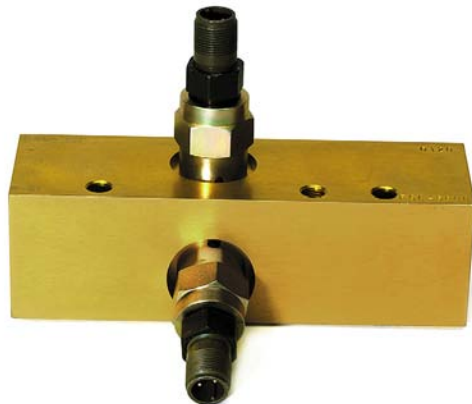


Quad Series Turbine Flow Sensor

Provides Bi-directional Flow Rate Measurement



- Four flow ranges
- Bi-directional turbine flow measurement
- High strength aluminum bodies
- Flow accuracy $\pm 1\%$ of full scale for both forward and reverse flow
- Repeatability $\pm 0.2\%$
- Pressures up to 5000 PSI (345 Bar)
- Temperatures up to 300 °F (150 °C)

Derived from the FSC Series, the F2000 Quad Series of flow sensors utilizes two flow transducers which are 90-degrees electrically out of phase from each other. With the addition of a second flow transducer, it is possible to monitor flow in both directions. The F2000 Quad is suitable for up-down counters that can discern the leading and trailing edges of the quadrature signals.

Current applications include using the F2000 as a speed-sensing device on mobile equipment. This bi-directional flow sensor can be used as a governor, sending frequency signals back to a PLC which enable it to make the necessary adjustments. Other functions of the flow sensor are in linear applications where accurate positioning is required.

SPECIFICATIONS

Performance

Forward and Reverse Flow

Accuracy:	$\pm 1\%$ of full scale
Repeatability:	$\pm 0.2\%$
Turbine Response:	$\leq 200\text{ms}$
Temperature:	
Fluid	-4 to +300 °F (-20 to +150 °C)
Ambient	-4 to +131 °F (-20 to +55 °C)
Operating Pressure:	5000 PSI (345 Bar) maximum
Pressure Drop:	See ΔP charts on page 24
Magnetic Pick-up:	
Electrical Output	
Signal	Self-generating alternating pulse 100 mV RMS (100 Hz) minimum

Material

Housing:	6013-T651 Aluminum; anodized
Turbine Rotor:	T416 Stainless steel
Ball Bearings:	440C Stainless steel
Rotor Shaft:	T303 Stainless steel
Rotor Supports:	6061-T6 Aluminum alloy FSC-2005, 2075 CA360 Brass
Hub Cones:	6061-T6 Aluminum alloy
Retaining Rings:	Steel; zinc plate
Seals:	Buna N standard; Viton® and EPR optional
Magnetic Pick-ups:	
Body	12L14 steel; electroless nickel plate
Nut	12L14 steel; electroless nickel plate

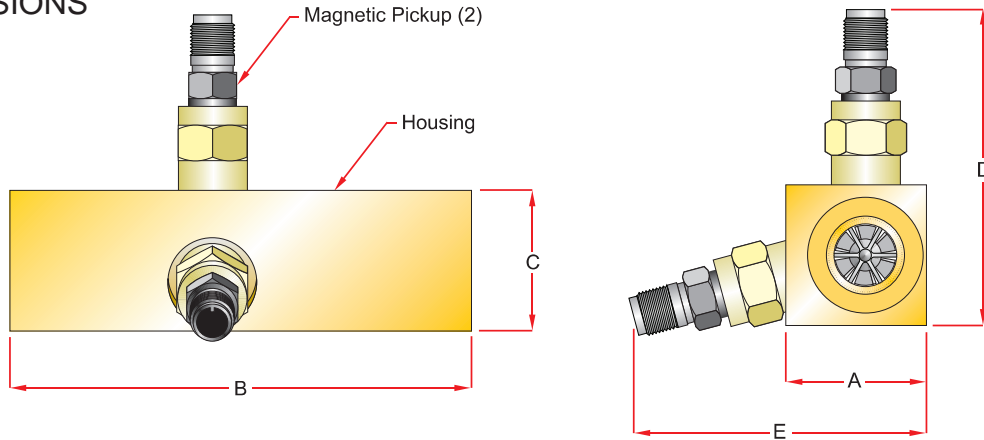
Ports:	SAE J1926/1
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Viton is a registered trademark of DuPont Dow Elastomers.

Quad Series Turbine Flow Sensor

Provides Bi-directional Flow Rate Measurement

DIMENSIONS



SERIES	A WIDTH IN (mm)	B LENGTH IN (mm)	C HEIGHT IN (mm)	D w/MAG IN (mm)	E w/MAG IN (mm)	WEIGHT LBS (KG)
FSC-2005	2.00 (51)	6.50 (165)	2.00 (51)	4.16 (106)	4.05 (102)	2.75 (1.25)
FSC-2075	2.00 (51)	6.50 (165)	2.00 (51)	4.25 (108)	4.05 (102)	2.87 (1.30)
FSC-2100	2.50 (64)	6.50 (165)	2.00 (51)	4.34 (110)	4.59 (117)	3.25 (1.47)
FSC-2150	2.50 (64)	6.50 (165)	2.00 (51)	4.34 (110)	4.59 (117)	7.75 (3.52)

ORDERING INFORMATION

NOMINAL PORT SIZE	FLOW RANGE GPM (LPM)	SERIES	MODEL
SAE 12	1 - 15 (4 - 56)	FSC-2005	F2082-ASCQ4
SAE 12	2 - 25 (7.5 - 94)	FSC-2075	F2083-ASCQ4
SAE 16	3 - 60 (11.5 - 227)	FSC-2100	F2084-ASCQ4
SAE 16	4 - 85 (15 - 321)	FSC-2150	F2085-ASCQ4

Examples:

F2084-ASCQ4 = SAE 16 ports
 3 - 60 GPM (11.5 - 227 LPM)
 Bi-directional frequency output
 Buna N seals

ACCESSORIES

MODEL NUMBER	DESCRIPTION
F001109	5-Point Calibration Certificate ¹
F001110	10-Point Calibration Certificate ¹

For information about	Refer to
Digital Displays	Form No. 549
Cables	Pages 28 & 29

¹ Certificates are traceable to NIST, ISO 9001.