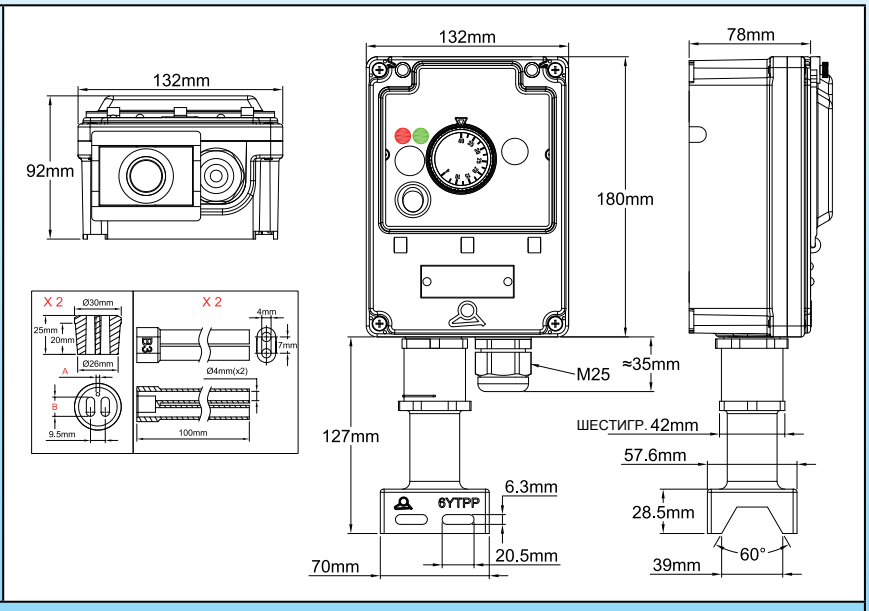
Electronic thermostat, NTC sensor, for heat trace pipe temperature control, vertical foot mounting on pipe

Temperature ranges	Mounting	Adjustment	Sensor	Action type	Types
-35+35°C (-30+95°F) 0-10°C (32-50°F) 4-40°C (40-105°F) 30-90°C (85-190°F) 30-110°C (85-230°F) 20-125°C (68-260°F)	Vertical foot mounting on pipe	Printed knob	NTC thermistor	On-Off	**Y8WR-Z**



Example of assembly on pipe

Applications

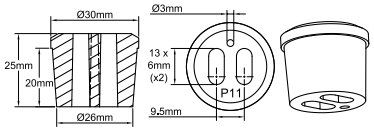
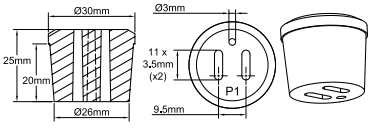
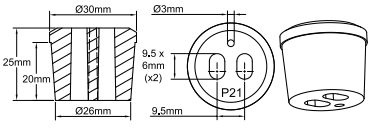
These waterproof control boxes designed for **vertical mounting on pipes** allow to control the surface temperature of pipes **on site**. The connection to the heating elements and the temperature sensor is made by a pipe mounting foot incorporating the seal.
The use this model is simple and intuitive, similar to electromechanical thermostats, and does not need specially trained users.
The use of a wired temperature measurement sensor, which can be disconnected, overcomes the wall crossing problems of bulb thermostats, the capillary of which cannot be cut. Then proceeding to installation of the temperature control unit after mounting the heating cables and the temperature sensor is possible, as well as after installation of the pipe insulation and its protective sheath if they exist.

Electronic thermostat, NTC sensor, for heat trace pipe temperature control, vertical foot mounting on pipe

Main features

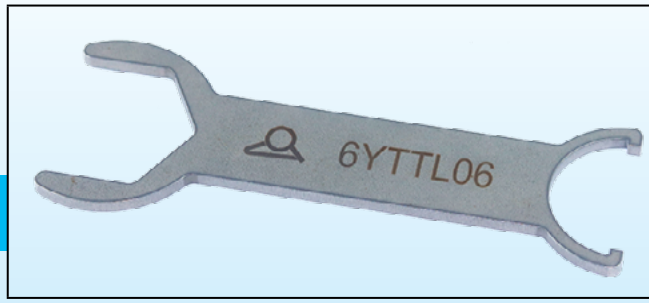
Enclosure: IP69K, reinforced PA66, with polycarbonate window access. Sealable cover and window.
Assembly: Pipe mounting by PPS foot with heating cables crossing watertight seal. Two passages are provided in the foot for tightening it on the pipe by two nylon ties or metal hose clamps.
Cable gland and foot: Mounted on a removable board, facilitating assembly. This board has an M25 cable gland for the power supply cable. The heating cables exit through the foot. (The PPS foot is shipped unassembled on the box)
Foot gasket: Is mounted inside the foot as standard, a silicone seal designed for two heating cables and one hole for temperature sensor cable dia. 2 to 3mm. (For more information about these seals, see the catalogue page on 6YTPP pipe mounting legs)
Accessories: Are included two flexible boots in silicone with two bus wire funnels, length 100mm, intended to shield the conductors of the self-regulating cables after cutting off the heating zone. (For more information about these boots, see the accessories pages 6YTNB in this catalogue).
Electrical connection: On internal terminal block with screw terminals
Cable gland: One M25 cable gland for the power supply cable.
Miscellaneous devices: Main illuminated switch and safety fuse.
Electronic thermostat: Adjustment by knob printed in °C or in °F.
Action: ON-Off. (The differential adjustment is possible by a potentiometer accessible by removing the knob)
Temperature sensor: NTC, R @ 25°C: 10 Kohms (± 1%), B @ 25/50° 3380 Kohms (± 1%). Interchangeable sensors.
Power output: By 16A 230V resistive relay
Power supply: 220-230V AC, 50-60Hz.
Self-check: Open sensor circuit detection.
Ambient temperature: -10 to 60°C, 20 to 85% relative humidity, non-condensing.
Option: pipe seals with different cables section holes (See the range of 6YTRP seals in the various accessories pages)

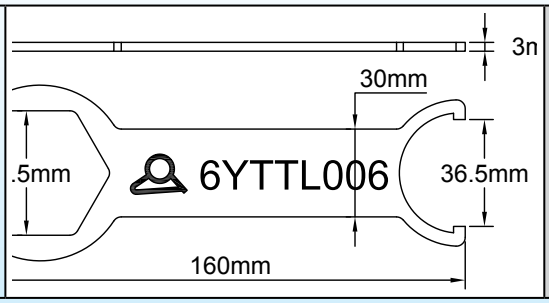
Main part numbers, temperature sensor not included*
(With °C printed knob**)

Temperature ranges	Part numbers***		
	Two holes for heating cables from 11x4mm to 13x6mm and one hole for temperature sensor cable diameter 2 to 3mm (Seal reference 6YTP11)	Two holes for heating cables from 9.5x2.5mm to 11x3.5mm and one hole for temperature sensor cable diameter 2 to 3mm (Seal reference 6YTP1).	Two holes for heating cables from 8x5mm to 9.5x6mm and one hole for temperature sensor cable diameter 2 to 3mm (Seal reference 6YTP21).
			
-35+35°C (-30+95°F)	Y8WRC02100200AUZ	Y8WRC02100100AUZ	Y8WRC02100300AUZ
0-10°C (32-50°F)	Y8WRR02100200AUZ	Y8WRR02100100AUZ	Y8WRR02100300AUZ
4-40°C (40-105°F)	Y8WRD02100200AUZ	Y8WRD02100100AUZ	Y8WRD02100300AUZ
30-90°C (85-190°F)	Y8WRE02100200AUZ	Y8WRE02100100AUZ	Y8WRE02100300AUZ
30-110°C (85-230°F)	Y8WRF02100200AUZ	Y8WRF02100100AUZ	Y8WRF02100300AUZ
20-125°C (68-260°F)	Y8WRM02100200AUZ	Y8WRM02100100AUZ	Y8WRM02100300AUZ

* For compatible temperature sensors, see the page on TNR6 products in this catalogue
** For °F printed knobs, replace 100 by 102 in the reference
*** This seal is shipped with a plug allowing to use only one heating cable.

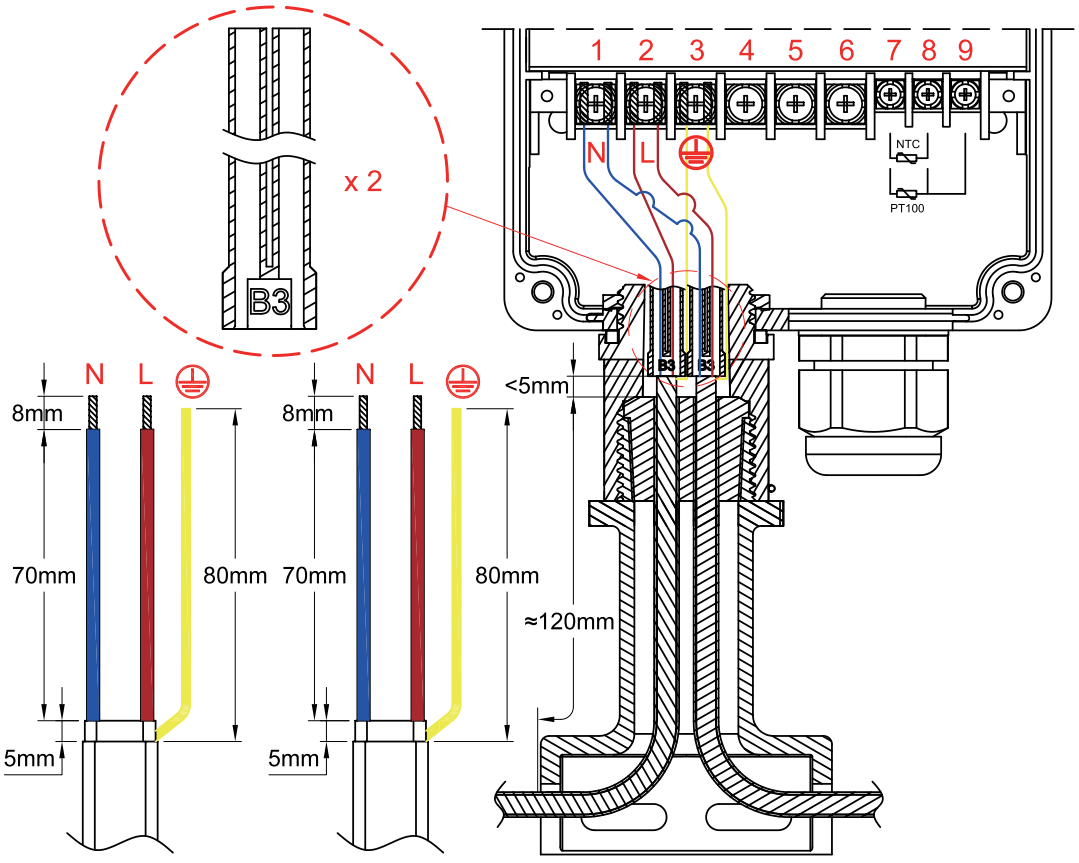
Wrench for leg assembly (To be ordered separately)





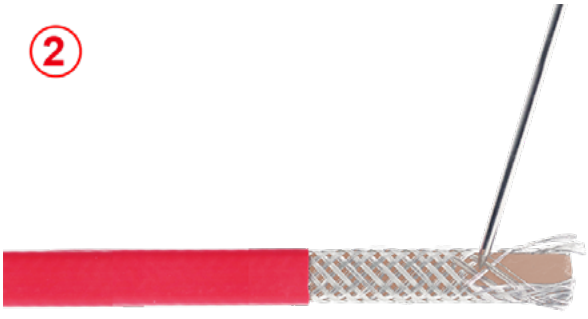
6YTTL06

Stripping dimensions of the braided self-regulating cables, and of the power supply cable and their wiring.



Self-regulating cables assembly steps

1: Cut the cable, remove the external jacket on the requested length



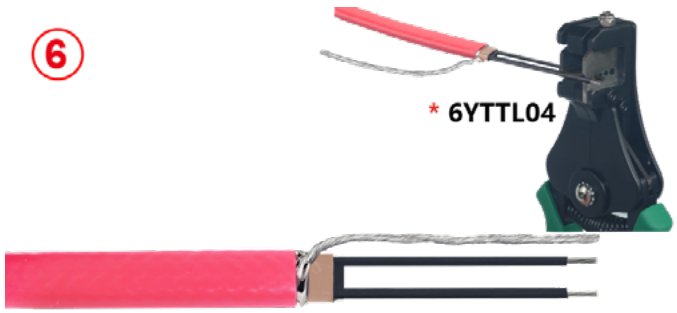
2: Unweave the braid on all this length with a tool with round edges or a screw driver .(For more details about this step #2, read the technical introduction)

* These exclusive tools are available in accessories section

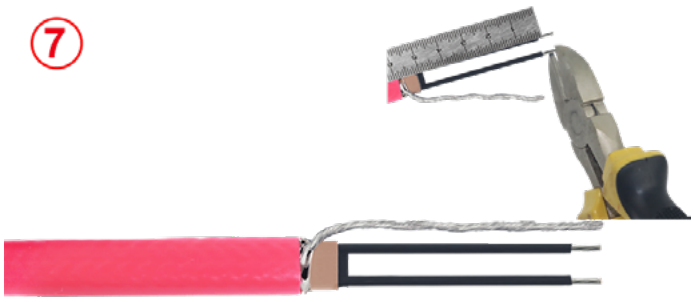
3: Twist the braid to make a round wire.

4: Remove the electric insulation sleeving on the requested length.

5: Cut and remove the heating section between the two bus wires on the requested length



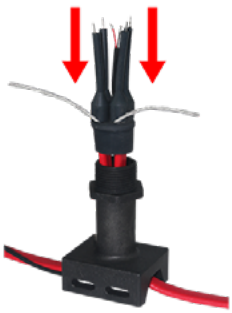
6: Strip off the semiconductor plastic remaining on the bus wire ends to the requested length.



7: Cut the stripped bus wires and the ground wire to the requested length.

8: Place the foot on the heating cables and on the temperature sensor cable, bringing them out from above, then slide the gasket over the cables. The outer insulating sheath must protrude from the gasket.

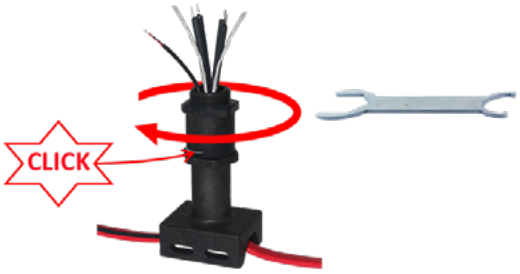
9: Fill the mouth of the silicone boot with silicone resin (RTV).



10: Slide the boot over the conductors of the heating cables, leaving the earth conductor outside.

* These exclusive tools are available in accessories section

11



11: Compress the seal by screwing the upper part of the foot. When tightening is complete, a small spring comes to block the assembly (To disassemble, it is necessary to remove this small semi-circular spring).

12

12: Place the gasket in the upper recess of the foot, then the control unit above. Orient the housing according to the desired position, then place and tighten the toothed nut until it locks.

13

13: Connect the conductors and the temperature sensor according to the wiring diagram. Connect the power supply cable. Close the control box.

Stripping dimensions and wiring of the power supply cable