

# IPM INSERTION PADDLEWHEEL METER SERIES



## Industrial Insertion Paddlewheel Flow Meters

The Metri Insertion Paddlewheel Meter (IPM) Series is the perfect cost effective liquid flow meter for use in pipe sizes from 40mm and above. Designed to be simple to install and operate, this rugged radial turbine meter will provide accurate velocity measurement of various liquids. When fitted it provides minimal pressure drop and is ideal for use in buildings, process plant machinery and remote access areas. Where required the IPM is fitted with battery or powered F or E series Fluidwell displays to provide, flowrate, totalizer and batch and ratio control functionality.

Applications for this radial turbine meter are varied typical uses include water, demineralised water chemicals, oils and hydrocarbons. OEM and custom designs possible eg. system integration, high pressure service, hot tap, remote wireless monitoring, subsea and high temperature.

- Simple, rugged and easy to install
- Battery powered option available
- Complementary range of display instruments and fittings
- Wide range of pipe materials and sizes
- Tungsten carbide shaft construction with sapphire bearing for extended service
- Wide temperature range from -40 up to 350°C

This insertion paddlewheel meter has a rugged stainless steel rotor supported on a highly polished tungsten carbide shaft with dual sapphire ringtone bearings for reduced friction and an extended service life. Each meter contains a self-powered VR sensor for remote and battery powered operation safe for ATEX/IECEX certified equipment is available for hazardous area applications.



- Rugged
- Compact or Remote
- Adaptable
- Versatile
- Repeatable
- Accurate

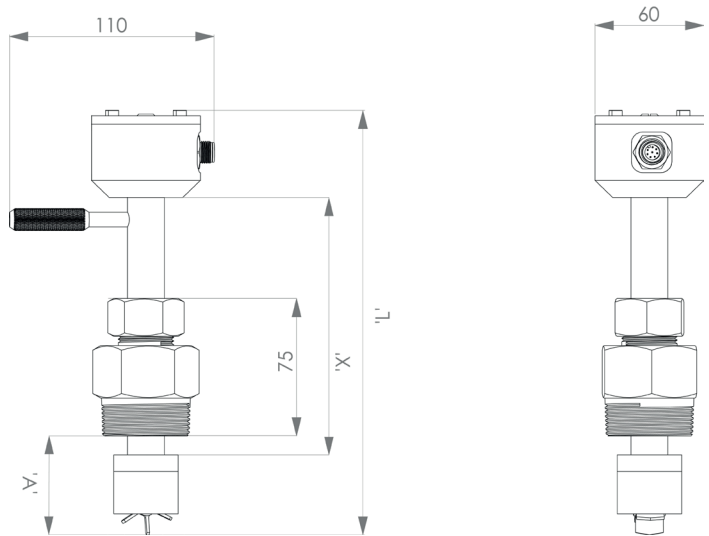
SPECIFICATION DETAILS	
Operating range	0.3 - 8 m/sec
Frequency	53Hz per /sec Nominal
Pipe size	DN40 - DN300mm (standard) DN40 - DN900 (optional)
Connection	1½" NPT or BSPT Flanged ANSI/PN/JIS optional
Linerity	± 2%
Repeatability	0.5% typical
Max operating pressure rating	100Bar (standard) higher on request
Temperature range	Standard: -40 to 125°C Medium: -40 to 250°C High: 350°C (consult factory)
Materials	Body: 316 stainless steel Housing: Aluminium (Hard anodised) stainless steel optional Rotor: Stainless steel Shaft: Tungsten carbide (ceramic optional) Bearings: Sapphire/tungsten O-rings: Viton™
Power supply	Self powered or when choosing IC-MV AN/PO 5-30 VDC
Outputs	Standard: AC MV Optional: PNP/NPN (via IC-MV-PO)
ATEX (optional)	ATEX Ex ia IIC or IIB T6 to T3



# VERSATILE CONFIGURATIONS

## Ordering information for the IPM Paddlewheel/Turbine Flow Meter

IC-IM	Pipe Size
S	Standard 40 - 300mm
E	Extended 40 - 900mm
Connection	
A	1½" NPT (standard)
B	1½" BSPT
F	Flanged
Pressure range	
S	Standard
H	HP
Temperature	
S	Standard: -40 to 125°
M	Medium: -40 to 250°C
H	High: up to 350°C
Approvals	
C	CE
IA	ATEX Ex ia
Z	Other
Configuration (rotor bearings etc)	
S	Standard
O	Optional
Output	
O	Coil only
P	IC-MV-PO pulsed output module
D	Flow transmitter / display (specify separately)
Instrument	
C	Compact
R	Remote
Options	
0	None
1	Specify options



### Dimensions

Insertion Paddlewheel/radial turbine meter	L	X	A (adjustable)
Standard	230 mm	122 mm	0 - 85 mm larger option available

Contact us for dimensions of display fitting.



The E Series explosion proof display



The F Series ATEX rated display

### Instrument Options available

Type	Coil only	IC-MV-PO pulse output module	F1110/F1210/F220 battery/powered flow transmitter	E & F Series ATEX
Input	-	20-200mV peak to peak	mV/Pulse/4-20 mA	mV/Pulse/4-20 mA
Frequency range	50-2500 Hz	30-1000 Hz	0-10000 Hz	0-60 Hz (E Series) 0-500 Hz (F Series)
Supply voltage	-	5-24 Vdc	Battery/24 Vdc 110/240VAC	24 Vdc 110/240VAC
Outputs	mV	Open collector PNP/ NPN selectable	Open collector pulse, 4-20 mA, relay/external loop powered	Open collector pulse, 4-20 mA relay, Hart & Modbus
Operating temp	-	-10 to 55°C	-10 to 55°C	-40 to 70°C
Rating	IP65, ATEX* (optional)	IP65	F1110:IP67 F1210:IP67, ATEX (consult factory)	IP67

\* ATEX rating optional



Calibration certificates are available for entire IPM product range

### Order code example



A broad range of displays are available for self-powered and remote applications with a range of power options.

The F-series displays can be locally or remotely mounted from the IPM paddlewheel/turbine meter.



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