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JT-121

Insertion Plastic Paddle Wheel Flow Sensor (Magnetic Coupling)



Insertion Paddle wheel

FEATURES

- Four bladed paddle for optimal performance.
- Open cell design for linear and repeatable output.
- Dynamic range with virtually no pressure drop.
- Corrosive resistant plastic for aggressive fluids.
- Wide choice of installation Fittings.
- Lower installation and maintenance cost.

GENERAL DESCRIPTION

JT-121 is paddle Wheel type Polymer body Flow sensor suitable for clear liquid application. Being light weight and compact, Installation is easiest, still robust. **Vats JT-121** is most simple and most economical flow sensing device for clear liquids. Proven and long lasting bearing materials has made this sensor a common choice of all OEMs. With proper installations, sensor achieves overall accuracy of +/-2 even if 1% solids are present in the fluid. **JT-121** sensor can be installed in wide range of pipe sizes. Variety of materials is available in installation fittings like ABS, PVC, MS, and SS. These fittings include Tees, Saddles, with specific Weld Ends, Thread Ends or Flange Ends and Weldon Adaptor.

TECHNICALS

Technical Data	Electrical Connection ratings	Material
Flow Rate: 1 To 5 m/s	Power supply: 12-24 V DC +/-10%	Sensor Body: PP
Linearity: +/- 1 %	Current rating: < 10 mA	Paddle: PVDF
Repeatability: +/- 0.5 %	Output Voltage: 12-24 V DC	PIN: T.C
Temperature range: 0 to 50°C	Output Signal: NPN/PNP	O Ring: Silicone/Viton
Pressure range: upto 5 bar	Protection: Short Circuit and Reverse polarity	Protection Rating: IP-65
Viscosity Range: upto 20 cpc	Cable Type: 2 Core PTFE Shielded	

APPLICATIONS

water treatment

agriculture

construction

paper and pulp

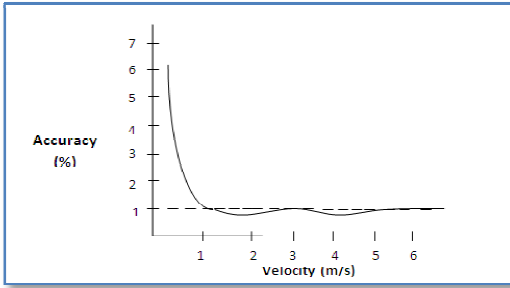
food and beverages

oil

power

textiles

ACCURACY DIAGRAM and LINE SIZE SELECTION CHART



Pipe size(NB)	15	25	40	50	65	80
Min flow M ³ /Hr	0.2	0.8	1.9	3.5	5.8	7.5
Maxflow M ³ /Hr	2.1	8.0	19	35	58	75
Pipe size(NB)	100	125	150	200	250	300
Min flow M ³ /Hr	14	22	31	56	87	126
Maxflow M ³ /Hr	140	220	310	560	870	1260

Overall accuracy of +/- 2 % the reading for 10-100 % of Flow Range & +/- 5% for 0-10 % of flow Range.

ELECTRICAL WIRING

Variety of Electronic Readers cum controllers are available.

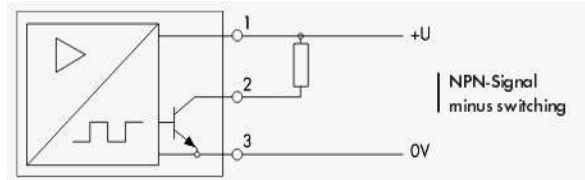
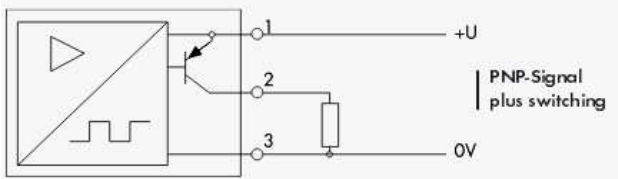


A : Field Mounted Indicator , J : Panel Mounted Indicator

For Battery Operated Active Sensor please contact the Factory.

Connection : PNP Switching

Connection : NPN Switching



MECHANICAL

Straight inlet and outlet distances that must be maintained when installing fittings in pipe lines in order to achieve turbulent flow conditions. The most important layouts that could lead to turbulence in the flow are shown below, together with mentioned minimum and inlet and outlet distances. These insure turbulent, problem-Free measurement conditions at the measurement point. For more Installation guidelines please refer manual. for best results Reynolds number (R) is greater than 5000 especially for viscous liquids.to Calculate R use following formula

$$R = \frac{7741 \times ID(\text{Inches}) \times \text{velocity}(\text{Feet}/\text{sec})}{\text{Viscosity}}$$

NOTE:

- In Vertical Piping only Upstream flow is recommended.**
- Flow Meter should be installed before valve.**
- Y type strainer is must for recommend result.**

