

2" to 3" Abrasive Service Flowmeter

Bulletin SSIN043 Issue/Rev. 0.0 (11/16)

The INVALCO 2"-3" Abrasive Service Flow Meter is a unique one-piece, patented cartridge design which enables replacement of turbine meter internals with minimal downtime. The meter was designed to operate within pressures from vacuum to 15000 psi. Replacement cartridges are fully calibrated and are ready for installation with no special tools required. By simply removing the union seal and the slide in cartridge retainer, the internals slide out of the body.

Features and Benefits

- » One Piece Cartridge Design allows easy field exchange of calibrated internals from female side of body. No special tools required.
- » 4340 Body 100ksi minimum yield construction with longitudinal and transverse impact requirements at -20°F, standard.
- » WECCO® 1502 ended nut, segments and seals are standard.
- » Field Replaceable Calibrated internals.
- » Patented Design.

Options

- » Extended Temperature range from -40°F to 250°F available.
- » Other Temperatures available.

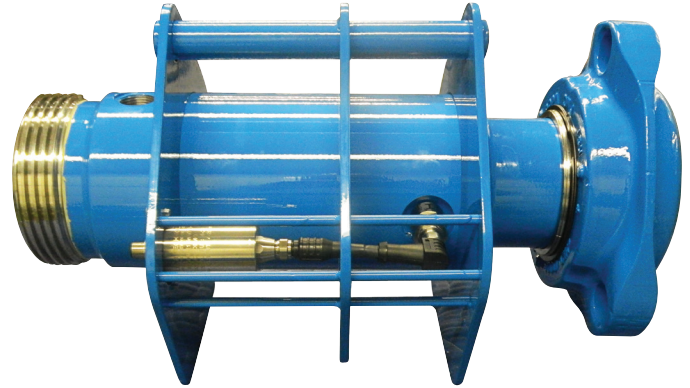
NOTES: – Consult the Factory for other temperatures.

Specifications

Linearity	±1.0%
Repeatability	±0.25%
Maximum Overrange	125% of flow range for intermittent periods
Frequency Output	100 to 1100 Hz
Voltage Output	Approximately 100 mV A100 Hz to 1.5 V (RVS) @ 1,000 Hz

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INVALCO's Abrasive Service Flow Meter

Specifications (continued)

Pressure Drop	0.5 to 0.75 psi at 100% of full range.
End Connection Pressure Rating (602, 1002, 1502)	2" - 3" 1502 Ended TFM – 15,000 PSI (103,000 kPa)
Installation	Vertical or horizontal (any direction)
Materials of Construction	<ul style="list-style-type: none"> – Body: 4340 100ksi minimum yield -20°F – Rotor: Abrasive resistant material – Bearing: Carbide Sleeve and Ball – Supports: Abrasive resistant material – Cartridge retainer: 4340 for improved wear.
Temperature Range	-20°F through 250°F
Pickup Coil (Order Separately)	<ul style="list-style-type: none"> – DC Resistance: 975Ω – Inductance: 400 mH – Mating Connector: 10SL-4S or Wire Leads – Preamp Magnetic Pickup (Order Separately) – Housing: Stainless steel
Power Requirements	<ul style="list-style-type: none"> – Supply voltage: +4.5 to 28Vdc – Current: ≤ 5mA @ 12 Vdc



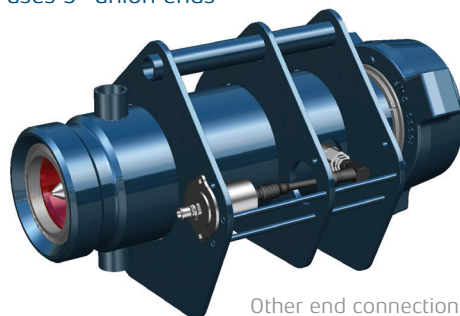
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Specifications (Continued)

Output Signal
<ul style="list-style-type: none"> - Square wave - 0 to supply voltage, 5 Hz to 12 kHz - 30% to 70% Duty cycle - NPN with 10Kw pull-up to supply voltage
Mating Connector
10SL-3P or Wire Leads

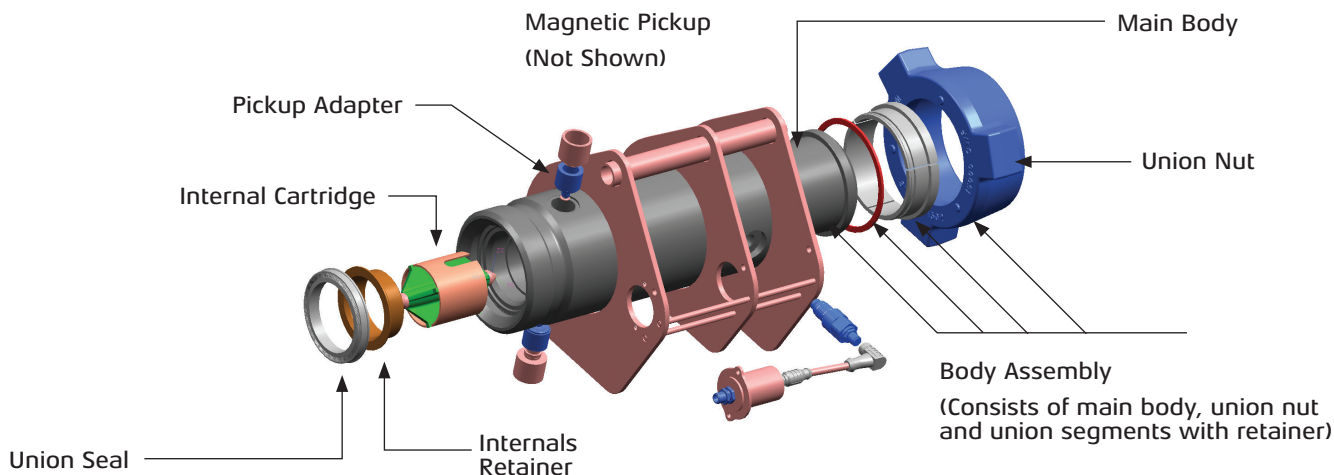
Typical Union Ends

- » 2" uses 2" union ends
- » 3" uses 3" union ends



Other end connections available (CF)
Other Pressures available (CF)

Typical Applications



Abrasive Service Capacity Table

Size - Inches	Flow Range		Nominal K-Factor		
	Gallons Per Minute	Liters Per Minute	P/GAL	P/L	P/BBL
2	15 - 400	56 - 1514	65	246	2730
3	30 - 600	113 - 2271	20.5	77	861

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The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

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