

Electronic Temperature Sensors

- Process connection: 1/4" NPT
- 2 switching outputs complementary hysteresis adjustable
- Measuring range of -13 - 284 °F (-25 - 140 °C)

Function

The unit generates 2 output signals: 1 x NO + 1 x NC with separately adjustable switch points (SET 1) and (SET 2).

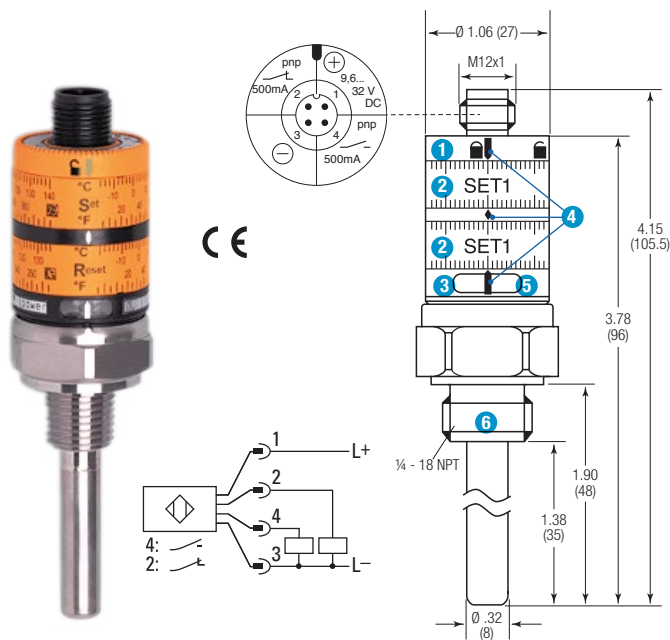
OUT1

- With rising temperature OUT1 closes when the set value (SET1) is reached.
- With falling temperature OUT1 opens when the value (SET1) minus hysteresis is reached.

OUT2

- With rising temperature OUT2 opens when the set value (SET2) is reached.
- With falling temperature OUT2 closes when the value (SET2) minus hysteresis is reached.

The hysteresis is fixed at 5 K.

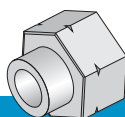


- 1 locking ring
- 2 setting rings (manually adjustable after unlocking)
- 3 LED yellow: lights if OUT1 = ON, temperature > [SET1]
- 4 setting marks
- 5 LED yellow: lights if OUT2 = ON, temperature < [SET2]
- 6 process connection 1/4" NPT

Pin 4 = OUT1 / Pin2 = OUT2

To obtain the setting accuracy, set both rings to minimum values, and then set desired values. All dimensions in inches (millimeters), unless noted otherwise.

Sensor Port Adapters



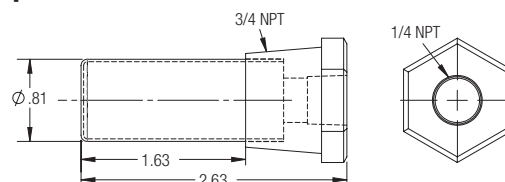
Part Number	Description
51627	#8SAE TO 1/2" BSPP
51653	#8 SAE TO 1/4" NPT
51654	#8 SAE TO 1/2" NPT

Technical Data

Application	Liquid and Gases
Electrical Design	DC PNP
Output	Normally open/closed complementary
Operating voltage (V)	9.6 - 32*
Current rating (mA)	500
Short-circuit protection	Yes (non-latching)
Reverse polarity protection	Yes
Overload protection	Yes
Voltage drop	< 2
Current consumption	< 30
Setting Range	
Set point, SP	3 - 284 / 37 - 543 °F (-16 - 140 / 3 - 284 °C)
Reset point, rP	-4 - 277 / 25 - 531 °F (-20 - 136 / -4 - 277 °C)
Adjustment of the switch point	Shims
Accuracy	
Setting accuracy	± 3 K
Repeatability	± 0.1 K
Temperature drift	0.1 / 10 K
Power-on delay time	0.5 s
Measuring element	1 x Pt 1000, to DIN EN 60751, class B
Dynamic response T05 / T09	1/3 s**
Minimum installation depth	.59 inches (15 mm)
Medium temperature	-13 - 257 °F (-25 - 125 °C) 293 °F (145 °C) max. 1 h
Ambient temperature	-13 - 158 °F (-25 - 70 °C)
Storage temperature	-40 - 257 °F (-40 - 212 °C)
Protection	IP 67, III
Shock resistance	DIN IEC 68-2-27:50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6:20 g (10 - 2000 HZ)
EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 Kv EN 61000-4-6 HF conducted: 10V
Housing materials	Stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); FPM (Viton)
Materials (wetted parts)	Stainless steel 316L / 1.4404
Display	Power: LED green; Switching status: LED yellow
Connection	M12 connector; gold-plated contacts
Weight	0.229 lbs (0.104 kg)

*Operating voltage "supply class 2" to cULus. ** According to DIN EN 60751
The values for accuracy apply to flowing water.

Optional Bulb Well



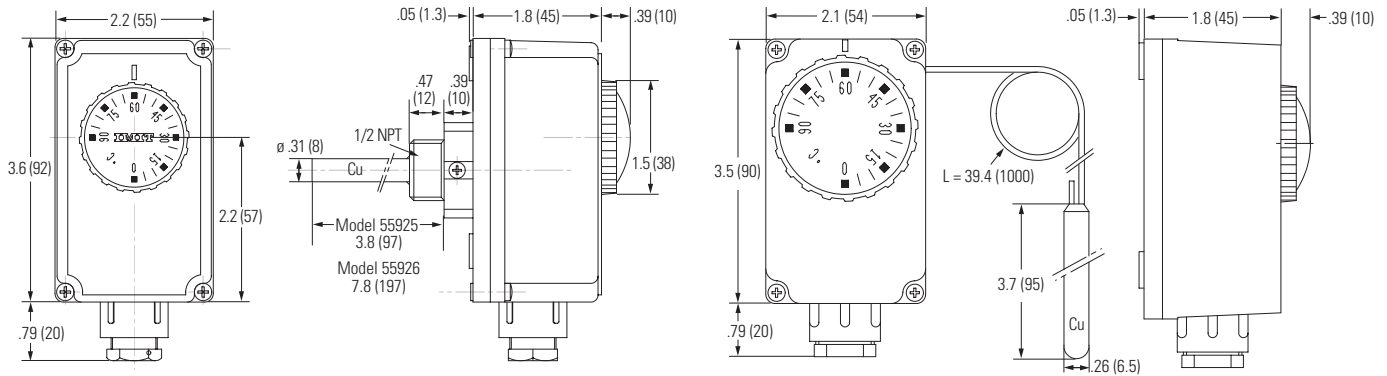
Part Number	Description
55857	Temperature Sensor, dual PNP outputs, 1/4" NPT
55858	Cover, Protective, PK
55859	4-wire Micro DC cordset, straight connector
51661 (Optional)	Bulb Well

Electronic Temperature Sensors

Low Cost, Simple Setup

Immersion thermostat, measuring temperature with a liquid filled sensing element. SPDT contacts, complete with waterproof protection pocket. Used to measure temperature on the primary heating pipe circuit, it is particularly suitable for automatic adjustment pumps.

- Contacts rating: 10(2,5)A/250V~
- Contacts: switching or closing contact for temperature increase
- Maximum head temperature: 176°F (80°C)
- Maximum bulb temperature: 257°F (125°C)
- Temperature rate of change: 1° K/min
- Protection degree: IP40



All dimensions in inches (millimeters), unless noted otherwise.

Part Number	Temperature Range	Differential	Maximum Bulb Temperature	Capillary Length	Protection Pocket 1/2" NPT	Copper Bulb
55925	0°/194°F (0°/90°C)	$\Delta t = 4 \pm 1K$	266°F (130°C)	NA	.27x.31x4" (7 x 8 x 100 mm)	NA
55926	0°/194°F (0°/90°C)	$\Delta t = 4 \pm 1K$	266°F (130°C)	NA	.27x.31x8" (7 x 8 x 200 mm)	NA
55927	0°/194°F (0°/90°C)	$\Delta t = 4 \pm 1K$	266°F (130°C)	39" (1000 mm)	NA	Ø .26x3.7" (6.5 x 95 mm)