



JLC International, Inc  
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[www.jlcinternational.com](http://www.jlcinternational.com)

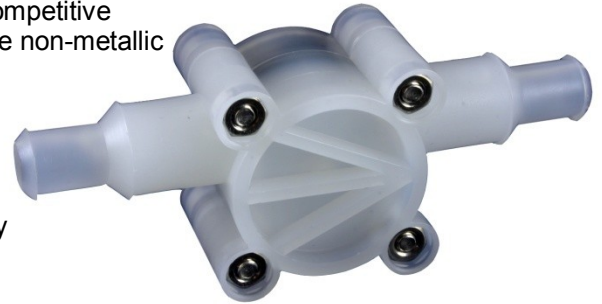
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## Low Cost Turbine Flow Meter Series 800

### Low flow, chemically resistant flowmeter

The 800 series flowmeter is designed to give high performance and competitive pricing with 6 flow ranges from 0.05 to 15 lpm (0.013 to 3.96 gpm). The non-metallic wetted components make this the ideal choice for the metering of aggressive chemicals including ultra-pure water.

The standard inlet tubes are barbed to accept two hose sizes 8mm and 12mm, although for OEM use alternatives are available. The bearings are made of sapphire for long life and reliability, the body is molded PVDF as standard and the 'O' ring seal is typically Viton™.



At the heart of the meter is a precision turbine that rotates freely on robust sapphire bearings and contains chemically resistant ceramic magnets that are detected through the chamber wall by a Hall effect detector. The output is a stream of NPN pulses that are readily interfaced with most electronic display or recording devices. This combination of materials and technology ensures a long life product with reliable operation throughout.

### Features

- Manufactured in PVDF with ceramic magnets and sapphire bearings
- Measurement down to 50 ml/min (0.013 gpm)
- Pressure rating 10 bar (145 psi)
- Temperature rating up to 125 °C (257 °F)
- Barbed connections 8 and 12 mm (5/16 and 1/2 inch)
- High accuracy and repeatability
- Pulse output NPN



### Flow Ranges and Pulses

Model	Range liter/min	Range gal/min	Linearity ± % FS	Frequency Hz	K-factor 1/liter	K-factor 1/gallon
803	0.05.....0.50	0.013.....0.132	2.0	142	17000	64352
815	0.12.....1.50	0.032.....0.396	2.0	175	7000	26498
845	0.20.....4.50	0.053.....1.189	1.5	260	3500	13249
865	0.25.....6.50	0.066.....1.717	1.5	230	2100	7949
810	0.3.....10.0	0.079.....2.642	1.0	235	1420	5375
824	0.5.....15.0	0.132.....3.963	1.0	245	980	3710

Table 1



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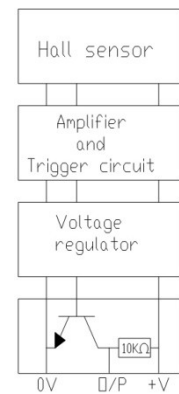
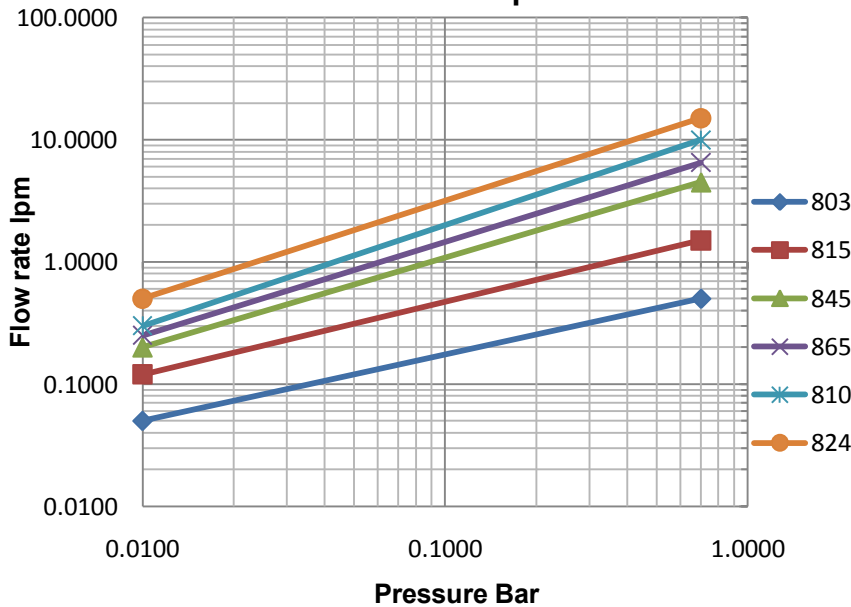
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## Technical Specifications

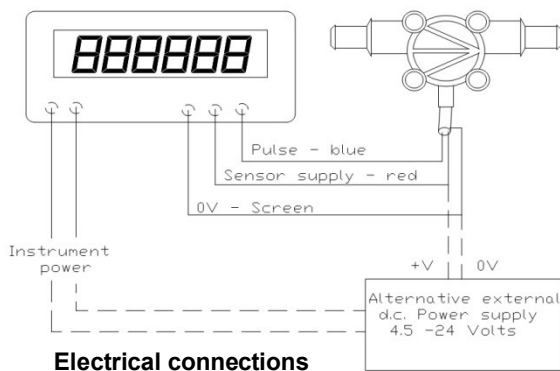
- Linearity: see table 1
- Repeatability:  $\pm 0.1\%$
- Pulse output: NPN, Hall Effect
- Pressure rating: 10 bar (145 psi)
- Viscosity / particles: up to 10 cP / less than 90 micron
- Temperature rating:  $-20\text{ }^{\circ}\text{C}$  ( $-4\text{ }^{\circ}\text{F}$ ) up to  $125\text{ }^{\circ}\text{C}$  ( $257\text{ }^{\circ}\text{F}$ )
- Calibration: fully calibrated for water @  $20\text{ }^{\circ}\text{C}$  ( $68\text{ }^{\circ}\text{F}$ ), incl. calibration certificate with K-factors
- Body and internals: PVDF, Sapphire, Ceramic magnets
- Seals: Viton O ring – Nitrile, EPDM and Silicon optional
- Connections: Barbed 8 and 12 mm (5/16" and 1/2 inch)
- Power supply: 4.5 – 24 Vdc

### Pressure Drop Curve

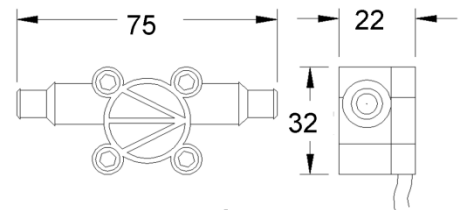


Sensor block diagram

Note: 10K resistor connected externally; not in scope of supply



Electrical connections



1.8M flying lead

Dimensions in mm



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## Model Numbering System

803 - V - OP - O

Range	Code
0.05 to 0.5 l/min	803
0.12 to 1.5 l/min	815
0.2 to 4.5 l/min	845
0.25 to 6.5 l/min	865
0.3 to 10.0 l/min	810
0.5 to 15.0 l/min	824

'O'-ring	Code
Viton	V
Nitrile	N
EPDM	E
Silicon	S

Calibration	Code
Standard	O
Uncalibrated	U

e.g. 803-VOP-O: range 0.05 to 0.5 l/min, Viton seal, and 6-point traceable water calibration.