



ENGLISH

Instruction Sheet

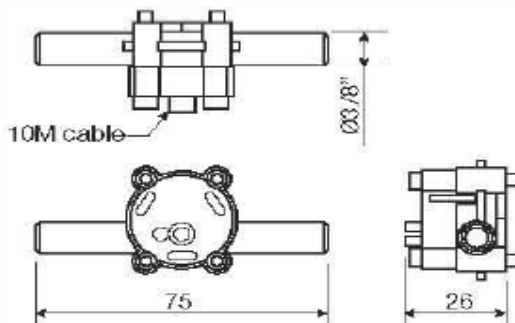
RS Pro Beverage Flow Meter

Stock Number: 511-4772



FEATURES

- Suitable for many liquids including water, beer and soft drinks
- Connections 3/8" "push on"
- Reliable and accurate
- Supplied with 10M (approx) cable.
- Flow range from 0.6 to 10 L/min.



The user must ensure that the materials of construction are compatible with their fluid. We accept no responsibility for material compatibility; it is the users' responsibility.

This meter produces a pulse output the total of which is proportional to the total flow through the device. They are designed specifically for the drinks dispense industries including beer, wines and spirits (excluding juice extracts). They give high performance and are competitively priced. They have totally non-metallic wetted components which makes them the ideal choice for the metering of food based products and even ultra-pure water. The standard inlet tubes are 3/8" push on pipe connectors. The bearings are made of sapphire for long life and reliability.



INSTALLATION

The pipe work must be designed in such a way to eliminate reverse flow as the meter is bi-directional. It should be installed in a position that prevents it from draining down as on start-up serious damage could result by "impacting" an empty flowmeter with a high velocity fluid stream or over-speeding the turbine with air in the line. The fluid should be clean and homogenous. In all cases an upstream filter of at least 80 microns **must** be fitted.

It is recommended that before the flowmeter is installed in the line a "dummy" section of pipe is inserted and the system flushed.

This is to eliminate any debris in that section of the line. The pipe must not stress the body of the meter and should be fully supported either side with appropriate isolation valves and in some cases a by-pass valve. On initial start-up increase the flow slowly to ensure no over speeding of the meter occurs as the air is forced from the line. This is best achieved by monitoring the flow rate and ensuring that a 50% over-range is not exceeded.

Never blow a flowmeter with an airline.

Care should be taken to ensure that no air enters the system (e.g. leaky pump gland) or that no cavitation takes place.

With a volatile liquid we recommend at least twice the vapour pressure plus 1 Bar as the operating pressure. Carbonated fluids should have the highest possible back pressure to prevent gas break-out



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TECHNICAL SPECIFICATIONS

Accuracy	Flow range	0-5-10 L/min	1.0-10 L/min
	Linearity	±0.75% FSD	±2.5% Actual
Temp range		0 to +100°C	
Repeatability		±0.25%	
Sensor to sensor		±3%	
Supply voltage		4.5 – 24Vdc	
Current		10mA (typical)	
Output		Open collector (NPN)	
Output low		100mV max.	
Rise & fall times		2µs max	
Wetted materials		PVDF, sapphire and Viton™. Ceramic magnet	
'K' Factor		1420 approximately	
Max Frequency		235Hz.	
Pressure drop at full flow		750 mBar	
Weight		0.150kg	



COMMISSIONING

If problems occur during commissioning always check the fundamentals first.

- Is the flowmeter/instrument the correct one for the installation?
- Is the power connected to the meter and the instrument, and is it turned on?
- Is the instrument set/wired correctly? I/P port, pulse type, frequency span, units etc.
- Where possible check the O/P from the flowmeter with an oscilloscope before proceeding.
- Was the line flushed prior to installing the meter?
- Was the flow increased slowly?
- Is the meter blocked?

If you cannot find a solution ask your supplier for technical support.



ELECTRICAL CHARACTERISTICS

It is recommended that all "signal" cables are run separately to power lines and switched inductive loads and are located well away from inverters and other "noisy" apparatus. Always use sound wiring practice.

The Hall Effect detector (NPN) requires a 10k ohm external pull-up resistor connected between the output and a suitable power supply to attain a pulse. This may differ from the PSU voltage.

CONNECTIONS



Flying lead

Black 0 Volts
Red +4.5 - 24Vdc
Blue Output
Yellow Not used

A pull-up resistor must be used.
For best accuracy install with the cable outlet horizontal.