



LPS FLOW SWITCH DATASHEET

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.

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.

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



Features include:

- Compact
- Fast response visual alarm
- Wide temperature range from -40 up to 350°C

Easy Set-up

High turndown ratio

Wide pressure/temp range

Summary

- Brand: METRI
- Category: Flow Meters, Flow Switches
- Fluid type: Liquids
- Part ref: IC-LPS
- IWN: FLO-326742

Suitable for the following market sectors:

- Oil & Gas
- Industrial & Energy
- Research & Development
- Power Generation
- Water & Waste water

Suitable for use with the following liquids:

- Chemical
- Clean Water
- Fuel & Oil

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, NPT	
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 and 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
	Important:	The flow meter connections MUST 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	
Approvals/Rating	EN61326-1:2013 CAT 1, EN55011:2016 A1:2017	

DIMENSIONS

Nominal Size	L mm		H mm		Weight kg*	
	Screwed	Flanged	Remote Electronics	Compact Electronics	Screwed	Flanged
15mm (1/2")	90	152	80	95	1.2	2.8
20mm (3/4")	90	152	80	95	1.2	3.7
25mm (1")	100	181	86	101	1.5	4.8
40mm (1.5")	120	185	90	105	2.5	8.9
50mm (2")	120	205	95	110	3.0	10.1

* approximate weight



CONFIGURATIONS

Ordering information for the LPS Flow Switch

IC-LPS	Nominal size, flow range (based on H2O at 20°C)
015A	15mm (1/2") 0.5 - 5 l/min
015B	15mm (1/2") 1 - 10 l/min
015C	15mm (1/2") 2 - 20 l/min
015D	15mm (1/2") 4 - 40 l/min
020A	20mm (3/4") 6 - 60 l/min
020B	20mm (3/4") 12 - 120 l/min
025A	25mm (1") 15 - 150 l/min
025B	25mm (1") 30 - 300 l/min
040A	40mm (1.5") 30 - 300 l/min
040B	40mm (1.5") 60 - 600 l/min
050A	50mm (2") 60 - 600 l/min
050B	50mm (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 flange EN1092-1
D	PN40 flange EN1092-1
F	ANSI 150 RF flange ANSI/AVSI
G	ANSI 300 RF flange ANSI/AVSI
H	ANSI 600 RF flange ANSI/AVSI
Z	Other on request (eg. PNXX, NPT etc)

Max operating temperature (process)	
S	Standard: -40 to 120 °C
M	Medium: -40 to 230 °C
H	High -40 to 350 °C

Approvals	
O	General purpose

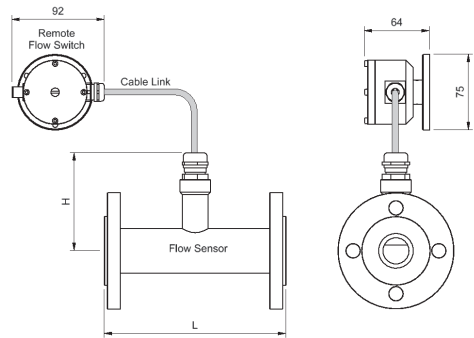
Output/display	
F	SPDT Relay volt Free
V	SPDT relay 12-24 VDC

Mounting of instrument	
C	Compact (locally mounted on flow sensor, excl. high temp version)

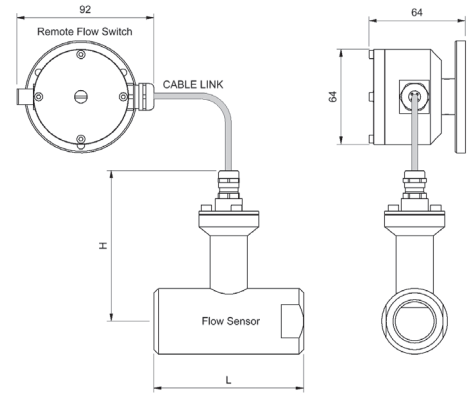
Options	
O	None
I	Specify options

ORDER CODE EXAMPLE

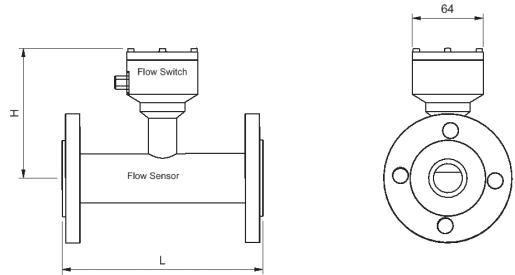
IC-LPS	A	S	O	F	C	O
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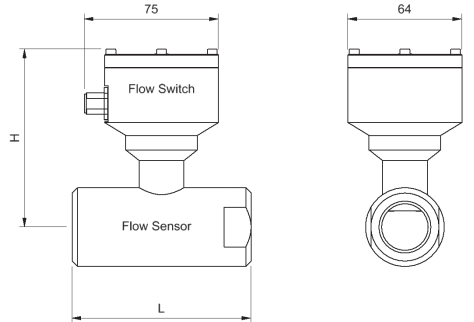
LPM Flanged Flow Sensor with LPS Remote Flow Switch



IC-LPM Flow Sensor Screwed with Remote LPS Flow Switch



LPM Flanged Flow Sensor with LPS Flow Switch Compact



LPM Flow Sensor (Screwed) with LPS Flow Switch Compact

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