

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

	MT-Mini Turbine	PT-Pulse Turbine
<i>Model Prefix:</i>		
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)
<i>Maximum Pressure</i>		
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.	
<i>Electrical (see also optional outputs - Pulse Turbine pick-off types)</i>		
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.
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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	Hermetically Sealed or High Temp. Coil
3	Intrinsically Safe Coil - ATEX pproved
4	Pre-amplified (MS Connector Only)

Linearity

1	+/- 0.5% (Standard)
2	+/-0.15% (Custody Transfer PT100+)

Integral Options

JB	Junction Box - ATEX Approved
PA	Exd Pre-amplifier - ATEX Approved
FI	Exd F/I Converter - ATEX Approved
B2	BT11 Dual Totaliser
B3	I.S. Intrinsically Safe BT11
R2	RT12 Rate Totaliser
R3	I.S. Intrinsically Safe RT12
R4	RT20 Flow Rate Totaliser
EO	EB10 dc Batch Controller
SB	Specific Build Requirement

With scaleable pulse output

IECEX & ATEX approved

Scaled pulse, alarms & 4-20mA output

IECEX & ATEX approved

Scaled pulse + Backlighting

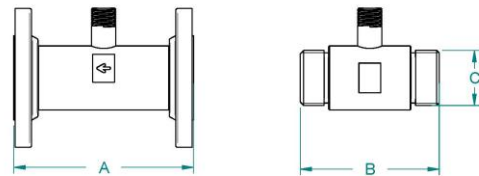
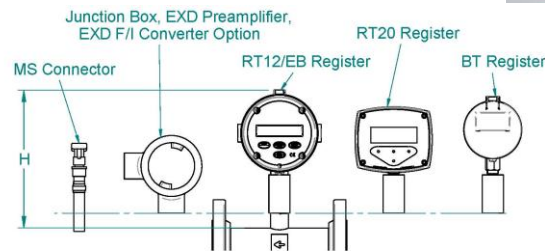
dc Powered 2 Stage batch controller

Model No. Example

PT025	S	1	T	1	-	2	1	1	R2
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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.



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

Authorized Distributor

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