

## Flow Switches PSF100

- ◆ Attractive price
- ◆ Operation in wide flow rates for water and oil
- ◆ Response time of only 15 seconds
- ◆ Enhanced microcontroller technology
- ◆ Easy programming and calibration
- ◆ Self diagnostics and troubleshooting
- ◆ Local indicator available
- ◆ IP65 protection class

COMECO's PSF100 flow switch is designed to operate with low-viscosity, non-viscous or dirty liquids with moderate flow rates as water and water solutions, oil, and fuels. This model uses the well-know principle of thermal dispersion, based on the measurement of temperature difference deviation due to the flow rate via two temperature sensors immersed in the controlled medium. An output relay switches when the flow rate reaches the set-point value after maximum 15 sec. response time. An enhanced microcontroller design allows simple user calibration and continuous self-diagnostic. Local programmable indicator for process temperature is also available as an option.



PS

### Technical specifications

#### Input

<b>Flow rate range:</b>	
- water	approx. 0.01 to 1.5 m/s
- oil	approx. 0.02 to 3 m/s
<b>Operating principle</b>	temperature dispersion
<b>Zero calibration</b>	max. 60 sec, programmable
<b>Span calibration</b>	max. 60 sec, programmable

#### Output

<b>Output type</b>	1 relay 3A/250 VAC
<b>Contact type</b>	1 changeover (SPDT)
<b>Output action</b>	activates at flow rate over set-point
<b>Response time</b>	approx. 15 sec.
<b>Switching hysteresis</b>	≤ 10% of span
<b>Output delay (hold time)</b>	2 sec.
<b>Set-point adjustment</b>	programmed by rotary switch
<b>Temperature drift</b>	0.25 %/°C
<b>Warm-up (preheating) time</b>	max. 45 sec.

#### Power supply

<b>Voltage</b>	24 VDC ± 10%
<b>Permissible ripple</b>	0.5 Vp-p at 50 Hz
<b>Power consumption</b>	max. 6 VA

#### Controls

<b>Output indicator</b>	green LED
<b>Setting/Calibration indicator</b>	red LED
<b>Programming</b>	button
<b>Local indicator (option)</b>	TI200, for process temperature

#### Media properties

<b>Fluid properties</b>	non-viscous or dirty liquids
<b>Fluid type</b>	typical: water, oil
<b>Fluid temperature</b>	0 to 100 °C
<b>CIP temperature</b>	up to 140 °C
<b>Process pressure</b>	up to 25 Bar

#### Ambient conditions

<b>Ambient temperature</b>	-10 to 65 °C
<b>Ambient humidity</b>	0 to 95 %RH

Model	PSF100
<b>Design Specifications</b>	
<b>Process connection ("G")</b>	G 3/4", G 1", 3/4" NPT, 1" NPT
<b>Probe operating length ("L")</b>	25 to 250 mm (specified in order)
<b>Electrical wiring</b>	screw terminals inside the housing
<b>Housing material (protection)</b>	aluminum (IP65) head type "G" or head type "EG" (with local indicator)
<b>Wetted parts</b>	304 Stainless Steel (1.4301)
<b>Weight</b>	max. 500 g

### Ordering code



PSF100\* - G6.G9 - #1

Code	Feature or option	Code values
*	Variant	<b>W</b> - for water (and water solutions), <b>L</b> - for oil (and fuels)
<b>G6</b>	Operating probe length (L)	<b>25...250 mm</b> - specify the exact length
<b>G9</b>	Process connection	<b>Q6</b> - G3/4", <b>Q11</b> - 3/4" NPT, <b>Q12</b> - G1", <b>Q15</b> - 1" NPT
<b>#1</b>	Local temperature indicator TI200 <sup>(1)</sup>	<b>X</b> - none, <b>A</b> - mounted local indicator for process temperature

<sup>(1)</sup> See TI200 specifications