

EGT 446, 447: Stem-type temp. detector with platinum measuring element

How energy efficiency is improved

Accurate detection of duct temperature for energy-efficient control of HVAC systems and monitoring energy consumption.

Areas of application

For measuring the temperature in ventilation systems or in pipelines and tanks with LW7 protective tube.

Features

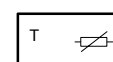
- Passive measured value acquisition
- Can be used in pipelines and tanks with optional LW 7 protective tubes
- Cable entry with tension-relief bushing

Technical description

- Platinum thin-film sensor as per EN 60751
- Housing made of yellow and black flame-retardant thermoplastic (RAL 9010)
- Cable clamping sleeve Pg 11
- Screw terminals for wires up to 1.5 mm²
- Immersion stem made of 6.5 mm \varnothing copper (without protective tube)
- Active length 15 mm



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Type	Stem mm	Nominal value at 0 °C	Measuring range °C	Weight kg
EGT 446 F011	120	100 Ω	-30...130	0.07
EGT 446 F101	120	1000 Ω	-30...130	0.07
EGT 447 F011	225	100 Ω	-30...130	0.08
EGT 447 F101	225	1000 Ω	-30...130	0.08

Resistance values as per	EN 60751, Class B	Max. temp. at head	80 °C
Tolerance at 0 °C	$\pm 0,3$ K	Degree of protection	IP 42 (EN 60529)
Mean temp. coefficient	0.00385 K ⁻¹	Wiring diagram	A01632
Self-warming (in air)	0.25 K/mW	Dimension drawing	M08527
Time characteristic:		Fitting instructions	MV 505497
in air, without prot. Tube	Dead time Time const.		
still	18 s 330 s		
moving (3 m/s)	9 s 60 s		
in water, with prot. tube 1)	Dead time Time const.		
still	7 s 28 s		
moving (0,4 m/s)	6 s 27 s		

Accessories

- 0364439** . . . LW 7 pockets; of brass; R $\frac{1}{2}$; see Section 39
- 0226811** . . . LW 7 pockets; of stainless steel; G $\frac{1}{2}$ A; see Section 39
- 0368840 000*** Holder for fitting stem on wall
- 0368839 000*** Holder for fitting stem in air duct
- 0313220 001** Heat-conducting paste, in a tube of 20 g

*) Dimension drawing or wiring diagram are available under the same number

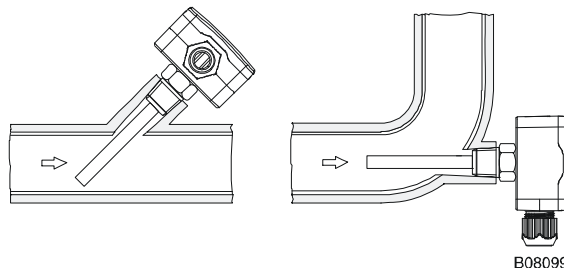
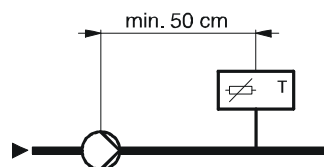
1) With heat-conducting paste

Operation

The resistance value of the platinum measuring resistor changes with respect to temperature. The temperature coefficient is always positive, i.e. the resistance value increases as the temperature rises. See EN 60751 for Pt curve. The elements are exchangeable (within the limits of the prescribed tolerances)

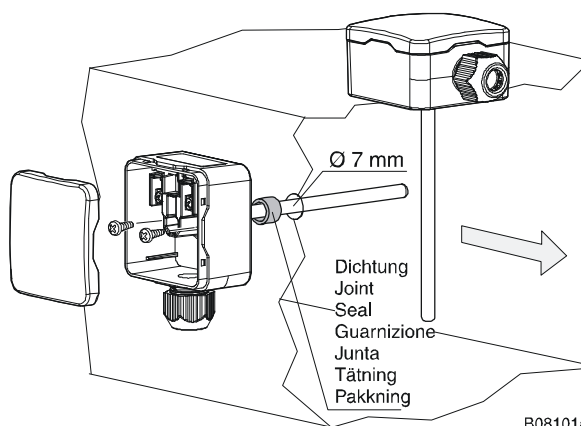
Engineering and fitting note

In water:
 For use in pipes and containers, the detector must be fitted into a protective tube (LW 7) using the holder. The detector can be adjusted so as to account for different thicknesses of pipe insulation. It should be fitted against the direction of flow.



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In air ducts:
 The detector is fitted directly onto the insulation or onto the wall of the air duct. Using the stem holder (accessory no. 0368839) and the clamping ring (accessory no. 0313282) the insertion depth can be adjusted.

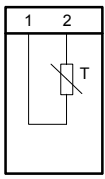


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Additional technical data

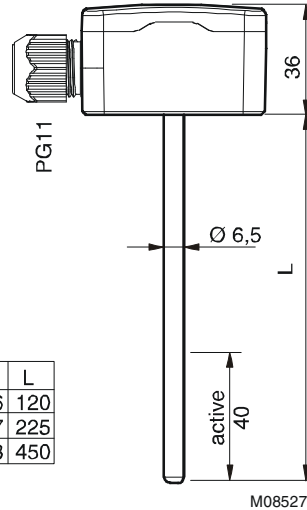
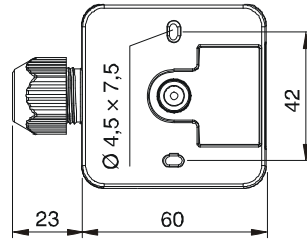
Complies with:	EMC Directive 2004/108/EC	EN 61000-6-1/ EN 61000-6-2
		EN 61000-6-3/ EN 61000-6-4

Wiring diagram



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Dimension drawing



Typ	L
EGT . 46	120
EGT . 47	225
EGT . 48	450

Accessories

