SMARTFLOW® Switching Tracer® Electronic Flowmeters

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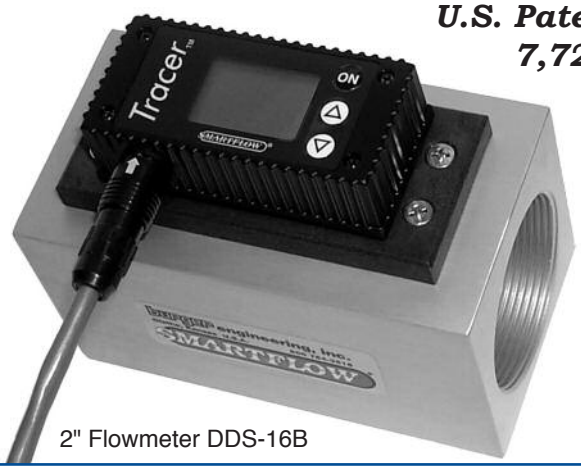

2" Flowmeter DDS-16B

Model DDS
Digital Display Switching

- Remotely Powered 8 to 28VDC
- 0-5 or 0-10 Volts Analog Outputs
- Programmable SPDT Switch
- LCD Display
  - FCI (Flow Characteristic Indicator)
  - Flow
  - Temperature
  - BTU's per minute

See page 4 for model numbers and dimensions

General Description

Tracer Electronic Switching Flowmeter measures liquid flow rate and temperature while providing a selectable analog voltage and programmable switch. Tracer Switching Flowmeter calculates BTU's per minute and incorporates FCI (Flow Characteristic Indicator) in support of Scientific Cooling℠ principles.

8 to 28VDC power source is required to supply the flowmeter. Sealed push-buttons configure the flowmeter and switching operations through user-friendly menus.

Separate analog outputs facilitate data collection of temperature and flow rates. The voltage outputs are user-selectable using on-screen menus: 0 to 5 Volts or 0 to 10 Volts.

FCI helps optimize systemic water usage. "TFLOW" on the digital display signifies the presence of Turbulent Flow, or maximum cooling water efficiency. 10, 20 or 30% glycol mix is supported in Turbulent Flow calculations.

SPDT switch is programmable for one to five set points: low flow, high flow, low temperature, high temperature and/or turbulent flow condition. Set points may be turned on or off in any combination.

Bi-directional flow reading makes installation simple and convenient.

Metric or English units for flow and temperature can be selected at any time.

Applications

Tracer flowmeter is suitable for use in injection molding machine cooling water loops, lube oil systems, blending systems, filter condition indicators, and varied applications requiring flow measurement of clean, non-viscous, chemically compatible process liquids.

Annual calibration is recommended for best results. 3/8" Tracer flowmeters are not recommended for use in liquids containing ferrous particles.

Specifications

Flow Accuracy .....±5%*

Flow Repeatability .....±3%*

Wetted Parts

3/8" Body .....Nickel-Plated Brass
3/4" - 2" Body .....Clear-Anodized Aluminum or 303 Stainless Steel (-SS model suffix)
Impeller .....Nylon 6/12
Impeller Shaft .....18-8 Stainless Steel
Magnet .....Neodymium

Power .....8 to 28VDC

Cable 10ft (3M)

Switching .....SPDT, 1A, 30VAC, 42VDC

Process Temperature

Range .....32°F to 180°F (0°C to 82°C)
Accuracy.....±2% of display value
Repeatability.....±1% of display value

Environmental

Pressure
3/8" Body .....150 psi max. (10.3 bar max.)
3/4" - 2" Body .....100 psi max. (6.9 bar max.)

*Accuracy and Repeatability figures are based on the full scale of the range.

Model Number

DD - 3 B - B

Electronics Function		Options	
Digital Display Battery-Powered	**DD**		**Leave Blank for NPT Threaded Connection**
		- B	Parallel British Threaded Connection
Switching Tracer Analog Output plus Programmable Switch	**DDS**	**- SS**	Stainless Steel Body with NPT Threaded Connection (3/4" and Larger)
		- B-SS	Stainless Steel Body with Parallel British Threaded Connection (3/4" and Larger)

Flow Range and Connection Size				Pressure Gauge Option	
0.5 - 8 gpm	2 - 30 lpm	**3/8"**	**3**	**B**	**Standard** (without Pressure Gauge, applies to all 3/8" and any Aluminum Flow Bodies)
All 3/8" Tracer flow bodies are Nickel-Plated Brass				**E**	with quick-disconnect fittings (3/8" only)
2 - 20 gpm	8 - 76 lpm	3/4"	**6**		
3 - 30 gpm	11 - 114 lpm	1"	**8**		**For use only with SS Body ≥ 3/4"**
6.5 - 60 gpm	25 - 228 lpm	1-1/2"	**12**	**C1**	30 psi Pressure Gauge
10 - 110 gpm	38 - 418 lpm	2"	**16**	**C2**	60 psi Pressure Gauge
				C3	100 psi Pressure Gauge
				CL	Liquid-Filled Pressure Gauge (100 psi)

Stainless Steel Application Note:

Stainless Steel flowmeter bodies are strongly recommended when copper is present in water lines. This includes water treatments such as organic biocides containing copper. Aluminum is susceptible to galvanic action in the presence of copper. Contact your factory representative for more information.

Dimensions (mm/inches)

Body Size	L	H	W	C
3/8"	87/3.42	58/2.27	42/1.67	21/0.83
3/4" & 1"	121/4.75	94/3.70	57/2.25	29/1.13
1-1/2" & 2"	140/5.50	118/4.65	76/3.00	38/1.50