

SPTRA24/SPTRD24 – Dew point monitor Biofloor Connect

COMAP offers the Biofloor Connect control system as part of its Biofloor underfloor heating and cooling solution. Composed of a central radio control module (MR24), wireless digital room thermostats (TRD24) and actuators (ACTUONOFF) to control the circuits, it allows a perfect room by room temperature control. The Biofloor Connect system, in combination with the 9000TP manifold range is eu.bac certified with a value of CA = 0,5K.



Application

Protection against dew formation on the floor for cooling operation of underfloor heating and cooling systems. To be used in conjunction with Biofloor Connect MR24 central radio controller in order to interrupt the flow of cold water or raise the temperature of the cooling water.

Description

Measurement is performed by a spring-loaded dew-point sensor

- Active measured value acquisition
- Versions with external sensor

Versions

Item code	Description
C422018001	Dew point monitor on housing Biofloor Connect
C422019001	Dew point monitor with cable Biofloor Connect

Technical description

Housing made of pure-white, flame-retardant thermoplastic (RAL 9010)

- Holding relay with change-over contact
- Screw terminals for wire of up to 1,5 mm²
- Cable inlet for Pg 11
- Strap retainer for 10 to 100 mm ø pipe and heat-conducting paste are included in supply

Item code	Description	Switching point %rh	Sensor	Measuring range %rh	Power supply	Weight kg
C422018001	Dew point monitor on housing	95 ± 4	on housing	70...85	24 V~/=	0,1
C422019001	Dew point monitor with cable	95 ± 4	with cable	70...85	24 V~/=	0,1

Power supply 24 V~/=	± 20%
Switching difference	fixed, approx. 5 %rh
Power consumption	max. 1 VA
Change-over contacts ¹⁾	1A, 24 V~/=
Output signal approx. 70...85 %rh	0...10 V, load > 10 kΩ
Response time in still air:-	
80 to 99 %rh	max. 3 min
99 to 80 %rh	max. 3 min
Exposure to dew	max. 30 min
Ambient temperature	5...60 °C
Degree of protection	IP 40 (EN 60529)

¹⁾ When driving relays, contactors etc. with $\cos \phi < 0,3$, 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.

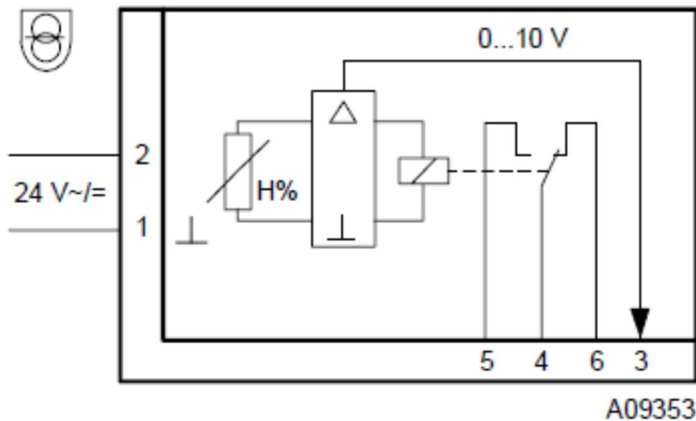
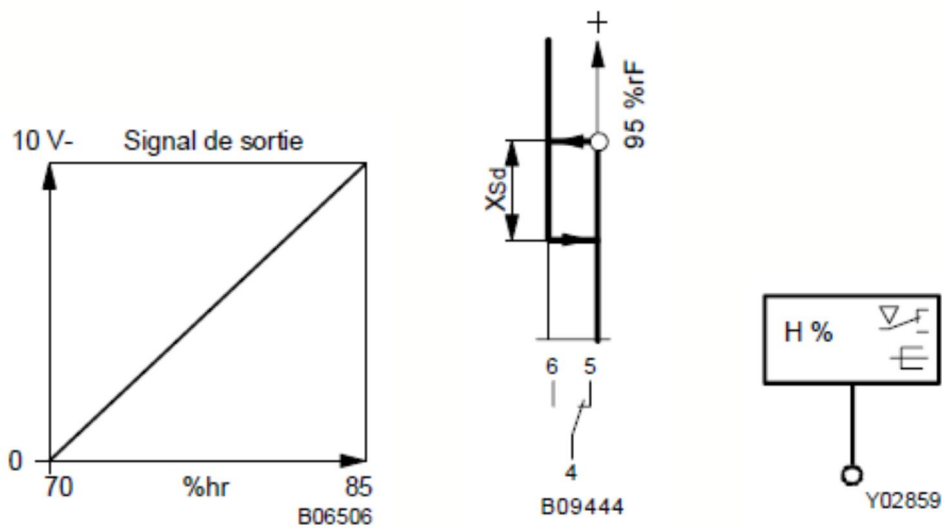
Description of operation

- 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.

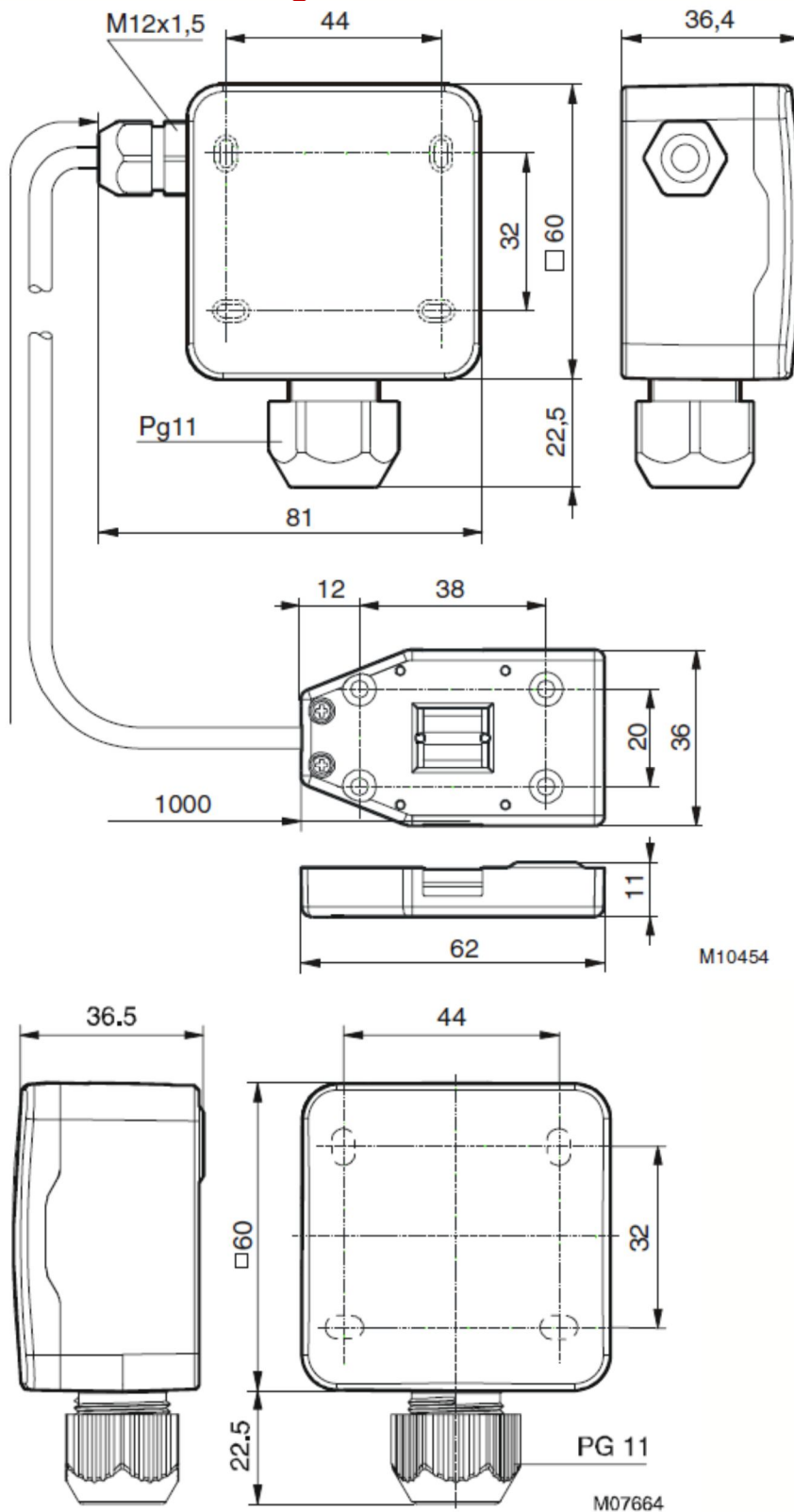
Engineering and fitting notes

- The monitor should be fitted on the floor at its coldest but non visible location: the surface of the floor should be rendered clean and bare, the heat-conducting paste applied sparingly, and the sensor fixed by tightening the strap (snap-shut mechanism).

Wiring diagram



Dimension drawing



Dimensions in mm

Manufacturer reserves the right to change any product specifications without notice.
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