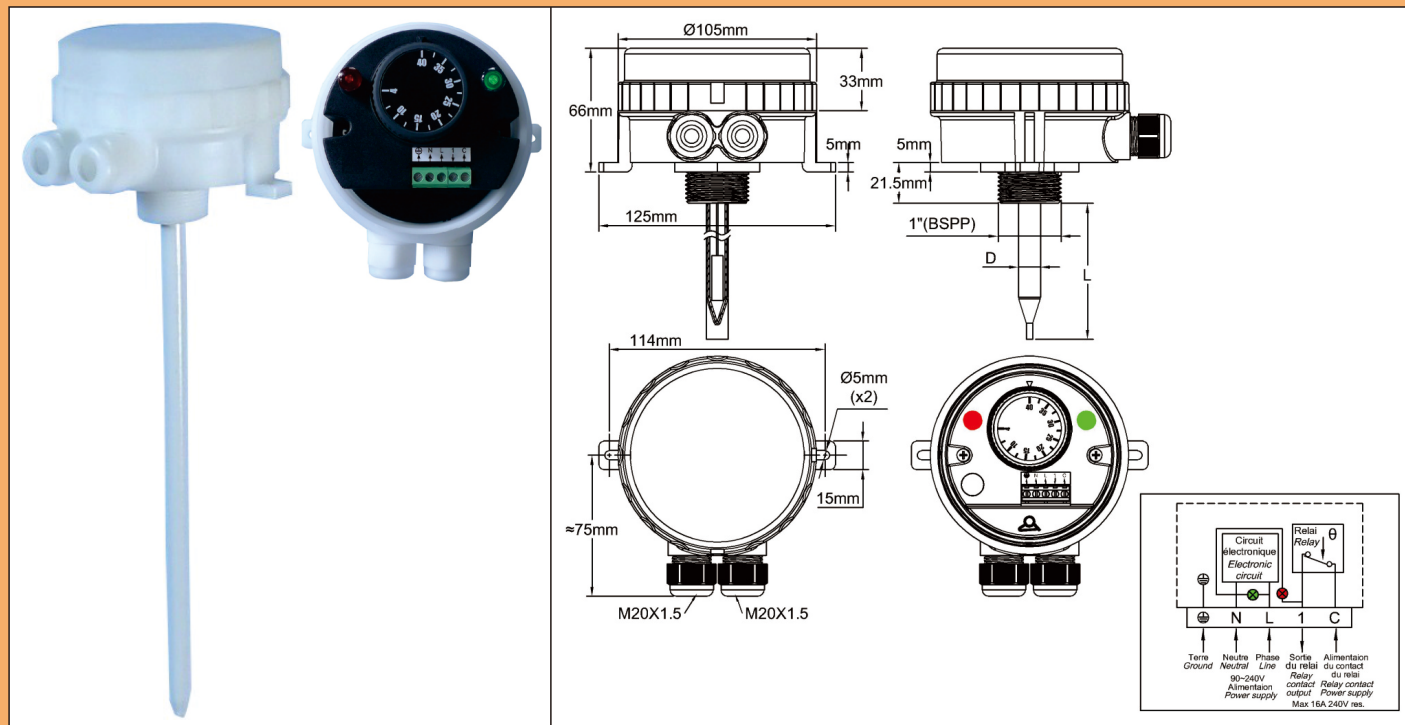
°F printing: replace last character (J) by K

## Knob printings

°C Printing			°F Printing		
4-40°C	30-90°C	30-110°C	40-105°F	85-195°F	85-230°F
					

# Low differential electronic rod thermostat, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Control	Electronic	SPNC	Rod		YF52
						



## Main applications

**Precise temperature control** for surface treatment or corrosive liquid baths, sea water environment, livestock premises.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight), dia. 105mm, height 66mm (excluding accessories and cable glands), made of plastic. Includes an adjustable thermostat that can be set after unscrewing the cover. To eliminate the enclosure risk of corrosion, there is no metallic part in contact with the external environment. Cover gasket and cable gland stuffing sets gaskets are made in EPDM. Rod seal is made of fluorocarbon elastomer FKM (Vitón). The cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Electrical connections:** Cable input/output by two M20 cable glands. Electrical connection on screw terminals

**Temperature Adjustment:** Inside, with °C printed knob. (°F printed knobs available in option). Knobs have an invisible device to reduce the temperature range span.

**Sensing element:** NTC thermistor and microprocessor electronic circuit.

**Adjustment ranges:** 4-40°C (32- 104°F) ; 30-90°C (85-195°F); 30-110°C (90-230°F)

**Rod dimensions:** Outside diameter (D) before optional sleeving is 10mm. Length (L): 450mm, 600mm (300mm, 800mm and 1000mm on request)

**Rod material and sleeving:**

- SUS 316L without sleeving
- Titanium
- SUS 316L with shrunk PTFE sleeve, thickness 0.4 to 0.6mm

**Mounting:**

- By the 1" BSPT thread (Mounting through wall is watertight when used with the 1" nut and seal. See accessories)
- By a rotatable plastic bracket, enabling mounting on tank edge (See accessories)
- By the 2 legs on the side (2 holes dia 5 mm center distance 113 mm)

**Electrical contact:**

- SPNC, Open on temperature rise contact (C-1) 16A(2.6) 250VAC
- Electrical life >100.000 cycles.

Power supply and power output pilot lights (Neutral is mandatory).

# Low differential electronic rod thermostat, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

(P2)

## Cover and housing material options:

-Black PA66, glass filled body, and polycarbonate (PC) transparent, suitable for most applications in low to medium corrosive liquids, up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance.

-Orange PP (polypropylene) body, with transparent polycarbonate (PC) cover: Very good resistance to strong bases, good resistance to acids. For use on liquids up to 90 °C. Allows viewing constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).

-Orange PP (polypropylene) body, with opaque orange PP (polypropylene) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK8).

- White PVDF body with opaque white PVDF cover: For use in liquid baths at temperatures above 90 °C and up to 110°C or strong oxidizing chemicals such as chrome electrolyte or nitric acid solution (HNO3). Reduced mechanical strength (IK8).

## Rod protection options (see also table below)

- Stainless steel 316L-Ti without coating
- Stainless steel 316L, with FEP chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PFA chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposited coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposited coating, thickness 0.2 to 0.4mm

## Main references with SS 316L rod, coated with shrunk PTFE

Temperature ranges °C (°F)	Rod length (mm)	Black PA66 housing, crystal clear PC cover	Orange PP housing, crystal clear PC cover	Orange PP housing, orange opaque PP cover	White PVDF housing, White opaque PVDF cover	Differential* °C (°F)	Max temperature on probe °C (°F)
4-40°C (32-104°F)	450	YF52NCS04040451P	YF52PCS04040451P	YF52PPS04040451P	YF52VVS04040451P	0.8±0.2 °C (1.5±0.4 °F)	120°C (250°F)
30-90°C (85-195°F)	450	YF52NCS30090451P	YF52PCS30090451P	YF52PPS30090451P	YF52VVS30090451P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)
30-110°C (90-230°F)	450	YF52NCS30110451P	YF52PCS30110451P	YF52PPS30110451P	YF52VVS30110451P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)
4-40°C (32-104°F)	600	YF52NCS04040601P	YF52PCS04040601P	YF52PPS04040601P	YF52VVS04040601P	0.8±0.2 °C (1.5±0.4 °F)	120°C (250°F)
30-90°C (85-195°F)	600	YF52NCS30090601P	YF52PCS30090601P	YF52PPS30090601P	YF52VVS30090601P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)
30-110°C (90-230°F)	600	YF52NCS30110601P	YF52PCS30110601P	YF52PPS30110601P	YF52VVS30110601P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)

\* Differentials measured in laboratory conditions, in agitated liquid baths, with temperature change rates below 0.5°C/min.

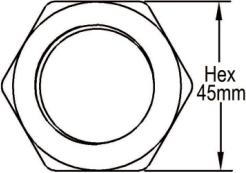
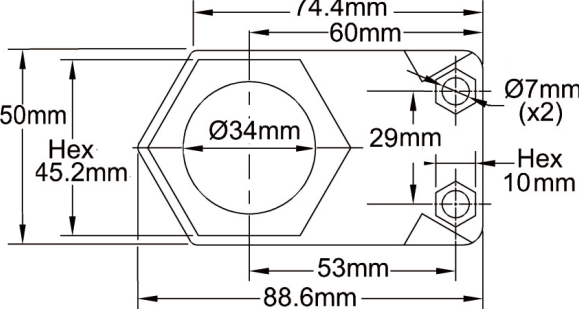
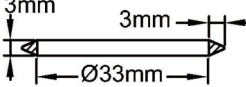
## Reference modifications vs options

Rod length			Rod protection coating						
300mm	800mm	1000mm	316L sans gainage	316L-Ti sans gainage	Titane	316L+ FEP 0.2 ~ 0.4mm*	316L+ PFA 0.2 ~ 0.4mm*	316L+ PTFE 0.05 ~ 0.1mm*	316L+ ETFE 0.2 ~ 0.4mm*
xxxxxxxxxx30xx	xxxxxxxxxx80xx	xxxxxxxxxxA0xx	xxxxxxxxxxU	xxxxxxxxxxV	xxxxxxxxxxW	xxxxxxxxxxQ	xxxxxxxxxxR	xxxxxxxxxxS	xxxxxxxxxxT

\* MOQ 100 pieces

Versions with °F printed knobs: replace S by T in the reference (7th character)

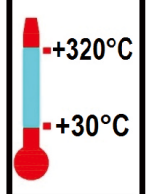

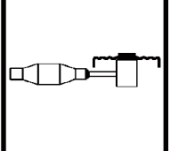


## Accessories

1" BSPP Nut, 5mm thickness	Bracket for tank side mounting, thickness 10mm (Assembly made with 1" nut)	1" gasket for through wall waterproof mounting with 1" nut
		
Reference in PA66: 66YFHN1N	Reference in PA66: 66YFMB1N	Reference in FKM (Viton): 66YGA1F
Reference in PP: 66YFHN1P	Reference in PP: 66YFMB1P	
Reference in PVDF: 66YFHN1V	Reference in PVDF: 66YFMB1V	

# Manual reset mechanical limiters inside enclosures



# Fixed setting manual reset bulb and capillary limiter

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65 IK10	Manual reset	Mechanical	SPNC	Bulb and Capillary		Y1I8L & Y1G8L
Material						
Aluminum						



## Applications

-Remote control in usual industrial applications and environments, not hazardous areas, for use as **high limit safety**.

- **Sealed temperature set point**

-Internal reset is convenient for products that must not be frequently reset.

**Housing:**Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps the temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid

**Action:**Fail safe manual reset high temperature limit.

**Set point calibration value:**80±8°C (176±15°F), 90±8°C (194±15°F), 110±8°C (230±15°F), 130±8°C (266±15°F), 150±8°C (302±15°F), 175±8°C (347±15°F), 220±11°C (428±20°F), 270±13°C (518±23°F), 300±15°C (572±27°F). Other calibration temperature on request, between 30°C and 320°C (85°F and 610°F)

**Temperature adjustment:**Fixed setting, sealed, no access to user.

**Sensing element:**Liquid expansion bulb and capillary. The capillary is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket. (See pockets in the accessories section)

**Electrical connections:**Inside, on screw terminal connection block. Possibility to connect two wires 1.5mm² on each terminal.

**Pilot light:** Allows to visualize limiter contact output position. Standard for all models with transparent window. Non-standard and on special request only for models with plain aluminum cover. (230V, 2 phase power supply, is mandatory for the pilot light)

**Cable input and output:**Two M20 cable glands, Black PA66.

**Earthing:**Internal and external screw terminal.

**Cable output:**M16 cable gland, PA66, for cables up to 10 mm dia.

**Mounting:**Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance.

**Identification:**Metallic identification label, riveted. Set point calibration is printed in °C and °F beside the manual reset button.

**Contact:**Single pole, open on temperature rise (SPNC)

**Electrical rating:**16A res. 250/400VAC

-Electrical life > **6.000 cycles**.

**Minimum storage temperature:**-35°C (-30°F)

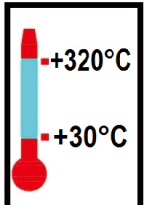

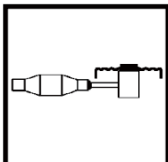
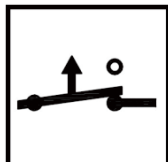
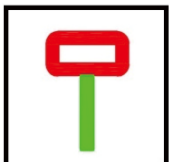
**Maximum ambient temperature:**60°C (140°F)



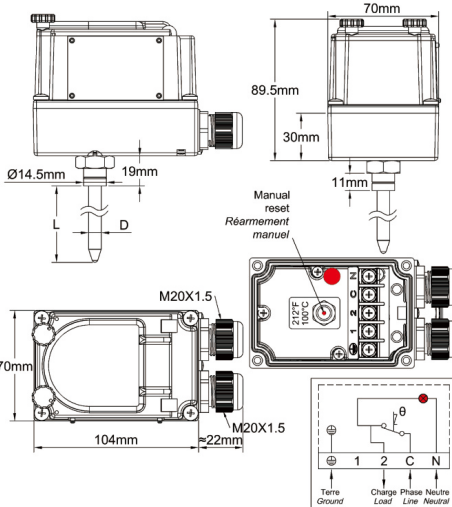
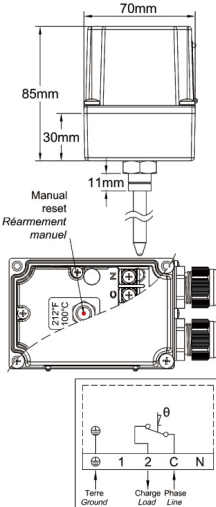
For more technical information ask 8L limiter technical data sheet (catalog 1)

## Main references

Calibration temperature °C (°F)	References with external adjustment	References with internal adjustment	Minimum resettable temperature °C (°F)	Capillary length (C, mm)	Bulb diameter (D, mm)	Bulb length (L, mm)	Max temperature on bulb °C (°F)
80±8°C (176±15°F)	Y1I8L0080105AO6D	Y1G8L0080105AO6D	52°C (126°F)	1500	6	77	105°C (221°F)
90±8°C (194±15°F)	Y1I8L0090115AO6D	Y1G8L0090115AO6D	60°C (140°F)	1500	6	77	115°C (239°F)
110±8°C (230±15°F)	Y1I8L0110135AO6D	Y1G8L0110135AO6D	75°C (167°F)	1500	6	77	135°C (275°F)
130±8°C (266±15°F)	Y1I8L0130155AO6D	Y1G8L0130155AO6D	80°C (176°F)	1500	6	74	155°C (311°F)
150±8°C (302±15°F)	Y1I8L0150175AO6D	Y1G8L0150175AO6D	95°C (203°F)	1500	6	74	175°C (347°F)
175±8°C (347±15°F)	Y1I8L0175200AO4D	Y1G8L0175200AO4D	115°C (239°F)	1500	4	95	200°C (392°F)
220±11°C (428±20°F)	Y1I8L0220245AO4D	Y1G8L0220245AO4D	140°C (284°F)	1500	4	90	245°C (473°F)
270±13°C (518±23°F)	Y1I8L0270295AO4D	Y1G8L0270295AO4D	160°C (320°F)	1500	4	85	295°C (563°F)
300±15°C (572±27°F)	Y1I8L0300325AO4D	Y1G8L0300325AO4D	160°C (320°F)	1500	4	82	325°C (617°F)

## Fixed setting manual reset limiter, rod

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65,IK10	Manual reset	Mechanical	SPNC	Rod		Y1S8L & Y1R8L
Material						
Aluminum						

			
<b>Y1S8L: External manual reset (With pilot light)</b>	<b>Y1R8L: Internal manual reset (Without pilot light)</b>		

### Applications

These **liquid expansion** rod manual reset limiters can be installed inside pockets as immersion thermostats in pipelines and containers, and as **high limit safety** in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).

-Internal reset is convenient for products that must not be frequently reset.

-Insensibility to strong vibrations

-**Sealed calibration point, not adjustable**

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid

**Action:** **Fail safe** manual reset high temperature limit.

**Set point calibration value:** 80±8°C (176±15°F), 90±8°C (194±15°F), 110±8°C (230±15°F), 130±8°C (266±15°F), 150±8°C (302±15°F), 175±8°C (347±15°F), 220±11°C (428±20°F), 270±13°C (518±23°F), 300±15°C (572±27°F). Other calibration temperature on request, between 30°C and 320°C (85°F and 610°F)

**Temperature adjustment:** Fixed setting, sealed, no access to user.

**Sensing element:** Liquid expansion bulb and capillary. The capillary is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket. (See pockets in the accessories section)

**Sensing element:** Liquid expansion rod. This rod has a non-temperature sensing zone named dead zone which allows thermal insulation crossing. An increased diameter under the thermostat head allows mounting pockets, coolers or brackets (See pockets in the accessories section).

**Electrical connections:** Inside, on screw terminal connection block. Possibility to connect two wires 1.5mm² on each terminal.

**Pilot light:** Allows to visualize limiter contact output position. Standard for all models with transparent window. Non-standard and on special request only for models with plain aluminum cover. (230V, 2 phase power supply, is mandatory for the pilot light)

**Cable input and output:** Two M20 cable glands, Black PA66.

**Earthing:** Internal and external screw terminal.

**Cable output:** M16 cable gland, PA66, for cables up to 10 mm dia.

**Identification:** Metallic identification label, riveted. Set point calibration is printed in °C and °F beside the manual reset button.

**Contact:** Single pole, open on temperature rise (SPNC)

**Electrical rating:** 16A res. 250/400VAC

-Electrical life > **6.000 cycles**.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 8L limiter technical data sheet (catalog 1).

# Fixed setting manual reset limiter, rod

(P2)

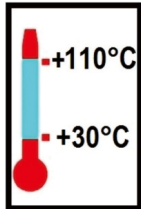

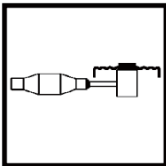

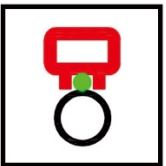
## Main references

Calibration temperature °C (°F)	References with external adjustment	References with internal adjustment	Minimum resettable temperature °C (°F)	Rod length *(L, mm)	Rod diameter (D, mm)	Temperature sensing length(mm)	Max temperature on bulb °C (°F)
80±8°C (176±15°F)	Y1S8L0080105117D	Y1R8L0080105117D	52°C (126°F)	170	10	87	105°C (221°F)
80±8°C (176±15°F)	Y1S8L0080105123D	Y1R8L0080105123D	52°C (126°F)	230	10	87	105°C (221°F)
80±8°C (176±15°F)	Y1S8L0080105130D	Y1R8L0080105130D	52°C (126°F)	300	10	87	105°C (221°F)
80±8°C (176±15°F)	Y1S8L0080105145D	Y1R8L0080105145D	52°C (126°F)	450	10	87	105°C (221°F)
80±8°C (176±15°F)	Y1S8L0080105160D	Y1R8L0080105160D	52°C (126°F)	600	10	87	105°C (221°F)
80±8°C (176±15°F)	Y1S8L0080105180D	Y1R8L0080105180D	52°C (126°F)	800	10	87	105°C (221°F)
90±8°C (194±15°F)	Y1S8L0090115117D	Y1R8L0090115117D	60°C (140°F)	170	10	87	115°C (239°F)
90±8°C (194±15°F)	Y1S8L0090115123D	Y1R8L0090115123D	60°C (140°F)	230	10	87	115°C (239°F)
90±8°C (194±15°F)	Y1S8L0090115130D	Y1R8L0090115130D	60°C (140°F)	300	10	87	115°C (239°F)
90±8°C (194±15°F)	Y1S8L0090115145D	Y1R8L0090115145D	60°C (140°F)	450	10	87	115°C (239°F)
90±8°C (194±15°F)	Y1S8L0090115160D	Y1R8L0090115160D	60°C (140°F)	600	10	87	115°C (239°F)
90±8°C (194±15°F)	Y1S8L0090115180D	Y1R8L0090115180D	60°C (140°F)	800	10	87	115°C (239°F)
110±8°C (230±15°F)	Y1S8L0110135117D	Y1R8L0110135117D	75°C (167°F)	170	10	87	135°C (275°F)
110±8°C (230±15°F)	Y1S8L0110135123D	Y1R8L0110135123D	75°C (167°F)	230	10	87	135°C (275°F)
110±8°C (230±15°F)	Y1S8L0110135130D	Y1R8L0110135130D	75°C (167°F)	300	10	87	135°C (275°F)
110±8°C (230±15°F)	Y1S8L0110135145D	Y1R8L0110135145D	75°C (167°F)	450	10	87	135°C (275°F)
110±8°C (230±15°F)	Y1S8L0110135160D	Y1R8L0110135160D	75°C (167°F)	600	10	87	135°C (275°F)
110±8°C (230±15°F)	Y1S8L0110135180D	Y1R8L0110135180D	75°C (167°F)	800	10	87	135°C (275°F)
130±8°C (266±15°F)	Y1S8L0130155117D	Y1R8L0130155117D	80°C (176°F)	170	10	87	155°C (311°F)
130±8°C (266±15°F)	Y1S8L0130155123D	Y1R8L0130155123D	80°C (176°F)	230	10	87	155°C (311°F)
130±8°C (266±15°F)	Y1S8L0130155130D	Y1R8L0130155130D	80°C (176°F)	300	10	87	155°C (311°F)
130±8°C (266±15°F)	Y1S8L0130155145D	Y1R8L0130155145D	80°C (176°F)	450	10	87	155°C (311°F)
130±8°C (266±15°F)	Y1S8L0130155160D	Y1R8L0130155160D	80°C (176°F)	600	10	87	155°C (311°F)
130±8°C (266±15°F)	Y1S8L0130155180D	Y1R8L0130155180D	80°C (176°F)	800	10	87	155°C (311°F)
150±8°C (302±15°F)	Y1S8L0150175123D	Y1R8L0150175123D	95°C (203°F)	230	10	87	175°C (347°F)
150±8°C (302±15°F)	Y1S8L0150175130D	Y1R8L0150175130D	95°C (203°F)	300	10	87	175°C (347°F)
150±8°C (302±15°F)	Y1S8L0150175145D	Y1R8L0150175145D	95°C (203°F)	450	10	87	175°C (347°F)
150±8°C (302±15°F)	Y1S8L0150175160D	Y1R8L0150175160D	95°C (203°F)	600	10	87	175°C (347°F)
150±8°C (302±15°F)	Y1S8L0150175180D	Y1R8L0150175180D	95°C (203°F)	800	10	87	175°C (347°F)
175±8°C (347±15°F)	Y1S8L0175200123D	Y1R8L0175200123D	115°C (239°F)	230	10	59	200°C (392°F)
175±8°C (347±15°F)	Y1S8L0175200130D	Y1R8L0175200130D	115°C (239°F)	300	10	59	200°C (392°F)
175±8°C (347±15°F)	Y1S8L0175200145D	Y1R8L0175200145D	115°C (239°F)	450	10	59	200°C (392°F)
175±8°C (347±15°F)	Y1S8L0175200160D	Y1R8L0175200160D	115°C (239°F)	600	10	59	200°C (392°F)
175±8°C (347±15°F)	Y1S8L0175200180D	Y1R8L0175200180D	115°C (239°F)	800	10	59	200°C (392°F)
*220±11°C (428±20°F)	Y1S8L0220245830D	Y1R8L0220245830D	140°C (284°F)	300	8	59	245°C (473°F)
*220±11°C (428±20°F)	Y1S8L0220245845D	Y1R8L0220245845D	140°C (284°F)	450	8	59	245°C (473°F)
*220±11°C (428±20°F)	Y1S8L0220245860D	Y1R8L0220245860D	140°C (284°F)	600	8	59	245°C (473°F)
*220±11°C (428±20°F)	Y1S8L0220245880D	Y1R8L0220245880D	140°C (284°F)	800	8	59	245°C (473°F)
*270±13°C (518±23°F)	Y1S8L0270295830D	Y1R8L0270295830D	160°C (320°F)	300	8	165	295°C (563°F)
*270±13°C (518±23°F)	Y1S8L0270295845D	Y1R8L0270295845D	160°C (320°F)	450	8	165	295°C (563°F)
*270±13°C (518±23°F)	Y1S8L0270295860D	Y1R8L0270295860D	160°C (320°F)	600	8	165	295°C (563°F)
*270±13°C (518±23°F)	Y1S8L0270295880D	Y1R8L0270295880D	160°C (320°F)	800	8	165	295°C (563°F)
*300±15°C (572±27°F)	Y1S8L0300325830D	Y1R8L0300325830D	160°C (320°F)	300	8	165	325°C (617°F)
*300±15°C (572±27°F)	Y1S8L0300325845D	Y1R8L0300325845D	160°C (320°F)	450	8	165	325°C (617°F)
*300±15°C (572±27°F)	Y1S8L0300325860D	Y1R8L0300325860D	160°C (320°F)	600	8	165	325°C (617°F)
*300±15°C (572±27°F)	Y1S8L0300325880D	Y1R8L0300325880D	160°C (320°F)	800	8	165	325°C (617°F)

\*Above 200°C we recommend to use a rod cooler reference 66RF07015 or 66RF0701F12 between the rod and the enclosure (see accessories). Caution: This cooler reduces the usable rod length by 70mm.

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Fixed setting manual reset limiter, pipe mounting

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models		
IP65,IK10	Control	Mechanical	SPNC	Pipe		Y118L & Y108L		
Material								
Aluminum								

						
Y118L: External manual reset (With pilot light)		Y108L: Internal manual reset (Without pilot light)				

## Applications

These **liquid expansion** pipe surface manual reset limiters can be installed inside pockets as immersion thermostats in pipelines and containers, and as **high limit safety** in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).

-Internal adjustment is convenient for products that must not be frequently adjusted.

-Insensibility to strong vibrations

-Sealed calibration point, not adjustable

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Action:** **fail safe** manual reset high temperature limit.

**Set point calibration value:** 80±8°C (176±15°F), 90±8°C (194±15°F), 110±8°C (230±15°F). Other calibration temperature on request, between 30°C and 110°C (85°F and 230°F).

**Temperature adjustment:** fixed setting, sealed, no access to user.

**Sensing element:** Liquid expansion bulb inside aluminum bracket in contact with the pipe surface.

The bracket design provides optimized thermal contact with 34 mm (1", DN25), 60 mm (2", DN50) and 90 mm (3", DN80) outside diameter tubes. For intermediate sizes, we recommend the use of thermal grease

**Electrical connections:** Inside, on screw terminal connection block

**Earthing:** Internal and external screw terminal. (Possibility to connect 2 wires 1.5mm² on each terminal)

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover

**Cable input and output:** Two M20 cable glands, Black PA66.

**Mounting:** The thermostat housing can be fixed on the pipe by worm drive hose clamps (DIN3017), nylon cable ties (Tie wraps upon EN50146, for applications at permanent temperature lower than 85°C), or specific stainless steel punched band (see accessories at the end of this catalog)

**Identification:** Metallic identification label, riveted. Set point calibration is printed in °C and °F beside the manual reset button.

**Contact:** Single pole, open on rise (SPNC)

**Electrical rating:** 16A res. 250/400VAC

-Electrical life > **6.000 cycles**.

**Minimum storage temperature:** -35°C (-30°F)

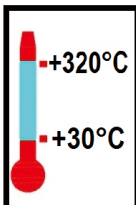

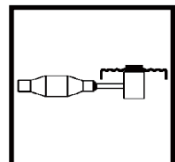
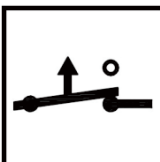

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 8L limiter technical data sheet

## Main references

Calibration temperature°C (°F)	References with external adjustment	References with internal adjustment	Minimum resettable temperature °C (°F)	Max temperature on pipe °C (°F)
80±8°C (176±15°F)	Y118L080105AA80D	Y108L080105A80D	52°C (126°F)	105°C (221°F)
90±8°C (194±15°F)	Y118L090115AA80D	Y108L090115A80D	60°C (140°F)	115°C (239°F)
110±8°C (230±15°F)	Y118L110135AA80D	Y108L110135A80D	75°C (167°F)	135°C (275°F)

# Fixed setting manual reset limiter, bulb and capillary

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Manual reset	Mechanical	SPNC	Remote		YF9LNC
Material						
PA66 & PC						



## Applications

-**Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights**

Remote control in usual industrial applications and environments, not hazardous areas, for use as **high limit safety**.

- **Sealed temperature set point**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Action:** **Fail safe**, manual reset high temperature limit.

Set point calibration value: 80±8°C (176±15°F), 90±8°C (194±15°F), 110±8°C (230±15°F), 130±8°C (266±15°F), 150±8°C (302±15°F), 175±8°C (347±15°F), 220±11°C (428±20°F), 270±13°C (518±23°F), 300±15°C (572±27°F). Other calibration temperature on request, between 30°C and 320°C (85°F and 610°F).

**Temperature adjustment:** Fixed setting, sealed, no access to user.

**Sensing element:** Liquid expansion bulb and capillary. The capillary is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section).

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm² on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside. Set point calibration is printed in °C and °F beside the manual reset button.

**Contact:** Single pole, open on rise (SPNC)

**Electrical rating:** 16A res. 250/400VAC

- Electrical life > **6.000 cycles**.

**Minimum storage temperature:** -35°C (-30°F)

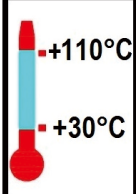

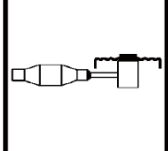

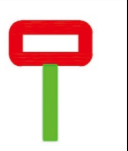
**Maximum ambient temperature:** 60°C (140°F)

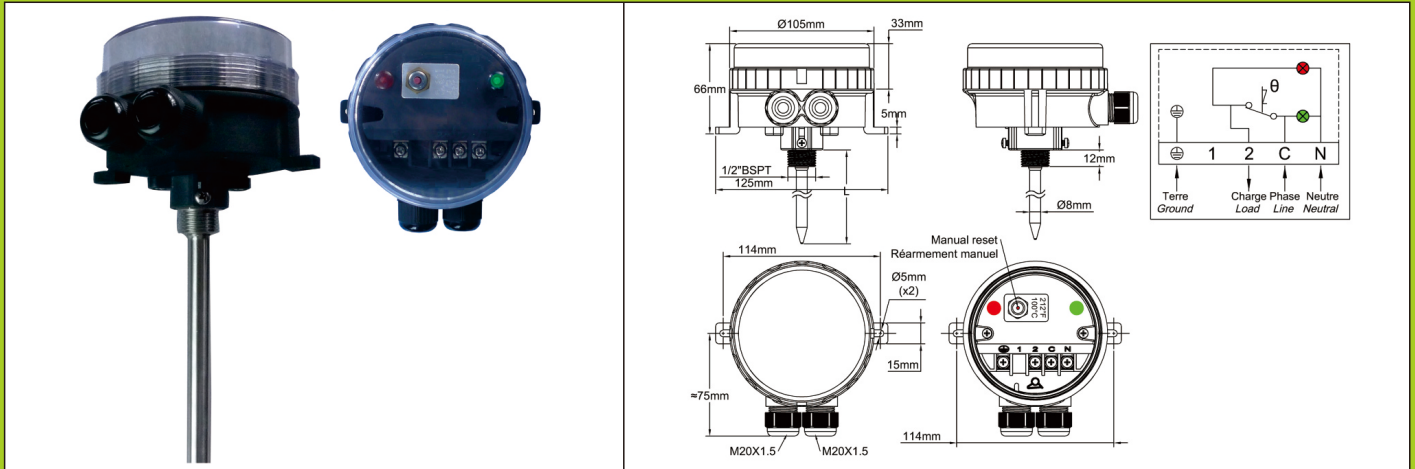
For more technical information see 8L limiter technical data sheet (catalog 1).

## Main references

Calibration temperature °C (°F)	References	Minimum resettable temperature °C (°F)	Capillary length (mm)	Bulb diameter (mm)	Bulb length (mm)	Max temperature on bulb °C (°F)
80±8°C (176±15°F)	YF9LNC25080156ZD	52°C (126°F)	1500	6	77	105°C (221°F)
90±8°C (194±15°F)	YF9LNC25090156ZD	60°C (140°F)	1500	6	77	115°C (239°F)
110±8°C (230±15°F)	YF9LNC25110156ZD	75°C (167°F)	1500	6	77	135°C (275°F)
130±8°C (266±15°F)	YF9LNC25130156ZD	80°C (176°F)	1500	6	74	155°C (311°F)
150±8°C (302±15°F)	YF9LNC25150156ZD	95°C (203°F)	1500	6	74	175°C (347°F)
175±8°C (347±15°F)	YF9LNC25175156ZD	115°C (239°F)	1500	4	95	200°C (392°F)
220±11°C (428±20°F)	YF9LNC25220156ZD	140°C (284°F)	1500	4	90	245°C (473°F)
270±13°C (518±23°F)	YF9LNC25270156ZD	160°C (320°F)	1500	4	85	295°C (563°F)
300±15°C (572±27°F)	YF9LNC25300156ZD	160°C (320°F)	1500	4	82	325°C (617°F)

# Fixed setting manual reset limiter, rod

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Manual reset	Mechanical	SPNC	Rod		YF4LNC
Material						
PA66 & PC						



## Applications

-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights

These liquid expansion rod manual reset limiter can be installed inside pockets as immersion thermostats in pipelines and containers, and as high limit safety in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).

-Sealed temperature set point

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Action:** Fail safe manual reset high temperature limit.

**Set point calibration value:** 80±8°C (176±15°F), 90±8°C (194±15°F), 110±8°C (230±15°F). Other calibration temperature on request, between 30°C and 110°C (85°F and 230°F).

Temperature adjustment: Fixed setting, sealed, no access to user.

**Sensing element:** Liquid expansion bulb and capillary inside nickel plated brass pocket. Thread ½" BSPT. Tube outside diameter 6mm. Located at the bottom of the housing, 2 screws are used to secure standard pockets. (See the compatible stainless steel and brass pockets range in the accessories section)

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm² on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** By the pocket thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside. Set point calibration is printed in °C and °F beside the manual reset button.

**Contact:** Single pole, open on rise (SPNC)

**Electrical rating:** 16A res. 250/400VAC

-Electrical life >6.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

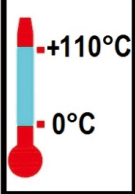

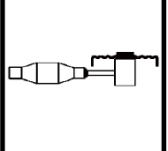


**Maximum ambient temperature:** 60°C (140°F)

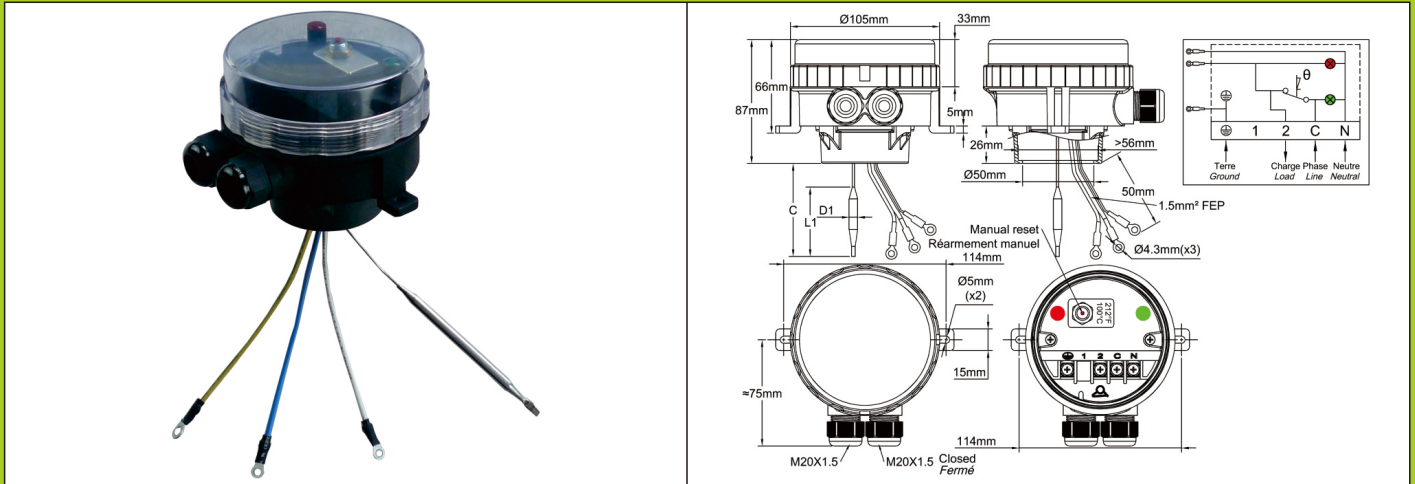
For more technical information see 8L limiter technical data sheet (catalog 1).

## Main references

Calibration temperature °C (°F)	References	Minimum resettable temperature °C (°F)	Pocket length (L, mm)	Temperature sensing length (mm)	Max temperature on rod °C (°F)
80±8°C (176±15°F)	YF4LNC25080823UD	52°C (126°F)	230	87	105°C (221°F)
80±8°C (176±15°F)	YF4LNC25080830UD	52°C (126°F)	300	87	105°C (221°F)
80±8°C (176±15°F)	YF4LNC25080845UD	52°C (126°F)	450	87	105°C (221°F)
80±8°C (176±15°F)	YF4LNC25080860UD	52°C (126°F)	600	87	105°C (221°F)
90±8°C (194±15°F)	YF4LNC25090823UD	60°C (140°F)	230	87	115°C (239°F)
90±8°C (194±15°F)	YF4LNC25090830UD	60°C (140°F)	300	87	115°C (239°F)
90±8°C (194±15°F)	YF4LNC25090845UD	60°C (140°F)	450	87	115°C (239°F)
90±8°C (194±15°F)	YF4LNC25090860UD	60°C (140°F)	600	87	115°C (239°F)
110±8°C (230±15°F)	YF4LNC25110823UD	75°C (167°F)	230	87	135°C (275°F)
110±8°C (230±15°F)	YF4LNC25110830UD	75°C (167°F)	300	87	135°C (275°F)
110±8°C (230±15°F)	YF4LNC25110845UD	75°C (167°F)	450	87	135°C (275°F)
110±8°C (230±15°F)	YF4LNC25110860UD	75°C (167°F)	600	87	135°C (275°F)

# Fixed setting, immersion heater limiter, fail safe

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Manual reset	Mechanical	SPNC	Immersion heater		YF8LNC
Material						
PA66 & PC						



## Applications

-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights

Fully wired sub assembly for use as high limit on immersion heater elements, 1" 1/2 or M45x2 with double thread or rotation ring. Applications in usual industrial applications and environments, non-hazardous areas.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. A removable adapter is screwed at the bottom of the enclosure. It fits the usual immersion heater fittings. Mechanical impact resistance : IK10. High UV resistance..

**Set point adjustment:** Factory set. Not adjustable by user

**Action:** Manual reset limiter, fail safe

**Sensing element:** Liquid expansion bulb and capillary. The bulb and the capillary go out by the bottom of the enclosure to fit in the heater pocket.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical line supply are mandatory for these pilot lights.

**Set point adjustment values:** 80±8°C (176±15°F), 90±8°C (194±15°F), 110±8°C (230±15°F). Other values can be set between 30°C and 110°C (85°F and 230°F)

**Cable input and output:** Two M20 cable glands, built-in black PA66. One of them is closed.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm² on each terminal.

**Earthing:** Internal screw terminal and wire with round hole terminal for the immersion heater.

**Mounting:** By the immersion heater thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside. Set point calibration is printed in °C and °F beside the manual reset button.

**Contact:** Single pole, open on rise (SPNC)

**Electrical rating:** 16A res. 250/400VAC

-Electrical life >6.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

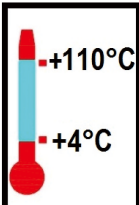

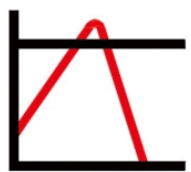
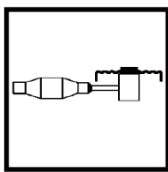
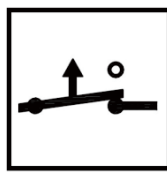
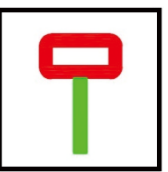
**Maximum ambient temperature:** 60°C (140°F)

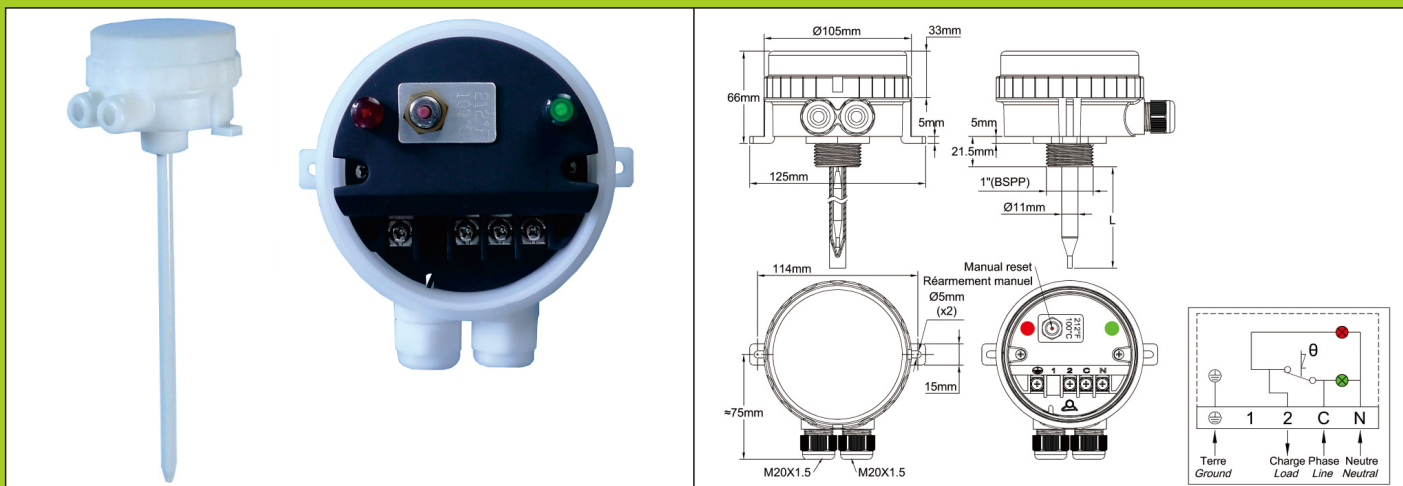
For more technical information see 8L limiter technical data sheet

## Main references

Calibration temperature °C (°F)	References	Capillary length (C, mm)	Bulb diameter (D1, mm)	Bulb length (L1, mm)	Minimum resettable temperature °C (°F)	Max temperature on bulb °C (°F)
80±8°C (176±15°F)	YF8LNC25080026ZJ	200	6	86±5	52°C (126°F)	105°C (220°F)
80±8°C (176±15°F)	YF8LNC25080036ZJ	300	6	86±5	52°C (126°F)	105°C (220°F)
80±8°C (176±15°F)	YF8LNC25080046ZJ	400	6	86±5	52°C (126°F)	105°C (220°F)
80±8°C (176±15°F)	YF8LNC25080056ZJ	500	6	86±5	52°C (126°F)	105°C (220°F)
90±8°C (194±15°F)	YF8LNC25090026ZJ	200	6	98±5	60°C (140°F)	115°C (240°F)
90±8°C (194±15°F)	YF8LNC25090036ZJ	300	6	98±5	60°C (140°F)	115°C (240°F)
90±8°C (194±15°F)	YF8LNC25090046ZJ	400	6	98±5	60°C (140°F)	115°C (240°F)
90±8°C (194±15°F)	YF8LNC25090056ZJ	500	6	98±5	60°C (140°F)	115°C (240°F)
110±8°C (230±15°F)	YF8LNC25110026ZJ	200	6	98±5	75°C (167°F)	135°C (275°F)
110±8°C (230±15°F)	YF8GNC25110036ZJ	300	6	98±5	75°C (167°F)	135°C (275°F)
110±8°C (230±15°F)	YF8GNC25110046ZJ	400	6	98±5	75°C (167°F)	135°C (275°F)
110±8°C (230±15°F)	YF8GNC25110056ZJ	500	6	98±5	75°C (167°F)	135°C (275°F)

# High limit manual reset thermostat, fail safe, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66, IK10	Manual	Mechanical	SPNC	Rod		YF5L
						



## Main applications

High limit manual reset temperature control or surface treatment or corrosive liquid baths, sea water environment, livestock premises.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight), dia. 105mm, height 66mm (excluding accessories and cable glands), made of plastic. Includes an adjustable thermostat that can be set after unscrewing the cover. To eliminate the enclosure risk of corrosion, there is no metallic part in contact with the external environment. Cover gasket and cable gland stuffing sets are made in EPDM. Rod seal is made of fluorocarbon elastomer FKM (Viton). The cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Electrical connections:** Cable input/output by two M20 cable glands. Electrical connection on screw terminals

**Temperature Adjustment:** not adjustable, factory set and sealed. Manual reset. The reset is possible only when the temperature has decreased to a normal value.

**Sensing element:** Liquid filled bulb. Fail safe: if the sensing element is broken or leaks, the thermostat will automatically switch off the power.

**Fixed set point calibration:** Must be specified on order, from 4°C (32 °F) to 110°C (230°F)

**Rod dimensions:** Outside diameter (D) before optional sleeving is 10mm. Length (L): 450mm, 600mm (300mm, 800mm and 1000mm on request)

**Rod material and sleeving:**

- SUS 316L without sleeving
- Titanium
- SUS 316L with shrunk PTFE sleeve, thickness 0.4 to 0.6mm

**Mounting:**

- By the 1" BSPT thread Mounting through wall is watertight when used with the 1" nut and seal. (See accessories)
- By a rotatable plastic bracket, enabling mounting on tank edge (See accessories)
- By the 2 legs on the side (2 holes dia 5 mm center distance 113 mm)

**Electrical contact:**

SPNC, Open on temperature rise contact (C-1) 16A(2.6) 250VAC

- Electrical life >100.000 cycles.

Power supply and power output pilot lights (Neutral is mandatory).

**Cover and housing material options:**

- Black PA66, glass filled body, and polycarbonate (PC) transparent cover, suitable for most applications in medium low to medium corrosive liquids, up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance.
- Orange PP (polypropylene) body, with transparent polycarbonate (PC) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).
- Orange PP (polypropylene) body, with opaque orange PP (polypropylene) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK8).
- White PVDF body with opaque white PVDF cover: For use on liquid baths at temperatures above 90 °C or strong oxidizing chemicals such as chrome electrolyte or nitric acid solution (HNO<sub>3</sub>). Reduced mechanical strength (IK8).

# High limit manual reset thermostat, fail safe, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

(P2)

## Rod protection options (see also table below)

- Stainless steel 316L-Ti without coating
- Stainless steel 316L, with FEP chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PFA chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposited coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposited coating, thickness 0.2 to 0.4mm

## Main references with SS 316L rod, coated with shrunk PTFE

Rod length (L, mm)	Black PA66 housing, crystal clear PC cover	Orange PP housing, crystal clear PC cover	Orange PP housing, orange opaque PP cover	White PVDF housing, white opaque PVDF cover
300	YF5GNCFRM***301P	YF5GPCFRM***301P	YF5GPPFRM***301P	YF5GVVFRM***301P
450	YF5GNCFRM***451P	YF5GPCFRM***451P	YF5GPPFRM***451P	YF5GVVFRM***451P
600	YF5GNCFRM***601P	YF5GPCFRM***601P	YF5GPPFRM***601P	YF5GVVFRM***601P
800	YF5GNCFRM***801P	YF5GPCFRM***801P	YF5GPPFRM***801P	YF5GVVFRM***801P
1000	YF5GNCFRM***A01P	YF5GPCFRM***A01P	YF5GPPFRM***A01P	YF5GVVFRM***A01P

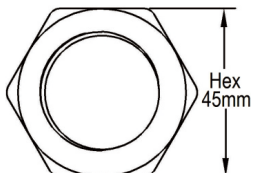
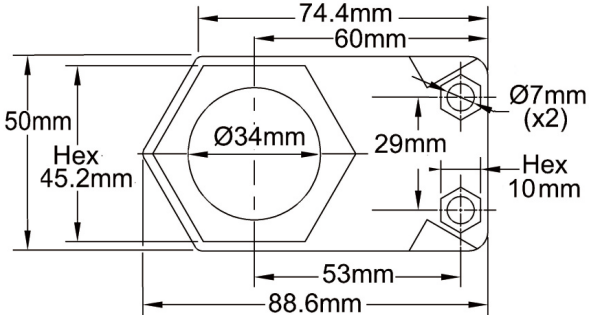
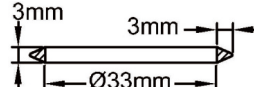
## Reference modifications vs Rod protection coating

316L sans gainage	316L-Ti sans gainage	Titane	316L+ FEP 0.2 ~ 0.4mm*	316L+ PFA 0.2 ~ 0.4mm*	316L+ PTFE 0.05 ~ 0.1mm*	316L+ ETFE 0.2 ~ 0.4mm*
xxxxxxxxxxxxxxU	xxxxxxxxxxxxxxV	xxxxxxxxxxxxxxW	xxxxxxxxxxxxxxQ	xxxxxxxxxxxxxxR	xxxxxxxxxxxxxxS	xxxxxxxxxxxxxxT

\* MOQ 100 pieces

Versions with °F printed knobs: replace S by T in the reference (7<sup>th</sup> character)

## Accessories

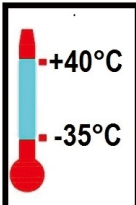

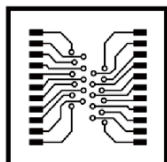
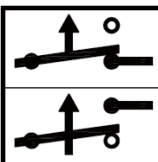

1" BSPP Nut, 5mm thickness	Bracket for tank side mounting, thickness 10mm (Assembly made with 1" nut)	1" gasket for through wall waterproof mounting with 1" nut
		
Reference in PA66: 66YFHN1N	Reference in PA66: 66YFMB1N	Reference in FKM (Viton): 66YGA1F
Reference in PP: 66YFHN1P	Reference in PP: 66YFMB1P	
Reference in PVDF: 66YFHN1V	Reference in PVDF: 66YFMB1V	

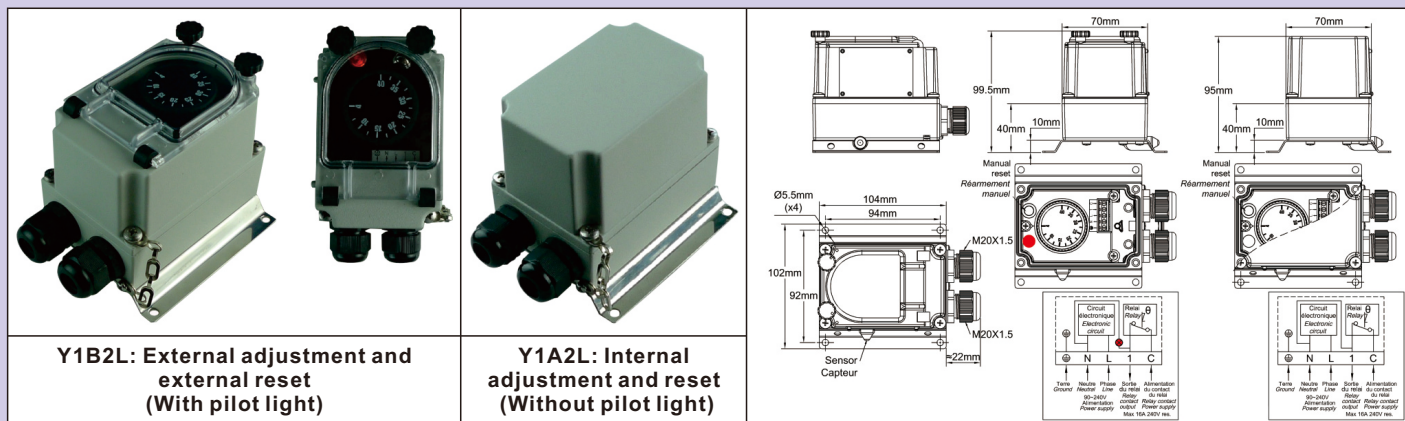


# Manual reset electronic limiters



# Manual reset electronic room adjustable limiter

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models	
IP65,IK10	Limiter	Electronic	SPNO or SPNC	Ambient		Y1A2L & Y1B2L	
Material							
Aluminium							



## Applications

- Wall mounting for indoor or outdoor **high temperature alarm** of cold rooms.
- **High temperature alarm** of industrial or commercial premises.
- Outdoor temperature control of antifreeze heaters.
- **High temperature alarm** of green houses and livestock stables.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps the temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Operation:** Microprocessor manual reset electronic limiter, with adjustable set point.

**Adjustment ranges:** -35-35°C (-30+95°F), 0-10°C (32-50°F), 4-40°C (40-105°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Reset:** by push button switch beside the knob.

**Sensing element:** NTC probe, mounted on the side of plastic housing.

**Cable input and output:** Two M20 cable glands, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance.

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. The version with contact closing on temperature rise is used to switch on an alarm. The version with contact opening on temperature rise is used to switch-off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)



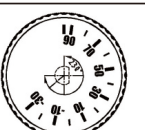
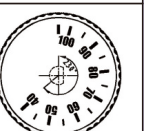
**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet (catalog 1)

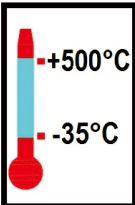

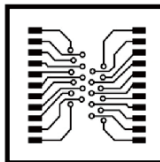
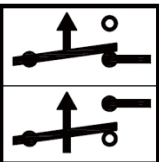
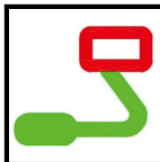
## Main references

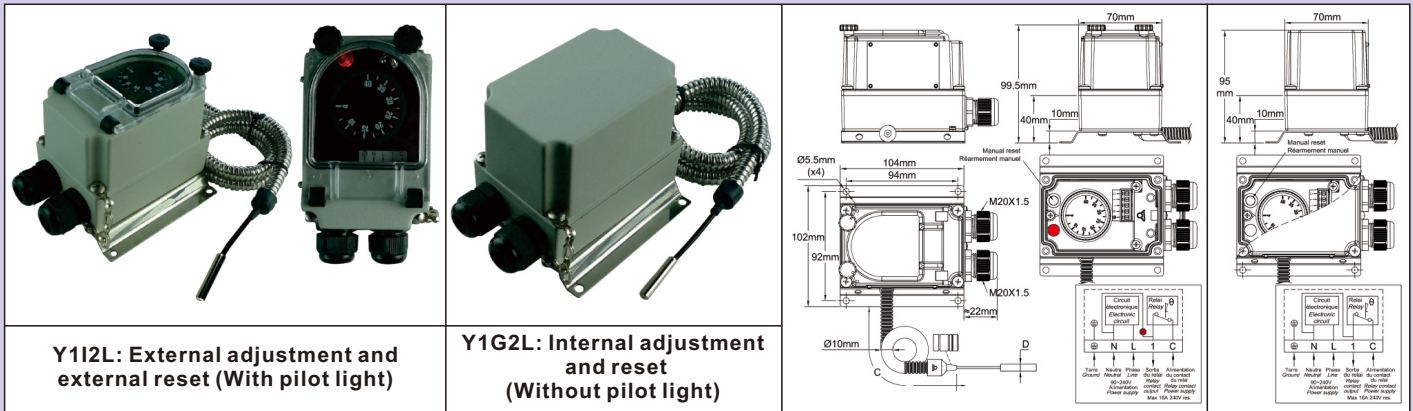
Temperature adjustment ranges°C (°F)	Open on temperature rise contact		Close on temperature rise contact	
	References with external adjustment	References with internal adjustment	References with external adjustment	References with internal adjustment
-35-35°C (-30+95°F)	Y1B2LN6F235035AJ	Y1A2LN6F235035AJ	Y1B2LN6G235035AJ	Y1A2LN6G235035AJ
4-40°C (40-105°F)	Y1B2LN6F204040AJ	Y1A2LN6F204040AJ	Y1B2LN6G204040AJ	Y1A2LN6G204040AJ

## Knob printings

°C Printing		°F Printing	
-35+35°C	4-40°C	-30+95°F	40+105°F
			

# Manual reset electronic adjustable limiter, remote sensor

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65, IK10	Limiter	Electronic	SPNO or SPNC	Remote		Y1I2L & Y1G2L
Material						
Aluminum						



## Applications

Temperature **high limit**, in usual industrial application and environment, non-hazardous areas.

Internal adjustment is convenient for products that must not be frequently adjusted.

Use of electronic sensor allows **measurement at long distances**, which is not possible with bulb and capillary types.

**Housing:** Aluminum, IP65, IK10. Mounted on a SUS304 stainless steel wall mounting plate which keeps temperature sensing element away from the wall. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Operation:** Microprocessor manual reset electronic limiter, with adjustable set point.

**Adjustment ranges:** -35-35°C (-30+95°F); 0-10°C (32-50°F); 4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F); 100-400°C (210-750°F); 100-500°C (210-930°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available in option.

**Reset:** by push button switch beside the knob

**Sensing element:** NTC or Pt100 sensor. The sensor cable is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section). Standard cable length 2m. Other lengths on request.

**Cable input and output:** Two M20 cable gland, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Mounting:** Wall mounting, by 4 holes for screws dia. 4 to 5 mm, 94 x 92 mm distance

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. Contact close on temperature rise model is used to switch on alarm. Contact open on temperature rise version is used to switch off heating.

**Electrical life:** >100.000 cycles.

**Minimum Storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 2PE2N6 thermostat technical data sheet

# Manual reset electronic adjustable limiter, remote sensor










(P2)










## Main references

Temperature adjustment ranges °C (°F)	Temperature sensor	Open on temperature rise contact		Close on temperature rise contact	
		References with external adjustment	References with internal adjustment	References with external adjustment	References with internal adjustment
-35+35°C (-30+95°F)	NTC (10KOhms @25°C)	Y1I2LN6F2350352J	Y1G2LN6F2350352J	Y1I2LN6G2350352J	Y1G2LN6G2350352J
0-10°C (32-50°F)	NTC (10KOhms @25°C)	Y1I2LN6F2000102J	Y1G2LN6F2000102J	Y1I2LN6G2000102J	Y1G2LN6G2000102J
4-40°C (40-105°F)	NTC (10KOhms @25°C)	Y1I2LN6F2040402J	Y1G2LN6F2040402J	Y1I2LN6G2040402J	Y1G2LN6G2040402J
30-90°C (85-195°F)	NTC (10KOhms @25°C)	Y1I2LN6F2300902J	Y1G2LN6F2300902J	Y1I2LN6G2300902J	Y1G2LN6G2300902J
30-110°C (85-230°F)	NTC (10KOhms @25°C)	Y1I2LN6F2301102J	Y1G2LN6F2301102J	Y1I2LN6G2301102J	Y1G2LN6G2301102J
50-200°C (120-390°F)	Pt100	Y1I2LP6F2502002J	Y1G2LP6F2502002J	Y1I2LP6F2502002J	Y1G2LP6F2502002J
50-300°C (120-570°F)	Pt100	Y1I2LP6F2503002J	Y1G2LP6F2503002J	Y1I2LP6F2503002J	Y1G2LP6F2503002J
100-400°C (210-750°F)	Pt100	Y1I2LP6F2A04002J	Y1G2LP6F2A04002J	Y1I2LP6F2A04002J	Y1G2LP6F2A04002J
100-500°C (210-930°F)	Pt100	Y1I2LP6F2A05002J	Y1G2LP6F2A05002J	Y1I2LP6F2A05002J	Y1G2LP6F2A05002J

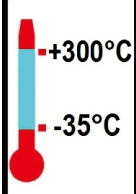

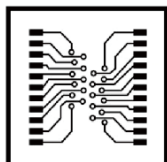
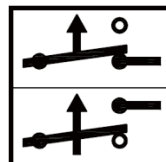
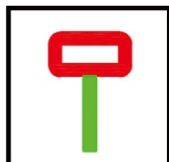
°F printing: replace last character (J) by K  
Character 15 gives the sensor cable length (2m)

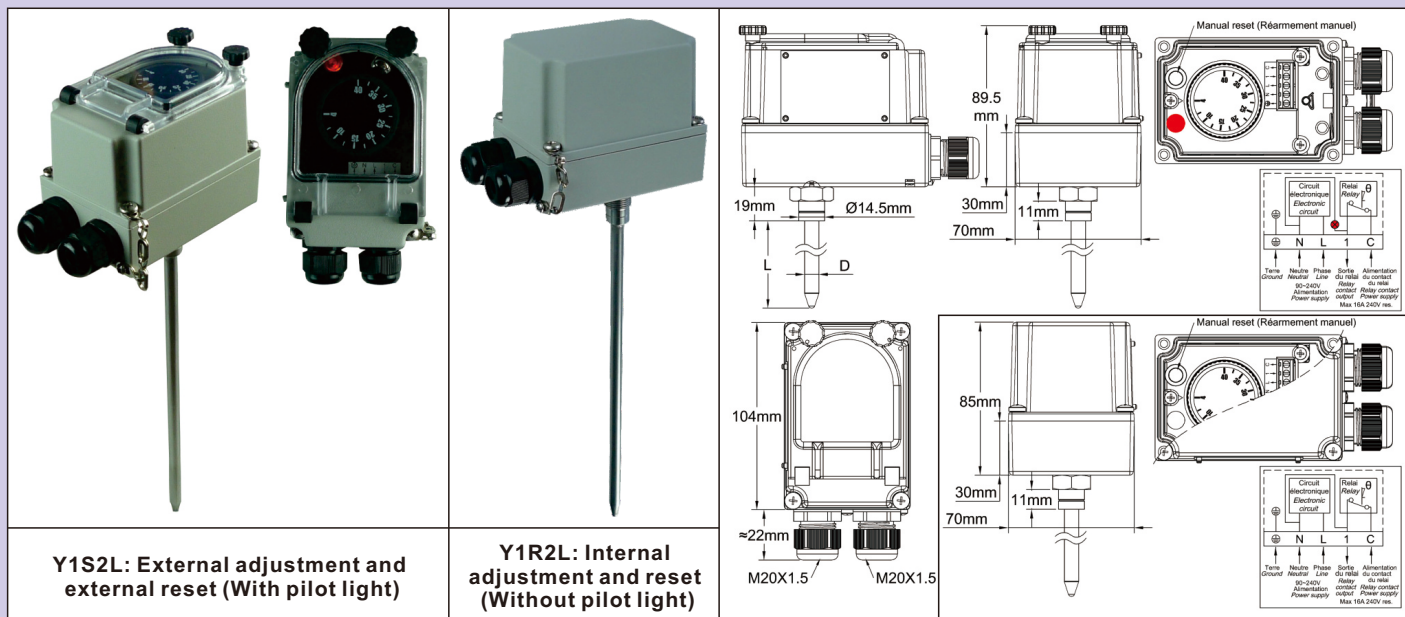
## Knob printings

°C Printing				
-35+35°C	0-10°C	4-40°C	30-90°C	30-110°C
				
50-200°C	50-300°C	100-400°C	100-500°C	
				

°F Printing				
-30+95°F	32-50°F	40-105°F	85-195°F	85-230°F
				
120-390°F	120-570°F	210-750°F	210-930°F	
				

# Manual reset electronic rod limiter

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65,IK10	Limiter	Electronic	SPNO or SPNC	Rod		Y1S2L & Y1R2L
Material						
Aluminum						



## Applications

These rod limiters with **electronic sensor with adjustable set point** can be installed inside pockets as immersion high temperature limits on pipelines and containers, and for monitoring temperature in air ducts, in usual industrial applications and environments. (Not suitable for hazardous areas).

Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid..

**Operation:** Microprocessor manual reset electronic limiter, with adjustable set point.

**Adjustment ranges:** -35-35°C (-30+95°F); 0-10°C (32-50°F); 4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F); 50-200°C (120-390°F); 50-300°C (120-570°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Reset:** by push button switch beside the knob

**Sensing element:** NTC or Pt100 sensor located at the end of a dia.8mm stainless steel rod. An increased diameter under the thermostat head allows mounting pockets, coolers or brackets (See pockets in the accessories section)

**Cable input and output:** Two M20 cable glands, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allow to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise.

The version with contact closing on temperature rise is used to switch on an alarm. The version with contact opening on temperature rise is used to switch-off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet (catalog 1).

# Manual reset electronic rod limiter

(P2)

Main references (Rod dia. 8mm, open on temperature rise contact)

Temperature adjustment ranges°C (°F)	References with external adjustment	References with internal adjustment	Temperature sensor	Rod length* (L, mm)	Differential °C (°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035BJ	Y1R2PN6F235035BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0.9~1.4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035CJ	Y1R2PN6F235035CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0.9~1.4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035DJ	Y1R2PN6F235035DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0.9~1.4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035EJ	Y1R2PN6F235035EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0.9~1.4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035FJ	Y1R2PN6F235035FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0.9~1.4°F)
-35-35°C (-30+95°F)	Y1S2PN6F235035GJ	Y1R2PN6F235035GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0.9~1.4°F)
0-10°C (32-50°F)	Y1G2PN6F2000102J	Y1R2PN6F200010CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0.9~1.4°F)
0-10°C (32-50°F)	Y1S2PN6F200010CJ	Y1R2PN6F200010EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0.9~1.4°F)
0-10°C (32-50°F)	Y1S2PN6F200010EJ	Y1R2PN6F200010FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0.9~1.4°F)
0-10°C (32-50°F)	Y1S2PN6F200010FJ	Y1R2PN6F200010GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1S2PN6F204040BJ	Y1R2PN6F204040BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1S2PN6F204040CJ	Y1R2PN6F204040CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1S2PN6F204040DJ	Y1R2PN6F204040DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1S2PN6F204040EJ	Y1R2PN6F204040EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1S2PN6F204040FJ	Y1R2PN6F204040FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	Y1S2PN6F204040GJ	Y1R2PN6F204040GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090BJ	Y1R2PN6F230090BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090CJ	Y1R2PN6F230090CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090DJ	Y1R2PN6F230090DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090EJ	Y1R2PN6F230090EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090FJ	Y1R2PN6F230090FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090GJ	Y1R2PN6F230090GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090HJ	Y1R2PN6F230090HJ	NTC (10KOhms @25°C)	600	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	Y1S2PN6F230090JJ	Y1R2PN6F230090JJ	NTC (10KOhms @25°C)	800	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110BJ	Y1R2PN6F230110BJ	NTC (10KOhms @25°C)	90	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110CJ	Y1R2PN6F230110CJ	NTC (10KOhms @25°C)	110	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110DJ	Y1R2PN6F230110DJ	NTC (10KOhms @25°C)	170	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110EJ	Y1R2PN6F230110EJ	NTC (10KOhms @25°C)	230	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110FJ	Y1R2PN6F230110FJ	NTC (10KOhms @25°C)	300	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110GJ	Y1R2PN6F230110GJ	NTC (10KOhms @25°C)	450	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110HJ	Y1R2PN6F230110HJ	NTC (10KOhms @25°C)	600	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110JJ	Y1R2PN6F230110JJ	NTC (10KOhms @25°C)	800	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	Y1S2PN6F230110KJ	Y1R2PN6F230110KJ	NTC (10KOhms @25°C)	1000	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Y1S2PP6F250200EJ	Y1R2PP6F250200EJ	Pt100	230	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Y1S2PP6F250200FJ	Y1R2PP6F250200FJ	Pt100	300	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Y1S2PP6F250200GJ	Y1R2PP6F250200GJ	Pt100	450	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Y1S2PP6F250200HJ	Y1R2PP6F250200HJ	Pt100	600	0,5~0,8°C (0.9~1.4°F)
50-200°C (120-390°F)	Y1S2PP6F250200JJ	Y1R2PP6F250200JJ	Pt100	800	0,5~0,8°C (0.9~1.4°F)
50-300°C (120-570°F)	Y1S2PP6F250300FJ	Y1R2PP6F250300FJ	Pt100	300	0,5~0,8°C (0.9~1.4°F)
50-300°C (120-570°F)	Y1S2PP6F250300GJ	Y1R2PP6F250300GJ	Pt100	450	0,5~0,8°C (0.9~1.4°F)
50-300°C (120-570°F)	Y1S2PP6F250300HJ	Y1R2PP6F250300HJ	Pt100	600	0,5~0,8°C (0.9~1.4°F)
100-400°C (210-750°F)	Y1S2PP6F2A0400FJ	Y1R2PP6F2A0400FJ	Pt100	300	0,5~0,8°C (0.9~1.4°F)
100-400°C (210-750°F)	Y1S2PP6F2A0400GJ	Y1R2PP6F2A0400GJ	Pt100	450	0,5~0,8°C (0.9~1.4°F)
100-400°C (210-750°F)	Y1S2PP6F2A0400HJ	Y1R2PP6F2A0400HJ	Pt100	600	0,5~0,8°C (0.9~1.4°F)
100-500°C (210-930°F)	Y1S2PP6F2A0500FJ	Y1R2PP6F2A0500FJ	Pt100	300	0,5~0,8°C (0.9~1.4°F)
100-500°C (210-930°F)	Y1S2PP6F2A0500GJ	Y1R2PP6F2A0500GJ	Pt100	450	0,5~0,8°C (0.9~1.4°F)
100-500°C (210-930°F)	Y1S2PP6F2A0500HJ	Y1R2PP6F2A0500HJ	Pt100	600	0,5~0,8°C (0.9~1.4°F)

\*F printing: replace last character (J) by K.

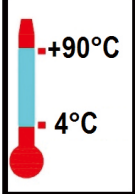

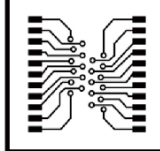
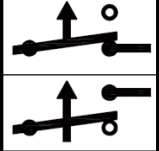

\*Above 200°C we recommend to use a rod cooler reference 66RF07015 or 66RF0701F12 between the rod and the enclosure (see accessories). Caution: This cooler reduces the usable rod length by 70mm.

Close on temperature rise contact : replace the 8<sup>th</sup> character (F) by G.

## Knob printings

°C Printing				°F Printing			
-35+35°C	4-40°C	30-90°C	30-110°C	-30+95°F	40-105°F	85-195°F	85-230°F
50-200°C	50-300°C	100-400°C	100-500°C	120-390°F	120-570°F	210-750°F	210-930°F

# Manual reset electronic adjustable limiter, pipe mounting

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP65,IK10	Limiter	Electronic	SPNO or SPNC	Pipe		<b>Y112L &amp; Y102L</b>
Material						
Aluminum						



## Applications

Pipes surface **temperature alarm or high limit** in usual industrial applications and environments. (No suitable for hazardous areas)  
Internal adjustment is convenient for products that must not be frequently adjusted.

**Housing:** Aluminum, IP65, IK10. Grey RAL7032 epoxy painting. Stainless steel captive cover screws. Captive aluminum lid.

**Operation:** Microprocessor manual reset electronic limiter, with adjustable set point.

Adjustment ranges: 4-40°C (40-105°F); 30-90°C (85-195°F).

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. Types with external adjustment have a transparent window. This device allows seeing the pilot light and the knob position. °F values are available as an option.

**Reset:** by push button switch beside the knob.

**Sensing element:** NTC sensor inside aluminum bracket in contact with the pipe surface. The bracket design provides optimized thermal contact with 34 mm (1", DN25), 60 mm (2", DN50) and 90 mm (3", DN80) outside diameter tubes. For intermediate sizes, we recommend the use of thermal grease.

**Cable input and output:** Two M20 cable glands, Black PA66. Internal electrical connection on screw terminals. 2 phase power supply (Line+ Neutral, 220~250V, 50Hz~60Hz) are mandatory.

**Earthing:** Internal and external screw terminal.

**Pilot light:** Allows to visualize thermostat contact output position. Standard for all models with transparent window. Non Standard and on special request only for models with plain aluminum cover.

**Mounting:** The thermostat housing can be fixed on the pipe by worm drive hose clamps (DIN3017), nylon cable ties (Tie wraps upon EN50146, for applications at permanent temperature lower than 85°C), or specific stainless steel punched band (see accessories at the end of this catalog).

**Identification:** Metallic identification label, riveted.

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. The version with contact closing on temperature rise is used to switch on an alarm. The version with contact opening on temperature rise is used to switch-off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)





For more technical information ask 2PE2N6 thermostat technical data sheet.

## Main references

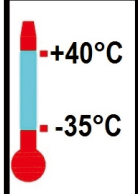

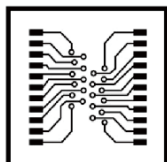
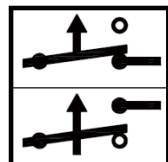

Temperature adjustment ranges °C (°F)	Open on temperature rise contact		Close on temperature rise contact		Max. temperature on tube °C (°F)
	Reference with external adjustment	Reference with internal adjustment	Reference with external adjustment	Reference with internal adjustment	
4-40°C (40-105°F)	Y112PN6F204040AJ	Y102PN6F204040AJ	Y112PN6G204040AJ	Y102PN6G204040AJ	100°C (212°F)
30-90°C (85-195°F)	Y112PN6F230090AJ	Y102PN6F230090AJ	Y112PN6G230090AJ	Y102PN6G230090AJ	100°C (212°F)

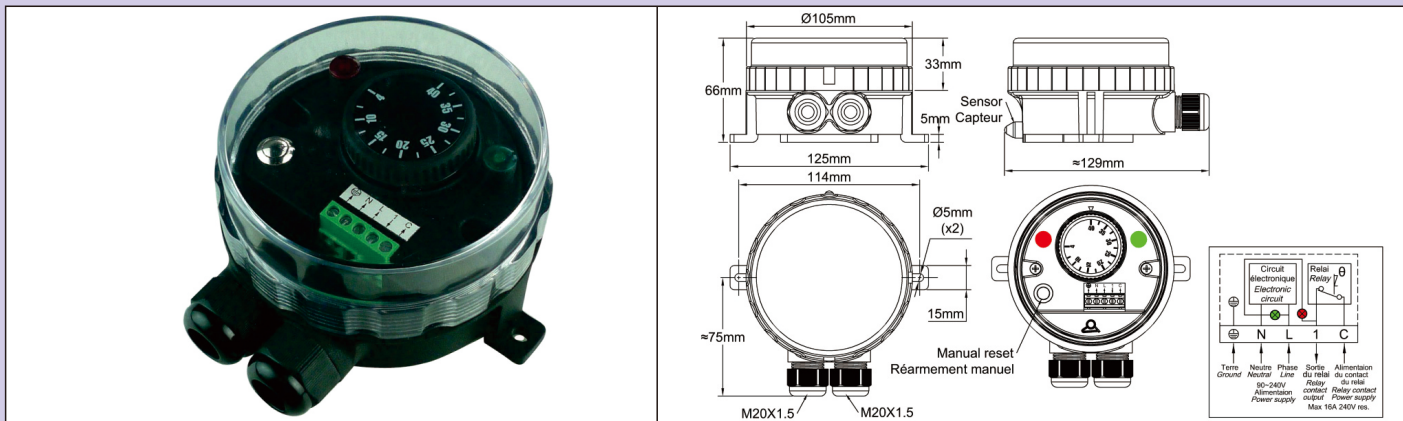
°F printing: replace last character (J) by K.

## Knobs printing

°C Printing		°F Printing	
4-40°C	30-90°C	40-105°F	85-195°F
			

# Adjustable manual reset electronic room limiters

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Limiter	Electronic	SPNO or SPNC	Ambient		YF63NC & YF65NC
Material						
PA66 & PC						



## Applications

- **Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights.**

- Wall mounting for indoor or outdoor **high temperature alarm** of cold rooms.
- **High temperature alarm** of industrial or commercial premises.
- Outdoor temperature alarm of antifreeze heaters.
- **High temperature alarm** of green houses and livestock stables.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Operation:** Microprocessor electronic thermostat,

**Sensing element:** NTC probe, mounted on the top of the plastic housing.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral electrical supply lines are mandatory for these pilot lights.

**Set point adjustment ranges:** -35-35°C (-30+95°F), 0-10°C (32-50°F), 4-40°C (40-105°F).

**Reset:** By push button switch beside the knob.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise. Model with contact closing on temperature rise is used to switch on an alarm. Version with contact opening on temperature rise is used to switch off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)



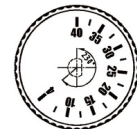
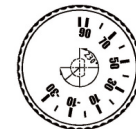

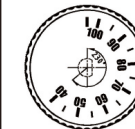
For more technical information ask 2PE2N6 thermostat technical data sheet.

## Main references

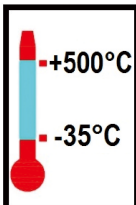

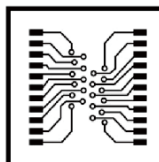
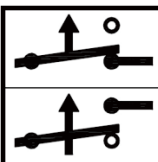
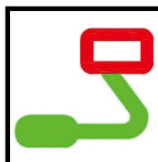
Temperature adjustment ranges°C (°F)	References with SPNC, open on temperature rise contact	References with SPNO, close on temperature rise contact
-35+35°C (-30+95°F)	YF63NC350350000J	YF65NC350350000J
0+10°C (32-50°F)	YF63NC000100000J	YF65NC000100000J
+4+40°C (40-105°F)	YF63NC040400000J	YF65NC040400000J

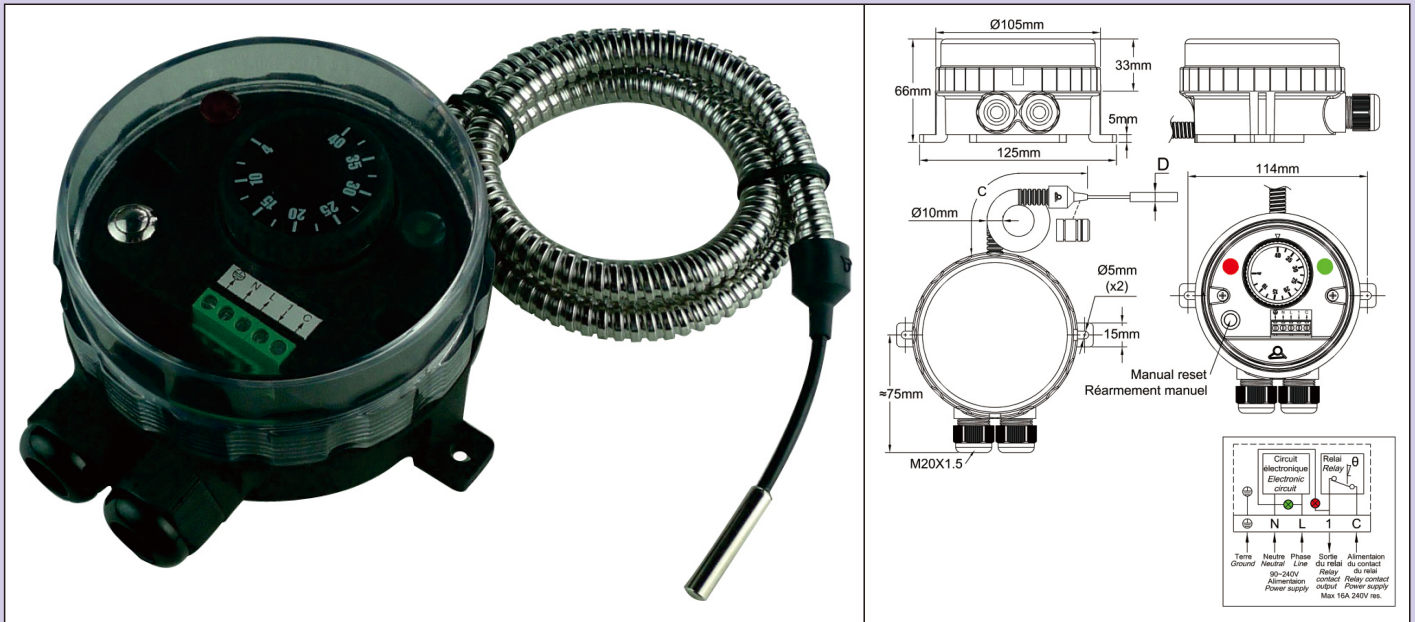
Graduations en °F: remplacer le dernier caractère (J) par K

**°F printing: replace last character (J) by K**

°C Printing			°F Printing		
-35+35°C	0-10°C	4-40°C	-30+95°F	32-50°F	40+105°F
					

# Remote sensor adjustable manual reset electronic limiters

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Limiter	Electronic	SPNO or SPNC	Remote		YF93NC & YF95NC
Material						
PA66 & PC						



## Applications

- **Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights.**

- Use of electronic sensor allows **measurement at long distances**, which is not possible with bulb and capillary types.  
- Manual reset allows the use as **high temperature alarm**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option

**Operation:** Microprocessor electronic thermostat.

**Sensing element:** NTC or Pt100 sensor, diameter D = 5mm. The sensor cable is protected by a stainless steel corrugated pipe terminated by a silicone tip. A plastic cap plug provided as standard accessory allows locking the flexible metal conduit inside a pocket (See pockets in the accessories section). Standard cable length 2m. Other lengths on request.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral supply lines are mandatory for these pilot lights.

**Set point adjustment ranges:** -35-35°C (-30+95°F) ; 0-10°C (32-50°F) ; 4-40°C (40-105°F) ; 30-90°C (85-195°F) ; 30-110°C (85-230°F) ; 50-200°C (120-390°F) ; 50-300°C (120-570°F) ; 100-400°C (210-750°F) ; 100-500°C (210-930°F).

**Manual reset button:** located beside the knob

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** Wall mounting, by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance

**Identification:** Identification label on backside

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise.

Model with contact closing on temperature rise is used to switch on an alarm. Version with contact opening on temperature rise is used to switch off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 2PE2N6 thermostat technical data sheet

# Remote sensor adjustable manual reset electronic limiters




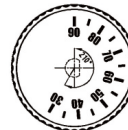





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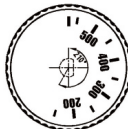


## Main references

Temperature adjustment ranges °C (°F)	Temperature sensor	References with SPNC, open on temperature rise contact	References with SPNO, close on temperature rise contact
-35+35°C (-30+95°F)	NTC (10KOhms @25°C)	YF93NC350352051J	YF95NC350352051J
0-10°C (32-50°F)	NTC (10KOhms @25°C)	YF93NC000102051J	YF95NC000102051J
4-40°C (40-105°F)	NTC (10KOhms @25°C)	YF93NC040402051J	YF95NC040402051J
30-90°C (85-195°F)	NTC (10KOhms @25°C)	YF93NC000902051J	YF95NC000902051J
30-110°C (85-230°F)	NTC (10KOhms @25°C)	YF93NC301102051J	YF95NC301102051J
50-200°C (120-390°F)	Pt100	YF93NC502002051J	YF95NC502002051J
50-300°C (120-570°F)	Pt100	YF93NC503002051J	YF95NC503002051J
100-400°C (210-750°F)	Pt100	YF93NCA04002051J	YF95NCA04002051J
100-500°C (210-930°F)	Pt100	YF93NCA05002051J	YF95NCA05002051J

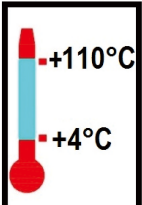

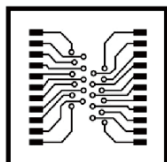
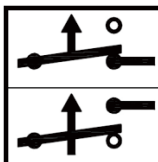
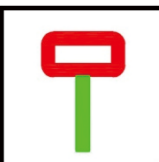
°F printing: replace last character (J) by K  
Character 12 gives the sensor cable length (2m)

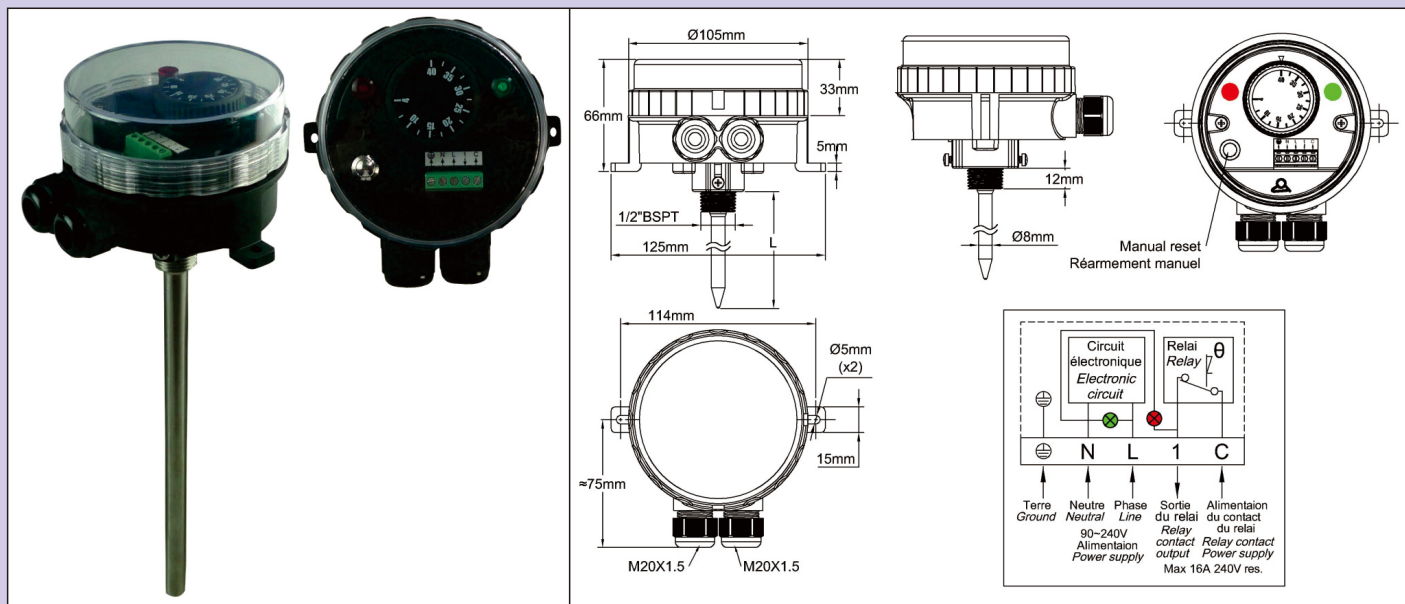
## Knob printings

°C Printing				
-35+35°C	0-10°C	4-40°C	30-90°C	30-110°C
				
50-200°C	50-300°C	100-400°C	100-500°C	
				

°F Printing				
-30+95°F	32-50°F	40-105°F	85-195°F	85-230°F
				
120-390°F	120-570°F	210-750°F	210-930°F	
				

# Probe sensor adjustable manual reset electronic limiters

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Limiter	Electronic	SPNO or SPNC	Probe		YF43NC & YF45NC
Material						
PA66 & PC						



## Applications

- **Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights.**

These **electronic** rod thermostats are installed inside pockets as immersion thermostats in pipelines and containers, and for monitoring temperature in air ducts.

- Manual reset allows the use as **high temperature alarm**

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option

**Operation:** Microprocessor electronic thermostat.

**Set point adjustment ranges:** -4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F).

**Manual reset button:** located beside the knob

**Sensing element:** Dia. 5mm NTC sensor (10KOhms @25°C), inside nickel plated brass pocket. Thread 1/2" BSPT. Tube outside diameter 8mm. Maximum temperature on the probe: 120°C (250°F). Located at the bottom of the housing, 2 screws are used to secure standard pockets. (See the compatible brass pockets range in the accessories section).

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral supply lines are mandatory for these pilot lights.

**Cable input and output:** Two M20 cable glands, built-in black PA66.

**Electrical connections:** Inside, on screw terminal connection block. It is possible to connect 2 wires 1.5mm<sup>2</sup> on each terminal.

**Earthing:** Internal screw terminal.

**Mounting:** By the pocket thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside

**Contact:** SPST. 16A (2.6), 250VAC. Open or close on temperature rise.

Model with contact closing on temperature rise is used to switch on an alarm. Version with contact opening on temperature rise is used to switch off heating.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information see 2PE2N6 thermostat technical data sheet

# Probe sensor adjustable manual reset electronic limiters


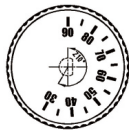




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## Main references

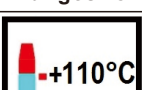

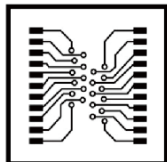
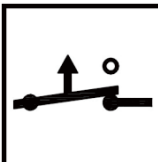
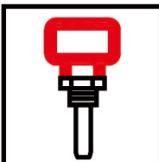
Temperature adjustment ranges°C (°F)	References with SPNC contact, open on temperature rise	References with SPNO contact, close on temperature rise	Pocket length (L, mm)	Temperature sensing length(mm)
4-40°C (40-105°F)	YF43NC04040118UJ	YF44NC04040118UJ	110	50
4-40°C (40-105°F)	YF43NC04040178UJ	YF44NC04040178UJ	170	50
4-40°C (40-105°F)	YF43NC04040238UJ	YF44NC04040238UJ	230	50
4-40°C (40-105°F)	YF43NC04040308UJ	YF44NC04040308UJ	300	50
4-40°C (40-105°F)	YF43NC04040458UJ	YF44NC04040458UJ	450	50
4-40°C (40-105°F)	YF43NC04040608UJ	YF44NC04040608UJ	600	50
30-90°C (85-195°F)	YF43NC30090118UJ	YF44NC30090118UJ	110	50
30-90°C (85-195°F)	YF43NC30090178UJ	YF44NC30090178UJ	170	50
30-90°C (85-195°F)	YF43NC30090238UJ	YF44NC30090238UJ	230	50
30-90°C (85-195°F)	YF43NC30090308UJ	YF44NC30090308UJ	300	50
30-90°C (85-195°F)	YF43NC30090458UJ	YF44NC30090458UJ	450	50
30-90°C (85-195°F)	YF43NC30090608UJ	YF44NC30090608UJ	600	50
30-110°C (85-230°F)	YF43NC30110118UJ	YF44NC30110118UJ	110	50
30-110°C (85-230°F)	YF43NC30110178UJ	YF44NC30110178UJ	170	50
30-110°C (85-230°F)	YF43NC30110238UJ	YF44NC30110238UJ	230	50
30-110°C (85-230°F)	YF43NC30110308UJ	YF44NC30110308UJ	300	50
30-110°C (85-230°F)	YF43NC30110458UJ	YF44NC30110458UJ	450	50
30-110°C (85-230°F)	YF43NC30110608UJ	YF44NC30110608UJ	600	50

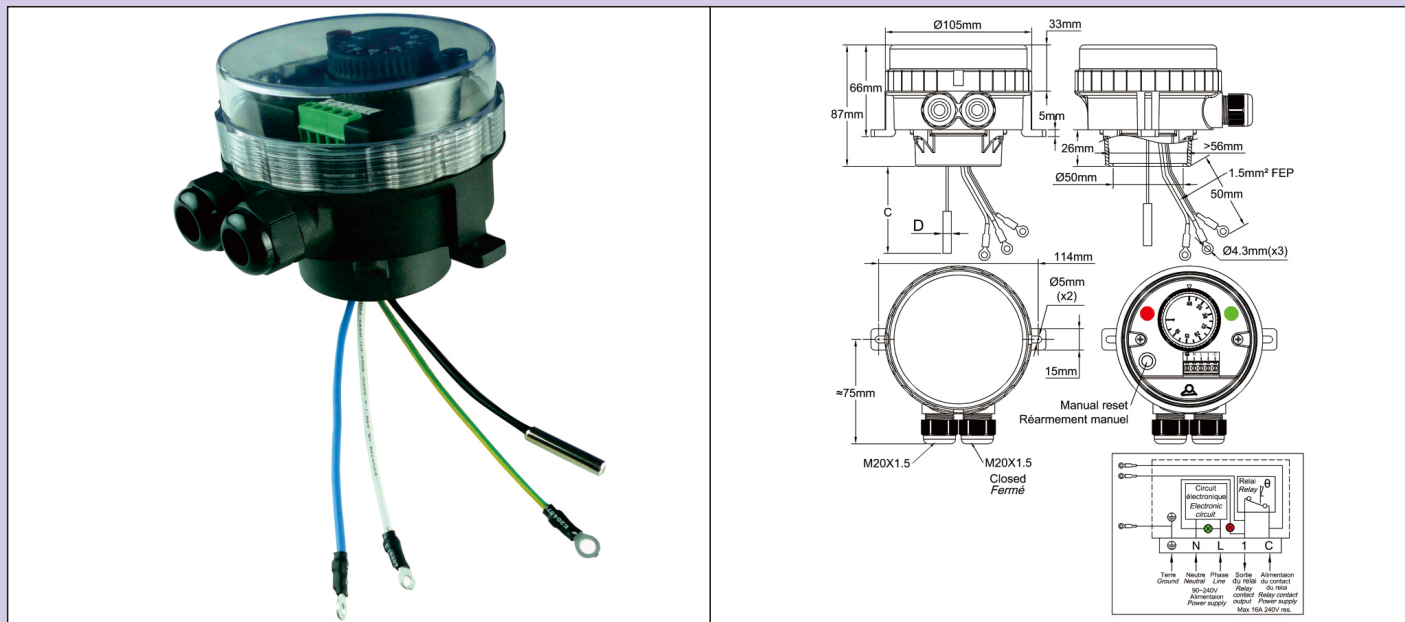
°F printing: replace last character (J) by K

## Knob printings

°C Printing			°F Printing		
4-40°C	30-90°C	30-110°C	40-105°F	85-195°F	85-230°F
					

# Adjustable electronic manual reset limiters for immersion heaters

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models	
IP66,IK10	Manual reset	Electronic	SPNC	Immersion heater		YF83NC	
Material							
PA66 & PC							



## Applications

-Equipment requesting a very strong resistance to water ingress. The transparent cover allows to visualize the set point and the 2 pilot lights

Fully wired electronic temperature control sub assembly for direct mounting on immersion heater elements, 1"1/2 or M45x2 with double thread or rotation ring.

Applications in high temperature safety in usual industrial applications and environments, non-hazardous areas.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight). Body in black PA66, fiber glass reinforced. The transparent polycarbonate cover can be unscrewed by hand, but it is also possible to use a hook spanner. A removable adapter is screwed at the bottom of the enclosure. It fits the usual immersion heater fittings. Mechanical impact resistance : IK10. High UV resistance.

**Set point adjustment:** By °C printed knob. All types have an adjustable rotation limit system located inside the knob that allows reducing the set point adjustment span. °F printed knobs available as an option.

**Operation:** Microprocessor electronic thermostat, manual reset high temperature limiter

**Set point adjustment ranges:** 4-40°C (40-105°F); 30-90°C (85-195°F); 30-110°C (85-230°F).

**Differential:** Manual reset differential is preset at the minimum value, but can be increased with a potentiometer located under the set point adjustment knob.

**Sensing element:** The 5x 30mm NTC sensor (10KOhms @25°C) goes out by the bottom of the enclosure to fit in the immersion heater pocket.

**Pilot lights:** One pilot light visualizes the thermostat contact output position. The other visualizes the power supply input. Phase and neutral supply lines are mandatory for these pilot lights.

**Cable input and output:** Two M20 cable glands, built-in black PA66. One of them is closed.

**Electrical connections:** Inside, on screw terminal connection block.

**Earthing:** Internal screw terminal and 1.5mm² FEP insulated wire with round hole terminals for the immersion heater.

**Mounting:** By the immersion heater thread or by 2 legs with holes for screws dia. 4 to 5 mm, 114 mm distance.

**Identification:** Identification label on backside.

**Contact:** SPNC. 16A (2.6), 250VAC. Contact open on temperature rise.

**Electrical life:** >100.000 cycles.

**Minimum storage temperature:** -35°C (-30°F)

**Maximum ambient temperature:** 60°C (140°F)

For more technical information ask 2PE2N6 thermostat technical data sheet.

# Adjustable electronic manual reset limiters for immersion heaters





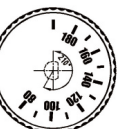

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## Main references

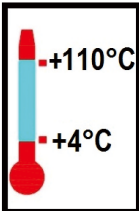


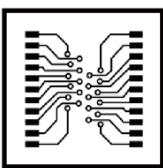

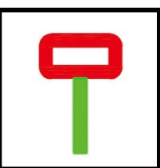
Temperature adjustment ranges°C (°F)	References with SPNC contact, open on temperature rise	NTC sensor cable length (C, mm)	Minimum differential °C (°F)
4-40°C (40-105°F)	YF83NC04040118UJ	110	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF83NC04040178UJ	170	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF83NC04040238UJ	230	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF83NC04040308UJ	300	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF83NC04040458UJ	450	0,5~0,8°C (0.9~1.4°F)
4-40°C (40-105°F)	YF83NC04040608UJ	600	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF83NC30090118UJ	110	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF83NC30090178UJ	170	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF83NC30090238UJ	230	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF83NC30090308UJ	300	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF83NC30090458UJ	450	0,5~0,8°C (0.9~1.4°F)
30-90°C (85-195°F)	YF83NC30090608UJ	600	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF83NC30110118UJ	110	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF83NC30110178UJ	170	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF83NC30110238UJ	230	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF83NC30110308UJ	300	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF83NC30110458UJ	450	0,5~0,8°C (0.9~1.4°F)
30-110°C (85-230°F)	YF83NC30110608UJ	600	0,5~0,8°C (0.9~1.4°F)

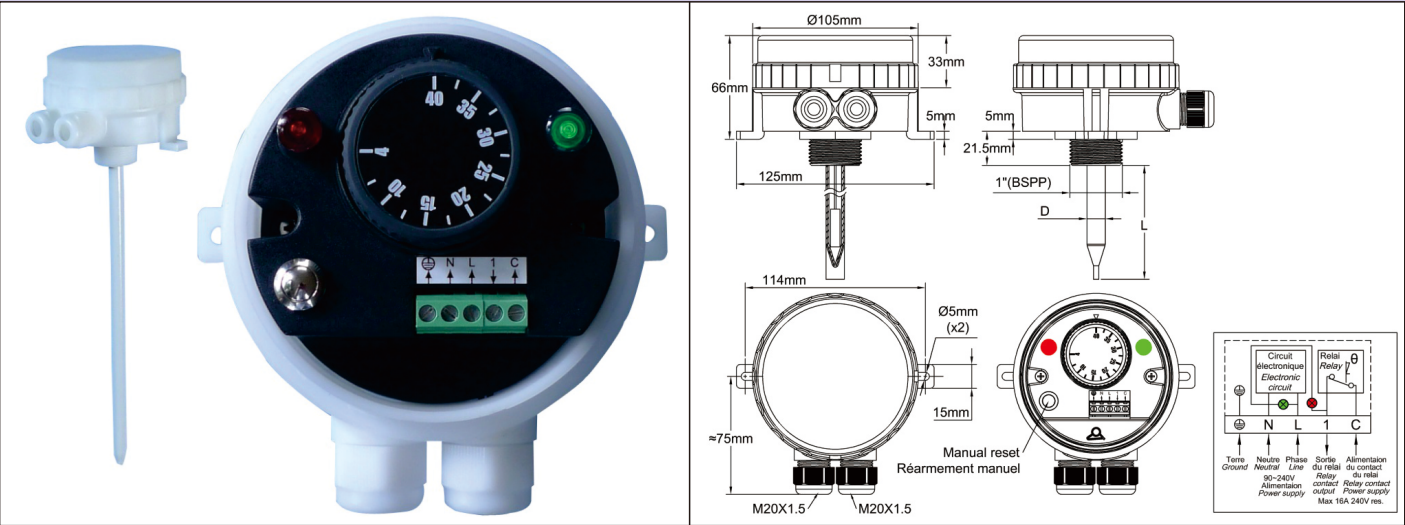
°F printing: replace last character (J) by K

## Knob printings

°C Printing			°F Printing		
4-40°C	30-90°C	30-110°C	40-105°F	85-195°F	85-230°F
					

# Manual reset electronic rod adjustable limiter, with high corrosion resistance IP66 housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

Enclosure	Type	Operation	Contact	Measurement	Ranges °C	Models
IP66,IK10	Manual reset	Electronic	SPNC	Rod		YF53
						



## Main applications

**Adjustable manual reset temperature limiter** for surface treatment or corrosive liquid baths, sea water environment, livestock premises.

**Housing:** Protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight), dia. 105mm, height 66mm (excluding accessories and cable glands), made of plastic. Includes an adjustable thermostat that can be set after unscrewing the cover. To eliminate the enclosure risk of corrosion, there is no metallic part in contact with the external environment. Cover gasket and cable gland stuffing sets gaskets are made in EPDM. Rod seal is made of fluorocarbon elastomer FKM (Viton). The cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Electrical connections:** Cable input/output by two M20 cable glands. Electrical connection on screw terminals

**Temperature Adjustment:** Inside, with °C printed knob. (°F printed knobs available as an option). Knobs have an invisible device to reduce the temperature range span.

**Manual reset:** Button located beside the temperature adjustment knob

**Sensing element:** NTC thermistor and microprocessor electronic circuit.

**Adjustment ranges:** 4-40°C (32- 104°F) ; 30-90°C (85-195°F); 30-110°C (90-230°F)

**Rod dimensions:** Outside diameter (D) before optional sleeving is 10mm. Length (L): 450mm, 600mm (300mm, 800mm and 1000mm on request )

**Rod material and sleeving:**

- SUS 316L without sleeving
- Titanium
- SUS 316L with shrunk PTFE sleeve, thickness 0.4 to 0.6mm

**Mounting:**

- By the 1" BSPT thread (Mounting through wall is watertight when used with the 1" nut and seal. See accessories)
- By a rotatable plastic bracket, enabling mounting on tank edge (See accessories)
- By the 2 legs on the side (2 holes dia 5 mm center distance 114 mm)

**Electrical contact:**

- SPNC, Open on temperature rise contact (C-1) 16A(2.6) 250VAC
- Electrical life >100.000 cycles.
- Power supply and power output pilot lights (Neutral is mandatory).

**Cover and housing material options:**

- Black PA66, glass filled body, and polycarbonate (PC) transparent cover, suitable for most applications in medium low to medium corrosive liquids, up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance.
- Orange PP (polypropylene) body, with transparent polycarbonate (PC) cover: Very good resistance to strong bases, good resistance to acids. For use on liquids up to 90 °C. Allows viewing constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).
- Orange PP (polypropylene) body, with opaque orange PP (polypropylene) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK8).
- White PVDF body with opaque white PVDF cover: For use in liquid baths at temperatures above 90 °C and up to 110°C or strong oxidizing chemicals such as chrome electrolyte or nitric acid solution (HNO3). Reduced mechanical strength (IK8).

# Manual reset electronic rod adjustable limiter, with high corrosion resistance IP66 housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

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## Rod protection options (see also table below)

- Stainless steel 316L-Ti without coating
- Stainless steel 316L, with FEP chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PFA chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposited coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposited coating, thickness 0.2 to 0.4mm

## Main references with SS 316L rod, coated with shrunk PTFE

Temperature ranges °C (°F)	Rod length (L, mm)	Black PA66 housing, crystal clear PC cover	Orange PP housing, crystal clear PC cover	Orange PP housing, orange opaque PP cover	White PVDF housing, white opaque PVDF cover	Differential* °C (°F)	Max temperature on probe °C (°F)
4-40°C (32-104°F)	450	YF53NCS04040451P	YF53PCS04040451P	YF53PPS04040451P	YF53VVS04040451P	0.8±0.2 °C (1.5±0.4 °F)	120°C (250°F)
30-90°C (85-195°F)	450	YF53NCS30090451P	YF53PCS30090451P	YF53PPS30090451P	YF53VVS30090451P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)
30-110°C (90-230°F)	450	YF53NCS30110451P	YF53PCS30110451P	YF53PPS30110451P	YF53VVS30110451P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)
4-40°C (32-104°F)	600	YF53NCS04040601P	YF53PCS04040601P	YF53PPS04040601P	YF53VVS04040601P	0.8±0.2 °C (1.5±0.4 °F)	120°C (250°F)
30-90°C (85-195°F)	600	YF53NCS30090601P	YF53PCS30090601P	YF53PPS30090601P	YF53VVS30090601P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)
30-110°C (90-230°F)	600	YF53NCS30110601P	YF53PCS30110601P	YF53PPS30110601P	YF53VVS30110601P	1±0.3 °C (1.8±0.5 °F)	120°C (250°F)

\*Differentials measured in laboratory conditions, in agitated liquid baths, with temperature change rates below 0.5°C/min.

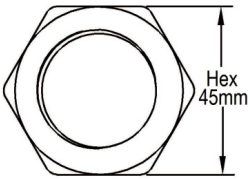
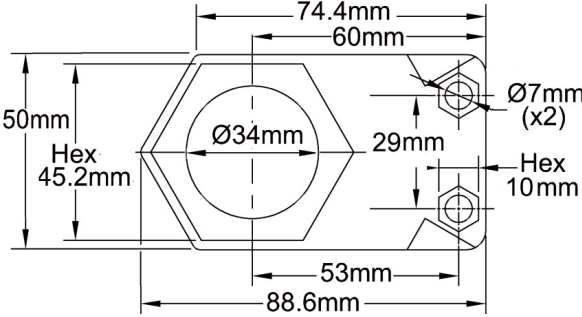
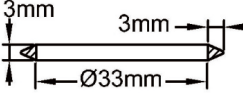
## Reference modifications vs options

Rod length			Rod protection coating						
300mm	800mm	1000mm	316L without coating	316L-Ti without coating	Titanium	316L+ FEP 0.2 ~ 0.4mm*	316L+ PFA 0.2 ~ 0.4mm*	316L+ PTFE 0.05 ~ 0.1mm*	316L+ ETFE 0.2 ~ 0.4mm*
xxxxxxxxxxx30xx	xxxxxxxxxxx80xx	xxxxxxxxxxxA0xx	xxxxxxxxxxxxxxxxU	xxxxxxxxxxxxxxxxV	xxxxxxxxxxxxxxxxW	xxxxxxxxxxxxxxxxQ	xxxxxxxxxxxxxxxxR	xxxxxxxxxxxxxxxxS	xxxxxxxxxxxxxxxxT

\* MOQ 100 pieces

Versions with °F printed knobs: replace S by T in the reference (7<sup>th</sup> character)

## Accessories

1" BSPP Nut, 5mm thickness	Bracket for tank side mounting, thickness 10mm (Assembly made with 1" nut)	1" gasket for through wall waterproof mounting with 1" nut
		
Reference in PA66: 66YFHN1N	Reference in PA66: 66YFMB1N	Reference in FKM (Viton): 66YGA1F
Reference in PP: 66YFHN1P	Reference in PP: 66YFMB1P	
Reference in PVDF: 66YFHN1V	Reference in PVDF: 66YFMB1V	

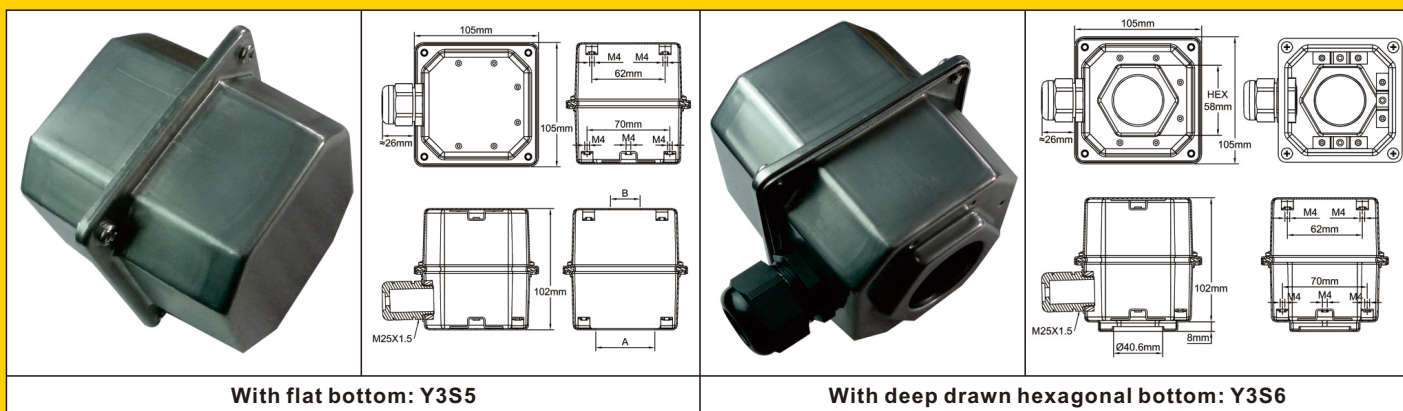
Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice



# **Housings for immersion heaters and temperature sensors**



# Stainless steel immersion heater connection boxes, IP65, types Y3S5 and Y3S6



**Material:** Stainless steel deep drawn cover and bottom.

**Screws:** Stainless Steel.

**Cover gasket:** Molded Silicone.

**Brackets for accessories:** These brackets include threaded holes on the lid for mounting an internal thermostat, and a terminal block or a printed circuit board on the bottom, and one or two grounding terminals.

**Holes on the bottom:** A side hole is made for an M25 cable gland.

-In Y3S5 type with a flat bottom, two diameters of holes are possible, for 1"1/2 or M45x2 brass or stainless steel fitting with double thread or with rotating ring.

-In Y3S6 type with hexagonal fitting head stamped, a welding lip has been designed for easy TIG welding of a threaded insert, massive or deep drawn. This solution is cheaper than the use of massive fittings, but does not allow their rotation.

Holes on the cover: The cover can receive a drill to access an internal thermostat knob. This hole is capped with a waterproof silicone plug.

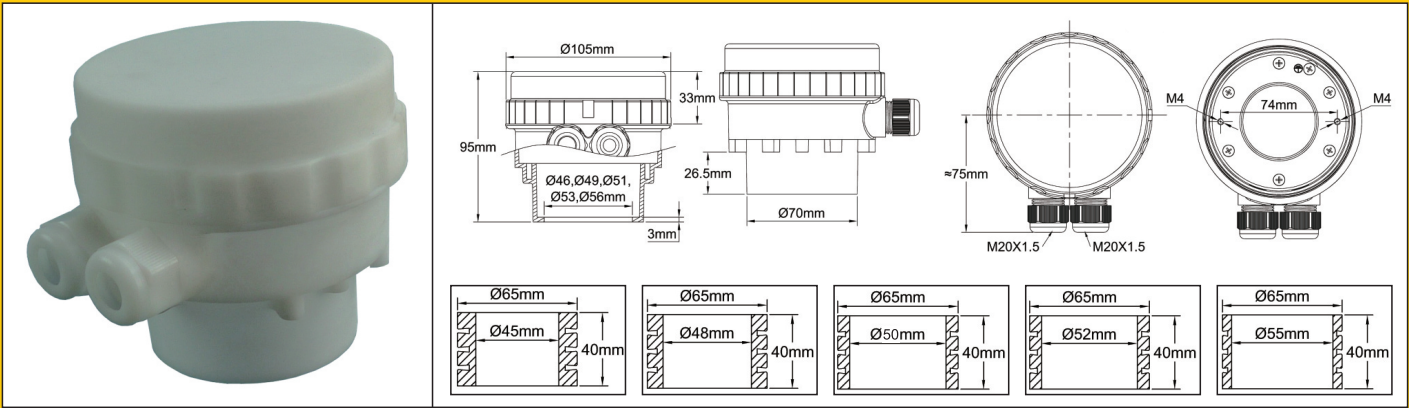
## Basic references, without accessories nor cable gland

References in 304L	References in 316L	Type	Drill A (Cover)	Drill B (Bottom)
Y3S5UH6H00TT00V0	Y3S5UH6H00TT00W0	Flat bottom	None	None
Y3S5UH6H00TT00V0	Y3S5UH6H00TT00W0	Flat bottom	None	None
Y3S5UH6K00TT00V0	Y3S5UH6L00TT00W0	Flat bottom	Ø 25mm hole for thermostat adjustment cap	None
Y3S5UH6HADTT00V0	Y3S5UH6HADTT00W0	Flat bottom	None	Ø 45mm , for fitting with 1"1/2 or M45x2 nut
Y3S5UH6KA5TT00V0	Y3S5UH6LA5TT00W0	Flat bottom	Ø 25mm hole for thermostat adjustment cap.	Ø50mm , for fitting with 3x M4 screw rotation
Y3S6UH6JACTT00V0	Y3S6UH6JACTT00W0	Deep drawn hexagonal bottom	None	Ø 40.6mm
Y3S6UH6KACTT00V0	Y3S6UH6LACTT00W0	Deep drawn hexagonal bottom	Ø 25mm hole for thermostat adjustment cap.	Ø 40.6 mm

## Accessories

Internal bracket for inside adjustment thermostat	Silicone cap for thermostat adjustment hole	PA66, 6 way connection block	Brass fittings for Y3S5 enclosure	Massive stainless steel fitting, for custom hole drilling, for Y3S6 enclosure	Deep drawn stainless steel fitting, for Y3S6 enclosure
9BBAE1000ELH008A	9BBJO1000004078A	BE6E6000000MP000	For full range and references of fittings, nuts and gaskets: See catalogue N°2.	Available without holes or drilled upon request. Ask for references	Available in 2, 3, 4, 5, 6, 7 holes and M45 or 1"1/2 thread. Ask for references

**Polypropylene or PVDF immersion heater connection boxes, for corrosive environment applications, IP66, type Y3C6**



**Screws:** There is no external screw in this housing.

**Cable glands:** 2 cable glands M20; The cable gland body is molded in the bottom, to avoid leaks. Cable gland nuts are molded in the same material than the bottom. Cable gland gaskets are molded in FPM (Viton) fluoroelastomer. (This material is named FKM upon ASTM standard and FPM upon DIN/ISO)

In the inner tubes of titanium or stainless steel of our production, this ring is made of the same material as the tube and is welded at its end. This ring includes a grounding terminal. These tubes allow to use common soapstone heating elements of 47mm dia. They are supplied with the seal corresponding to the diameter of the heater, the compression ring and screws.

**Temperature resistance:**

- PVDF version: room temperature or temperature transmitted by conduction from the heater tube  $\leq 110\text{ }^{\circ}\text{C}$


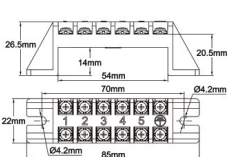
**Tank side mounting:** can be made with the polypropylene or PVDF flange (ref: 66Y3C6B1001Q or 66Y3C6B1001R). The enclosure is slightly forced into the flange. It is possible to secure it by using the 6 titanium screws which are provided.

**Instrumentation:** These enclosures may receive, in addition to heating elements, the same options for temperature control or temperature measurement than the YF5 series, provided that the ceramic body of the coiled heater has a central hole for the passage of the measuring elements, and has also a non-heating zone at its bottom to place the probe or the bulb. For more information, contact our technical department.

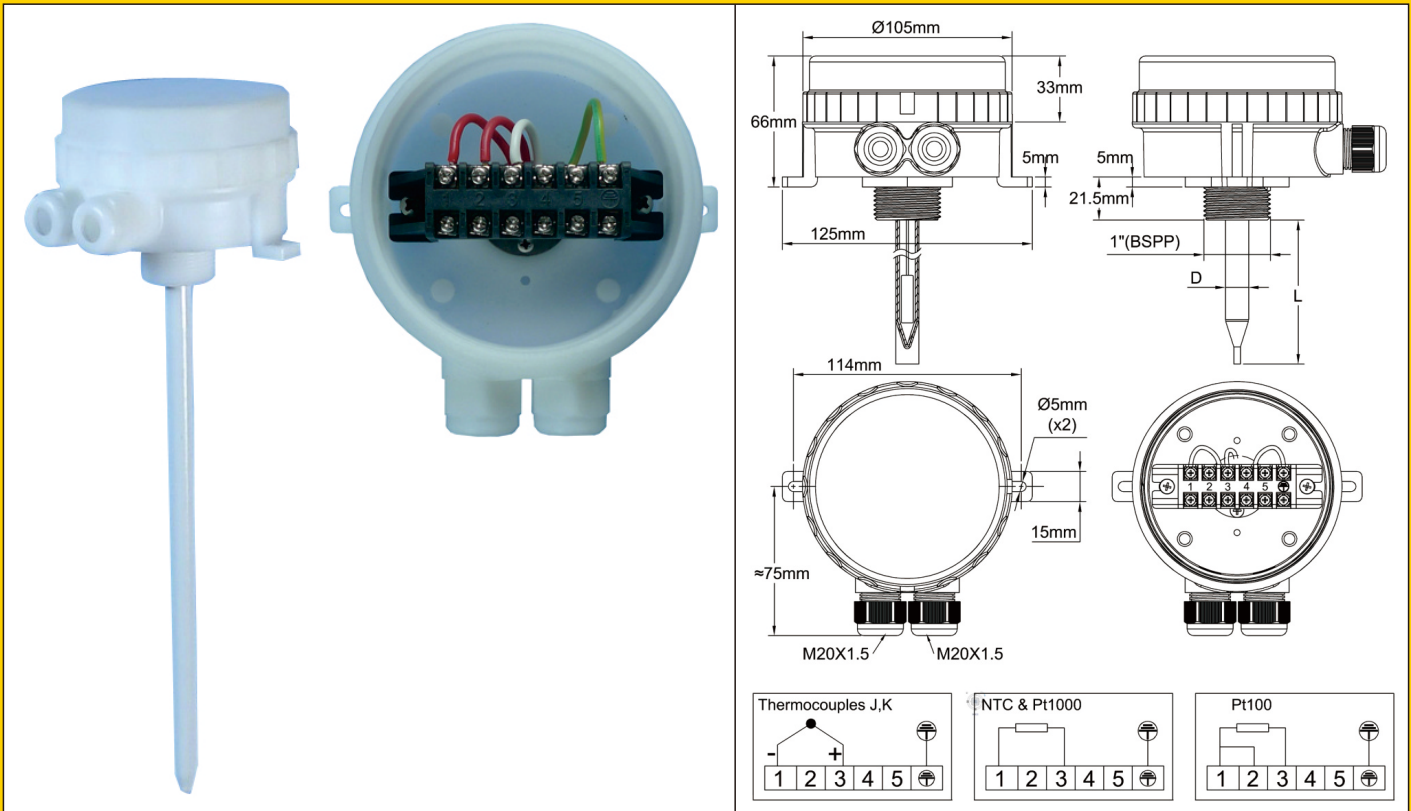
### Basic references, Polypropylene and PVDF, without accessories

Material	Drill dia. 46mm	Drill dia. 49mm	Drill dia. 51mm	Drill dia. 53mm	Drill dia. 56mm
PP	Y3C6U2BQB1TT00QU	Y3C6U2BQB2TT00QU	Y3C6U2BQB3TT00QU	Y3C6U2BQB4TT00QU	Y3C6U2BQB5TT00QU
PVDF	Y3C6U2BRB1TT00RT	Y3C6U2BRB2TT00RT	Y3C6U2BRB3TT00RT	Y3C6U2BRB4TT00RT	Y3C6U2BRB5TT00RT

## Accessories

PA66, 6 ways connection block	Double hook wrench for lid	Tank side PP or PVDF mounting bracket	Heater tube, SUS 316L, 316L-Ti or Titanium dia 50mm	Heating tube, quartz dia. 55mm	Rotation or double thread fittings	
						
					For full range and references of fittings, nuts and gaskets: See catalogue N°2.	
BE6E6000000MP000	66Y3C6HW001	PP	66Y3C6B1001Q	316L 66Y3C6B1605010xxx		66Y3C6QU05525xxx
		PVDF	66Y3C6B1001R	316L-Ti 66Y3C6T605010xxx		xxx=L in mm
			Ti 66Y3CTI05010xxx	xxx=L in mm		

**Probe temperature sensor, with high corrosion resistance IP66 housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Type TY**



### Main applications

Temperature sensor for electronic temperature control of surface treatment or corrosive liquid baths, sea water environment, livestock premises.

**Housing:** protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight), dia. 105mm, height 66mm (excluding accessories and cable glands), made of plastic. To eliminate the enclosure risk of corrosion, there is **no metallic part in contact with the external environment**. Cover gasket and cable gland stuffing sets are made in EPDM. Rod seal is made of fluorocarbon elastomer FKM (Viton). The cover can be unscrewed by hand, but it is also possible to use a hook spanner.

**Temperature sensors types:**

-NTC (10KOhms @25°C),  $\beta=3380$ ), Pt100 (class A), Pt1000 (class A), thermocouple J, thermocouple K. Maximum temperature on the probe 120°C (250°F).

**Electrical connections:** Cable input/output through by two M20 cable glands. Electrical connection on screw terminals

Probe dimensions: Outside diameter (D) before optional sleeving is 10mm. Length (L): 230, 300, 450, 600, 800mm (1000mm on request )

**Probe material and sleeving:**

- SUS 316L without sleeving
- Titanium
- SUS 316L with shrunk PTFE sleeve, thickness 0.4 to 0.6mm

**Mounting:**

- By the 1" BSPT thread (Mounting through wall is watertight when used with the 1" nut and seal. See accessories)
- By a rotatable plastic bracket, enabling mounting on tank edge (See accessories)
- By the 2 legs on the side (2 holes dia 5 mm center distance 113 mm)

**Cover and housing material options:**

- Body and cover in black PA66, glass filled, suitable for most applications in medium low to medium corrosive liquids, up to 90 °C. Allows viewing input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance.
- Body and cover in orange PP (polypropylene): Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK7).
- Body and cover in white PVDF: For use in liquid baths at temperatures above 90 °C and up to 110°C or strong oxidizing chemicals such as chrome electrolyte or nitric acid solution (HNO3). Reduced mechanical strength (IK7).

**Sensor options:** Built in temperature transmitter (Not available with NTC sensor)

**Rod protection options (see also table below)**

- Stainless steel 316L-Ti without coating
- Stainless steel 316L, with FEP chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PFA chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposited coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposited coating, thickness 0.2 to 0.4mm

Special modifications: This enclosure can receive a transparent polycarbonate cover instead of the opaque cover.

**Probe temperature sensor, with high corrosion resistance IP66 housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Type TY (P2)**

**Main references with SS 316L rod, coated with shrunk PTFE**




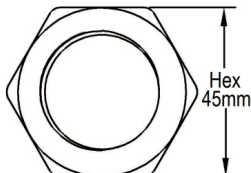
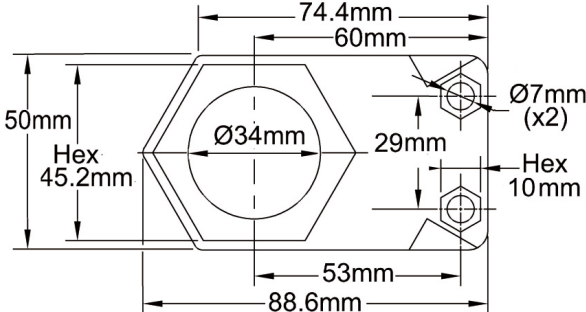
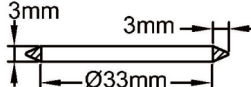
Temperature sensor	Probe length (L, mm)	Black PA66 housing	Orange PP housing	White PVDF housing
NTC (10KOhms @25°C)	230	TYN2NN000120231P	TYN2PP000120231P	TYN2VV000120231P
NTC (10KOhms @25°C)	300	TYN2NN000120301P	TYN2PP000120301P	TYN2VV000120301P
NTC (10KOhms @25°C)	450	TYN2NN000120451P	TYN2PP000120451P	TYN2VV000120451P
NTC (10KOhms @25°C)	600	TYN2NN000120601P	TYN2PP000120601P	TYN2VV000120601P
NTC (10KOhms @25°C)	800	TYN2NN000120801P	TYN2PP000120801P	TYN2VV000120801P
Pt100	230	TYSANN000120231P	TYSAPP000120231P	TYSAVV000120231P
Pt100	300	TYSANN000120301P	TYSAPP000120301P	TYSAVV000120301P
Pt100	450	TYSANN000120451P	TYSAPP000120451P	TYSAVV000120451P
Pt100	600	TYSANN000120601P	TYSAPP000120601P	TYSAVV000120601P
Pt100	800	TYSANN000120801P	TYSAPP000120801P	TYSAVV000120801P
Pt1000	230	TYBANN000120231P	TYBAPP000120231P	TYBAVV000120231P
Pt1000	300	TYBANN000120301P	TYBAPP000120301P	TYBAVV000120301P
Pt1000	450	TYBANN000120451P	TYBAPP000120451P	TYBAVV000120451P
Pt1000	600	TYBANN000120601P	TYBAPP000120601P	TYBAVV000120601P
Pt1000	800	TYBANN000120801P	TYBAPP000120801P	TYBAVV000120801P
Thermocouple J	230	TYC0NN000120231P	TYC0PP000120231P	TYC0VV000120231P
Thermocouple J	300	TYC0NN000120301P	TYC0PP000120301P	TYC0VV000120301P
Thermocouple J	450	TYC0NN000120451P	TYC0PP000120451P	TYC0VV000120451P
Thermocouple J	600	TYC0NN000120601P	TYC0PP000120601P	TYC0VV000120601P
Thermocouple J	800	TYC0NN000120801P	TYC0PP000120801P	TYC0VV000120801P
Thermocouple K	230	TYP0NN000120231P	TYP0PP000120231P	TYP0VV000120231P
Thermocouple K	300	TYP0NN000120301P	TYP0PP000120301P	TYP0VV000120301P
Thermocouple K	450	TYP0NN000120451P	TYP0PP000120451P	TYP0VV000120451P
Thermocouple K	600	TYP0NN000120601P	TYP0PP000120601P	TYP0VV000120601P
Thermocouple K	800	TYP0NN000120801P	TYP0PP000120801P	TYP0VV000120801P

**References modification vs probe coating options**

316L without coating	316L-Ti without coating	Titanium	316L+ FEP 0.2 ~ 0.4mm*	316L+ PFA 0.2 ~ 0.4mm*	316L+ PTFE 0.05 ~ 0.1mm*	316L+ ETFE 0.2 ~ 0.4mm*
xxxxxxxxxxxxxxU	xxxxxxxxxxxxxxV	xxxxxxxxxxxxxxW	xxxxxxxxxxxxxxQ	xxxxxxxxxxxxxxR	xxxxxxxxxxxxxxS	xxxxxxxxxxxxxxT

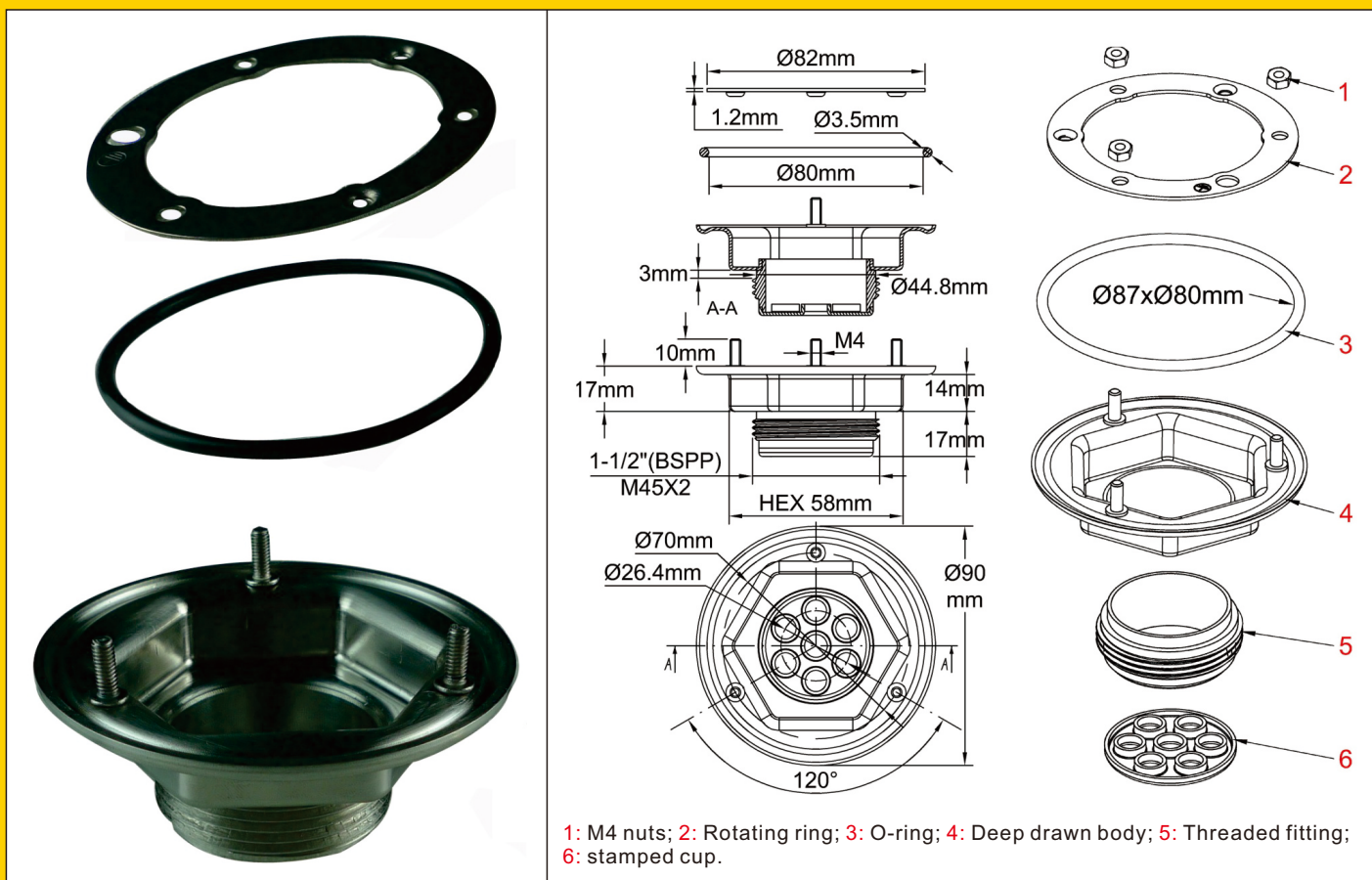
\* MOQ 100 pieces

**Accessories**

1" BSPP Nut, thickness 5mm	10mm thickness Bracket for tank side mounting (Its assembly is made with 1" nut)	1" gasket for through wall waterproof mounting with 1" nut
		
		
Reference in PA66: 66YFHN1N	Reference in PA66: 66YFMB1N	Reference in FKM (Viton): 66YGA1F
Reference in PP: 66YFHN1P	Reference in PP: 66YFMB1P	Reference in NBR: 66YGA1R
Reference in PVDF: 66YHN1V	Reference in PVDF: 66YFMB1V	

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Deep drawn immersion heater fitting, 304L or 316L stainless steel, with gasket and rotation ring, for 1, 2 or 3 heating elements, Types Y3D1



1: M4 nuts; 2: Rotating ring; 3: O-ring; 4: Deep drawn body; 5: Threaded fitting; 6: stamped cup.

## Main Applications

This set, more economical than machined solutions, allows the installation of an immersion heater entirely of stainless steel on any enclosure, and requires only a dia. 75 mm drill on the bottom of the enclosure, the same as usual drill for M77x2 threads. It allows the rotation of the fitting after assembly.

The welding of the sheathed elements can be made by brazing or TIG. The TIG welding of the sheathed element assembly enables a 100% stainless steel device, required for many chemical and food applications.

**Threads:** 1"1/2 and M45x2 (Other threads on request, MOQ apply)

**Material:** 304L or 316L stainless steel (consult us for other grades)

**Rotating ring:** Same as the standard ring for rotary M77 and 2 "1/2 fittings, tightening by 3 nuts M4.

**O-ring:** Silicone, dia. 80x87 mm, captive in a groove.

**Wrench size:** Hexagon 58mm

**Gasket seat:** Flat with pitch recess

**Fitting:** The fitting, as it does not need to be machined into the hexagonal bar 54mm on flat and 31 long 45mm depending on the model, but simply in the round bar of 48 mm and a length of 17mm, enables extraordinary material savings, up to 80%.

After optional drilling of holes for sheathed heating elements, the fitting is TIG welded on the inner lip of the deep drawn body.

**It comes in 2 basic versions:**

- Massive, for drilling holes on request and traditional welding or brazing of sheathed heating elements

-Hollow, with stamped cup with holes for sheathed heating elements. Then these can be either TIG welded edge to edge on the holes lips, or be traditionally brazed after TIG soldering of the cup on the fitting.

## Main references with rotary ring and gasket, holes for dia. 8mm heating elements

	Parts 1, 2, 3, 4	Parts 1, 2, 3 + parts 4,5,6 welded together					
Material	Deep drawn body, without fitting, for TIG soldering	Deep drawn body for brazing, 1"1/2 thread, with 2 holes dia. 8.1 stamped cup	Deep drawn body for brazing, 1"1/2 thread, 2 holes dia. 8.1 + 1 hole dia. 8,6 stamped cup	Deep drawn body for brazing, 1"1/2 thread, with 4 holes dia. 8.1 stamped cup	Deep drawn body for brazing, 1"1/2 thread, 4 holes dia. 8.1 + 1 hole dia. 8,6 stamped cup	Deep drawn body for brazing, 1"1/2 thread, with 6 holes dia. 8.1 stamped cup	Deep drawn body for brazing, 1"1/2 thread, 6 holes dia. 8.1 + 1 hole dia. 8,6 stamped cup
316L	Y3D1160	Y3D116AC81200264	Y3D116AC81286264	Y3D116AC81400264	Y3D116AC81486264	Y3D116AC81600264	Y3D116AC81686264
304L	Y3D1040	Y3D104AC81200264	Y3D104AC81286264	Y3D104AC81400264	Y3D104AC81486264	Y3D104AC81600264	Y3D104AC81686264




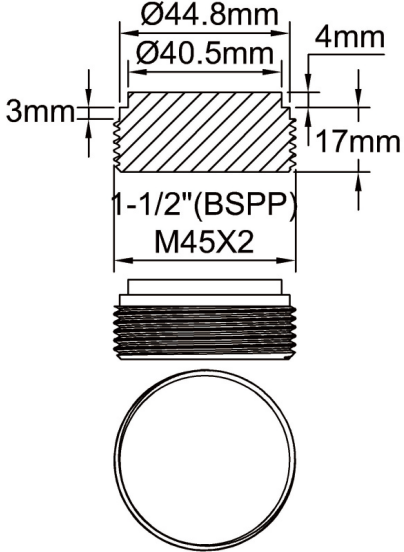
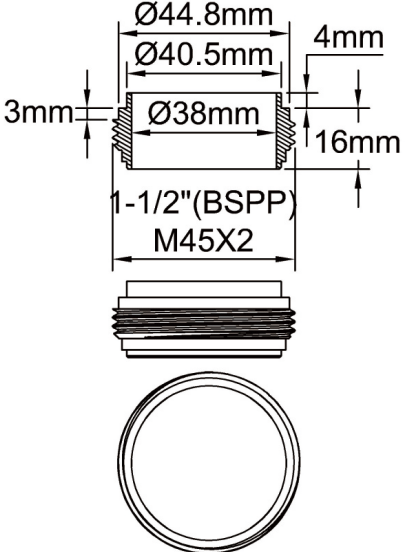
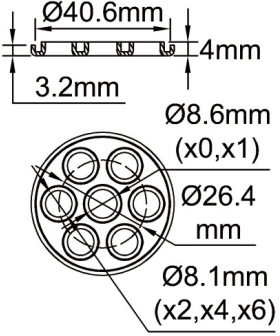
\* M45x2 thread instead of 1"1/2: replace 12 by 45 in the reference

# Deep drawn immersion heater fitting, 304L or 316L stainless steel, with gasket and rotation ring, for 1, 2 or 3 heating elements,

**Types Y3D1**

(P2)

Spare parts

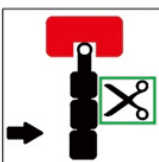
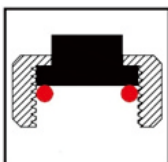
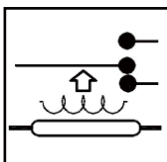
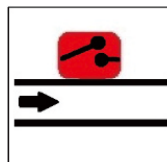
					
					
Massive fitting, for drilling of sheathed heating elements on request		Hollow fitting, for TIG welding on stamped cup and on heating elements washers		Unassembled stamped cup, for prior TIG welding of sheathed heating elements	
M45x2 304L	Y3DP04RB	M45x2 304L	Y3DP04RB	2	Y3DP04D181200264
M45x2 316L	Y3DP16RB	M45x2 316L	Y3DP16RB	4	Y3DP04D181400264
1"1/2 304L	Y3DP04RA	1"1/2 304L	Y3DP04RA	6	Y3DP04D181600264
1"1/2 316L	Y3DP16RA	1"1/2 316L	Y3DP16RA	2+1	Y3DP04D181286264
				4+1	Y3DP04D181486264
				6+1	Y3DP04D181686264

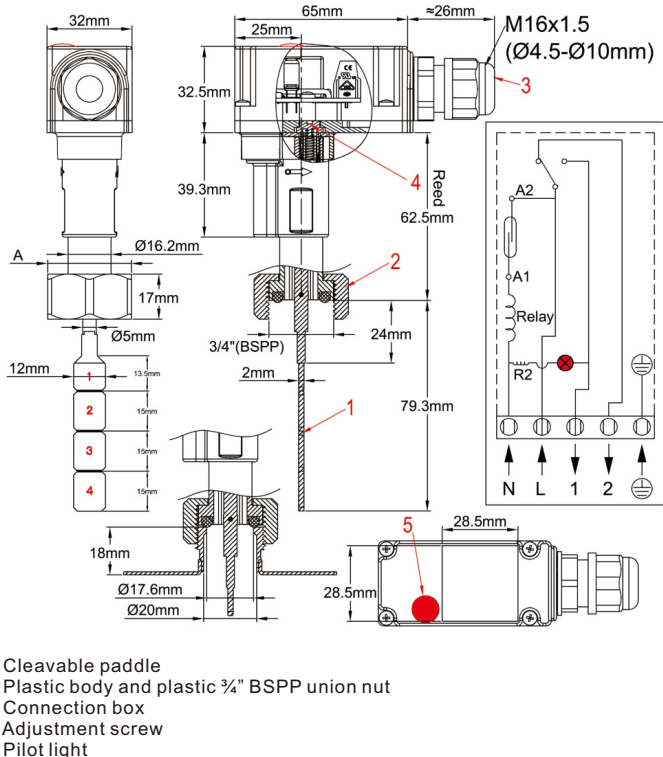
# **Flow switches, flow controllers, and accessories for flow switches**



# Paddle flow switches, reed switch contact, built-in 16A SPDT relay

## Type: RAX

Size and pressure	Flow sensing : Cleavable paddle	Mounting: ¾" BSPP Union nut	Contact: Reed switch + relay, SPDT	Electrical rating	Mounting position	Type
PN10 DN≥15				≤15 A Res. ≤250V~		<b>RAX</b>



### Main uses

General application in flow detection. Recommended mounting position is on horizontal pipes, but can be mounted in any position. For water flow detection on dia 15 to 100mm water pipes. **The built-in relay with SPDT contact can be used on resistive loads up to 15A 250V. The pilot light shows the contact position.**

### Functional principle

Balanced magnetic paddle mounted perpendicular to the flow and activating a reed switch through the wall. The return of the paddle is by made by magnetic action, without spring. No seal or liquid can pass between the piping system and the electrical contact. Suitable for corrosive water pools and spas and salination chlorination and bromination systems. Must not be used for water containing magnetic particles or high viscosity liquids, which block the movement of the paddle.

#### Adjustment:

- By cleaving the paddle
- Fine adjustment by screw driver on internal dial (on models with connection box only)

**Paddle shaft: Titanium**, providing an outstanding corrosion resistance, and improved mechanical live. Suitable for corrosive water pools and spas and salination, chlorination and bromination systems.

**Main housing material:** PPO, fiber glass reinforced for improved pressure resistance, usable with potable water.

**Paddle:** PPO, 12 mm width, can be cleaved into 4 sections numbered 1 to 4 for pipe diameter adjustment.

**Pipe mounting:** Fiber glass reinforced union nut, ¾ BSPP, mounting on ¾ BSPP male fitting with gasket. Recommended torque: 7±1Nm.

**Gasket:** NBR

**Electrical rating:** 15A, 250V, resistive load. Use on inductive circuits reduces electrical rating.

**Electric contact type:** SPDT

**Liquid compatibility:** For use with clean water and liquids without magnetic particles and without chemical incompatibility with PPO and titanium.

**Nominal pressure at 20°C:** 1MPa (PN10) Liquid temperature ranges: 5 to 100°C (cannot be used in water freezing pipes).

**Ambient temperature range:** 5 to 80°C

**Ingress protection:** IP65

**Calibration tolerances:** +/-15% (on paddle operating force at end of paddle 1).

**Electrical connection:** 2.5mm² connection block with screw terminals M16 cable gland output.

# Paddle flow switches, reed switch contact, built-in 16A SPDT relay

**Type: RAX**

**(P2)**

## Installation instructions:

- Check carefully the paddle orientation: The arrow on housing must be exactly parallel to the pipe.
- A 5 mm minimum gap must be respected between end of the paddle and tube wall opposite to the fitting.
- We recommend the use of nozzles of length below or equal to 18mm between the gasket seat and the inside of the tube and with an inner diameter above or equal to 13.5 mm, to avoid blocking of the paddle.

**Accessories:** 3/4" male PVC saddles for DN40 to DN100 (OD) PVC pipes, and other fittings: see last section of this catalogue.

**Options (MOQ apply):** nickel plated 3/4" BSPP union nut.

**Important notice:** In the case of plastic pipes (PVC, PE), the DN (nominal diameter) corresponds to the **outside diameter** and wall thickness is variable depending on the application. This must be taken into account to avoid blocking the paddle. In the case of metal pipes, the inner diameter corresponds to the DN. Flow values data are for tubes whose **internal diameter** corresponds to DN.

## Average flow detection values (Liters/min)

Paddle length	15		20		25		32		40		50		63		100	
	*Close	**Open	*Close	**Open	*Close	**Open	*Close	**Open	*Close	**Open	*Close	**Open	*Close	**Open	*Close	**Open
1-m	2,7	2,3	4,8	4,5	13	11	22	20	38	35	67	47	167	112	472	317
1-H	4,3	3,3	7,3	6,5	18	17	29	27	53	48	83	72	218	142	616	401
1-M	5,5	3,2	14	12	25	22	38	35	67	60	132	108	262	202	740	571
1+2-m									20	18	37	32	68	52	192	155
1+2-H									30	28	53	43	88	72	248	203
1+2-M									40	37	67	63	123	115	347	324
1~3-m											22	20	37	33	125	108
1~3-H											34	32	63	50	176	165
1~3-M											46	43	77	73	233	217
1~4-m													27	24	88	72
1~4-H													43	40	140	132
1~4-M													58	55	180	167

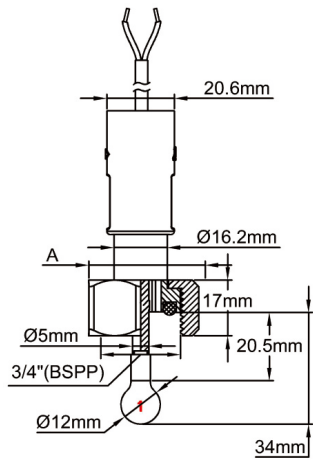
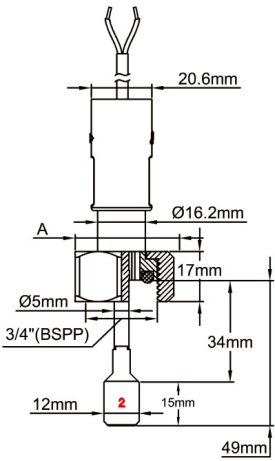
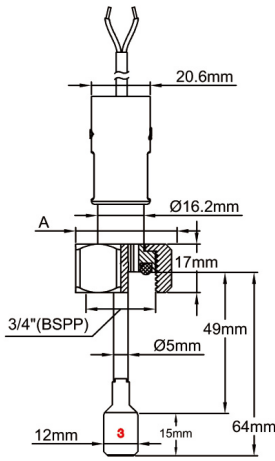
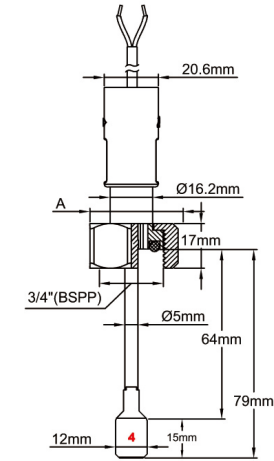
m= calibration at min span  
H= calibration at Half span  
M= calibration at Max span

\*Close by flow rise (L/min) of contact open at no flow position. \*\*Open by flow decrease (L/min) of contact open at no flow position. Average values for indication only. Standard tolerances  $\pm 15\%$

## Main references (With type A cleavable paddle)


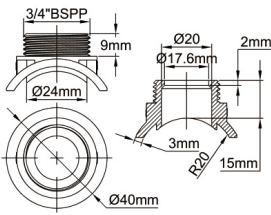

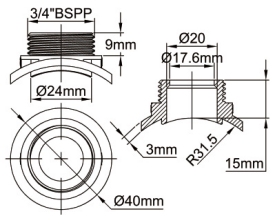

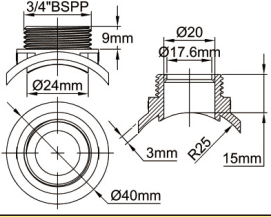

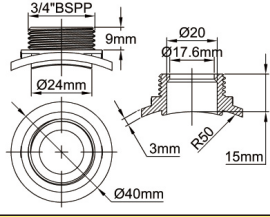
Calibration (Calibration force $\pm 15\%$ , measured at end of paddle N°1)		
Low span end: 3gr	Middle span: 7gr	High span end: 14 gr
RAX636680G35N00C	RAX676680G35N00C	RAX6E6680G35N00C

## Other paddles (Non cleavable models)




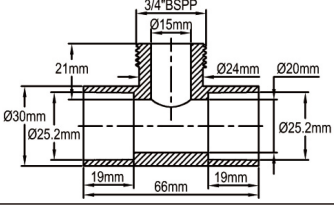
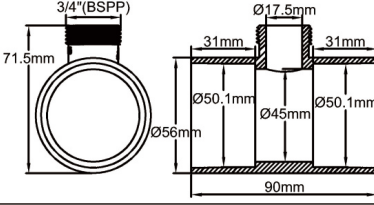
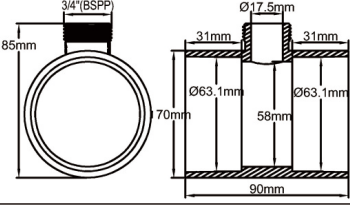
			
<b>Paddle type B</b> Replace 6680 in reference by 1234	<b>Paddle type C</b> Replace 6680 in reference by 1549	<b>Paddle type D</b> Replace 6680 in reference by 1564	<b>Paddle type E</b> Replace 6680 in reference by 1579

# Accessories for R1B, R1P, R1X, RAX, R1V paddle switches

3/4"BSPP male PVC saddles for bonding, fit dia. 24 to 25 mm hole drill in the pipe

		For pipe dia. 40 mm O.D.			For pipe dia. 63 mm O.D.
		Reference 6R1SM3440			Reference 6R1SM3463
		For pipe dia. 50 mm O.D.			For pipe dia. 100 mm O.D.
		Reference 6R1SM3450			Reference 6R1SM34100

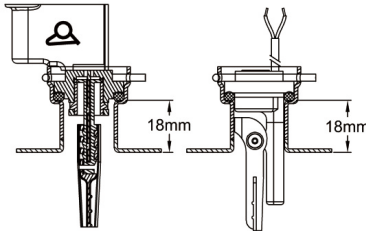
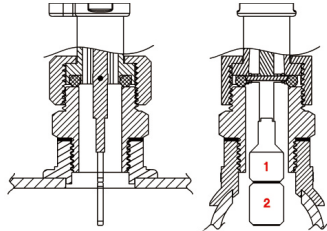


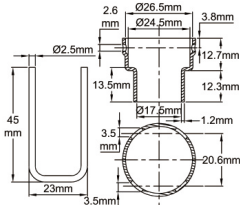
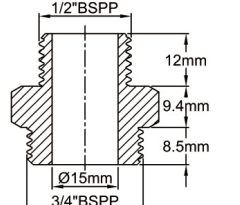
## PVC Tees

		
		
3/4" BSPP male PVC Tee for bonding on DN25 PVC pipe	3/4" BSPP male PVC Tee for bonding on DN50 PVC pipe	3/4" BSPP male PVC Tee for bonding on DN60 PVC pipe
Reference 6R1TP3425	Reference 6R1TP3450	Reference 6R1TP3460

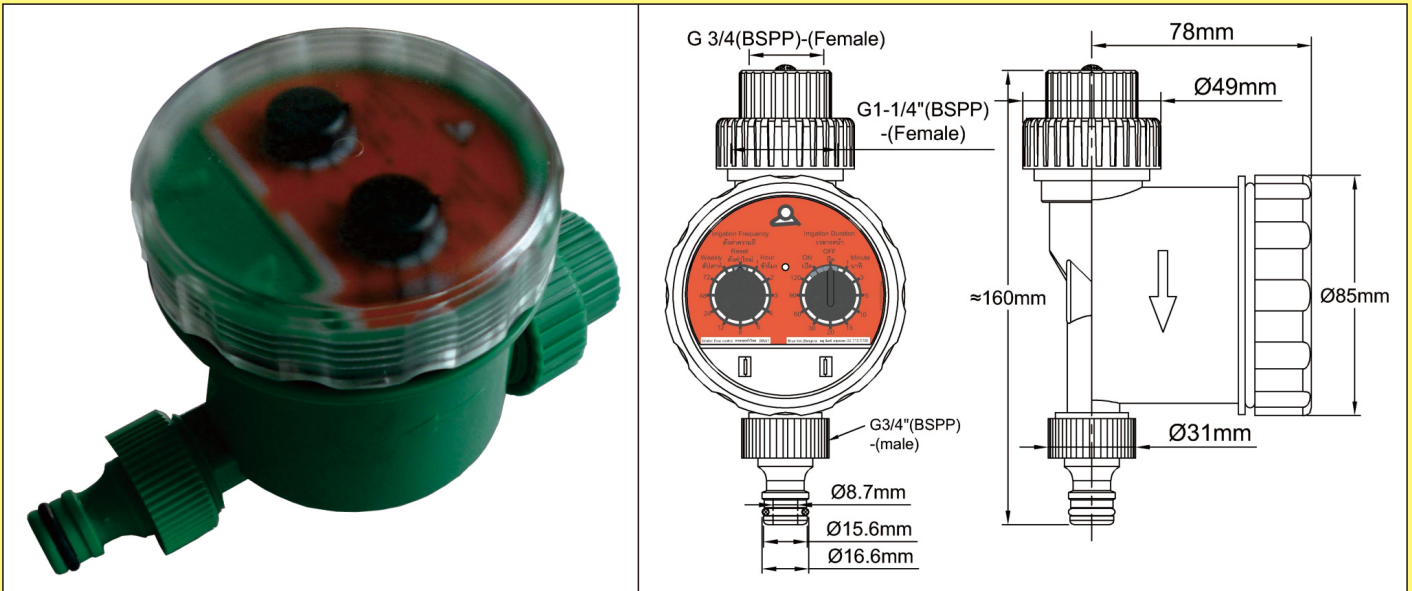
## Brass tees and male fittings

		3/4" BSPP male Tee, brass, DN15-PN25			3/4" BSPP male fitting, for brazing on ID 15 mm tube
		Reference 6R1TB3434			Reference in Brass 6R1P3419B Reference in 304L 6R1P3419S

## Other fittings

					
Fits R1B and R1P	Fits R1X, RAX and R1V				
				DN15 Snap-in fitting, stainless steel for welding, or copper for brazing (includes spring).	3/4" BSPP x 1/2" BSPP Conversion fitting, brass
Reference in copper	6R1P3419B	Reference in 304L	6R1TB3434	Reference	6R1C1234B

## 9BW1 Irrigation flow controller



**Applications:** Timer controlled automatic irrigation of small garden, small green house, balcony, flowers and vegetables. Its use will reduce the water waste especially in dry weather or drought conditions.

**Access to settings:** under a screwed transparent cover, with O-ring gasket

**Medium liquid:** Water. Water input fitting includes a mesh filter in stainless steel.

**Temperature range:** 0-40 °C.

**Working pressure:** 0-4 kg/cm<sup>2</sup> (0-40 kPa)

**Irrigation frequency (left side button):**

-Shortest irrigation frequency: 1 hour. (Irrigation is started every hour).

-Longest irrigation frequency: one week (Irrigation is started one time every week)

Button positions "On" and "Off" allow to stop water flow or to have continuous water flow.

**Irrigation duration (right side button):**

**Minimum time:** 1 minute. (Water flows continuously during one minute)

**Maximum:** 120 minutes. (Water flows continuously during 120 minute)

**Power supply:** 3V DC. (2 AA batteries). Electric power on is displayed by red flashing light.

**Pipe connection:** water input G3/4" female, water output 3/4" male or fast connect irrigation fitting.

### Operation instructions

1/ Open the small drawer under the 2 buttons and install the two 1.5V batteries. The water valve will automatically self-check. Then valve will shut off, and pilot light will start flashing.

2/ Set the left side button (Irrigation frequency) on "reset" position.

3/ Connect on water supply and irrigation pipe

4/ Set the right side button to irrigation duration that you need.

5/ Set the left side button to the irrigation frequency that you need. This value must be longer than the irrigation duration.

6/ The water irrigation cycle will start automatically within 10 seconds.

### Attention:

-Do not immerse, do not put this controller at places that can be flooded.

- Freeze will destroy this device.

-Avoid direct sunlight when used outdoor.

-If the right side button (Irrigation time) is set on "ON", the water will flow continuously.

-If this button is set on "OFF" the water valve will be closed permanently.

### Main references




Chinese-English display

9BW1CE

# Connection blocks and connection accessories



# Very High Temperature (500°C) Ceramic Terminal Blocks, with Stainless Steel terminals and screws, types **BCA**, **BCB** and **BCC**

		
Type BCA	Type BCB	Type BCC
Basic model for general applications in electrothermics	Includes a 4 feet base to allow a remote mounting of the mounting surface and avoid the heat conduction from the support. Suitable for mounting on furnace walls.	Includes a ceramic protective cap secured by two M4 screws. It protects against hand contacts, and also prevents short circuits due to the fall of conductive materials in case of fire. Developed for road and railway tunnels.

**Applications:** These high quality electrical connection blocks allow efficient and easy wiring connections of ovens, infrared heaters, quartz tube heaters in furnaces, kilns, catering equipment, **but also in equipment that must withstand fire whilst maintaining their function such as road and railway tunnels and military equipment**. Specially designed to provide increased resistance to high temperatures, they can withstand 500 °C (900 °F) continuously and 700 °C (1292 °F) peak. **They retain their mechanical properties, electrical insulation and connectivity after 2 hours at 920°C (Fire simulation test)**

## Typical insulation resistance between two terminals:

at 100°C (212°F): 1500 Mohm

at 500°C (900°F): 1000 Mohm

at 700°C (1290°F): 650 Mohm

at 900°C (1650°F): 10 Mohm

**Dielectric strength:** 15 kV / mm

**Screws:** M4x8, 304 stainless steel, with spring washer against loosening at high temperature. Recommended torque 13~ 20 DaN.cm

Two possible types of screw heads: Phillips or slot upon DIN84

**Terminals:** 304 Stainless steel, 16mm² gauge

**Saddles:** 304 Stainless Steel, with or without safety tab against wire shearing

**Max wire gauges (per terminal, wires inserted between saddle and connector plate):**

- 1 stranded wire dia. 5.1mm (max 10 mm² or AWG8)
- Two stranded wires dia. 2.9 mm (2 x 6mm², 2x AWG 10)
- Two rigid wires dia. max 3 mm (2 x 6 mm², 2 x AWG 10)

**Current carrying capacity:** 32A per terminal

**Maximum Operating Voltage:** 750V (insulation distance greater than 10mm between mounting board and terminals, and between terminals). Special care must be taken to avoid reducing the isolation distances during assembly by the use of inappropriate mounting screws or poorly stripped or poorly insulated cables.

**Maximum ambient temperature:**

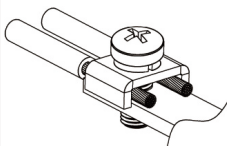
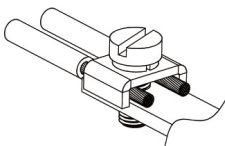
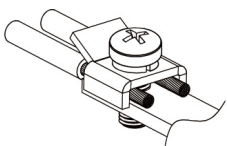
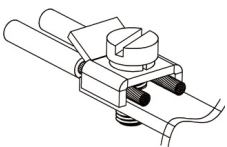

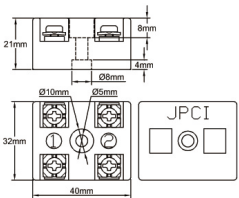

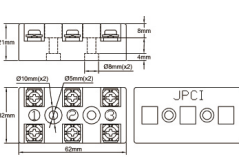

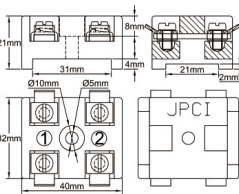

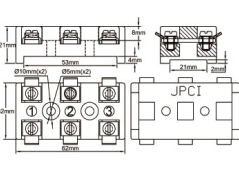

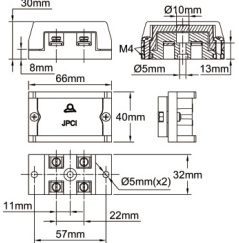

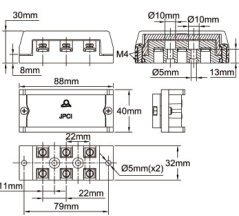
- Permanent: 500°C (900°F)
- In peak short duration: 700°C (1292°F)
- Fire: 920°C (1690°F) for two hours (Afterwards equipment must be replaced, but it retains its main characteristics during the fire).

**Applicable standards:** (IEC) EN60998-1 ; (IEC) EN60998-2-1 (August 1993) ; NFC32-070.

# Very High Temperature (500°C) Ceramic Terminal Blocks, with Stainless Steel terminals and screws, types **BCA**, **BCB** and **BCC**

(P2)

## Main references

Pictures	Description	Pozidriv screw, U saddle	DIN 84 Slotted head screw, U saddle	Pozidriv screw, U+tab saddle	DIN 84 Slotted head screw,U+ tab saddle
					
		BCA2C2U0	BCA2C3U0	BCA2C2B0	BCA2C3B0
		BCA3C2U0	BCA3C3U0	BCA3C2B0	BCA3C3B0
		BCB2C2U0	BCB2C3U0	BCB2C2B0	BCB2C3B0
		BCB3C2U0	BCB3C3U0	BCB3C2B0	BCB3C3B0
		BCC2C2U1	BCC2C3U1	BCC2C2B1	BCC2C3B1
		BCC3V2U1	BCC3V3U1	BCC3V2B1	BCC3V3B1

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

# Elevated terminal plastic connection blocks

## Types BE2, BE3, BE5, BE6, BF3

### Applications

In electrothermal connection applications, especially in immersion heater connection boxes appear specific constraints: high ambient temperature, frequent thermal cycles, and confined space around the ends of the heating elements and their terminals, making difficult to the user to make connections.

These terminals have been developed to address these constraints.

### Main features, identical for all types

**Body:** Glass-filled Polyamide 66, UL94V, GWFI 960°C, ambient temperature up to 150°C.


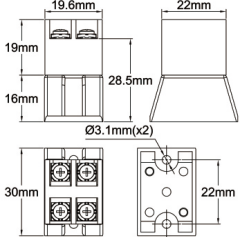

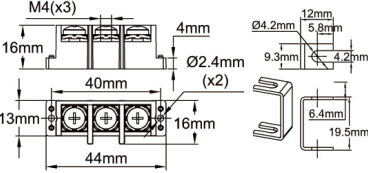
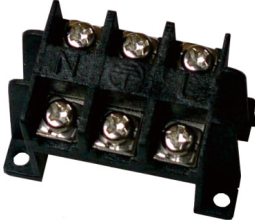
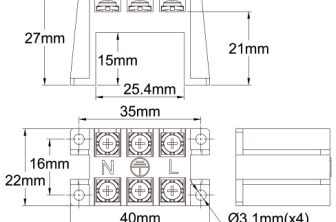

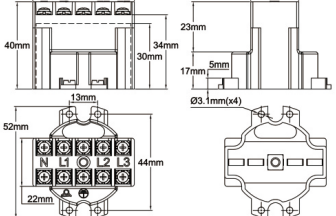

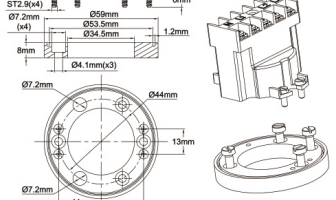

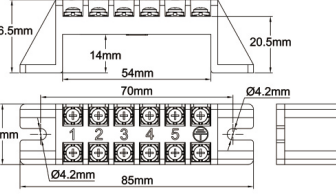
**Terminals:** M3, M3.5 or M4 screw terminals with captive elastic notched washer, resistant to loosening from vibration or thermal cycling. These terminals can receive bare wire, or tinned, or equipped with cable shoes, fork terminals or eyelet terminals. M3, M3.5 or M4 screw and the spring washer may be replaced by a 4.8x0.8 tab.

**Voltage:** 400V max.

**Wire gauge:** Each terminal accepts on each side two conductors from 0.5mm<sup>2</sup> to 2.5mm<sup>2</sup>.

**Maximum rating per terminal:** 24 Amp. Corresponding to 17°C self-heating in free air of the terminal. (Upon IEC60947-7)

**Mounting:** M3 screws or ST3.5 self-tapping screws

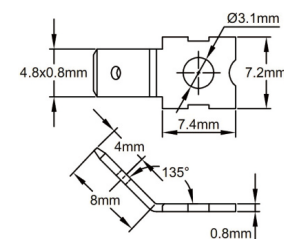
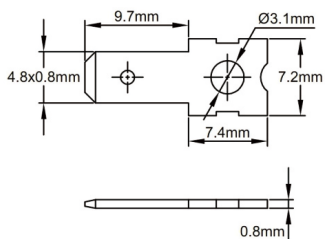
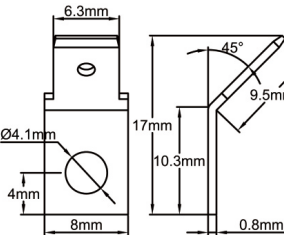
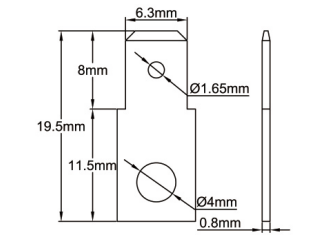
		<p>With less than 20mm wide, this 2 way connection block is designed for tightest spaces.</p>
		<p>This connection block was developed to be superimposed on existing terminals of thermostats with enclosure, of Y0A Y0B, Y0D series and any Y2 series. It allows to add 3 interconnected terminals to one of the terminals located below, on which it is connected by a jumper. Particularly useful for connecting neutral when several neutral wires arrive in the enclosure.</p>
		<p>This 3 way elevated connection block can be positioned above the wire exit of cartridge heaters</p>
		<p>With its maximum size of 52mm diameter, this 5 way terminal block is compatible with the connections of 1"1/2 and M45 fittings. It fits inside the cylindrical housings of 52mm. An adapter enables its mounting on the fittings. (See hereunder) The central earthing terminal allows direct connection to the brass fittings with central earth thread</p>
		<p>Adaptator, is mounted under the connection block BE5E5000000KP000 with 4 self-tapping screws, and allows to mount the connection block on brass fittings with 3 screws M4 at 120° on a diameter of 44 mm</p>
		<p>This 6 way elevated terminal block can be positioned above tubular heater terminals, and it fits inside 105x105mm square aluminum and stainless steel housing and also inside the 100mm diameter plastic housing.</p>

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

## Elevated terminal plastic connection blocks

### Types BE2, BE3, BE5, BE6, BF3

(P2)

		4.8 x0.8 tabs, can be mounted on all terminals with M3 screws.		
		6.3x0.8 tabs, can be mounted on all terminals with M4 screws.		

## Connector for thermostat terminals

<p><b>Application:</b> Faster thermostat wiring, and elimination of wiring mistake, (foolproof design)</p> <p><b>Compatibility:</b> Connector for bulb and capillary for thermostat types 8G (with straight or 90° bended terminals), and all models of types KO, KP and KZ.</p> <p><b>Number of terminals:</b> 3, compatible with 6.3x0.8 tabs</p> <p><b>Material:</b> Fiberglass reinforced PA66</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>- Unassembled, with female terminals non-crimped,</li> <li>- Assembled, with crimped wires, length, gauge and style upon customer request.</li> </ul>	
Reference	66KG3635*

\* The 16 character full reference is issued upon customer wire types and length specs

# Various



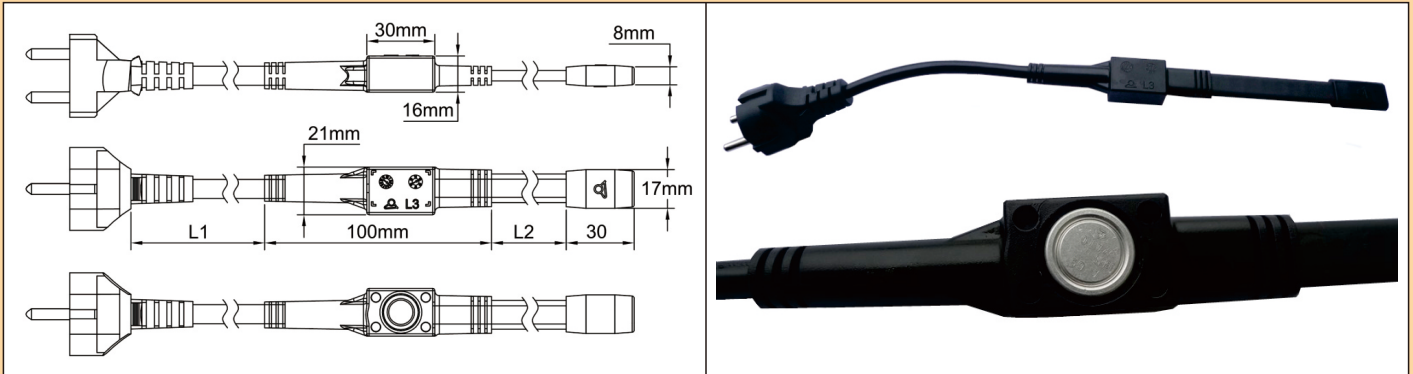
## Technical over-molding of thermostats, types 49C, 49JE, 9DHT

Connecting thermostats to wires or cables is the most critical point in regard to the mechanical strength and resistance to water penetration.

Over-molding improves the mechanical strength of the assembly and provides a good ingress protection to water.

Thanks to the special process developed in our laboratories, low temperature Polyamide 66 injection molding does not overheat the disc of the thermostat, (Avoiding in this way the set point temperature drift with this operation usually brings), nor the conductor insulation.

### Over-molded thermostat on heat tracing cable, type 49C



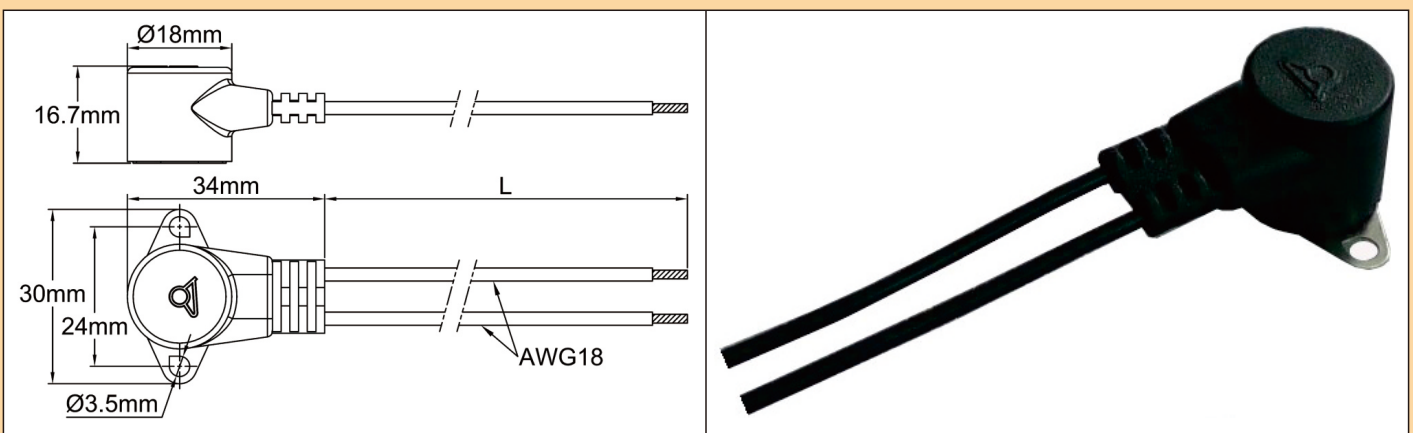
#### Technical features

The assembly is waterproof, frost proof, short immersion proof, protects the connection of the power cord to the heating cable. The flexibility of the over-molding is compatible with the heating cable. The free end of the heating cable receives also an over-molding to make it waterproof.

This type of assembly is cost saving, but requires M.O.Q of 500 pieces.

**The designs and quotations of this product are only made on the basis of customer's specs, and depend on the dimensions of the heating wire (diameter, length, power), and type, gauge and length of the cord.**

### Defrost termination over-molded thermostat type 49JE



#### Technical features

The assembly is waterproof, frost proof, short immersion proof, protects the connection of the power cord to the thermostat, protects the thermostat housing and is terminate the defrost when the temperature rise to a warm temperature. The thermostat is mounted on a heat exchanger or on a pipe, with its sensitive disc located thereon. He is secured there with a spring or with a bracket.

The temperature sensitive cup is made in stainless steel and is not covered by the over-molding, to optimize the temperature measurement and the response time.

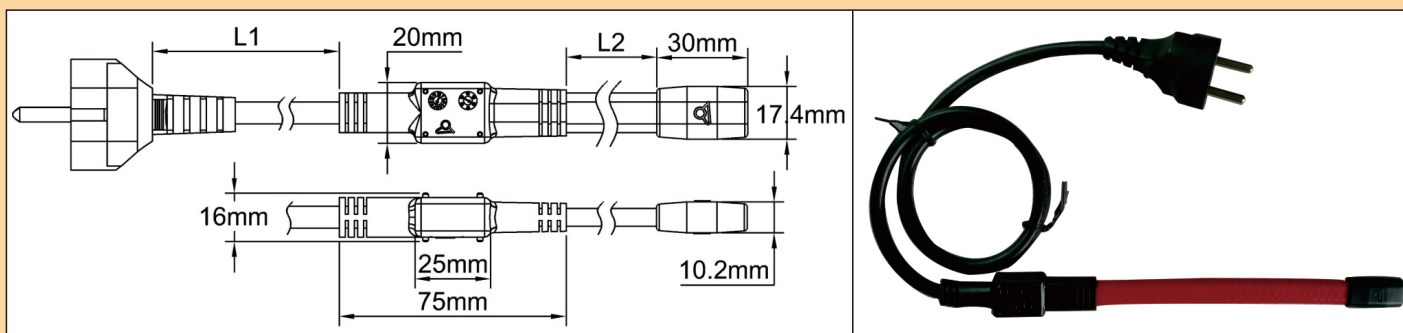
This type of assembly is cost saving, but requires M.O.Q of 500 pieces.

**The designs and quotations of this product are only made on the basis of customer's specs, and depend on the thermostat open and close temperatures, and type, gauge and length of the cord.**

# Technical over-molding of thermostats, types 49C, 49JE, 9DHT

(P2)

## Over-molded junction between cord and heat tracing cable, type 9DHT



### Technical features

The assembly is waterproof, frost proof, short immersion proof, protects the connection of the power cord to the heating cable. The flexibility of the over-molding is compatible with the heating cable. The free end of the heating cable receives also an over-molding to make it waterproof.

This type of assembly is cost saving, but requires M.O.Q of 500 pieces.


**The designs and quotations of this product are only made on the basis of customer's specs, and depend on the dimensions of the heating wire (diameter, length, power), and type, gauge and length of the cord.**

## Notes

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## Other catalogues


**JPC** 1



**ELECTROMECHANICAL AND ELECTRONIC THERMOSTATS RANGE**  
For incorporation in heating and air conditioning systems, housing and cabinets. See catalogues N°2 and N°3.  
Explosion proof versions: See catalogue N°4.  
The professional solution: an extended, rational, and consistent range of products.  
Technical catalogue for R&D department  
Edition 10-11-2017

JPC

**JPC** 2



**THERMOSTATS WITH INGRESS PROTECTION HOUSINGS**  
and connection boxes for heating elements.  
The professional solution: an extended, rational, and consistent range of products.  
Technical catalogue for R&D department  
Edition 10-11-2017

JPC

**JPC** 3



**INDUSTRIAL ELECTRONIC AND THERMOSTAT CONTROLS**  
Electronic controllers, thermostat control boxes, sub-assemblies and accessories for temperature control in electro-thermal equipment.  
For:  
Heat tracing, immersion heaters, Air heaters,  
Flexible surface heating elements, HVAC.  
The professional solution: an extended, rational, and consistent range of products.  
Technical catalogue for R&D department  
Edition 10-11-2017

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**JPC** 4



**EXPLOSION PROOF THERMOSTATS**  
The professional solution: an extended, rational, and consistent range of products.  
For industrial and high end applications in non-hazardous area: See our catalogue N°3.  
For standard applications with ingress protection housing, in non-hazardous area: see our catalogue N°2.  
For incorporation in non-hazardous area see our catalogue N°1.  
Technical catalogue for R & D Departments  
Edition 10-11-2017

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**JPC** 5



**PRESSURE SWITCHES**  
Air switches  
Positive pressure switches  
Vacuum pressure switches  
Differential pressure switches  
Elastomer membrane types, medium pressure range (20 to 1500 mbar).  
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Technical catalogue for R&D department  
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**JPC** 6



**FLOW SWITCHES AND COMBINATION CONTROLS**  
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**JPC** 7



**FLOAT LEVEL SWITCHES**  
Vertical and horizontal models  
For OEM applications.  
The professional solution: an extended, rational, and consistent range of products.  
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**JPC** 8



**HUMIDISTATS and Electronic humidity controls**  
The professional solution: an extended, rational, and consistent range of products.  
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**JPC** 9



**FIRE DETECTION FUSIBLE LINKS**  
A fusible link is a mechanical part that breaks at a preset temperature, they are used in fire detection system to open or close doors, dampers, vents etc... if ambient temperature rise upon a certain value.  
The professional solution: an extended, rational, and consistent range of products.  
Technical catalogue for R&D department  
Edition 10-11-2017

JPC

**JPC** 10



**CERAMIC CONNECTION BLOCKS and Special connectors**  
The professional solution: an extended, rational, and consistent range of products.  
Technical catalogue for R&D department  
Edition 10-11-2017

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**JPC** 11



**Immersion heaters accessories**  
- PA66, PP, PVDF, Aluminum, Stainless steel enclosures  
- Forged brass fittings, deep drawn stainless steel fitting  
- Stainless steel, titanium and quartz pockets  
The professional solution: an extended, rational and consistent range of products.  
Technical catalogue for R & D department  
Edition 2017-03-15

JPC

**JPC** 12



**Heat tracing accessories**  
- Adjustable or fixed setting anti-freeze waterproof thermostats  
- Waterproof or DIN rail mounting electronic thermostats  
- Connection boxes and control boxes  
- Heat tracing cables termination by silicone boots, gel filled boots, and over-molding  
- Heating wires net mounting strips  
The professional solution: an extended, rational and consistent range of products.  
Technical catalogue for R & D department  
Edition 2017-03-01

JPC