

Flow monitor for water-based media with simultaneous temperature monitoring



flow-captor 4220 S102 + 4020.46

The flow-captor type 4220 S102 + 4020.46 is ideally suited for use in automation processes and other industrial applications where both the flow and the temperature of the medium must be monitored. The sensor operates according to the calorimetric measuring principle and without mechanically moved parts. The sensor detects the flow velocity and the medium temperature and converts both into electrical signals.



fig. similar

- precise switching sensor
- separate adjustment of flow range and flow set-point
- adjustable temperature switch-point
- analogue display of present flow speed and display of adjusted flow set-point via LED chain
- LED display of operating status
- **ISO 9001:2015**

Technical data	
Type	4220 S102 + 4020.46
Medium	water-based
Sensor Data	
Measuring range	0 - 20 cm/s to 0 - 300 cm/s, cont. adjustable
Set-point range	approx. 15 % - 90 % of measuring range setting
Medium temperature	-10 °C to +90 °C
Ambient temperature	-20 °C to +70 °C
Pressure	max. 100 bar
Response time	2 sec. - 10 sec., according to range setting
Temperature drift	< 0,3 % K
Temperature output, adjustable	from -10 °C to +90 °C
Linearity deviation	< 5 %
Repeatability	< 2 %
Hysteresis	approx. 10 %
Mechanical Data	
Protection class	sensorhead IP67, electronic IP65
Material electronics housing	Macrolon®
Material sensor	stainless steel AISI 303 (other material on request)
Thread	G 1/2" BSP, alt. 1/2" - 14 NPT
Sensor cable	2 m shielded cable with Binder female cable connector
Electrical connection	2 m oilflex cable 3 x 0.5 mm ²
Electrical Data	
Operating voltage	24 VDC ± 10 %
Switching load	≤ 5 A, 120 VAC / ≤ 3 A, 250 VAC / ≤ 5 A, 150 W at VDC
Electrical output	2 relays with potential-free single pole double throw contact
Initial operation	approx. 10 sec. after connection of power
- Flow > set-point	on
- LED, green flow	activated
- Output relay	
- Temperature > set-point	on
- LED, red temp.	not activated
- Output relay	

weber

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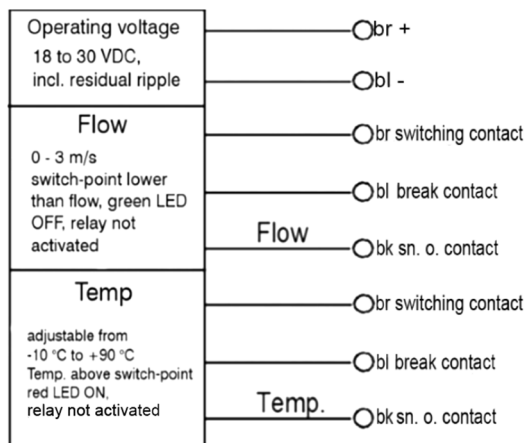
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Connection diagram:



Temperature switch-point adjustment (sensor in contact with medium)

1. Turn temp.-potentiometer to the left Stopp. (LED red)
2. Turn temp.-potentiometer slowly clockwise until the LED switches to green (Switch point).

For example:

If the medium temperature is 20 °C the switch-point will be at 20 °C ± 2,5 °C.