

**Product Information**

**Flow Switch  
 EFKP / EFKM**



- Flow and temperature monitoring
- No moving parts in the medium being monitored
- Installation largely independent of nominal width

**Characteristics**

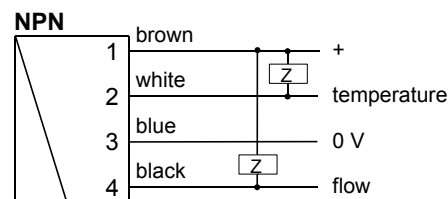
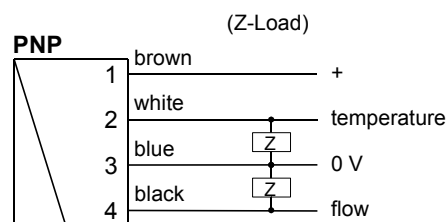
The flow switch EFKP / EFKM monitors the flow rate and optionally the temperature of fluid media. Its compact form combines the built-in sensor, an LED trend display (for FLOW) with two-colour status display, and a switching point which can be set using a potentiometer; it has PNP or NPN output. A temperature 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**

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

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

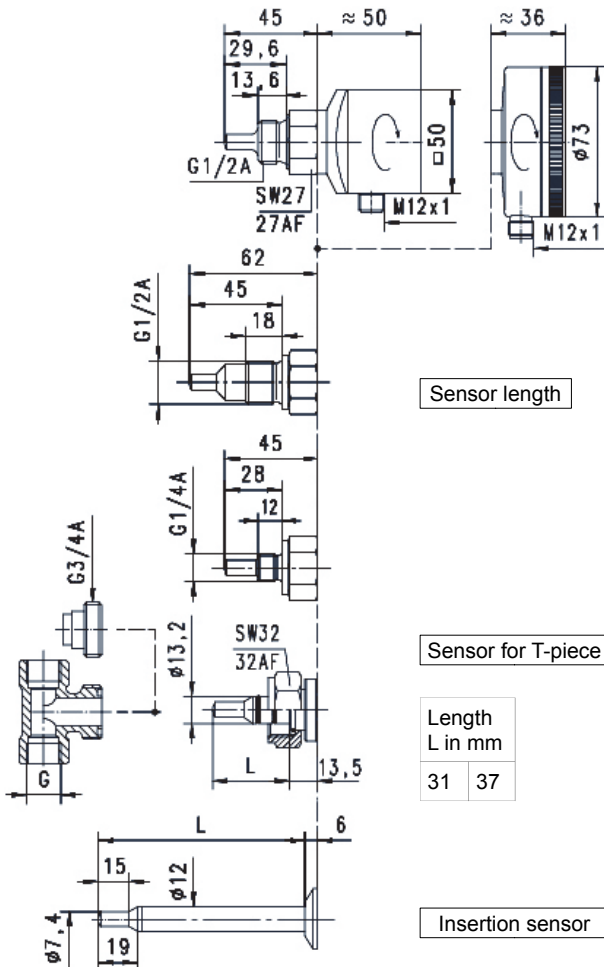
**Wiring**



**Product Information**

**EFKP / EFKM**

**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.

Example: EFK  -    **K**   **S**

○=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					
T	Push Pull (PNP/NPN)				
R	○ Relay (N.O., below limit = open contact)				
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