

FT2 Optical Detection



This multi-range radial flow turbine meter uses a low inertia turbine supported on robust sapphire bearings in a chemically resistant housing. 9 flow ranges (0.02 to 160 L/min), a choice of “plug in” fittings and individual traceable calibration make this meter one of the most flexible available. For OEM applications the fittings can be tailored to suit the installation and speed production. Custom leads or connectors are also available for quantity orders.



IDEAL FOR

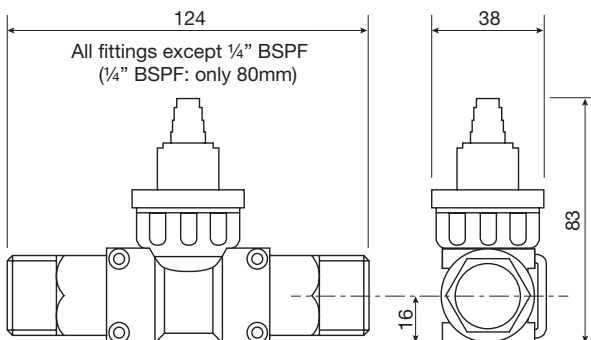
- Drinks dispensing
- Laboratory tests
- Cooling equipment
- Semiconductor plant
- Water treatment
- Low viscosity fluids



FEATURES

- Economical
- PPS body
- $\pm 0.75\%$ reading*
- 1-1.5% FSD
- Sapphire bearings
- Optical sensing
- 9 Flow ranges
- Pulse output
- 15 Bar rating
- Viton® seal as standard
- IP65
- Choice of fittings
- 0.1% Repeatability
- 5 or 7.5 to 24Vdc
- -10 to +80°C

* When used with our Metra-Smart instrument



| Fitting | Weight in kg | | | |
|-----------------|--------------|-------|-------|-----------|
| | PVC | PVDF | Brass | 316 St St |
| 8mm hose | 0.082 | | | |
| 13mm hose | 0.156 | | | |
| 1/4" BSP female | | | 0.195 | 0.187 |
| 1/2" BSP male | | 0.124 | 0.279 | 0.319 |
| 3/4" BSP male | 0.107 | 0.108 | 0.344 | 0.250 |
| 1" BSP male | 0.120 | 0.124 | 0.377 | 0.404 |

Ordering codes

| Detector Type | |
|------------------------------|--|
| 20 = Optical 7-24V dc | |
| 21 = Optical 5V dc | |
| Electrical connections | |
| 0 = Rubber grommet | |
| P = 4 pin socket | |
| N = IP67 gland | |
| Model | |
| 004 | |
| 016 | |
| 045 | |
| 065 | |
| 010 | |
| 030 | |
| 060 | |
| 100 | |
| 160 | |
| Seal Material | |
| V = Viton® | |
| N = Nitrile | |
| E = EPDM | |
| K = Kalrez | |
| Fitting Size | |
| 25 = 1/4" BSP | |
| 50 = 1/2" BSP | |
| 75 = 3/4" BSP | |
| 10 = 1" BSP | |
| 8H = 8mm hose | |
| OH = 13mm hose | |
| Fitting Material | |
| B = Brass | |
| S = 316 St St | |
| C = PVC (60°C max) | |
| P = PVDF | |
| Special Code | |
| S = OEM customer | |

e.g. **200-100-V-10-B** is a flowmeter with a flow range of 4.0 to 100 L/min, Viton® seal and 1" BSP brass fittings with a standard 6 point traceable water calibration.

At the heart of the meter is a precision turbine that rotates freely on robust sapphire bearings. This rotation is sensed using optical detection. The resulting output is an NPN pulse that is readily interfaced with most electronic display or recording devices.

This combination of materials and technology ensures a long life product with reliable operation throughout. Because the flowmeter is so versatile with respect to flow range and fittings every combination of range and fitting is not available. The chart below shows the maximum standard flow rate/fitting we would recommend to attain our performance figures. Alternatives are possible but there would be degradation in the meters performance.



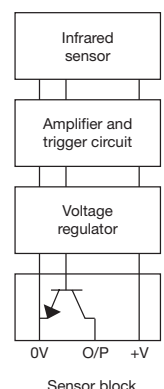
TECHNICAL SPECIFICATIONS

| Model | Flow range L/Min | Linearity % FSD | Typical Freq. Hz. | Approx. 'K' Factor |
|-------|------------------|-----------------|-------------------|--------------------|
| 004 | 0.02 - 0.5 | 1.5 | 266 | 32000 |
| 016 | 0.07 - 1.6 | 1.0 | 413 | 15500 |
| 045 | 0.10 - 4.5 | 1.0 | 637 | 8500 |
| 065 | 0.15 - 6.5 | 1.0 | 520 | 4800 |
| 010 | 0.40 - 10 | 1.0 | 417 | 2500 |
| 030 | 1.50 - 30 | 1.0 | 550 | 1100 |
| 060 | 3.00 - 60 | 1.0 | 550 | 550 |
| 100 | 4.00 - 100 | 1.0 | 550 | 330 |
| 160 | 6.00 - 160 | 1.0 | 640 | 240 |

| Fitting | Recommended Max flow L/Min | PVC | PVDF | Brass | 316 St St |
|-----------------|----------------------------|-----|------|-------|-----------|
| 8mm hose | 4.5 | * | | | |
| 13mm hose | 10 | * | | | |
| 1/4" BSP female | 4.5 | | | * | * |
| 1/2" BSP male | 30 | | * | * | * |
| 3/4" BSP male | 100 | * | * | * | * |
| 1" BSP male | 160 | * | | * | * |

Standard Materials of Construction

- Body and cap - PPS
- 'O' Ring seal - Viton®
- Bearings - Sapphire
- End fittings - PVDF, PVC, St St or Brass



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