

**TTFM 1.0 Ultrasonic Transit Time Flow Meter**

Model

TTFM 1.0 - - - - -
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Approximate shipping weight: 12 lbs / 5.5 kg

**STANDARD FEATURES:**

- pair SE16B ultrasonic transducers - clamp-on for 2" to 48" (50 mm to 1200 mm) pipes
- sensor cables - pair 25 ft / 7.6 m coaxial with BNC connectors
- flow rate range: ± 0.07 to 39 ft/sec (± 0.02 to 12 m/sec)
- installation - stainless steel transducer brackets, mounting clamps, alignment bar and silicone coupling compound kit
- enclosure - watertight, NEMA4X (IP66) polyester and polycarbonate
- display - white, backlit matrix
- totalizer - 14 digit
- calibration - built-in 5-key programmer
- output - isolated 4-20mA (1000 ohm)
- 2 control relays - 5 amp, SPDT - programmable for flow proportional pulse output, and/or flow alarm
- power input - 100-240VAC 50/60Hz, 4 Watts maximum
- electrical surge protection and RFI filters - AC, sensor, 4-20mA
- 1 Manual - Installation and Operation

<b>POWER INPUT</b> Standard 100-240VAC 50/60Hz		A
9-32VDC, rated 9W (typical 3.7W with standard features)		B

<b>ENCLOSURE</b> Standard NEMA4X (IP66) polycarbonate		1
CXJ8106 – Explosion Proof NEMA7 (non-returnable & non-refundable)		2

<b>ENCLOSURE TEMPERATURE</b> Standard (-5° to 140°F / -20° to 60°C)		A
Heater and Thermostat, 115VAC, 15 Watts		B
Heater and Thermostat, 230VAC, 15 Watts		C

<b>ELECTRONICS PROTECTION</b> Standard - no circuit board coating		1
Conformal Coating (partial – excludes power supply, display and optional logger)		2

**TRANSDUCERS**

SE16B pair, standard, clamp-on for 2" to 48" (50 mm to 1200 mm) pipes		B
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**INTRINSIC SAFETY**

Standard, SE16B Transducers rated non-incendive for Div 2, Groups A,B,C,D		1
2ISB Intrinsic Safety Barriers for SE16B Transducer installation in Class I,II,III, Div. I,II, Groups C,D,E,F,G		2

**TRANSDUCER CABLES**

Standard 25 ft / 7.6 m pair shielded coaxial with BNC connectors & seal jackets		A
50 ft / 15 m shielded pair coaxial with BNC connectors and seal jackets		B
100 ft / 30 m shielded pair coaxial with BNC connectors and seal jackets		C

**DATA LOGGER**

None – Standard		1
Greyline Logger – 2 million point Data Logger (with USB output, PC software)		2

**CONTROL RELAYS**

2 – Standard		A
4 Extra Relays (6 total) rated 5 amp SPDT, fully programmable		B

**OPTIONS AND ACCESSORIES**

QTY	CODE	DESCRIPTION	
	DXC	Transducer cable extension up to 250 ft / 75 m (RG174U shielded coaxial pair)	
	JB2X	Transducer cable Junction Box, IP66 polycarbonate	
	TMK1	Transducer Mounting Kit with pair SS Mounting Brackets, pair Pipe Clamps for OD up to 30" (750 mm) and 30 ml (1 oz) Coupling Compound	
	PC16-MB	Replacement Stainless Steel Transducer Mounting Bracket	
	PC9	Replacement SS pipe clamp for pipe OD up to 9" (225 mm)	
	PC22	Replacement SS pipe clamp for pipe OD up to 22" (550 mm)	
	CC-SL30	Coupling Compound – Super Lube® 3.0 oz tube	
	AP1W-30	High Temperature Coupling Compound 112 g. (4 oz)	
	PM	Panel Mount Flange assembly	
	SCR	Enclosure Sunscreen (iridite aluminum)	
	CHS	Spare set Electronics with Mounting Chassis	
	MNL	Additional Manuals (One supplied with each unit)	

**REPLACEMENT PARTS**

\* Provide Instrument Serial number when ordering replacements

	SE16B	Spare/Replacement single Transducer for 2" to 48" (50 mm to 1200 mm) ID pipes (two transducers are used with each flowmeter)	
	TTJB	Replacement in-line cable enclosure with 48" (1.2 m) coaxial pair cables and BNC connectors	
	TTC25	Replacement pair 25 ft (7.6 m) shielded transducer coaxial cables with BNC connectors, seal jackets and TTJB junction box	
	TTC50	Replacement pair 50 ft (15 m) shielded transducer coaxial cables with BNC connectors, seal jackets and TTJB junction box	
	TTC100	Replacement pair 100 ft (30 m) shielded transducer coaxial cables with BNC connectors, seal jackets and TTJB junction box	