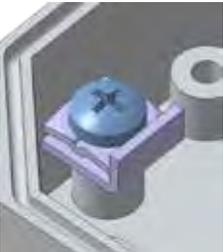
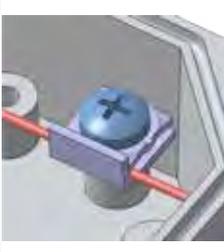


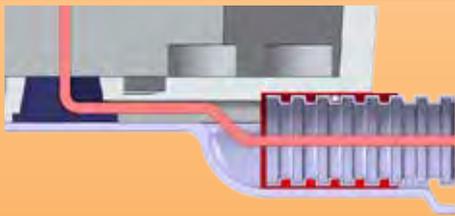
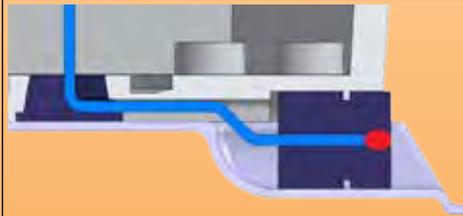
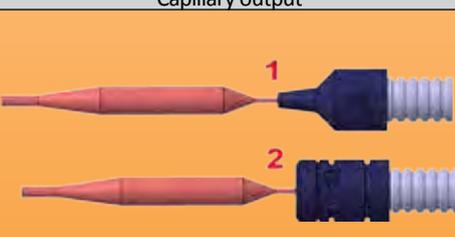
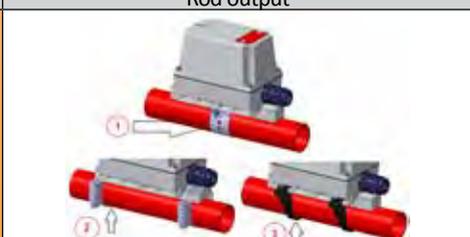
Technical introduction to the Y1 range

Electrical connections and cable outputs

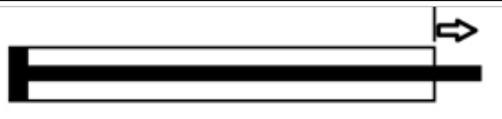
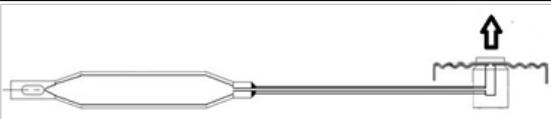
					
The internal grounding is made by a M4 stainless steel terminal with saddle and anti-loosening washer	Metallic adjustment shafts and capillaries are grounded (compliance to EN 60335-1, § 22-34)	The electrical connection of single pole bulb and capillary models is made by a 3 x 2.5 mm ² terminal block, 15A, 250V, with terminal protection cover. (compliance with EN60335-26-1)	The electrical connection of 2 and 3 pole limiters, 3 pole thermostats, bimetal rod thermostats and electronic control is made directly to the screw terminals on the device	Thermostats are mounted on the bottom of the enclosure, without electrical or capillary connection to the cover to facilitate wiring. (With the exception of 3 pole models with external handle, and electronic controls)	Output made by cable gland ISO M16 PA66, IP68, for cable dia. 5 to 10 mm. 3 pole models and electronic versions have two M16 cable glands.

Sensors and temperature measurement probes

- Electronic ambient measurement sensor are protected by a silicone boot.
- The outputs of the temperature sensors of electronic models are protected by a flexible stainless steel sheath.
- The outputs by capillary are protected by a flexible stainless steel sheath terminated by a ferrule for pocket mounting, or by a flexible silicone termination for measurements without pocket.
- Rod thermostat outputs are sealed with gasket.
- Rod thermostats exist with bimetallic expansion or liquid expansion measuring system
- The pocket mounting system is identical across the Y1 range (see Y1 range accessories)
- Rods are made of 304L stainless steel

		
Capillary output	Electronic ambient measurement sensors	Rod output
		
Silicone boot (1) or ferrule (2) termination for capillary output	Rod output pocket mounting system	Pipe mounting bracket model (1: SS304 band, 2: Hose clamps, 3: Tie wraps)

Temperature measurement principles (non electronic models)

Bimetallic expansion measurement: Used on some rod models.	Liquid expansion measurement: Used on the ambient control thermostats, bulb and capillary thermostats, pipe mounting thermostats and on some rod thermostat models
	
Advantages: <ul style="list-style-type: none"> - Fast response time, - No risk of leakage measurement - Simple mechanical - Insensitive to ambient temperature variations on the head - Measurement of the average temperature over the entire length of the rod - Good resistance to overheating Disadvantages: <ul style="list-style-type: none"> - Relatively sensitive to vibrations, - Rigid rod cannot be bent or folded - Length cannot be changed 	Advantages: <ul style="list-style-type: none"> - Available in different capillary lengths - Allows to make rod thermostats with short or very long probes - Flexibility of the capillary - Quite insensitive to vibrations Disadvantages: <ul style="list-style-type: none"> - Sensitive to ambient temperature variations on the body - The risk of leakage on bulb or capillary requires in some applications to use failsafe limiters - The overheating of the bulb beyond the permissible values may cause deterioration of the diastat

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Technical introduction to the Y1 range

Comparative features of the Y1 range models Ambiance control thermostats, antifreeze thermostats

Type Y1	Type inside	Sensing element		Set point adjustment access				Action type			Contacts	Limits of possible temperature ranges
		Liquid expansion	Electronic sensor	Inside	Cap	Window	Outside Knob	Control	Manual reset	Combination control + reset		
Y1A	KR KU											-25+70°C
Y1A	8G*											-35+40°C
Y1B	KR KU											-25+70°C
Y1B	8G*											-35+40°C
Y1C	KR KU											-25+70°C
Y1C	8G*											-35+40°C
Y1C	8C											-35+40°C
Y1D	2PE2N											-35+40°C
Y1E	2PE2N											-35+40°C
Y1F	2PE2N											-35+40°C

* This range can also be done with manual reset models or combined control thermostat + manual reset (Unusual options). Contact us for references

Pipe surface mounting thermostats (liquid expansion sensor)

Type Y1	Type inside	Set point adjustment access				Manual reset access		Action type			Contacts	Limits of possible temperature ranges
		Inside	Cap	Window	Outside Knob	Inside	Outside access under screwed cap	Control	Manual reset	Combination control + reset		
Y10	KR, KU											0+120°C
Y10	8G											4+110°C
Y11	KR, KU											0+120°C
Y11	8G											4+110°C
Y12	KR, KU											0+120°C
Y12	8G											4+110°C
Y12	8C											4+120°C
Y13	8L*											30-120°C
Y13	8X*											70-120°C
Y13	82*											70-120°C
Y14	KXA*, KXF											0+120
Y15	KXA*											0+120
Y16	8G+8L*											4+120°C
Y17	8G+8L*											4+120°C

* This range can also be done with internal manual reset (Unusual options). Contact us for references

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