

Positive Displacement Pulse Output Flowmeters

Models FS-MES20, FS-MES25, FS-MES32 and FS-MES40

FEATURES

- Nutating wobble disc measuring chamber
- Small impurities pass chamber without jamming
- Low hydraulic thrust minimises wear
- Inbuilt non return valve
- $\pm 1.5\%$ full accuracy curve
- $\pm 0.5\%$ repeatability
- Measures liquids up to 1.40sg
- Pulse head fully isolated from measuring chamber



The FS-MES20, FS-MES25, FS-MES32 and FS-MES40 are magnetically coupled positive displacement pulse output flowmeters using the nutating disc measurement principle, providing a high resolution square wave transistor output or reed switch output.

Unlike rotary piston meters, this technology provides a high level of accuracy while allowing small impurities to pass without jamming and with only minimal headlosses. The pulseheads are bayonet lock and turn fitting with no contact with fluid or screws to strip or foul. This is especially valuable, for example, in concrete plant environments.

Measurement of fluids of varying viscosity and specific gravity admixtures up to 1.40sg is possible with only slight calibration variations.

These flowmeters are designed for use with water and water-based chemicals and are suitable for a wide range of precision batching and flowrate monitoring applications.

GENERAL SPECIFICATIONS				
ORDER CODE	FS-MES20	FS-MES25	FS-MES32	FS-MES40
Size	20mm (¾")	25mm (1")	32mm (1¼")	40mm (1½")
Start flow @ -5%	0.6 litres per min.	1.1 litres per min.	1.5 litres per min.	3.0 litres per min.
Accuracy (repeatability)	$\pm 1.5\%$ ($\pm 0.2\%$)	$\pm 1.5\%$ ($\pm 0.2\%$)	$\pm 1.5\%$ ($\pm 0.2\%$)	$\pm 1.5\%$ ($\pm 0.2\%$)
Minimum accurate flow	1.5 litres per min.	2.7 litres per min.	3.8 litres per min.	7.5 litres per min.
Nominal flow	45 litres per min.	65 litres per min.	125 litres per min.	200 litres per min.
Maximum continuous flow	60 litres per min.	110 litres per min.	180 litres per min.	340 litres per min.
Max working pressure	1160 kPa	1160 kPa	1160 kPa	1160 kPa
Max fluid temperature	50°C	50°C	50°C	50°C
Headloss at nominal flow	25 kPa (2.5m)	25 kPa (2.5m)	25 kPa (2.5m)	25 kPa (2.5m)
Weight	2.3 kg	3.7 kg	6.0 kg	12.1 kg
Thread: Body	25mm metric	25mm metric	1¼" male BSP	1½" or 2" BSP
Thread Adaptor	¾" male BSP	1" male BSP	Not required	flanges
Model specific details NPN Pulse Output				
ORDER CODE	FS-MES20	FS-MES25	FS-MES32	FS-MES40
NPN Pulse output rate	1000 per litre	555 per litre	261 per litre	116 per litre
Voltage Supply	+5 to 25 Vdc	+5 to 25 Vdc	+5 to 25 Vdc	+5 to 25 Vdc
Supply Current (proportional to supply voltage)	5mA to 25mA	5mA to 25mA	5mA to 25mA	5mA to 25mA
Model specific details Reed Switch Output				
ORDER CODE	FS-MES20R	FS-MES25R	FS-MES32R	FS-MES40R
Reed switch output rate	61 per litre	34 per litre	16 per litre	7.1 per litre

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