

TECHNICAL PRODUCT

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.

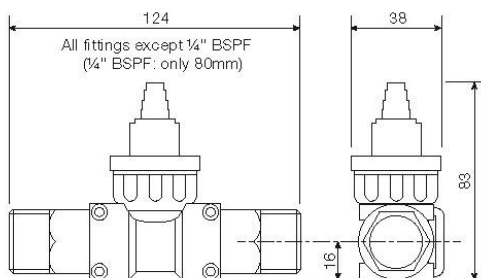
IDEAL FOR

- 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

FT2 Optical Detection

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
Flow range L/min
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
0H = 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

