TF-Series Medium Capacity Electronic Flowmeter

Trimec-FP TF-Series Medium Capacity Electronic Flowmeters

Volumetric flow measurement of clean liquids or low flows used in automotive, aviation, mining, power, chemical, pharmaceutical, food, paint, petroleum industries and environmental applications.
For distribution of fuels, fuel oils, lubricants, alcohols, solvents, blending of bio and ethanol fuels, metering of chemicals, grease, adhesives, ink, insecticides and pumps or gravity fed non-conductive liquids.

Features / Benefits

- High accuracy and repeatability, direct volumetric reading
- No requirement for flow conditioning (straight pipe runs)
- Measures high and low viscosity liquids
- Quadrature pulse output option and bi-directional flow
- Only two moving parts

General Specifications

- Flow Rates: 1 - 500 L/min [0.26 - 130 USG/min] *
- Sizes: 1/2" - 2" [15mm - 50mm]
- Materials: Aluminium, 316 Stainless steel, PPS (025P)

*See also Small and Large Capacity data sheets for other size meters

Meter Selection

- Aluminium meters for petroleum products (oils and grease, fuels and fuel oils)
- Stainless steel meters for the chemical, cosmetic, food and pharmaceutical industries (water based liquids)
- Blind pulse meters available with reed switch and Hall Effect outputs. Optional Quadrature pulse and Integral 4-20mA outputs available

Integral Instruments

Options include integral LCD totalisers, flow rate totalisers and batch controllers (4-20mA, scaled pulse, alarms and batch control)

- BT11 LCD 5-digit reset, 8-digit cumulative totaliser
- RT14 LCD 8-digit reset, cumulative totaliser, analogue and pulse outputs with backlit display
- RT40 LCD 6-digit reset, cumulative totaliser and flow rate. Backlit Display
- EB1O LCD 6-digit 2 stage batcher and cumulative totaliser
  (Available for remote mounting and with I.S. approvals)

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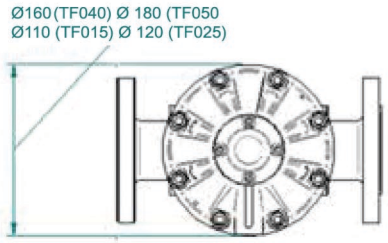
Model Specifications

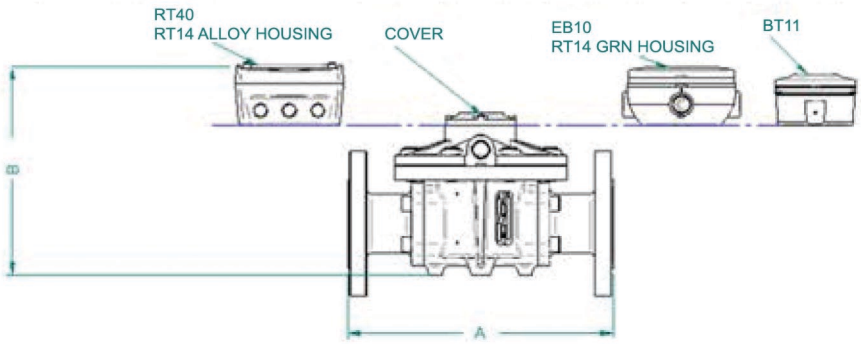
Model	TF015	TF025	TF040	TF050
Nominal Size	15mm (1/2")	25mm (1")	40mm (1.5")	50mm (2")
* Nominal Flow range @ 3cP	1 - 40 L/min	10 - 150 L/min	15 - 250 L/min	30 - 500^ L/min
	(0.26 - 10.6 USG/min)	(2.6 - 40 USG/min)	(4 - 66 USG/min)	(8 - 130^USG/min)
Accuracy	± 0.5% of reading (± 0.2% of reading with optional RT12 /RT14)			
Repeatability	Typically ± 0.03% of reading			
Ambient Temperature Range (AL and SS meters)	-40°C to +120°C (-40°F to +250°F)			
Ambient Temperature Range (PPS meters)	n/a	-40°C to +80°C (-40°F to +176°F)	n/a	n/a
Max. Pressure (PPS meters)	n/a	5 Bar (70 psi)	n/a	n/a
Max. Pressure (AL meters)	68 Bar (990 psi)	68 Bar (990 psi)	30 Bar (435 psi)	20 Bar (285 psi)
Max. Pressure (SS meters)	68 Bar (990 psi)	68 Bar (990 psi)	30 Bar (435 psi)	38 Bar (550 psi)
Protection Class	IP66/67 (NEMA4XI, Integral ancillaries can be supplied intrinsically safe [I.S])			
Recommended Filtration	100 mesh (150 microns)			
Output Pulse Resolution - Pulses per Litre (Pulses per USG) - Nominal				
Reed Switch	84 (318)	27 (102)	14 (53)	6.5 (25)
Hall Efect	168 (636)	107 (405)	56 (212)	26 (99)
QP (Qudarture) Hall Effect	168 (636)	54 (204)	28 (106)	13 (49)
Reed Switch Output	30Vdc x 200mA max. (maximum thermal shock 10°C [18°F]/ minute)			
Hall Effect Output	3 wire open collector, 5 - 24 Vdc max, 20mA max			
Optional Outputs	4-20mA, Scaled pulse, Quadrature pulse, flow alarms or two stage batch control			

* Maximum flow reduces as viscosity increases, see flow de-rating guide. Max recommended pressure drop 1 Bar (1
^PPS rotors (Max flow rate for SS rotors is 450 L/min [120 USG/min])

Dimensions (± 2mm)

Modular Fitting	A					Configuration	B						
	TF015	TF025		TF040	TF050		TF015		TF025		TF040		TF050
		AL	SS				AL	SS	AL /P	SS	AL	SS	
Flanged	189	198	237	252	277	EB10 / RT12 / RT14 GRN housing	154	148	168	165	203	194	218
						BT11	145	139	160	157	198	186	210
Threaded	110	137	176	188	212	RT40	157	151	171	168	206	197	221
						Cover	106	100	123	117	155	146	170





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TRIMEC FLOW PRODUCTS

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Model Specifications

TF015	15mm	(1/2")	1 - 40 L/min (0.26 - 10.6 USG/min
TF025	25mm	(1")	10 - 150 L/min (2.6 - 40 USG/min)
TF040	40mm	(1.5")	15 - 250 L/min (4 - 66 USG/min)
TF050	50mm	(2")	30 - 500 L/min (8 - 130 USG/min)

Body Material

A	Aluminium
S	316 Stainless Steel
P	PPS (TF025) (only available with PPS rotors)

Rotor Material / Bearing type

0	0	PPS (008 only) (not available for 150°C meters) / No bearing
1	0	Keishi cut PPS (for high viscosity liquids)(not available for 150°C meters) / No bearings
5	1	Stainless steel / Carbon ceramic
7	1	Keishi cut stainless steel (for high viscosity liquids) (008 only) / Carbon Ceramic

O-ring Material

1	Viton (-15°C min[-5°F])
3	Teflon Encapsulated Viton
4	Nitrile (-40°C [-40°F])

Temperature Limits

-	2	120°C [250°C] max.120°C [250°C] max.120°C [250°C] max.
-	3	150°C [300°F] max. (Hall only) (includes SS terminal cover)150°C [300°F] max.
-	5	*120°C [250°F] max. (includes cooling fin)*120°C
-	8	# 80°C [176°F] max. (meters with integral instruments, TF008 with PPS rotors)

Process Connections

0	No fittings (TF025 - TF050)
1	BSPP (G) female threaded
2	NPT female threaded
3	Tri-clamp ferrules (1/2" larger than meter size)
4	ANSI - 150 RF flanged
5	ANSI - 300 RF flanged
6	PN16 DIN flanged

Cable Entries

Exclusive to B2 & B3 Options

0	3- 6 mm cable gland or no cable entry (TF025P)
1	M20 x 1.5mm (M16 x 1.5 for R4 option)
2	1/2"NPT Adaptor

Integral Options

	-	NIL
	SS	Stainless Steel Terminal Cover
	RS	REED Switch Only - to suitt Intrinsically Safe Installations
	QP	Qudrature pulse (2 NPN phased outputs)
With scaleable pulse output	B2	*# BT11 totaliser with pulse output
IECEx & ATEX approved	B3	*# BT11 intrinsically safe totaliser with pulse output
Scaled pulse, alarms, & 4-20mA	R2	*# RT12 rate totaliser with all outputs (GRN housing)
IECEx & ATEX approved	R3	*# RT12 intrinsically safe rate totaliser with all outputs (GRN housing)
Scaled pulse, backlighting	R4	*# RT40 backlit rate totaliser (alloy housing with facia protector)
Scaled pulse, alarms, 4-20mA & backlighting	R5	*# RT14 backlit rate totaliser with all outputs (GRN housing)
2 stage DC batcher & totaliser	E0	*# EB10 batch controller

* Temperature code 5 required when operating temperature is between 80°C (180°F) and 120°C (250°F)

\# Temperature code 8 required for all integral instruments.

Model No. Example

TF025	S	5	1	1	-	5	1	1	R2

Authorized Distributor
Accu-Flo 1-800-921-2228
www.accuflo.com

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