

Product Information

Sensors and Instrumentation

**Flow Switch
EFKP / EFKM**



- Flow and temperature monitoring
- Moving parts in the medium being monitored
- Installation largely independent of nominal width

Characteristics

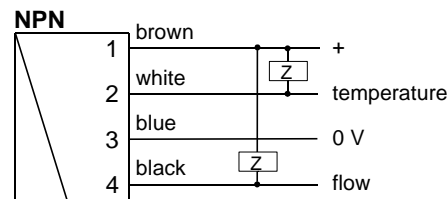
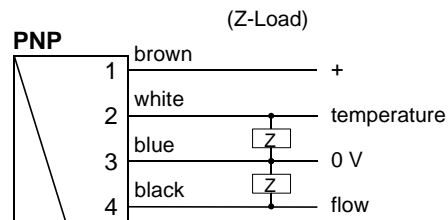
The flow switch EFKP / EFKM monitors the flow rate and optionally the temperature of fluid media. Its compact form combines the built-in sensor, an LED trend display (for FLOW) with two-colour status display, and a switching point which can be set using a potentiometer; it has PNP or NPN output. A temperature limit can also optionally be set and monitored using a PNP or NPN output. In addition, a flexible gooseneck can be installed between the sensor and the electronics housing, so that the best possible angle of view of the flow switch display is provided even in awkward installation locations.

Technical data

Sensor	calorimetric measurement principle
Process connection	screw-in thread G 1/4 A..G 1/2 A, push-in sensor Ø12 mm
Metering range	water 2..150 cm/s or 3..300 cm/s oil available on request
Pressure resistance	PN 100 bar optionally PN 200 bar
Medium temperature	0..+70 °C
Ambient temperature	-20..+70 °C
Storage temperature	-20..+80 °C
Temperature gradient	4 K/s
Display	9 LEDs (red = limit value, green 1-8 = flow rate min.-max.)
Adjustment potentiometer	as input
Supply voltage	24 V DC ±10 %
Current consumption	80 mA

Output	PNP or NPN (Relais on request)
Output loading	200 mA max.
Electrical connection	for round plug connector M12x1, 4-pole
short circuit proof	yes
Reverse polarity protected	yes
Ingress protection	IP 60 plastic head IP 67 metal head
Materials medium-contact	1.4571
Materials, non-medium-contact	CW614N plated PA6.6 (only EFKP)
Weight	0.35 kg (EFKP-015HK028PS) 0.60 kg (EFKM-015HK028PS)
Conformity	CE

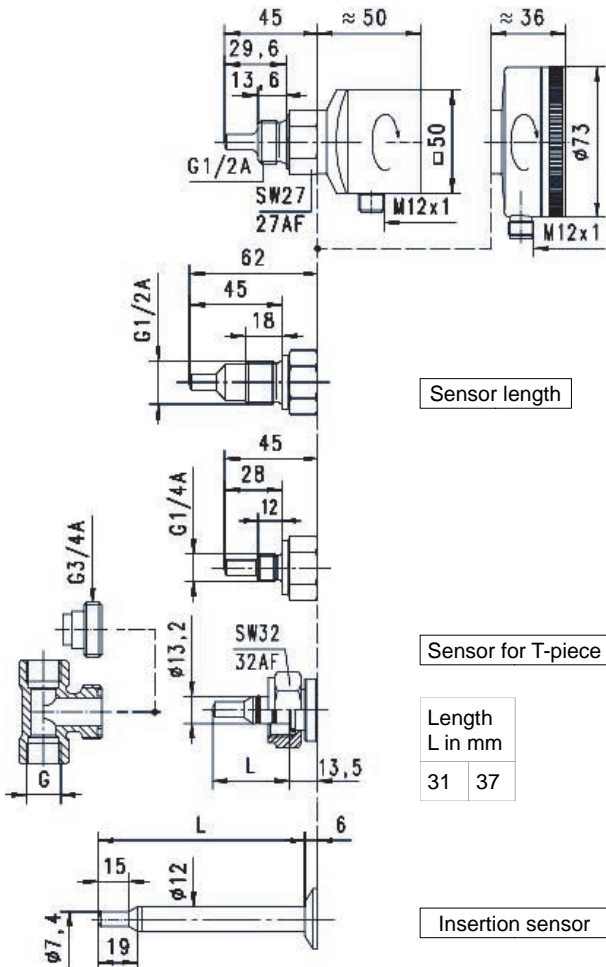
Wiring



Product Information

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Dimensions



Gooseneck option

A gooseneck (optional) between the electronics head and the primary sensor provides complete freedom in the orientation and reading direction of the sensor.

Handling and operation

Installation

Installation must be such that the flow impinges on the marking (X) on the sensor. For sensors with screw-in threads, PTFE tape or sealing paste can be used for the seal. The installation location should be selected so that reproducible flow conditions are achieved (sufficient run-in length, wherever possible no valves, kinks, bends, etc directly ahead of the sensor). A sieve just upstream of the sensor may have a beneficial effect on reproducibility.

Benefits of EFKM:

- robust metal housing
- Ingress protection IP 67
- transparent mineral glass cover
- Optionally, opaque metal cover



Ordering code

EFK 1. 2. 3. 4. 5. 6. 7. 8.

○=Option

1. Function					
P	plastic head / flow				
PT	plastic head / flow and temperature				
M	metal head / flow				
MT	metal head / flow and temperature				
2. Connection size					
008	DN 8 - G 1/4 A				
015	DN 15 - G 1/2 A				
013	system fastener Ø13.2				
012	push-in sensor Ø12				
3. Process connection					
H	male thread				● ●
T	for insertion into the system T-piece				●
V	push-in sensor with variable insertion depth				●
4. Connection material					
K	stainless steel 1.4571				● ● ● ●
5. Sensor length					
028		28.0 mm			●
029	sensor length	29.6 mm			●
045	○	45.0 mm			●
031	sensor for T-piece	G 3/8..G 1/2			●
037		G 3/4..G 2			●
050	insertion sensor	50 mm			●
070		70 mm			●
100		100 mm			●
150		150 mm			●
200		200 mm			●
6. Switching output					
P	PNP				
N	NPN				
R	○ Relais				
7. Electrical connection					
S	for round plug connector M12x1, 4-pole				
8. Optional					
H	○ model with gooseneck				

Accessories

- Cable/round plug connector (KB...) see additional information "Accessories"
- T-pieces for system connection Ø13.2
- Weld-on adapter for insertion sensor Ø12
- Compression fitting for insertion sensor Ø12
- Flange for insertion sensor Ø12