

EGH 102: Dew-point monitor and transducer

Prevents dew formation in chilled-beam systems. Activates a valve, thereby either interrupting the flow of cold water or raising its temperature.

Housing of pure-white, fire-retardant thermoplastic; with spring-mounted dew-point sensor; locking relay with change-over contacts; connection terminals ($2 \times 1.5 \text{ mm}^2$); with Pg11 screw fitting of plastic. Included in delivery: strap retainer for pipes of $\text{Ø } 10\text{...}100 \text{ mm}$; heat-conducting paste.

Type	Switching point [%rh]	Sensor	Measuring range [%rh]	Power supply	Weight [kg]
EGH 102 F001	95 ± 4	internal	70-85	24 V \sim/\equiv	0.1
EGH 102 F101	95 ± 4	external	70-85	24 V \sim/\equiv	0.1

Power supply 24 V \sim/\equiv	$\pm 20\%$	Exposure to dew	max. 30 min
Switching difference	fixed, approx. 5 %rh	Ambient temperature	5...60 °C
Power consumption	max. 1 VA	Degree of protection	IP 40 (EN 60529)
Change-over contacts ¹⁾	1A, 24 V \sim/\equiv	Wiring diagram	A09353
Output signal		Dimension drawing F001	M07664
approx. 70...85 %rh	0...10 V, load > 10 k Ω	F101	M10454
Response time in still air:-		Fitting instructions F001	MV 505732
80 to 99 %rh	max. 3 min	F101	MV 506037
99 to 80 %rh	max. 3 min		

1) When driving relays, contactors etc. with $\cos \varphi < 0.3$, the use of an RC section in parallel to the coil is recommended. This reduces pitting of the contacts and prevents high-frequency interference impulses.

Operation

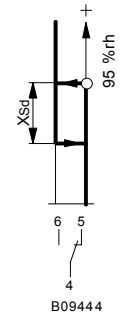
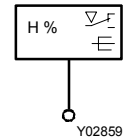
The resistance of the dew-point sensor rises in accordance with the relative humidity. The resistance value is evaluated with the aid of the electronics unit and then (via a holding relay) used to control the change-over contacts. When power is applied, contacts 4-6 close as soon as the switching point is reached or exceeded. At the same time, contacts 4-5 open. If the switching point is undercut by the amount of the switching difference, contacts 4-6 open and contacts 4-5 close. In addition, there is an analogue output signal (Pin 3) available. If no power is applied, contacts 4-6 are closed and contacts 4-5 are open.

Engineering and fitting notes

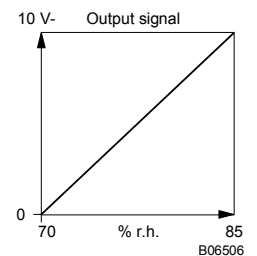
The monitor should be fitted to the supply pipe at its coldest place: the surface of the pipe should be rendered clean and bare, the heat-conducting paste applied sparingly, and the sensor fixed by tightening the strap (snap-shut mechanism).



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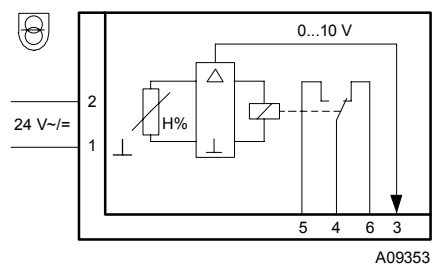


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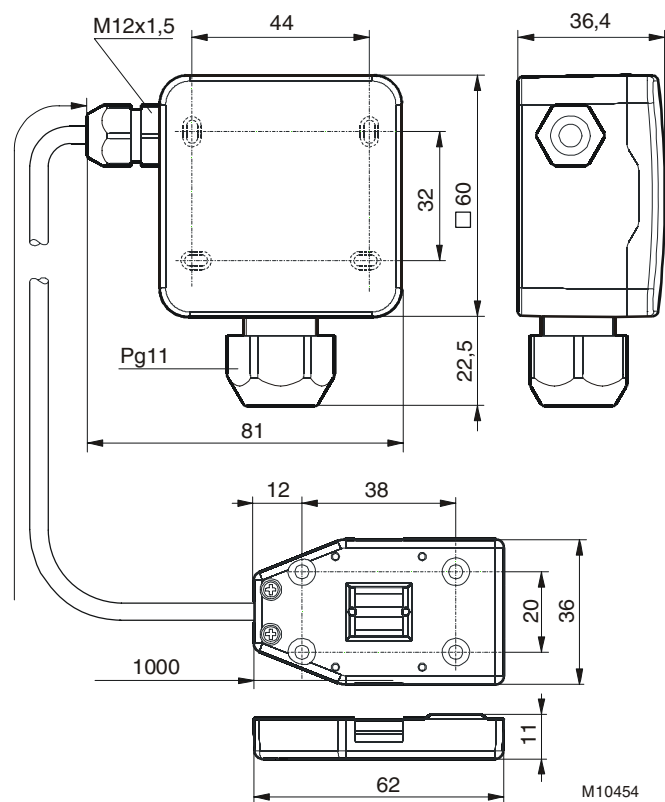
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Wiring diagram
EGH 102 F001/F101



Dimension drawing

EGH 102 F101



EGH 102 F001

