

INLINE PADDLEWHEEL FLOWMETER

FMPV-

Description

The simple and reliable paddlewheel technology has been moved into this new sensor type FMPV, designed for use with very kind of solid-free liquids. The sensor can measure flow from 0.25 m/s producing a frequency output signal highly repeatable. A rugged construction and a proven technology guarantee exceptional performances with little or no maintenance required.



Operating Principle

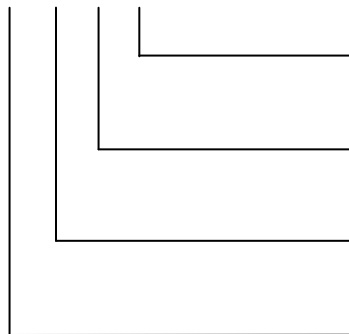
The flow sensor consists of a transducer and a four-blade paddlewheel using insertion technology. The paddlewheel is equipped with a permanent magnet integrated into the rotor blades. As the magnet passes close to the transducer a pulse is generated. When liquid flows into the pipe, the paddlewheel is set in rotation producing a square wave output signal. The frequency is proportional to the flow velocity.

Technical Data

Pipe Size Range	: 1/2" ...2"	Supply voltage	: 5...24 VDC regulated (12...24VDC for 4-20 mA)
Flow Rate Range	: 0.25...4 m/s	Supply current	: < 30 mA @ 24 VDC
Linearity	: ± 1 % of full scale	Output signal	: square wave (4...20 mA on request)
Repeatability	: ± 0.5 % of full scale	Output frequency	: 15 Hz per m/s nominal
Min. Reynolds Number	: 4500	Output type	: transistor NPN open collector
Working Pressure	: 10 bar max.	Output current	: 10 mA max.
Working Temperature	: 70°C max.	Cable length	: 2 m (6.6 ft) standard for IP68 enclosure
Enclosure	: IP65, IP68		
Wetted Materials; Body	: PVC, PP		
O-rings	: FPM		
Rotor	: PVC		
Shaft	: AISI 316L		

Ordering

FMPV. XXX .XX . XX .X

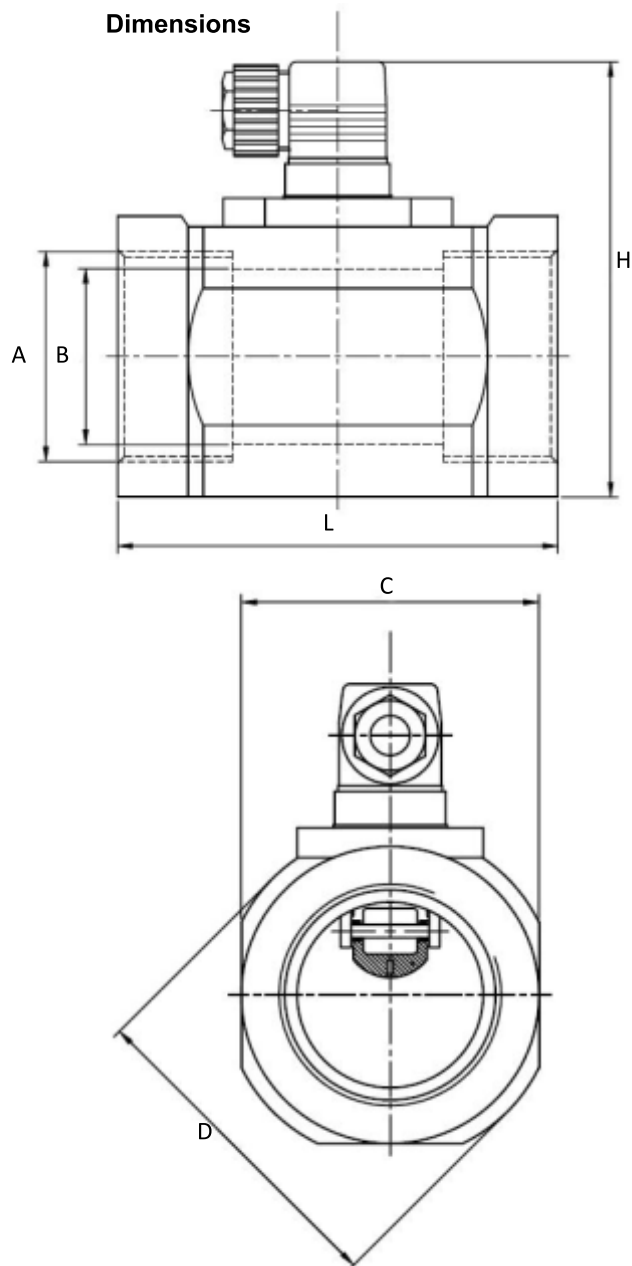


Electrical Connection	K : Cable 2m. S : Plug DIN 43650 A
Output	01 : Pulse NPN 02 : 4 ... 20 mA
Body	01 : PVC 02 : PP
Connection Size	015 : G 1/2" 020 : G 3/4" 025 : G 1" 032 : G 1 1/4" 040 : G 1 1/2" 050 : G 2"

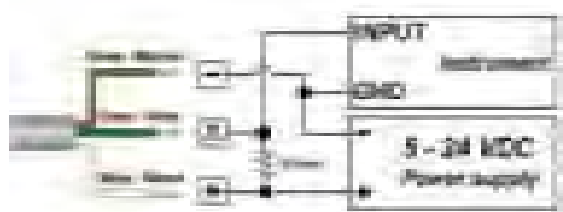
Flow Range

Size	Range (l/min.)
FMPV.015...	2542
FMPV.020...	425
FMPV.025...	2212
FMPV.032...	10214
FMPV.040...	122303
FMPV.050...	25423

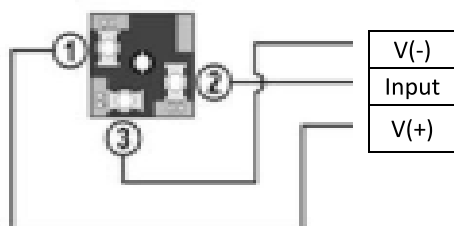
Dimensions



Wiring



with 2m.Cable



with Plug DIN 43650 A

Size	Overall Dimensions (mm)					
	A	B	C	D	H	L
DN15	G 1/2"	15	40	50	125	90
DN20	G 3/4"	20	50	60	130	102
DN25	G 1"	25	50	60	130	102
DN32	G 1 1/4"	32	70	80	145	120
DN40	G 1 1/2"	40	75	80	145	120
DN50	G 2"	50	75	90	155	125