



## Insertion Paddle Wheel type Flow Sensors Series - P812

NK Instruments Pvt. Ltd. has Insertion Paddle Wheel type Flow Sensors series P812, which are reliable in performance, rugged & requires almost no maintenance.

The series P812 has open collector signal output (sink) and has a wide velocity range of 0.5 to 5 m/s ( 0.3 to 20 ft/s). The sensor uses to measures liquid flow rates in full pipe. Sensors can be installed in 15 NB to 500 NB (0.5 to 20 inches) Line size and even bigger by using the Hot Tab Assembly.

To install these sensors in process lines, specifically designed T fittings are offered. These fittings are available in various type of T-fittings like Threaded End, Flanged End, and Weld on Adapter, Block design without pipe and Hot Tab Assembly etc. The Sensor mounting fitting is essential to for proper installation and better performance of the Flow Sensor. The Flow Sensor for pipe line size bigger than 150 mm, we suggest to use Hot Tab Assembly for its safe installation and maintenance.

### APPLICATIONS

- Water Treatment
- Filtration Systems
- Chemical / Pharmaceutical
- Bottling / Distillery
- Concrete Batching plant
- Textile / Process machine automation



PP Sensor Rod



SS Sensor Rod



Flameproof Flow Sensor



Hot Tab Assembly

### CONTACT DETAILS

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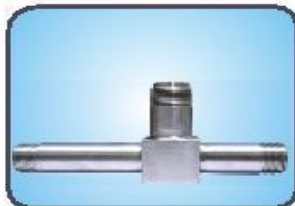


## TYPE OF SENSOR INSTALLATION FITTINGS

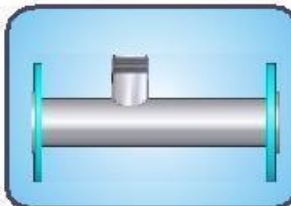
Weld Block



SS T fitting with threaded end



SS T fitting with stub end



SS T fitting with welded flange



Weld Adaptor



## TECHNICAL SPECIFICATIONS FOR P812

- Velocity Range : 0.5 to 5 m/s (1.6 to 16.4 ft./s)
- Max. % of Solids : 1% of fluid volume, non-abrasive, non-magnetic, <100 micron in dia. & length.
- Pipe Size Range : 15 NB to 500 NB (0.5 to 20 inches), for bigger sizes with Hot Tap assembly
- Linearity :  $\pm 1\%$  of full range
- Repeatability :  $\pm 0.5\%$  of full
- Range length Min. Reynolds Number : 4500
- Sensor Body : Polypropylene (black) or PVDF (black) SS 304 / SS 316
- rings : Viton / Teflon
- Rotor Pin : Hastelloy C
- Rotor : Black PVDF
- Frequency : 38 Hz per m/s nominal (11.6Hz per ft/s nominal)
- Supply Voltage : 10 to 24 VDC regulated
- Supply Current : <20 mA @ 10 to 24 VDC
- Output Type : Pulse output (NPN)
- Cable Length : 5m (16.4 ft.) standard
- Operating Pressure : PP Sensor Rod : max 6 bar (87 psi)  
SS Sensor Rod : Max 12 bar (175 psi)
- Operating Temperature : PP Sensor Rod : -10°C to 70°C (14°F to 158°F)  
SS Sensor Rod : -10°C to 100°C (14°F to 212°F)

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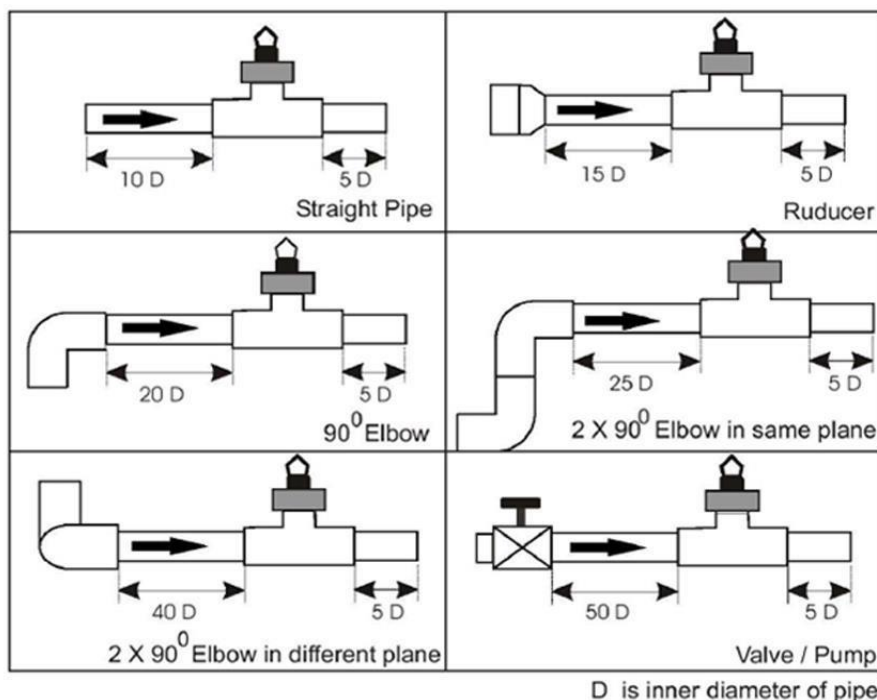


## LINE SIZE SELECTION FOR THE VERY COMMON REQUIREMENTS :

Size	15 NB	25 NB	40 NB	50 NB	65 NB	80 NB	100 NB
Min Flow m <sup>3</sup> /hr	0.23	0.88	2.04	3.50	6.30	8.00	14.0
Max Flow m <sup>3</sup> /hr	2.60	8.80	20.4	35.0	63.0	80.0	140

### Fitting Installation Condition

All type of flow meter requires straight run, as per site condition following straight pipe lengths must be provided for best result.



Continuous efforts for product development may necessitate changes in these details without notice

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