

## FT2 OPTICAL DETECTION DATA SHEET

**Economical**  
**PPS body**  
**1- 2% FSD or  $\pm 0.75\%$  reading\***  
**Sapphire bearings**  
**Optical sensor**  
**9 Flow ranges**  
**Pulse output**  
**15 Bar rating**  
**Viton seal as std.**  
**Choice of fittings**  
**0.1% Repeatability**  
**5 or 7.5 to 24 V dc**  
**80°C Max**

\*When used with Metra-smart instrument.

**Ideal for**  
**Laboratory tests**  
**Water treatment**  
**Cooling equipment**  
**Semiconductor plant**  
**Engine test**



This multi-range radial flow turbine meter uses a low inertia turbine supported on robust sapphire bearings in a chemically resistant housing. Ten flow ranges (0.01 to 160 litres per minute), 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.



**BACCARA AUTOMATION  
CONTROL PTY LTD.**

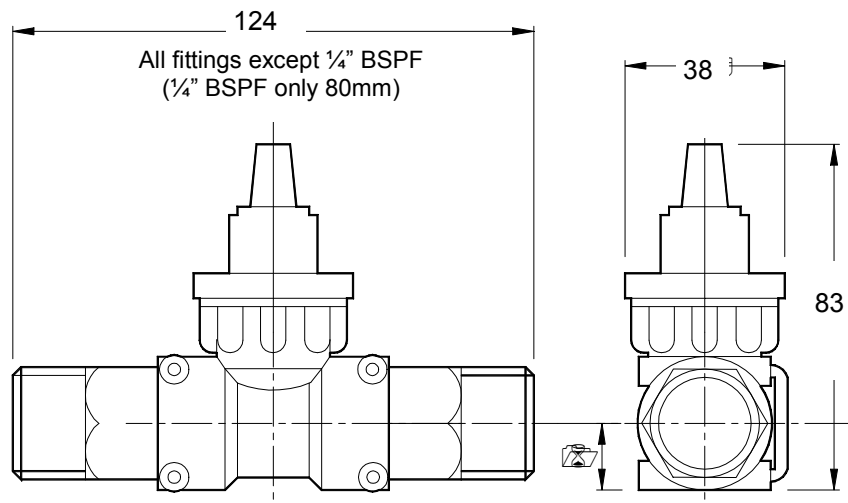
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## Order Codes

Detector **20** Optical 7-24V dc

Type **21** Optical 5V

Conn-  
ection  
 O Rubber grommet  
 P 4 Pin socket  
 N IP67 gland

Flow  
range  
**100** etc see chart

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

Fitting  
size  
 25 - 1/4" BSP F  
 50 - 1/2" BSP M  
 75 - 3/4" BSP M  
**10** - 1" BSP M  
 8H - 8mm hose  
 0H - 13mm hose

Fitting  
mat'l  
 B - Brass  
 P - PVDF  
 S - 316 St St  
 P - PVC 60°C max

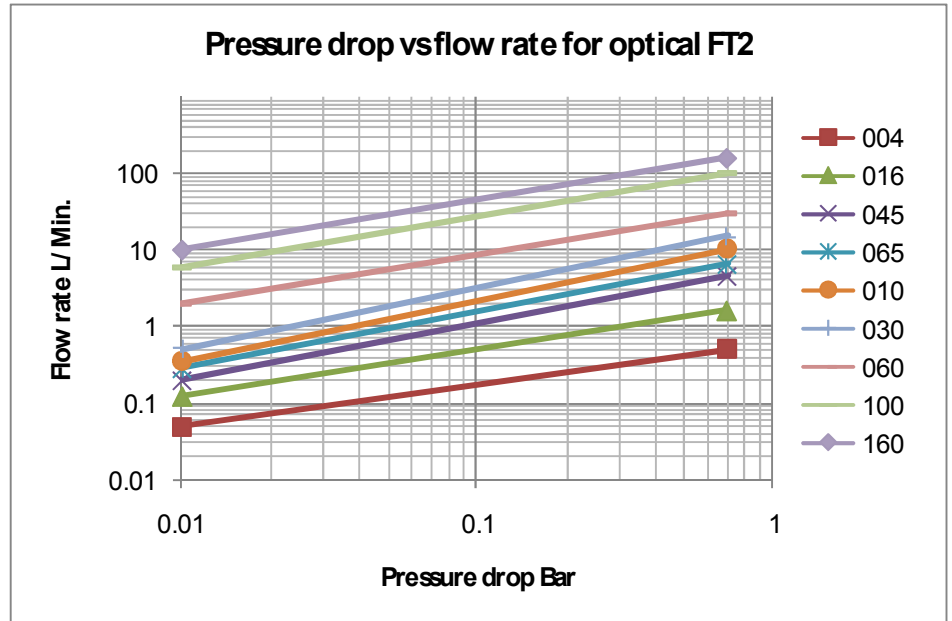
Special  
code  
 OEM customer

e.g. **20 0-100-V- 10-B** is a standard 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.

## Standard Materials of construction

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

# Order code	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
<b>100</b>	4.00 - 100	1.0	550	330
160	6.00 - 160	1.0	640	240



At the heart of the meter is a precision turbine that rotates freely on robust sapphire bearings. This rotation is detected when a turbine blade crosses a powerful infra-red light beam. The resulting output is a 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.

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	*		*	*