

EGT 301: Outside-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

Outside temperature measurement, e.g. for weather-compensated heating systems.

Properties

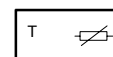
- Particular protection against dust and humidity
- Passive measured value acquisition
- Cable inlet at rear or from underneath

Technical description

- Measurement is effected with a nickel thin-film sensor as per DIN 43760
- Housing made of pure white, fire-retardant thermoplastic (RAL 9010)
- Cable inlet at rear, screw terminals for wires up to 1,5 mm²
- Surface or recessed junction boxes can be used



T05083



Y04579

Type	Nominal value at 0 °C	Measuring range °C	Weight kg
EGT 301 F021	200 Ω	-50...80	0,1
EGT 301 F051	500 Ω	-50...80	0,1
EGT 301 F101	1000 Ω	-50...80	0,1

Resistance values as per Tolerance at 0 °C	DIN 43760 ± 0,4 K	Degree of protection	IP 54 (EN 60529)
Mean temp. coefficient	0,00618 K ⁻¹	Wiring diagram	A01632
Self-warming	0,2 K/mW	Dimension drawing	M04686
Time characteristic in air	Dead time	Fitting instructions	MV 505377
still	1,5 min	Time const.	
moving (1 m/s)	1 min		
	10 min		
	6 min		

Accessories

- 0313346 001*** Module 0-10 V for Ni1000; R>5 kΩ; 24 V~ ± 20%;
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
- 0370560 011** Cable screw fitting Pg 11; of thermoplastic; for cable Ø 9...11 mm

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

Operation

The resistance value of the nickel 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

Suitable for either surface or recessed fitting. The external sensor should not be exposed to direct sunlight and should not be fitted above windows or ventilation outlets, or next to chimney flues or other heat sources.

Further details on the accessories

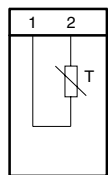
The module evaluates the signal of an Ni1000 measuring resistor and converts it into an output signal of 0...10 V. The module is fitted in the sensor housing.

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

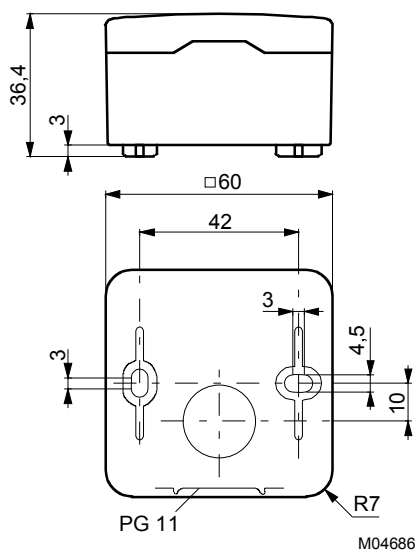
Complies with:- EMC directive 2004/108/EC	EN 61000-6-1/ EN 61000-6-2 EN 61000-6-3/ EN 61000-6-4
--	--

Wiring diagram

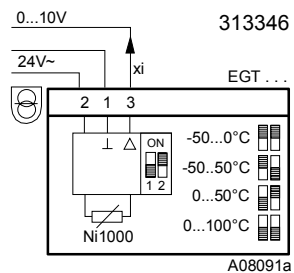


A01632

Dimension drawing



Accessories



313346

EGT...

A08091a