

FLOW METER PROCESS CONTROL INFORMATION SYSTEMS



FLR Series



Optional

B2

FLR Flow Sensors

- ✓ 2% FS Accuracy
- ✓ No Straight Pipe Run Required
- ✓ Mounts in Any Position
- ✓ 4 to 20 mA, 0 to 5 Vdc, and 0 to 10 Vdc Standard Outputs
- ✓ Digital Flow Rate and Total Flow Indicator
- ✓ In-Field Compensation for:
 - Specific Gravity of All Fluids
 - Viscosity of Petroleum-Based Fluids
 - Specific Gravity, Pressure, and Temperature of Pneumatic Applications



FLR7330D shown smaller than actual size.

Rugged In-Line Flow Sensors

Available in 13 mm ($\frac{1}{2}$ "), 19 mm ($\frac{3}{4}$ "), and 32 mm ($1\frac{1}{4}$ ") sizes with anodized aluminum or brass. Comes with 4.5 m (15') of stripped end integral cable. In the field, integral cable can be extended up to 300 m (1000') with shielded copper cable. Units are securely

protected in a sturdy cast aluminum enclosure, and are easy to install and mount in any position, vertical or horizontal. Capable of monitoring fluids to 150 GPM or pneumatic lines to 1000 SCFM.

SPECIFICATIONS

Temperature Range:

-29 to 116°C (-20 to 240°F)

Maximum Pressure: 3500 psig

(liquids); 1000 psig (gases)

Power Requirement:

0 to 5 Vdc Output: 10 to 30 Vdc @ 0.75 W maximum

0 to 10 Vdc Output: 12 to 30 Vdc @ 0.75 W maximum

4 to 20 mA Output: Loop-powered, 30 Vdc maximum

Power Consumption: 25 mA maximum

Circuit Protection:

Reverse polarity and current limit

Repeatability: ±0.5%

Non-Linearity: ±0.05%

Isolation: Inherently isolated from the piping system

Display: Fixed or toggle modes of operation for rate and totalizer display. 8-digit, 0.70" high numeric display for rate and total 8-digit 0.35" high alphanumeric display for units and setup

Response Time: 1.0 sec

Temperature Drift:

0.05% of span per °C maximum

Analog Outputs:

4 to 20 mA into 1KΩ maximum
0 to 5 Vdc into 10KΩ minimum
0 to 10 Vdc into 10KΩ minimum

User Connections:

15' pig-tail (standard)

Transmission Distance:

4 to 20 mA limited by cable resistance
0 to 5 Vdc 300 m (1000') maximum
0 to 10 Vdc 300 m (1000') maximum

Enclosure:

Material: Anodized and epoxy powder-coated aluminum with polycarbonate lens

Seals: Silicone gasket between enclosure and lens/cover FKM O-rings between enclosure and flow meter body

Connection: 4-pin connection (standard)

Fasteners: T303 SS

Rating: NEMA 12 and 13 (IP52/54)

Materials:

2024 - T351 anodized aluminum body, piston and cone
C360 brass body, piston and cone
petroleum (oil) common parts

Spider Plate: T316 SS

Spring: T302 SS

Fasteners: T303 SS

Pressure Seals: FKM

Lens: Polycarbonate

Retaining Ring: SAE 1070/1090 carbon steel

Retaining Spring: SAE 1070/1090 carbon steel

Internal Magnet: PPS/ceramic

Enclosure Seal: Silicone gasket water-based, water, air common parts

Spider Plate: T316 SS

Spring: T302 SS

Fasteners: T303 SS

Pressure Seals: FKM

Lens: Polycarbonate

Retaining Ring: T316 SS

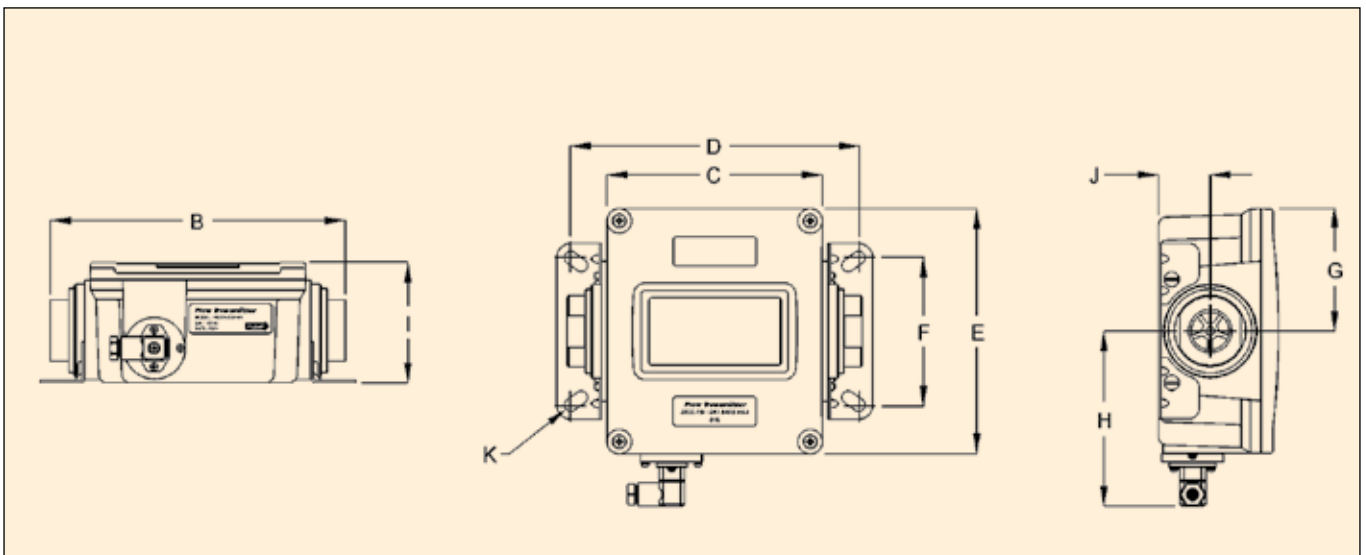
Retaining Spring: ST316 SS

Internal Magnet: PPS/ceramic

Enclosure Seal: Silicone gasket

Dimensions: mm (inch)

Nominal Port Size	B	C	D	E	F	G	H	I	J	K
	Length	Length	Length	Width	Width	Width	Width	Depth	Offset	Hole Dia.
¼ (SAE 6)	168 (6.60)	134 (5.27)	163 (6.41)	152 (6.00)	82 (3.23)	76 (3.00)	107 (4.20)	75 (2.94)	38 (1.51)	8 (0.31)
½ (SAE 6)	168 (6.60)	134 (5.27)	163 (6.41)	152 (6.00)	82 (3.23)	76 (3.00)	107 (4.20)	75 (2.94)	38 (1.51)	8 (0.31)
¾ (SAE 6)	183 (7.20)	134 (5.27)	179 (7.04)	152 (6.00)	91 (3.60)	76 (3.00)	107 (4.20)	75 (2.94)	32 (1.27)	8 (0.31)
1 (SAE 6)	183 (7.20)	134 (5.27)	179 (7.04)	152 (6.00)	91 (3.60)	76 (3.00)	107 (4.20)	75 (2.94)	32 (1.27)	8 (0.31)
1¼ (SAE 6)	310 (12.20)	271 (10.68)	296 (11.65)	194 (7.63)	123 (4.84)	97 (3.82)	128 (5.02)	114 (4.50)	56 (2.20)	8 (0.31)
1½ (SAE 6)	310 (12.20)	271 (10.68)	296 (11.65)	194 (7.63)	123 (4.84)	97 (3.82)	128 (5.02)	114 (4.50)	56 (2.20)	8 (0.31)





To Order				
Model No.	Flow Range	Medium	NPT	Body
FLR6102D	0.2 to 2.0 GPM	Oil	½	Aluminum
FLR6105D	0.5 to 5.0 GPM	Oil	½	Aluminum
FLR6115D	1 to 15 GPM	Oil	½	Aluminum
FLR7120D	0.2 to 2.0 GPM	Oil	¾	Aluminum
FLR7130D	3 to 30 GPM	Oil	¾	Aluminum
FLR8140D	4 to 40 GPM	Oil	1	Aluminum
FLR8150D	5 to 50 GPM	Oil	1	Aluminum
FLR9175D	10 to 75 GPM	Oil	1¼	Aluminum
FLR9110D	10 to 100 GPM	Oil	1¼	Aluminum
FLR9115D	10 to 150 GPM	Oil	1¼	Aluminum
FLR6302D	0.2 to 2.0 GPM	Water	½	Brass
FLR6305D	0.5 to 5.0 GPM	Water	½	Brass
FLR6315D	1 to 15 GPM	Water	½	Brass
FLR7320D	2 to 20 GPM	Water	¾	Brass
FLR7330D	3 to 30 GPM	Water	¾	Brass
FLR8340D	4 to 40 GPM	Water	1	Brass
FLR8350D	5 to 50 GPM	Water	1	Brass
FLR9375D	10 to 75 GPM	Water	1¼	Brass
FLR9310D	10 to 100 GPM	Water	1¼	Brass
FLR9315D	10 to 150 GPM	Water	1¼	Brass
FLR6725D	2 to 25 SCFM	Air 100 psi	½	Aluminum
FLR6750D	5 to 50 SCFM	Air 100 psi	½	Aluminum
FLR7710D	10 to 100 SCFM	Air 100 psi	¾	Aluminum
FLR7715D	15 to 150 SCFM	Air 100 psi	¾	Aluminum
FLR8725D	25 to 250 SCFM	Air 100 psi	1	Aluminum
FLR9740D	25 to 400 SCFM	Air 100 psi	1¼	Aluminum
FLR9760D	50 to 600 SCFM	Air 100 psi	1¼	Aluminum
FLR9710D	100 to 1000 SCFM	Air 100 psi	1¼	Aluminum

Comes complete with operator's manual.

For 5-point NIST certificate add "-NIST5" to model number for additional cost.

For British standard pipe thread parallel add "-BSPP" to model number, no additional cost.

Ordering Examples: FLR6105D, flow transmitter, 0.5 to 5.0 GPM for oil, with analog output FLR5101D, flow transmitter, 0.1 to 1.0 GPM for oil with analog output.