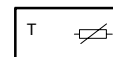
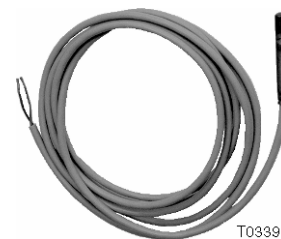


## EGT 354, 356: Cable-type temperature sensor

For measuring the temperature in rooms and air ducts or on surfaces. The LW 7 protective tube (pocket) is used for pipes and containers, and the fixing kit (accessory) is required for use on surfaces. For direct connection in systems with short distances between controller and sensor.

Nickel thin-film sensor as per DIN 43760, cast in brass sleeve  $\varnothing$  6 mm, 50 mm long, of which the active length is 15 mm; connecting cable  $\varnothing$  5 mm, 1 m long, fixed to the sensor; supplied with holding spring. Wires  $2 \times 0,5 \text{ mm}^2$ . The standard version has a cable of 1 m in length.



Y04579

Type	Nominal value at 0°C	Measuring range °C	Weight kg
For normal temperatures: PVC cable			
EGT 354 F021	200 $\Omega$	-20...100	0,12
EGT 354 F051	500 $\Omega$	-20...100	0,12
EGT 354 F101	1000 $\Omega$	-20...100	0,12
or higher temperatures: cable with silicon coating			
EGT 356 F021	200 $\Omega$	-40...180	0,12
EGT 356 F051	500 $\Omega$	-40...180	0,12
EGT 356 F101	1000 $\Omega$	-40...180	0,12
Resistance values	DIN 43760	Degree of protection	IP 55 (EN 60529)
Tolerance at 0°C	$\pm 0,4 \text{ K}$	Wiring diagram	<a href="#">A01632</a>
Mean temp. coefficient	0,00618 $\text{K}^{-1}$	Dimension drawing	<a href="#">M05322</a>
Self-warming	0,11 $\text{K/mW}$	Fitting instructions	MV 505423
<b>Time characteristic:</b>			
clamped on pipe <sup>1)</sup>	<b>Dead time</b> <b>Time constant</b>		
water (0,4 m/s)	approx. 7 s    23 s		
with LW 7 pocket <sup>2)</sup>	<b>Dead time</b> <b>Time constant</b>		
water (0,4 m/s)	approx. 3 s    11 s		

### Variants

EGT 354 F103	1000 $\Omega$ with 3 m of cable, PVC
EGT 354 F110	1000 $\Omega$ with 10 m of cable, PVC
EGT 354 F120	1000 $\Omega$ with 20 m of cable, PVC
EGT 356 F103	1000 $\Omega$ for higher temperatures; with 3 m of cable, silicon
EGT 356 F110	1000 $\Omega$ for higher temperatures; with 10 m of cable, silicon
EGT 356 F120	1000 $\Omega$ for higher temperatures; with 20 m of cable, silicon
EGT 356 F303	200 $\Omega$ with 3 m of cable

### Accessories

0364345 . . .	LW 7 pockets, $G\frac{1}{2}$ A; of brass; see chapter 39
0364439 . . .	LW 7 pockets, $R\frac{1}{2}$ , of brass; see chapter 39
0364244 . . .	LW 15 pockets, $R\frac{1}{2}$ , of brass; see chapter 39
0364346 . . .	LW 15 pockets, $G\frac{1}{2}$ A; brass; for up to 3 sensors $\varnothing$ 6,5 mm; see chapter 39
0364258 . . .	LW 15 pockets, $G\frac{1}{2}$ A; of stainless steel; for up to 3 sensors $\varnothing$ 6,5 mm; see chapter 39
0313275 . . .	Special length for EGT 354 on request
0313300 . . .	Special length for EGT 356 on request
0311835 000*	Tension-relief piece for fitting the sensor into protective tube LW 7; for use up to 100 °C
0312520 000*	Universal tension-relief piece for cable sensors and thermostats with capillary tube; for use up to 180 °C
0313214 001*	Fixing kit for all applications (comprises holder, heat-conducting paste, metal strap)
0313220 001	Heat-conducting paste

<sup>\*)</sup> Dimension drawing or wiring diagram are available under the same number

- 1) As a clamp-on sensor with holder and heat-conducting paste  
 2) 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) and characteristic. The elements are exchangeable (within the limits of the prescribed tolerances).

### Engineering and fitting notes

The power cable of the EGT 356 is of dry-vulcanised silicon and, therefore, low on emissions, so the sensors can be used in painting shops.

The resistance values and tolerances apply only to the sensor elements. You should take the resistance of the cable into account if long leads are used. For the sensor cable (feed and return lines), the following applies:  $R = 0,08 \text{ } [\Omega/\text{m}]$ .

As an immersion sensor:

For use in pipes and containers, the cable sensor must be fitted into either an LW 7 protective tube with tension-relief piece 0311835 or an LW 15 protective tube with tension-relief piece 0312520. Using an LW 15 pocket, the sensor can be used with one or two sensor cartridges of 6,5 mm diameter (e.g. RAK).

As a clamp-on sensor:

The sensor can be fitted to pipes  $\varnothing$  50 mm by means of a holder and a metal strap (fixing kit 0313214). Do not use pipes of more than  $\varnothing$  50 mm diameter, since layers of heat may arise; use stem or cable sensors with pocket.

As a surface sensor:

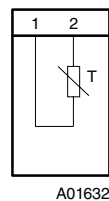
The cable sensor can be fitted to surfaces by means of a holder (fixing kit 0313214) and screws. The time constant depends on the surface.

The pressure spring supplied with the unit optimises the heat transfer when an LW 7 pocket is used. It serves as a spring element when the fixing kit (0313214/001) is used. It is generally advisable to use heat-conducting paste.

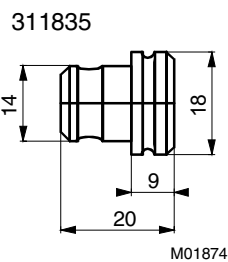
**Additional technical data**

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



**Accessories**



**Dimension drawing**

