

A-5200 Series Liquid and Gas Insertion Turbine Meter



- **Features**
- One size fits all pipes over 4" (100mm) diameter
- Continuous, On-Line flow Measurement
- Negligible Pressure Drop
- Wide Range of Applications
- Individually calibrated turbine heads
- Can be mounted on live line via hot tap method
- Can be extracted for line "pigging"
- IP67 Totaliser with 4-20mA looped O/P can be installed directly on to stem.

DESCRIPTION

The Model A-5200 turbine flow meter is an extremely robust instrument which is intended for measurement of liquids and gases over a wide range of pipe sizes from 4" (100mm) to 60" (1500mm) in diameter. The Model A-5200 is generally installed on a full-port ball-valve using a 3" ANSI flange. The screw jack arrangement allows the head to be installed in to pipe under high pressure operating conditions.

The Model A-5200 offers a wide operating range with a (typical) 10 to 1 turndown. A range of turbine heads are available in order to optimise the performance on any given application. Each instrument is factory calibrated. The Model A-5200 flow meter can be used for high pressure applications up to 870 psi (60 bar).

The rotor, manufactured from magnetic stainless steel, generates a pulsed output as the blades rotate through the flux field of a magnet that is contained in the pickup assembly. This feature allows the instrument to function without the need of a power supply which enables it be installed in a remote location with a battery powered totaliser if required. The flow measurement data can be read in the field via the local display or can be transmitted to a DCS. Alternatively, a 4-20mA output can go directly into the customer's own process control system.

Insertion Turbine Meters are easy to install due to their compact design, which results in minimal downtime for installation and maintenance.

SPECIFICATION

Flowmeter:

Linearity: (Liquids) $\pm 2.0\%$ of reading over the selected meters linear range

Linearity: (Gases) $\pm 2.0\%$ of reading over the selected meters linear range

Repeatability: $\pm 0.2\%$ of reading

Pressure drop: Negligible

Maximum operating pressure: 870psi (60 bar).

Maximum operating process temperature 120 deg C (248 Deg F)

Materials of construction:

Housing (Body/Flange): Carbon steel or 316 stainless steel

Sleeve bearings: Tungsten carbide shaft, Stellite sleeve

Ball bearings: Stainless steel ANSI 440C

General:

Hazardous area certification: Meter, ATEX Ex ia IIC T6. Local display totaliser ATEX EEX ia IIB T4

Installation: Install in pipeline with at least 10 pipe diameters of straight length upstream and 5 diameters downstream of the flowmeter.

Outputs:

Standard: mV pulse typically 100mV peak-to-peak at 1m/s (3ft/s)

Pre-amplifiers: ISPA8700 4-20mA current modulated pulse, FI8500 Frequency to current (4-20mA) analogue convertor (safe area use only) **Other output and display options are available.**

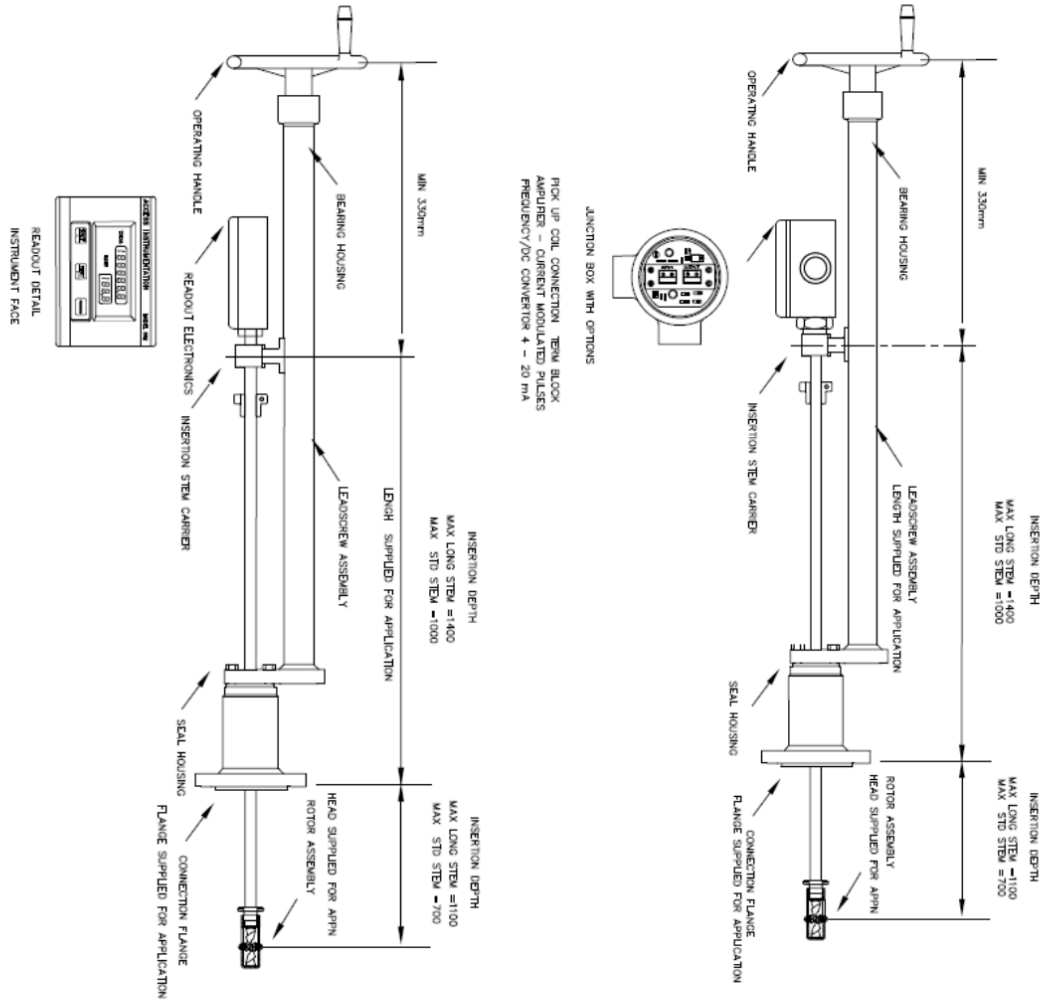
Electrical:

Power supply: Not required for mV pulse, 24VDC loop for ISPA8700 and FI8500,

Termination: 2 pin Cannon as standard, Terminal block housed in conduit box, Screw terminals on pre-amplifiers,

Junction box cable entry: 0.5" N

Direction of flow is in the plane of the stem and screw jack assembly centre with the stem being upstream



Flow Range & Use

TURBINE ASSEMBLY MODEL NO.	USE		FLOW RANGE	
	Liquid	Gas	m/s	ft/s
1	X		1 to 12	3 to 39
2	X		0.6 to 12	2 to 39
3		X	2 to 30	6.5 to 98
4		X	4 to 45	13 to 147
5	X		0.3-5	1 to 16
6		X	0.6-6	1.9 to 19
7		X	1.2 to 12	4 to 39
8		X	3 to 30	10 to 98
9		X	5 to 50	16 to 164

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