

TTFM 1.0 Ultrasonic Transit Time Flow Meter**Model****TTFM 1.0 -**

Approximate shipping weight: 12 lbs / 5.5 kg

STANDARD FEATURES:

- pair SE16B ultrasonic transducers - clamp-on for 1/2" to 48" (12 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

POWER INPUT Standard 100-240VAC 50/60Hz		A
9-32VDC		B

ENCLOSURE Standard NEMA4X (IP66) polycarbonate		1
CXJ8106 – Explosion Proof NEMA7		2

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

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

TRANSDUCERS

SE16B pair, standard, clamp-on for 1/2" to 48" (12 mm to 1200 mm) pipes		B
SE16A pair, clamp-on for larger pipes		A

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 coaxial with BNC connectors and seal jackets		A
50 ft / 15 m pair coaxial with BNC connectors and seal jackets		B

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	
	TTJB	Transducer cable Junction Box, IP66 polycarbonate	
	DXC	Transducer cable extension up to 250 ft / 75 m (RG174U shielded coaxial pair)	
	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	Dow Corning Silicone Compound 150 g. (5.3 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 TRANSDUCERS

* Provide Instrument Serial number when ordering replacements

	SE16B	Spare/Replacement Transducer for 1/2" to 48" (12 mm to 1200 mm) ID pipes (two transducers used with each flowmeter)	
	TTC25	Replacement pair 25 ft (7.6 m) transducer coaxial cables with BNC connectors & seal jackets	
	TTC50	Replacement pair 50 ft (15 m) transducer coaxial cables with BNC connectors & seal jackets	