TRIMEC
FLOW PRODUCTS

TURBINE FLOWMETERS

Designed & priced for overall appeal

The MT small and PT large capacity turbine meters measure flows of low viscosity liquids from 0.05 l/m to 550 m3/hr in a range of sizes from ¼" to 6" (6mm~150mm).

The MT mini series have a tangential rotor with integral flow conditioning ports, whilst the PT series have an axial rotor and flow guides. The PT series need to be installed in straight sections of pipe either horizontal or vertical so that the flow is conditioned. The PT series have Exd & Intrinsically Safe (I.S.) approvals.

Both meter series are robust, compact and take little space in the piping systems. Applications include fuels, alcohols, solvents, insecticides, milk, chemicals, water and light hydraulic oils.

FEATURES:

- High accuracy and repeatability
- Low cost of ownership
- Wide flow range
- Rugged and compact design
- Certified Exd and I.S. hazardous are versions
- Quadrature pulse output option
- Integral or remote pre-amplifiers and flow instruments
- +/-0.15% custody transfer models available

GENERAL SPECIFICATIONS

Model Prefix:	MT-Mini Turbine	PT-Pulse Turbine
Nominal Size	6mm (1/4" BSPF	12-500mm (1/2"-20")
Accuracy @ 1cp	+/-1~2% FSD or +/-0.75% o.r.	+/-0.5% o.r. (10:1 Turndown)
Temperature Range	5~125°C (40~250°F)	-40~+240°C (-40~+460°F)
Maximum Pressure		
316 Stainless Steel	10 bar (147 psi)	250 bar (3680 psi) 10cst max.
High Pressure St St	N/A	400 bar (5580 psi) 68cst max.
Peek	10 bar (147 psi)	N/A
Protection Class	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.	
Electrical (see also optional outputs - Pulse Turbine pick-off types)		
Standard Output	Hall effect sensor	Pick-off coil

FLOW RANGES - MT-Mini Turbine

Size	Model	Litres/Min (GPM)		Jet Ø
1/4"	MT001	0.05~0.5	(0.01~0.13)	1mm
1/4"	MT002	0.12~1.5	(0.03~0.4)	2mm
1/4"	MT003	0.2~4.5	(0.04~1.12)	3mm
1/4"	MT004	0.25~6.5	(0.05~1.7)	4mm
1/4"	MT005	0.3~10	(0.08~2.64)	no jet
1/4"	MT006	0.5~15	(0.13~4)	6mm

FLOW RANGES - PT-Pulse Turbine

Size	Model	Litres/Hr (GPM)	
1/2"	PT010	100~1100	(0.44~4.4)
3/4"	PT012	220~2200	(0.97~9.7)
3/4"	PT015	400~4000	(1.77~17.7)
3/4"	PT020	800~8000	(3.5~35.2)
		m3/Hr (GPH)	
1"	PT025	1.6~16	(7~70)
1 1/2"	PT040	3.4~34	(15~150)
2"	PT050	6.8~68	(30~300)
3"	PT080	13~135	(60~600)
4"	PT100	27~270	(120~1200)
6"	PT150	55~550	(240~2400)

FLANGED METERS

Model	A	
	mm	inches
PT010	127	5.0
PT012	127	5.0
PT015	127	5.0
PT020	140	5.5
PT025	152	6.0
PT040	178	7.0
PT050	197	7.8
PT080	254	10.0
PT100	356	14.0
PT150	368	14.5

THREADED METERS

Model	B		C
	mm	inches	
PT010	64	2.5	1/2" BSP or NPT
PT012	64	2.5	3/4" BSP or NPT
PT015	64	2.5	3/4" BSP or NPT
PT020	83	3.3	3/4" BSP or NPT
PT025	89	3.5	1" BSP or NPT
PT040	115	4.5	1 1/2" BSP or NPT
PT050	133	5.5	2" BSP or NPT

Option Fitted	H	
	mm	Inches
RT12/EB10	210	8.3
RT20 / BC20	185	7.3
EX Junction Box	150	6.0

PULSE TURBINE MODEL CODING

	Pulse output (nominal):		P/litre	P/USG	Frequency (Hz)
PT010	1/2"	DN15	4000	15140	120~1200
PT012	3/4"	DN20	1700	6435	104~1040
PT015	3/4"	DN20	1100	4160	120~1200
PT020	3/4"	DN20	400	1500	90~900
PT025	1"	DN25	180	680	80~800
PT040	1 1/2"	DN40	60	230	57~570
PT050	2"	DN50	24	90	45~450
PT080	3"	DN80	15	57	56~560
PT100	4"	DN100	6.6	25	50~500
PT150	6"	DN150	2.3	8.7	35~350

Body Material

S	316 Stainless Steel - 250 bar (3500 psi) max.

Process Connections

1	BSPP Male Thread
2	NPT Male Thread
3	* Tri-clamp Ferrules (316 St St)
4	ANSI 150 RF Flanges
5	ANSI 300 RF Flanges
6	PN10 DIN Flanges
7	PN16 DIN Flanges
8	PN25 DIN Flanges
9	Customer nominated connections

* Tri-clamp ferrules are 1/2" larger than the meter size

Process Connection Material

T	Threaded Stainless Steel
C	Carbon Steel Flanges (PT080+)
S	316 Stainless Steel Process Connections

No. of Pick-offs

1	One
2	Two X 90 Degrees Electricity Offset (PT100+)

Pick-off Style

-	1	MS (Military Style) Connector
-	2	FL (Flying Leads)

Pick-off Type

1	Standard Coil (120°C (250°F) Max.)
2	Hermatically Sealed or High Temp. Coil
3	Intrinsically Safe Coil - ATEX pproved
4	Pre-amplified (MS Connector Ony)

Linearity

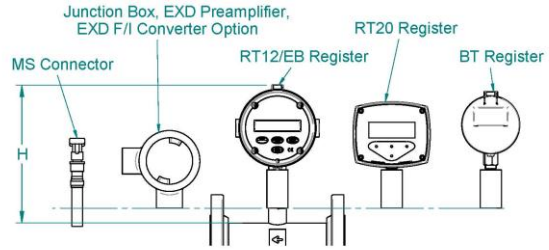
1	+/- 0.55 (Standard)
2	+/-0.15% (Custody Transfer PT100+)

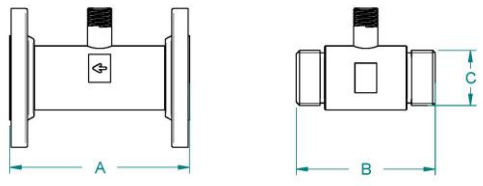
Integral Options

	JB	Junction Box - ATEX Approved
	PA	Exd Preamplifier - ATEX Approved
	FI	Exd F/I Converter - ATEX Approved
With scaleable pulse output	B2	BT11 Dual Totaliser
IECEx & ATEX approved	B3	I.S. Intrisically Safe BT11
Scaled pulse, alarms & 4-20mA output	R2	RT12 Rate Totaliser
IECEx & ATEX approved	R3	I.S. Intrisically Safe RT12
Scaled pulse + Backlighting	R4	RT20 Flow Rate Totaliser
dc Powered 2 Stage batch controller	E0	EB10 dc Batch Controller
	SB	Specific Build Requirement

Model No. Example

PT025	S	1	T	1	-	2	1	1	R2





FLANGED METERS AVAILABLE WITH A.N.S.I OR DIN FLANGES. SEE APPLICABLE STANDARD FOR FLANGE DIMENSIONS

Standard Options:

Flanged process connections, Explosion proof, integral and remote preamplifier, LCD totaliser, flow rate totalisers, scaled pulse, 4~20mA and alarm outputs, electronic batch controllers and pulse processing modules.

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