

## EGT 311: Clamp-on temperature detector

### How energy efficiency is improved

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

### Areas of application

Quick and easy temperature measurement on pipelines.

### Properties

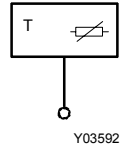
- Passive measured value acquisition
- Includes strap retainer for 10 to 100 mm ø pipe and heat-conducting paste

### Technical description

- Measurement is effected with a nickel thin-film sensor as per DIN 43760
- Cable inlet Pg 11. Screw terminals for wires up to 1,5 mm<sup>2</sup>



T09061



Y03592

Type	Nominal value at 0 °C	Measuring range °C	Weight kg
EGT 311 F021	200 Ω	-30...130	0,1
EGT 311 F101	1000 Ω	-30...130	0,1
Resistance values as per	DIN 43760	Max. temp. at head	80 °C
Tolerance at 0 °C	± 0,4 K	Degree of protection	IP 42 (EN 60529)
Mean temp. coefficient	0,00618 K <sup>-1</sup>	Wiring diagram	<a href="#">A01632</a>
Self-warming	0,1 K/mW	Dimension drawing	<a href="#">M07664</a>
Time characteristic (water 1 m/s) <sup>1)</sup>		Fitting instructions	MV 505496
Dead time	1 s		
Time constant	9 s		

### Accessories

**0313346 001\*** Module 0-10 V for Ni1000; 24 V~; MV 505513; A08091, IP 00 (IP 42 when fitted in housing) 4 temp. ranges: -50...0 °C; -50...50 °C; 0...50 °C; 0...100 °C

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

1) With heat-conducting paste

### Operation

The resistance value of the Ni measuring resistor changes with respect to temperature. The temperature coefficient is always positive, i.e. the resistance value increases as the temperature rises. See table of values (DIN 43760). The elements are exchangeable (within the limits of the prescribed tolerances).

### Engineering and fitting notes

Do not use pipes of more than 50 mm diameter, since layer of heat may arise; use stem or cable sensors with pocket. Heat-conducting paste should be spread onto the active copper surface and the sensor fixed with the band (quick-release mechanism) to the pipe at a spot where the metal is bare.

### Further details on the accessories

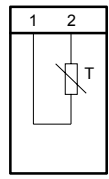
The module evaluates the signal of an Ni1000 measuring resistor and converts it into an output signal of 0...10 V. The module is fitted in the sensor housing.

Input:	temperature sensor Ni1000	Output:	0...10 V, load > 5 kΩ
Measuring range can be changed:	-50...0 °C	Ambient temperature:	-30...80 °C
	-50...50 °C	Degree of protection:	IP 00 (IP 42 fitted in housing)
	0...50 °C (factory setting)	Auxiliary supply:	24 V~ ± 20%
	0...100 °C		
Error:	max. 1 °C zero-point error		
	max. 1 °C span error		

### Additional technical data

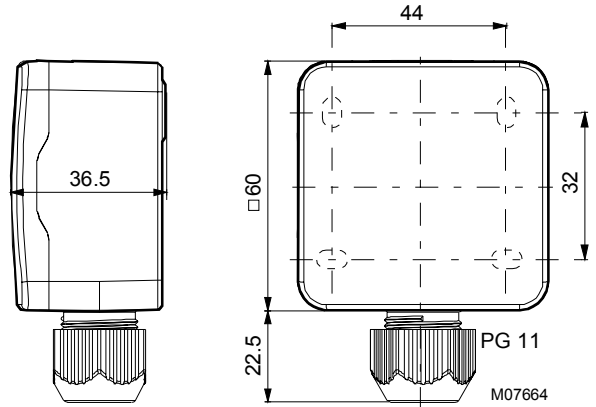
Complies with:-	
EMC directive 2004/108/EC	EN 61000-6-1/ EN 61000-6-2 EN 61000-6-3/ EN 61000-6-4

**Wiring diagram**

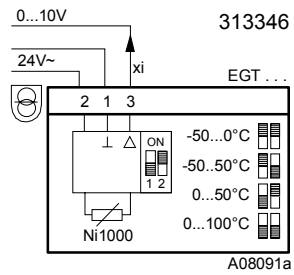


A01632

**Dimension drawing**



**Accessoire**



A08091a