

FEATURES

- $\pm 2.5\%$ accuracy @ velocity range 0.5 to 8.5 m/sec.
- $\pm 1\%$ accuracy over linear range 0.7 to 7.0 m/sec.
- Repeatability of $\pm 0.6\%$.
- NPN inductive pulse with internal amplification.
- Square wave output with short circuit protection.
- Inductive coil pulse option for low current applications.
- Contact closure (volt free) pulse output option
- 50°C or 120°C temperature models.
- Simple installation and maintenance.
- Large range of pipe adapter fittings in sizes 20mm to 500mm.
- Stainless Steel 17-4PH paddlewheel rotor without magnets.
- Australian made since 1984.



DESCRIPTION

The Rota Pulse Flow Sensor (RPFS) paddlewheel insertion type flowmeter uses a proven principle of flow measurement, which is used worldwide. The RPFS comes in six model variants:

- **RPFS-P** transistor pulse output (M12 plug) rated to 50°C
- **RPFS-H** transistor pulse output (molded cable) rated to 120°C
- **RPFS-H-LS** as per RPFS-H except Long Stem version for pipes >110mm
- **RPFS-L** Inductive coil pulse output (molded cable) rated to 120°C
- **RPFS-L-LS** as per RPFS-L except Long Stem version for pipes >110mm
- **RPFS-LOD** with contact closure volt free pulse output, rated to 110°C

TYPICAL APPLICATIONS:-

- Water Batching
- Irrigation Channel Syphons
- Potable Water Measurement
- Raw / Bore Water Pump Stations
- Golf Course and Park Water Management
- Truck Loading and Discharge
- Process Flow Monitoring



Since the RPFS Flow Sensor was first manufactured in 1984, over 35,000 units are now in use worldwide. They are used in a large variety of applications, including measurement of fresh and recycled water in concrete batch plants, measurement of water irrigation, salt water, chlorinated water and countless other low viscosity liquid measurement processes

RPFS-P, RPFS-LOD, RPFS-H & RPFS-H-LS sensors can be connected direct to PLCs, ManuFlo ME995 preset batch controllers or FRT303 Flowrate/Totalisers, or just about any other process controller/indicator device.

The ManuFlo UIC universal pulse scaler card allows scaling / conversion of the output pulse to individual requirements – ideal for PLC inputs of DC NPN/PNP or AC ‘triac’ types.

Pulses can be scaled down or factored to a desired engineering unit, to cater for slow counting PLCs.

The RPFS-L, RPFS-L-LS (long stem versions) inductive coil sensors are energy misers suitable for low current requirements and are ideal for battery powered applications using FRT303 or ME5 or other battery powered Indicators with built in Op Amps. (up to 150m away).

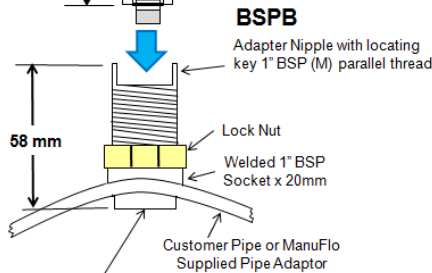
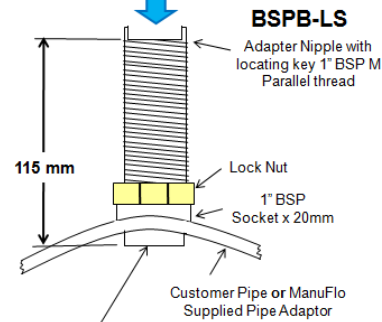
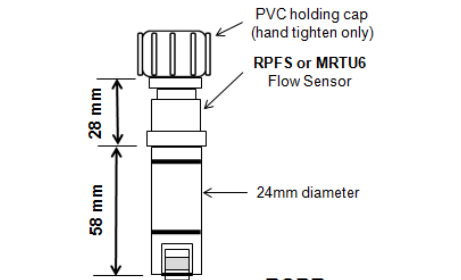
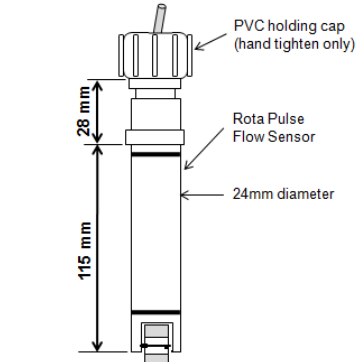
The RPFS-LOD has it's own in-built OP-amp with a volt free square wave output switching inputs up to 100vdc, making them ideal for inputs to remote data loggers with zero current draw. The high rate of pulses are ideal for precision flowrate / monitoring apps.

Selection of pipe diameter:

(For best results, use the table below):

Pipe size (mm)	Flowrange (Litres/min)		Pulses/Litre (approx.) ⁽¹⁾⁽²⁾
	Min	Max	
20	13	160	116
25	20	250	75
32	30	410	46
40	50	640	30
50	90	1000	20
63	132	1580	11.7
65	120	1690	12
75	180	2250	8.3
80	190	2560	7.3
90	244	3240	5.7
100	300	4005	4.6
110	343	4845	3.8
125	426	6255	3.0
140	516	7850	2.4
150	600	9010	2
160	650	10200	1.8
195	900	15200	1.22
200	950	16000	1.16
250	1480	25000	0.7
280	1850	31400	0.6
315	2280	39720	0.46

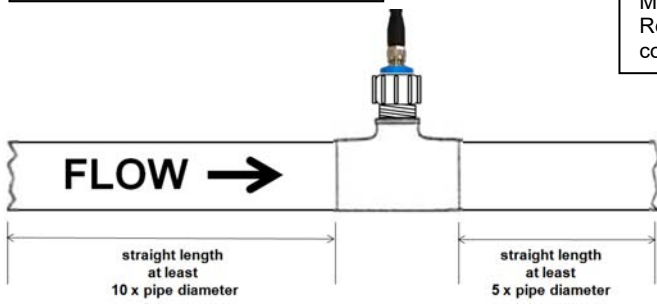
INSTALLATION GUIDE



Insertion of the adaptor pipe nipple should intrude Approx. 10mm past the curvature of the pipe (to obtain optimum results).

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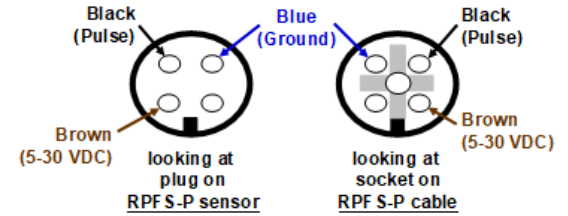
Example of uses:-
ME5-T-B-P
Resettable counter or
connected to loggers.



ELECTRICAL INSTALLATION/DATA

Cable connection:

- RPFS-P#** Black = Pulse
Brown = + 5-30 VDC
Blue = O.V. ground/shield



- RPFS-H#** White = Pulse
Red = + 5-30 VDC
Shield = O.V. ground/shield

- RPFS-L** White = Signal
Red = Signal
Shield = connect to signal/ground



PIPE ADAPTOR FITTINGS AVAILABLE:-

Material	GAL	PVC	PVC	Polypropylene	Polypropylene	STAINLESS	BRASS	BRASS
Type	T-Piece	slip T-piece	Saddle Clamp	Saddle Clamp	Saddle Clamp	T-Piece	T-piece	Socket
For	Gal pipe	Pressure pipe	Pressure pipe	PVC Irrigation pipe	Poly Pipe Black	S/Steel pipe	Brass pipe	Metal pipes
Sizes Available	20 - 100mm	20 - 100mm	40 - 250mm	40 - 315mm	25 - 315mm	25 - 50mm	20 - 25mm	Up to 500mm for RPFS-LS versions
Full range Stocked Spare parts	Galvanised Iron, threaded ends BSP(female). 1250 kPa NOTE: can be supplied with straight pipe sections already fitted	PVC T-piece Class 18, Cat 19 Glue-in (female) 1100 kPa	PVC 1400 kPa	PVC To: 1250 kPa	Poly-pipe agricultural Saddle Clamps. To: 1250 kPa	Stainless Steel 316 T-piece. BSP (female) threaded entry 1500 kPa	Brass T-piece BSP (female) threaded entry 1500 kPa	1" BSP Brass pipe socket adaptor BSPB & BSPSS nipple adaptors

Refer to Datasheet RPFS, RPFS-LOD & RPFS-LS for Product Detail & Order Codes