Polysonics TX10

Transit Time Flowmeter

APPLICATIONS

- HVAC
- Potable Water
- Petroleum Products
- Ultrapure Liquids
- Deionized Water
- Water & Waste Management

Thermo
ELECTRON CORPORATION

Features

- Data logger
- Easy-to-install, clamp-on design
- Bidirectional flow measurement
- WinGateE interface software

Polysonics TX10
TRANSIT TIME FLOWMETER

The TX10 provides an economical alternative to magnetic, vortex and differential pressure flow transmitters. Combining digital signal processing (DSP) with advanced detection methods, it features exceptional performance and flexibility. While principally designed for clean liquid applications, the instrument is tolerant of liquids with higher concentrations of gas bubbles or entrained solids than was previously possible with transit time technology. The nonintrusive, clamp-on transducers can be installed without flow interruption and ensure leak-free measurements with zero pressure drop.

Housed in a rugged NEMA 4X (IP65) enclosure, the TX10 is well-suited to most industrial environments. The display is a 2-line, 20-character, high resolution, backlit LCD providing excellent visibility, even in poorly lit conditions. Outputs include a 12-bit digital, optically-isolated, 4-20mA analog signal and RS232 serial interface. An optional, fully programmable SPST relay for remote totalizer is also available. The instrument can be specified for operation from 85-265 VAC or 10-32 VDC supply voltages.

Programming of the flowmeter is simple and can be accomplished in minutes with WinGateE, a Microsoft Windows compatible configuration and signal analysis program supplied with each instrument. WinGateE features easy-to-use, pull-down menus and pop-up windows. It provides access to an extensive range of graphical diagnostics information which permits the user to quickly determine the quality and accuracy of the flow measurement.

TX10 Specifications

Established under reference conditions

Performance Specifications

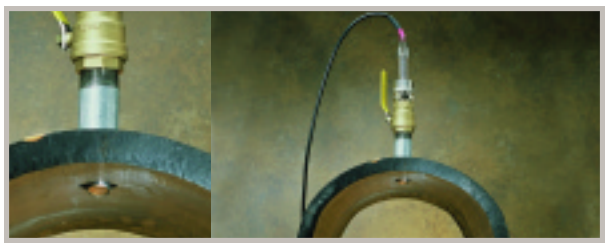
Velocity Range: ±0 to 40 ft/s (±0 to 12 m/s)
Accuracy: ±1% of velocity full scale
Fluids: potable water, ultrapure liquids, deionized water, petroleum products
Pipe Size: 1 to 200 in. (25 to 500 mm)

Physical Specifications

Transmitter: NEMA 4X (IP65), flame retardant, fiberglass-reinforced polyester
Transducers: two encapsulated transducers; 30 ft. (9m) standard cable length
Weight: approximately 7 lbs. (3.2kg) without options

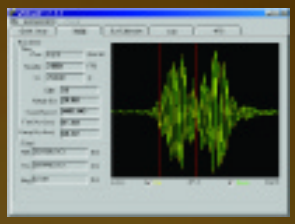
"Hot-Tap" Insertion Transducers

Thermo offers insertion transducers for water and wastewater applications. These efficiently designed transducers can be installed using the standard "Hot Tap" process and are ideal for use on concrete pipes, heavily corroded steel pipes, and pipes with considerable calcium buildup. Wetted materials are: nickel-plated brass seal housing, stainless steel insertion stem, and Ultem transducer facing. A double "O-ring" seal mechanism prevents leakage during insertion and extraction, as well as during normal operation. Optional stem lengths are available for very thick pipes, and installation is through a 1.5" full port valve. Please refer to the insertion transducer bulletin for technical specifications.



WinGateE Interface Program

WinGateE Signal Configuration and Analysis Program features easy-to-use, pull-down menus and pop-up windows. WinGateE is supplied in Windows 98/2000 and Windows NT compatible versions.

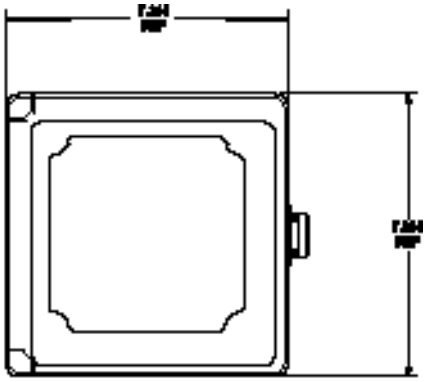


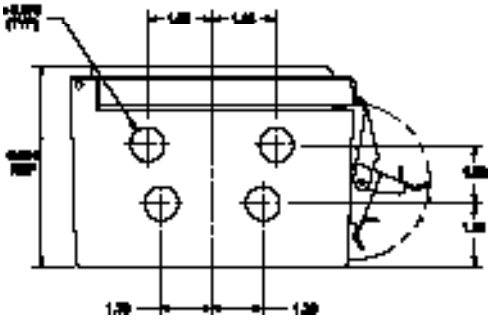
Thermo manufactures a comprehensive range of nonintrusive portable and dedicated ultrasonic flowmeters. Models are available for acids, corrosive and toxic liquids, petroleum products, water and wastewater management, sewage treatment, deionized water, and ultrapure liquids. For further information, please contact the factory or your local representative.

"We make it easy."

Functional Specifications

Outputs:	4-20mA (into 750 Ohms), 12-bit, 5kV, opto-isolated; loop or self-powered RS232 serial interface additional relay optionally available
Power Supply:	85-265 VAC, 50/60 Hz. (standard) 100-240 VAC, 50/60 Hz. (FM certified) 10-32 VDC (optional)
Temperature Range	
Transducers:	Standard: (process temperature, ***not*** ambient) -40°F to +212°F (-40°C to +100°C) High Temperature: -40°F to +392°F (-40°C to +200°C)
Transmitters:	(ambient) -40°F to +140°F (-40°C to +60°C)
Display:	2-line, 20-character, high resolution, backlit LCD indicating flow rate, signal strength, total, and other selectable parameters





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Ordering Information

Model	Product Description
TX10	Industrial Dedicated Transit Time Flowmeter • Velocity range: ±0 to 40 ft/s (±0 to 12 m/s) • 10,000-point data logger • 2-line, 20-character, high resolution, backlit LCD • RS232 digital communication interface • WinGateE software program (on CD) • Set of standard transducers
Code	**Power Supply**
1	85-265 VAC, 50/60 Hz. (standard); 100-240 VAC, 50/60 Hz. (FM certified)
2	10-32 VDC (optional)
Code	**Outputs**
1	4-20mA (standard)
2	4-20mA and one 0.5 amp, 10 watt, SPST fully programmable relay (optional)
3	1 full-scale frequency output (4-20mA not available with this option)
Code	**Transmitter Enclosure**
1	NEMA 4X (standard)
2	NEMA 7 (optional)
Code	**Transducer Type (set of two)**
S	Standard
H	High temperature
W	Wetted/insertion
Code	**Transducer Cable Length (set of two)**
XX30	30 ft. (9m) standard cable length
SXXX	Additional standard cable; 300 ft. (91m) maximum length
HXXX	Additional high temperature cable; 165 ft. (50m) maximum length
WXXX	Additional wetted sensor cable; 100 ft. (30m) maximum length
Code	**Transducer Hazardous Area Certification**
A	None
B	* CSA: Class I, Div. 2, Groups A, B, C, D Class II, Div. 2, Groups E, F, G
C	* CSA: Class I, Div. 1, Groups C, D Class II, Div. 1, Groups E, F, G (Intrinsically Safe barriers installed in transmitter)
D	* CENELEC (LCIE): Eex ia II B T6 (Intrinsically Safe barriers installed in transmitter) ATEX: pending * available only with standard transducer configuration

Represented by:

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Thermo Polysonics

ISO 9001