

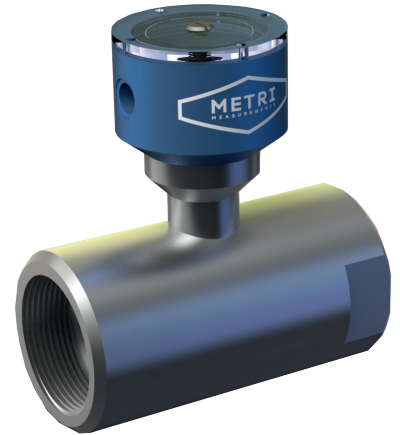
# LPS FLOW SWITCH SERIES



## Industrial Flow Switch

The Metri Flow Switch Series has been designed to deliver a simple, robust and reliable adjustable flow switch that provides visual and electrical alarm signals when the flow rate rises and falls past a set point.

- Compact
- Fast response visual alarm
- High turndown ratio up to 30:1
- Wide temperature range from -40 up to 350°C



The LPS Flow Switch module accepts signals from a range of Metri Measurements products including the LPM Paddlewheel and LTM Turbine flow meters. This provides users with a wide turndown ratio from 10:1 (eg. 15-150 l/min) up to 30:1.

The enclosure can be mounted either local to or remotely from the flow meter, providing flexibility particularly where used in hard to reach areas.

Rugged

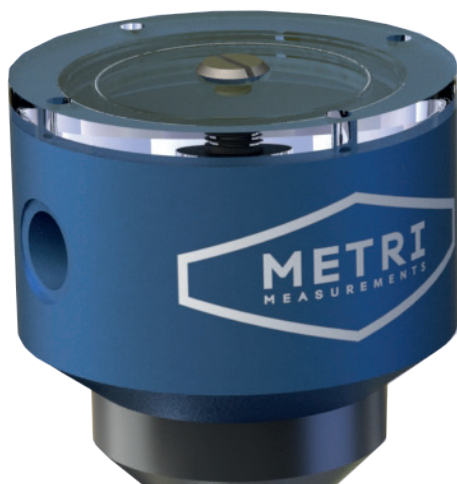
Compact or Remote

Adaptable

Versatile

Repeatable

Accurate



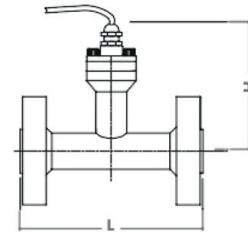
### SPECIFICATION DETAILS

Nominal size	DN6, DN15, DN20, DN25, DN40, DN50
Process connection	BSPP (parallel) & BSPT (taper) female threaded, DIN & ANSI flanged; other on request eg PNXX, ti-clamp, NPT, RJT
Flange rating	PN16, 40, 100 (BS EN 1092-1); ANSI 150, 300, 600 RF (ANSI B16.5)
Compatibility	Solids free and partially contaminated liquids including water, chemicals, hydrocarbons, mineral oils, alcohols
Flow range	05.5 to 1200 l/min, various range (other ranges available when using alternative flow sensors)
Operating temperature	Standard: -40 to 120°C Medium: -40 to 230°C High: -40 to 350°C
Max operating pressure	All threaded bodies: up to 100 bar (higher pressure optional) Flanged bodies: depends on flange rating and operating temperature range Higher pressure rating on request
Frequency range	25-750 Hz
Pressure drop	Varies with size, typically less than 125 mbar at maximum flow rate (standard ranges without flow restrictor)
Linearity	±0.5% FSD
Repeatability	±0.1% of reading
Materials	Body: 304 stainless steel (standard); 316 (optional); other optional aluminium hard anodised, other materials available on request Rotor: 431 stainless steel Rotor shaft: Tungsten carbide; other materials on request Bearings: Tungsten carbide and jewel bearings (standard & medium temperature); stainless steel ball race (high temperature) O-ring: Buna N (standard); Viton (optional)
Switch specification	Nominal 24 Volts DC externally fused at 50mA Minimum 8 Volts DC - Max 30 VDC Load current: 12mA in Alarm - 8.6mA non Alarm state <b>IMPORTANT:</b> The flow meter connections <b>MUST</b> have galvanic isolation from the supply Frequency range: 30 - 3Khz
Output/display	Relay - SPDT: voltage free contact or internal link to 24VDC Maximum Voltage: 175 Volts Maximum current: 250mA (note if used with 24V supply it must be limited to the fuse rating of 50mA) 2 x LED display function and alarm status
Installation	Horizontal or vertical flow rising, full pipe only

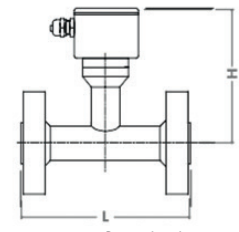
# VERSATILE CONFIGURATIONS

## Ordering information for the LPS Flow Switch

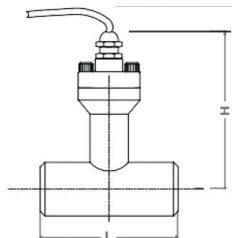
IC-LPS	Nominal size, flow range (based on H2O at 20°C)
015A	15 mm (1/2") 0.5 - 5 l/min
015B	15 mm (1/2") 1-10 l/min
015C	15 mm (1/2") 2-20 l/min
015D	15 mm (1/2") 4-40 l/min
020A	20 mm (3/4") 6-60 l/min
020B	20 mm (3/4") 12-120 l/min
025A	25 mm (1") 15-150 l/min
025B	25 mm (1") 30-300 l/min
040A	40 mm (1.5") 30-300 l/min
040B	40 mm (1.5") 60-600 l/min
050A	50 mm (2") 60-600 l/min
050B	50 mm (2") 120-1200 l/min
0Z0Z	Other sizes and flow rates on request
Process connection	
A	BSPP (parallel) female
B	BSPT (taper) female
C	PN16
D	PN40
E	PN100
F	ANSI 150 RF
G	ANSI 300 RF
H	ANSI 600 RF
Z	Other on request (eg. PNXX, tri-clamp, NPT, RJT etc)
Max operating temperature	
S	Standard: -40 to 120°C
M	Medium: -40 to 230°C
H	High: -40 to 350°C
Approvals	
0	General purpose
Output/display	
F	SPDT Relay volt Free
V	SPDT relay 12-24 VDC
Mounting of instrument	
C	Compact (locally mounted on flow sensor, excl. high temp version)
R	Wall mounted, incl. bracket (up to 3m from sensor, please specify)
Options	
0	None
1	Specify options



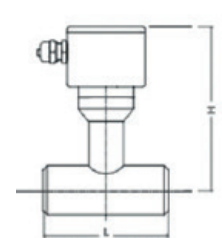
IC-LPS flanged remote



IC-LPS flanged with IC-MV-PO/AN output board



IC-LPS screwed for remote switch



IC-LPS screwed with IC-MV-PO/AN output board

Contact us for dimensions of display fitting.

## Dimensions

Nominal Size	L mm		H mm		Weight kg *	
	Screwed	Flanged	Remote	IC-MV-PO/AN	Screwed	Flanged
15 mm (1/2")	90	152	100	115	1.2	2.8
20 mm (3/4")	90	152	100	115	1.2	3.7
25mm (1")	100	181	106	121	1.5	4.8
40 mm (1.5")	120	185	110	125	2.5	8.9
50 mm (2")	120	205	115	130	3.0	10.1

\* approximate weight

## Other Metri products



Insertion paddlewheel flow meter - IPM series



Inline turbine flow meter - LTM series

## Order code example



Calibration certificates are available for entire LPS product range



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