

FT3 Insertion Flowmeter/Temperature Transmitter MODEL CODES

399 Reservation Road Marina, CA 93933 831-384-4300 www.foxthermal.com sales@foxthermal.com

MODEL FT3 INSERTION METER

	Code	Description
Parent Model No.*	FT3	Insertion Mass Flowmeter & Temperature Transmitter
Feature 1: Probe*	06IE	Insertion meter with 6-inch probe (all 6" probes will have an equal length sensor)
	091	Insertion meter with 9-inch probe
See "Calculating	12I	Insertion meter with 12-inch probe
Probe Lengths" Below	15I	Insertion meter with 15-inch probe
\	181	Insertion meter with 18-inch probe
	241	Insertion meter with 24-inch probe
3/4" MNPT compression fitting	301	Insertion meter with 30-inch probe
at no charge	361	Insertion meter with 36-inch probe
\	15R	15" Probe w/ 125 PSI retractor & full port valve - 3/4" male NPT, 316 SS wetted parts
Adding an "E" after the probe code	18R	18" Probe w/ 125 PSI retractor & full port valve - 3/4" male NPT, 316 SS wetted parts
(i.e. 09IE, 18RE) will provide an equal	24R	24" Probe w/ 125 PSI retractor & full port valve - 3/4" male NPT, 316 SS wetted parts
length sensor. Equal length sensors	30R	30" Probe w/ 125 PSI retractor & full port valve - 3/4" male NPT, 316 SS wetted parts
must be specified for 1.5" (40mm) and	36R	36" Probe w/ 125 PSI retractor & full port valve - 3/4" male NPT, 316 SS wetted parts
2" (50mm) pipes. 15R is shipped	R1	Crank Retractor 1.5" NPT, 600 PSI, no valve - 316 SS wetted parts**
standard with an equal length sensor.	R2	Crank Retractor 1.5", 150# flange, no valve - 316 SS wetted parts**
	R3	Crank Retractor 1.5", 300# flange, no valve - 316 SS wetted parts**
		Probes over 36" and flange mounting options
Feature 2: Sensor Material*	SS	316 stainless wetted parts: sensor, probe and compression fitting
	SH	Hastelloy C-276 sensor and probe; 316 stainless steel compression fitting
	SJ	Hastelloy C-276 sensor and probe; Monel compression fitting
	SL	Hastelloy C-276 sensor and probe; Hastelloy C-276 compression fitting
Feature 3: Sensor Type*	ST	Standard Sensor -40 to 250F (-40 to 121C)
	HT	High Temperature Sensor -40 to 650F (-40 to 343C) E3 or E4 required - AIR ONLY, 8,000 SFPM Max
Feature 4: Enclosure and Power*	E1	Local Explosion Proof enclosure, 24VDC powered
	E2	Local Explosion Proof enclosure, 85 to 264VAC powered
	E3	Remote J-box, 24VDC powered, 100' max, cable sold separately, requires option brd ***
	E4	Remote J-box, 85 to 264VAC powered, 100' max, cable sold separately, requires option brd ***
Feature 5: Display*	D0	No Display & Configuration Panel
	DD	Include Rate/Total Display & Configuration Panel
	DL	Include Rate/Total Display & Configuration Panel with data logger option ****
Feature 6: Option Boards*	В0	Blank option board
,	B1	Isolated 24VDC power + terminal block for remote sensor
Do not specify B0 when	MB	RS485 Modbus RTU (includes isolated 24VDC + terminal block for remote sensor)
ordering a remote sensor.	ВН	HART (includes isolated 24VDC + terminal block for remote sensor)
Feature 7: Calibration*	G1	Air, N2: MF less than 1200 SCFM (2040 NM3H)
,	G2	Air, N2: MF above 1200 SCFM (2040 NM3H)
MF = Maximum Flow Rate	G3	Ar, CO2, H2, CH4, Natural Gas, O2: MF less than 1000 SCFM (1700 NM3H)*****
Calibration prices listed here are	G4	Ar, CO2, H2, CH4, Natural Gas, O2: MF above 1000 SCFM (1700 NM3H)*****
for new flowmeter orders only.	G5	CO, He, Ammonia, Propane: MF less than 700 SCFM (1190 NM3H)
Contact Fox for recalibration	G6	CO, He, Ammonia, Propane: MF above 700 SCFM (1190 NM3H)
prices.	G7	Biogas, Digester Gas, Flare Gas, Flash Gas, Vent Gas*****

OPTIONS

	Part #	Description
	104488	Extra Instruction Manual
	100657	Stainless Steel Tags
	999992	Certificate of Conformance
	999995	Certificate of Origin
ı		

OPTIONS Part# Description

	i ui t#	Descripcion
	104870	USB Cable, A-male/mini USB-B male, 6 feet
	101570	5 conductor, 18 AWG PVC shielded cable for remote. Specify feet (100' max.)
102878		Teflon Ferrule Kit, 60 PSI max.
	890000	Flowmeter cleaned and bagged for Oxygen service
	104740	Pemote Enclosure Mounting Kit (E3 or E4)

- The Parent Model Number and one of each Feature must be specified. Example: FT3-09I-SS-ST-E3-DD-B1-G1
 - ** Retractors R1 R3: Minimum pipe size is 2" (50mm). Maximum pipe size is 1/2 the pipe diameter + valve dimension cannot exceed 19.5" (495mm)
 - *** Recommend 104740 Remote Mounting Kit option
 - **** Data logger information is currently only retrievable from the display and over RS485 Modbus. Modbus is recommended; therefore, selection of "MB" for "Feature 6: Option Boards" is advisable
 - ***** G3 and G4 refer to pipeline-quality dry natural gas, whereas naturally occurring gas from oil fields constitutes a mixed gas requiring a G7 calibration

Insertion flowmeters can be installed on 1.5" (40mm) pipes or larger. Select Inline Flowmeters for pipes smaller than 1.5" (40mm).

Calculating Probe Length - Position the Fox Sensor in the center of the pipe. Use the following to calculate the probe length:

Probe Length = 1/2 pipe diameter + 3" (80mm) + Insulation + Retractor [for codes 15R through 36R, add 10" (203mm)]. Round up to next larger probe available. Always quote an equal length sensor for 1.5" and 2" pipes.

D = pipe diameter; Insulation = Thickness of insulation (if any); Retractor = Dimension of retractor, if supplied.

Example 1: Pipe ID = 10" (254mm), no insulation or retractor: 5" (127mm) + 3" (80mm) = 8" (203mm). Round up to 9" probe (09I).

Example 2: Pipe ID = 10" (203mm) with retractor, no insulation: 5" (127mm) + 3" (80mm) + 10" (retractor) (203mm) = 18" (457mm): 18R



FT3 Inline Flowmeter/Temperature Transmitter MODEL CODES

MODEL FT3 INLINE METER

	Code	Description
Parent Model No.*	FT3	Inline Mass Flowmeter & Temperature Transmitter
Feature 1 : Flow Body Size*		316 Stainless steel flow body
	025P	1/4 inch flow body, male NPT ends (schedule 40) 5.8" Face to Face
	05P	1/2 inch flow body, male NPT ends (schedule 40) 12" Face to Face
	075P	3/4 inch flow body, male NPT ends (schedule 40) 12" Face to Face
	10P	1 inch flow body, male NPT ends (schedule 40) 12" Face-to-Face
	125P	1.25 inch flow body, male NPT ends (schedule 40) 12" Face to Face
	15P	1.5 inch flow body, male NPT ends (schedule 40) 12" Face to Face
	20P	2 inch flow body, male NPT ends (schedule 40) 12" Face to Face
	25P	2.5 inch flow body, male NPT ends (schedule 40) 18" Face to Face
	30P	3 inch flow body, male NPT ends (schedule 40) 18" Face to Face
	05F	1/2 inch flow body, 150# RF flanges (schedule 40) 12" Face to Face
	075F	3/4 inch flow body, 150# RF flanges (schedule 40) 12" Face to Face
	10F	1 inch flow body, 150# RF flanges (schedule 40) 12" Face-to-Face
	125F	1.25 inch flow body, 150# RF flanges (schedule 40) 12" Face to Face
	15F	1.5 inch flow body, 150# RF flanges (schedule 40) 12" Face to Face
	20F	2 inch flow body, 150# RF flanges (schedule 40) 12" Face to Face
	25F	2.5 inch flow body, 150# RF flanges (schedule 40) 18" Face to Face
	30F	3 inch flow body, 150# RF flanges (schedule 40) 18" Face to Face
	40F	4 inch flow body, 150# RF flanges (schedule 40) 18" Face to Face**
	60F	6 inch flow body, 150# RF flanges (schedule 40) 24" Face to Face**
	2000	A106 Grade B Carbon steel pipe (+ A105 flanges - if ordered)******
	20PC	2 inch, male NPT ends (schedule 40) 12" Face to Face
	25PC	2.5 inch, male NPT ends (schedule 40) 18" Face to Face
	30PC	3 inch, male NPT ends (schedule 40) 18" Face to Face
	20FC	2 inch, 150# RF flanges (schedule 40) 12" Face to Face
	25FC	2.5 inch, 150# RF flanges (schedule 40) 18" Face to Face
	30FC	3 inch, 150# RF flanges (schedule 40) 18" Face to Face
	40FC	4 inch, 150# RF flanges (schedule 40) 18" Face to Face **
	60FC	6 inch, 150# RF flanges (schedule 40) 24" Face to Face **
Feature 2: Sensor Material*	SS	316 stainless steel sensor and compression fitting
	SH	Hastelloy C-276 sensor w/ 316SS compression fitting
Feature 3: Sensor Type*	ST	Standard Sensor -40 to 250F (-40 to 121C)
	HT	High Temperature Sensor -40 to 650F (-40 to 343C) E3 or E4 required - AIR ONLY, 8,000 SFPM Max
Feature 4: Enclosure and Power*	E1	Local Explosion Proof enclosure, 24VDC powered
2	E2	Local Explosion Proof enclosure, 85 to 264VAC powered
	E3	Remote J-box, 24VDC powered, 100' max, cable sold separately, requires option brd ***
	E4	Remote J-box, 85 to 264VAC powered, 100' max, cable sold separately, requires option brd ***
Feature 5: Display*	D0	No Display & Configuration Panel
reacure 3: Display*	DD	Include Rate/Total Display & Configuration Panel
	DL	Include Rate/Total Display & Configuration Panel with data logger option ****
5-1		
Feature 6: Option Boards*	B0 B1	Blank option board Isolated 24VDC power + terminal block for remote sensor
Do not engify 20t.		
Do not specify B0 when ordering a remote sensor.	MB BH	RS485 Modbus RTU (includes isolated 24VDC + terminal block for remote sensor) HART (includes isolated 24VDC + terminal block for remote sensor)
Feature 7: Calibration*	G1	Air, N2: MF less than 1200 SCFM (2040 NM3H)
	G2	Air, N2: MF above 1200 SCFM (2040 NM3H)
MF = Maximum Flow Rate	G3	Ar, CO2, H2, CH4, Natural Gas, O2: MF less than 1000 SCFM (1700 NM3H)*****
Calibration prices listed here are for	G4	Ar, CO2, H2, CH4, Natural Gas, O2: MF above 1000 SCFM (1700 NM3H)*****
new flowmeter orders only.	G5	CO, He, Ammonia, Propane: MF less than 700 SCFM (1190 NM3H)
Contact Fox for recalibration prices.	G6	CO, He, Ammonia, Propane: MF above 700 SCFM (1190 NM3H)
	G7	Biogas, Digester Gas, Flare Gas, Flash Gas, Vent Gas****

OPTIONS

OPTIONS

Part #	Description
104488	Extra Instruction Manual
100657	Stainless Steel Tags
999992	Certificate of Conformance
104740	Remote Enclosure Mounting Kit (E3 or E4)
104870	USB Cable, A-male/mini USB-B male, 6 feet

Part#	Description
101570	5 conductor, 18 AWG PVC shielded cable for remote. Specify feet (100' max.)
890000 Flowmeter cleaned and bagged for Oxygen service	
999995	Certificate of Origin
990056	Canadian Registration Number (CRN) engraved on flow body

Notes: * The Parent Model Number and one of each Feature must be specified. Example: FT3-20P-SS-ST-E3-DD-B1-G1

- ** Above 2,500 SCFM (4,250 NM3H) consult factory for calibration charge.
- *** Recommend 104740 Remote Mounting Kit option
- **** Data logger information is currently only retrievable from the display and over RS485 Modbus. Modbus is recommended; therefore, selection of "MB" for "Feature 6: Option Boards" is advisable.
- ***** G3 and G4 refer to pipeline-quality dry natural gas, whereas naturally occurring gas from oil fields constitutes a mixed gas requiring a G7 calibration
- ******Canadian Registration Number (CRN) is not available on carbon steel flow bodies