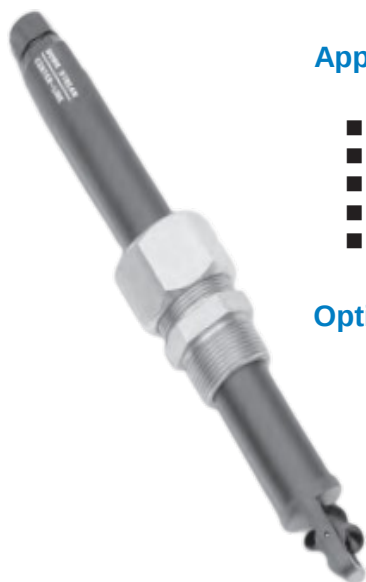


Delrin® Non-Metallic Probes



Applications

- Water
- Aqueous solutions
- Chiller and cooling tower loops
- Water treatment systems
- Irrigation systems

Options

Turbo-Flo™ probes offer the precision of turbine technology with rugged construction. The practical design of the probe includes a bluff bar which protects the turbine from foreign materials in the stream as well as from over insertion. Installation is simple and does not require special fittings. The Turbo-Flo™ probe may be installed in standard pipe tees, through pipe saddles, welding spuds and 1½" full opening ball or gate valves.

Features

- Delrin® non-metallic construction is ideal for water applications. Resists corrosion and mineral salt deposits.
- Steel or stainless steel connector fittings.
- Adjustable insertion length for 1½ to 10 inch pipe.
- Lower cost than stainless steel probes.
- Rugged construction.
- Wide measuring range with 30:1 turndown.
- Low mass Delrin® turbines offer improved sensitivity and long life as compared to metallic turbines.
- Use standard pipe fittings for installation.

Principle of Operation

The turbine is positioned in the mid-section of the pipe with its axis of rotation parallel with the flow stream. Fluid velocity causes the turbine, which has a ring magnet inside of its hub, to rotate in proportion to flow rate. As the turbine - rotates, the magnetic field passes through a coil in the probe body, generating a pulse output in proportion to the turbine rotation speed. Flow volume is then determined from fluid velocity measurement and pipe diameter information.

The ERDCO 15895 is a highly configurable field display that includes:

- Flow Rate and Total
- Definable units of measure
- External power not required for display (SP version)
- 4-20 mA loop powered Output (LP version)
- Through-window button programming
- Backlit display
- Data logging function
- UV resistant heavy duty polycarbonate NEMA-4X, IP-65 compliant Enclosure with screw-on gasketed cover.

Probe Mount: 15895-SP
15895-LP

Wall Mount: TF-15895-SP
TF-15895-LP

Two wire 4-20 mA transmitter. Corrosion resistant die cast aluminum NEMA-4X, IP-65 enclosure.

Probe Mount: 15325
Wall Mount: TF-15385

Probe with 15 feet or more of PVC jacketed, metal braided, shielded cable for connection to Wall Mounted display or transmitter. Cable lengths other than 15ft to be specified at time of order.



Delrin® Non-Metallic Probes

Sizing Data

Pipe Size		GPM Range		Ft/Gallon	Pulse/Gallon
(inch)	ID (inch)	Threshold	Max		
1.5	1.610	4	120	9.454	21.46
2	2.067	6	180	5.736	13.08
2.5	2.469	8	240	4.020	9.648
3	3.068	12	360	2.593	7.131
3.5	3.548	16	500	1.947	5.160
4	4.026	20	600	1.512	3.840
5	5.047	32	1000	0.962	2.60
6	6.065	46	1400	0.666	1.88
8	7.981	80	2400	0.384	1.00
10	10.020	125	3800	0.244	0.625

Specifications

Accuracy: ±1.0%
Repeatability: ±0.5%
Linearity: ±0.5%
Turndown: 30:1

Insertion Length: 02 = 2 inches
 06 = 6 inches

Threshold: 0.5 ft/s or
 $1.22 \times \text{ID}^2 = \text{GPM}$

Liquid Velocity: ft/s = $\frac{0.408 \times \text{GPM}}{\text{pipe ID}^2}$

Point Velocity = 2.625 pulses/ft/s

Pulse/gallon correction for uncharted pipe diameters =
 $\frac{\text{ID}^2 \text{ charted pipe}}{\text{ID}^2 \text{ uncharted pipe}} \times \frac{\text{Pulse/gallon charted pipe}}{\text{Pulse/gallon}}$

Materials of Construction:

Probe: Delrin®
Connector: Steel, 303sst
Turbine: Delrin®
O-rings: Buna-n or Viton®
Temperature Limits: 212°F(100°C)
Pressure Limits: 145 psig(10bar)@ 68°F(20°C)

Turbo-Flo™ part number construction

ERDCO reserves the right to alter design and/or specifications without notice.
 Viton® and Delrin® are registered trademarks of E.I. DuPont de Nemours and Co.

25 Series	3 Body Mat'l	06 Size	A Connector	3 Turbine	2 Shaft	7 O-ring	-	1 5 8 9 5 S P Option
25-Non-Metallic	3-Delrin®	02-2" 06-6"	A-303ss 1¼" B-303ss 1½" Recessed D-Steel 1¼" Zinc Plated E-Steel 1½" Zinc Plated Recessed	3-Delrin®	2-316ss	7-Buna 8-Viton®		For probe mounted electronics, add a dash to the end of the probe model number followed by the five numeric digits for the

When probe mountable electronics are to be factory installed on the probe, a dash is added to the probe model number followed by five numeric digits for the accessory to be added. The example depicts an 18" 304ss probe with 303SS 1½" recessed connector, Delrin turbine, 316ss shaft, buna o-rings including a probe mounted 15325 4-20 mA transmitter.

Electronics available for probe mounting:
 15325 4-20 mA Transmitter
 15895-SP Self Powered Rate/Total Display
 Does not require external power.
 15895-LP Loop Powered 4-20mA output.
 Requires 24 VDC.

ERDCO

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Since 1953, Quality Products to Sense, Measure & Control
 Depuis 1953, Produits De Qualités Pour Détecter, Mesurer & Contrôler

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