Greyline

TTFM 6.1

Technical Specifications:

The Greyline Transit Time Flow Meter 6.1 provides non-contacting, flow measurement. Ultrasonic transducers mount on the outside of pipes to measure flow rate of clean, non-aerated fluids like water, chemicals, and oils. The clamp-on transducers can be mounted without system shutdown with no pressure drop and no obstruction.

GENERAL SPECIFICATIONS

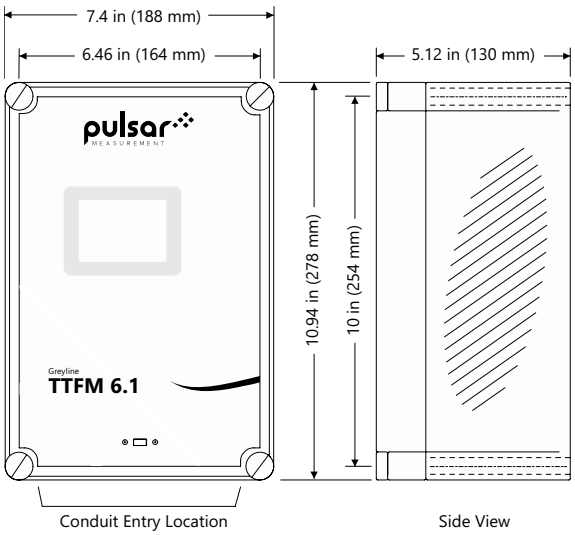
Operating Parameters:	For clean liquids in full pipes with less than 2% solids or gas bubbles
Programming:	Built-in 5-button keypad with English, French, and Spanish menu language selection
Electronics Enclosure:	NEMA4X (IP66) polycarbonate with clear, shatterproof cover
Accuracy:	±1% of reading from 457.2 mm/s to 12.2 m/s (18 in/s to 40 ft/s) and ±4.6 mm/s (±0.2 in/s) for velocity below 4.6 mm/s (1.8 in/s). Repeatability & Linearity: ±0.25%
Display:	White, backlit matrix — displays 5-digit flow rate with floating decimal,14-digit totalizer, relay status, operating mode, and calibration menu
Power Input:	• 100-240 V AC (50/60 Hz), 10 VA maximum • Optional: 9-32 V DC, 10 W maximum
Analog Output:	Isolated 4-20mA, 0-5 V, 1 kΩ load maximum, programmable offset
Control Relays:	• 2 Relays, form 'C' dry contacts rated 5 A SPDT; programmable flow alarm and/or flow proportional pulse • Optional: 4 additional (6 total), rated 5 A SPDT
Data Logger:	Built-in 128 MB data logger with USB output and Windows software. Capacity for approx. 26 million data points
Operating Temp. (Electronics):	-20 °C to 60 °C (-5 °F to 140 °F)
Approximate Shipping Weight:	5.5 kg (12 lb)
Approvals:	CE, CSA, UL/EN 61010-1

TRANSDUCER SPECIFICATIONS

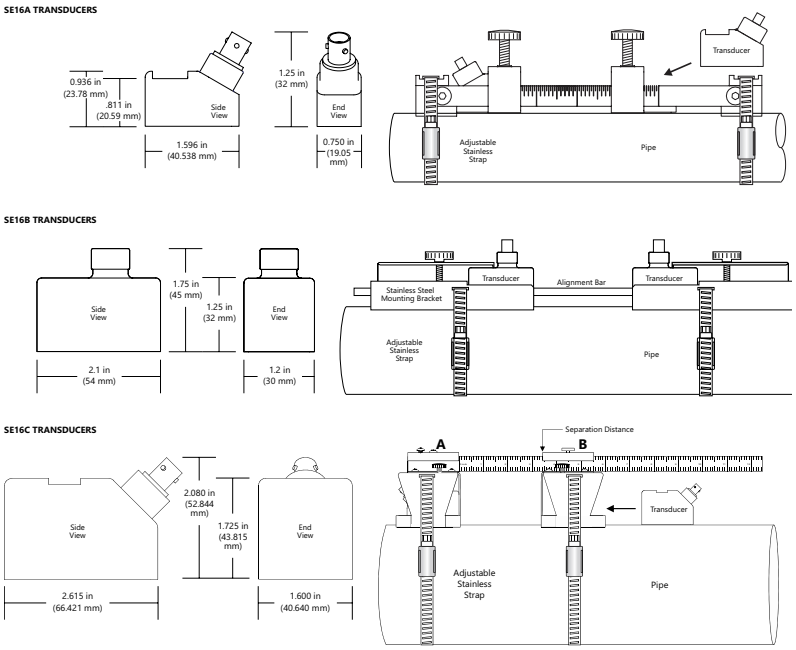
Pipe Diameter:	• **SE16A:** Recommended for 15 mm to 40 mm (0.5 in to 1.5 in), Suitable for 15 mm to 150 mm (0.5 in to 6 in) • **SE16B:** Recommended for 50 mm to 250 mm (2 in to 10 in), Suitable for 50 mm to 1,200 mm (2 in to 48 in) • **SE16C:** Recommended for 300 mm to 1,200 mm (12 in to 48 in), Suitable for 100 mm to 1,200 mm (4 in to 48 in)
Flow Velocity Range:	±21.3 mm/s to 12.2 m/s (±0.07 ft/s to 40 ft/s)
Pipe Materials:	Any metal or plastic sonic conducting material including carbon steel, stainless steel, ductile iron, concrete-lined ductile iron, cast iron, PVC, HDPE, PVDF, fiberglass, copper, brass, aluminum, and pipes with bonded liners including epoxy, rubber, and Teflon
Operating Frequency:	• **SE16A:** 2.56 MHz • **SE16B:** *(standard)*: 1.28 MHz • **SE16C:** 640 kHz
Operating Temperature:	-40 °C to 150 °C (-40 °F to 300 °F)
Transducer Mounting Kit:	• **SE16A:** Includes stainless steel track with pipe clamps, built-in ruler, and coupling compound. • **SE16B:** Includes set of stainless steel transducer brackets, clamps, alignment bar, and coupling compound. • **SE16C:** Includes set of stainless steel transducer brackets, clamps, alignment bar with built-in ruler, and coupling compound.
Transducer Cables:	Triaxial, 7.6 m (25 ft) with BNC connectors and seal jackets (extendable up to 152.4 m (500 ft))
Hazardous Locations:	• Non-incendive for Class I, Div 2, Groups A, B, C, D • Optional: Intrinsically safe for Class I, Div 1, Groups C, D; Class II, Groups E, F, G; Class III; Encl. Type 4

POPULAR OPTIONS

Industrial Automation Protocols:	Modbus RTU via RS485 or HART (field selectable)
Transducer Cables:	• 15.2 m (50 ft) triaxial with BNC connectors and seal jackets • 30.5 m (100 ft) triaxial with BNC connectors and seal jackets
Enclosure Heater:	Thermostatically controlled to -40 °C (-40 °F) — recommended for temperatures below 0 °C (32 °F)
Sunscreen:	Enclosure sunscreen for outdoor installations



Greyline TTFM 6.1 drawing front and side



SE16A, SE16B, & SE16C Transducers & Mounting

pulsar MEASUREMENT

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Rev 3.0