



Vision

Turbine Flow Meters

Turbine meter

Vision Series 1000

DESCRIPTION

The small turbine meter VISION measurement technology is ideal for the accurate measurement of low viscous and non-aggressive fluids. The VISION 1000 series is most suited for the measurement of flow rates from 0,1 to 2,5 l/min. The turbine meters can be mounted in any position.

MEASURING PRINCIPLE

Turbine meters are indirect volumetric meters. When the fluid passes through, a rotor is activated and the movement is either electronically or mechanically transmitted outside. The rotor is turned by the fluid force, proportional to the flow rate. A Hall effect sensor detects the passage of the rotor and supplies pulses, which can be utilized for digital or analogue signal processing. The generated pulses are specified as the K-factor. The large number of pulses provides high resolution. As the mass of the turbine is very small the response time is very short. It is not necessary to install a straight length of pipeline at the upstream side of the meter.



SPECIFICATIONS

Type				
	VISION 1005 2F66			
Performance				
Flow rate	0.1 – 2.5 l/min			
Accuracy	± 3% of reading			
Repeatability	< 0,5% under the same operating conditions			
Operating temperature	-20°C to 100°C			
Operating pressure rate	max. 25 bar; with push-fit connection 10 bar (+20°C) and 7 bar (+65°C)			
Burst pressure	200 bar			
Pick up				
Pulse sensor	Hallsensor			
Input power	5 – 24 VDC			
Output signal	Open collector (NPN sinking) @ max. 20 mA, 1-2.2 kOhm pull up resistor required			
Power consumption	approx. 8 mA			
K-factor	Material	Nominal size	Flow range	K-factor
	Trogamid CX7323	5 mm	0.1 – 2.5 l/min	22000 pulse/liter
	Stainless steel, INOX 1.4401 / AISI 316	5 mm	0.1 – 2.5 l/min	24500 pulse/liter
	Grilamid LV-50H FWA	5 mm	0.1 – 2.5 l/min	22500 pulse/liter



Badger Meter

Material	
Housing	Trogamid CX7323
	Stainless steel, INOX 1.4401 / AISI 316
	Grilamid LV-50H FWA nature, reinforced fiberglass
Rotor	PPS Ferrite bound
Bearings	2 PTFE / Graphite bearings

Fluids	
Viscosity	0.8 – 16 mm ² /sec (mPas/cST)
Fluid type	Liquids
Filter	20 to 40 micron recommended

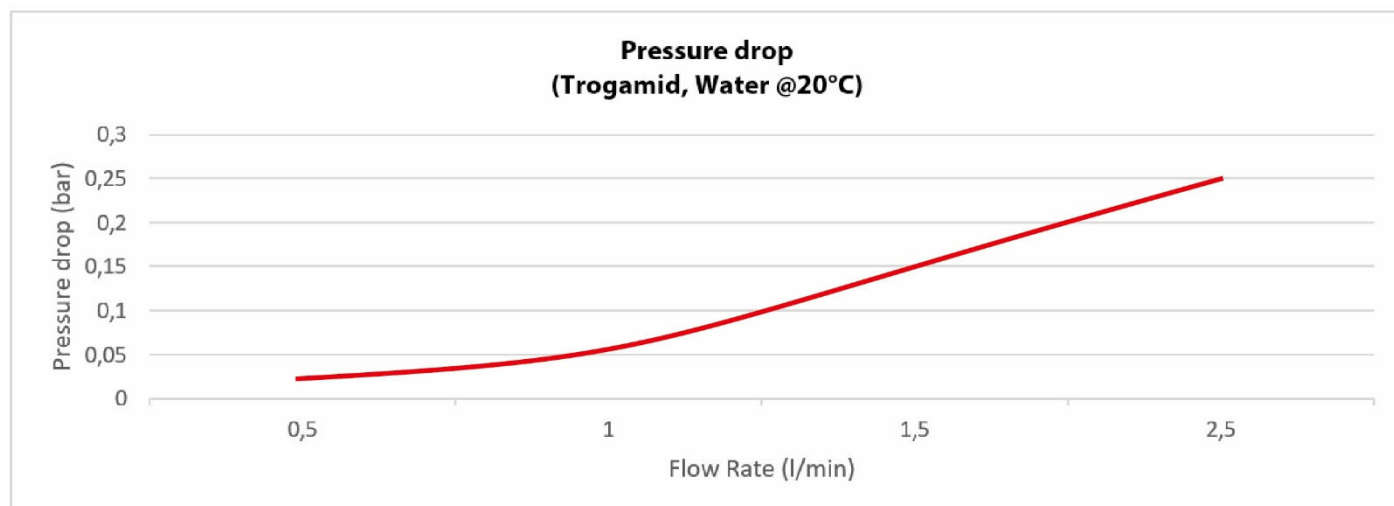
Installation	
Nominal size DN	5 mm
Mounting position	In any orientation
Electrical connection	3 Pin (2.8 x 0.5) for MINI DIN Connector, EN 60529
	Round cable 3 x AWG 24 with free cable ends
IP Protection class (DIN Connector)	IP67
Mechanical connection	G 1/4" (Trogamid, Stainless steel, Grilamid reinforced fiberglass)
	NPT 1/4" (Trogamid)
	OD = 6mm, Push-fit (Grilamid reinforced fiberglass)
Tightening torque for screwed connection	approx. 6 Nm

Calibration (Optional)	
5-Point Calibration	@ Water, 20°C

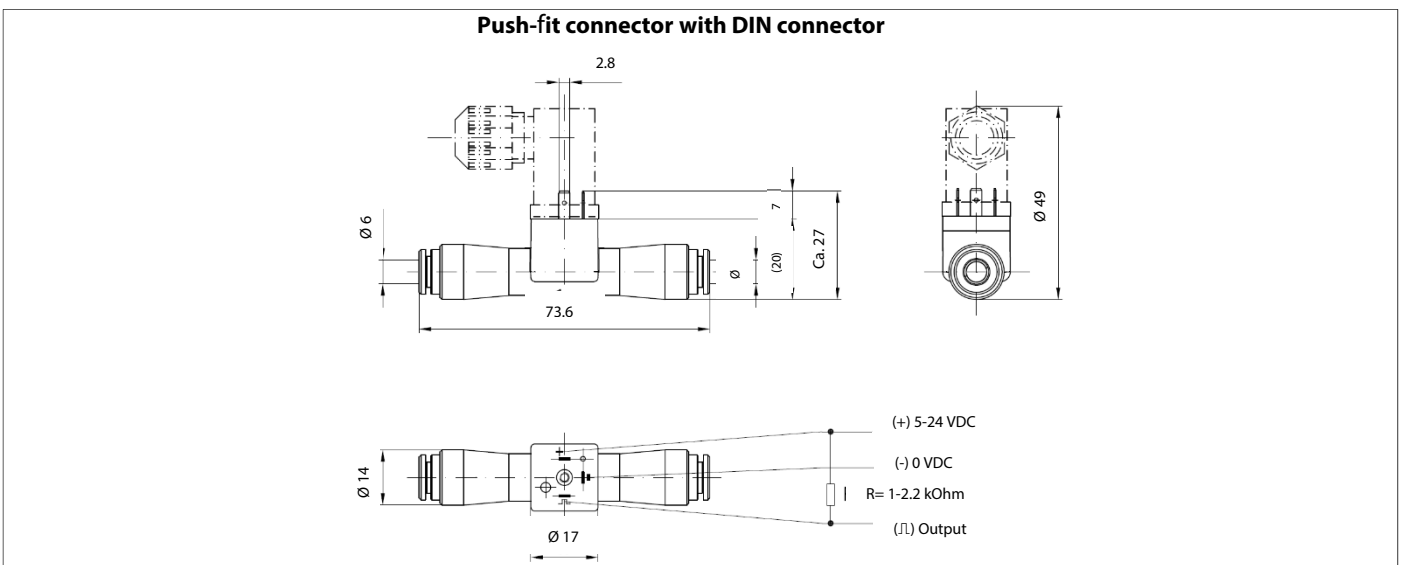
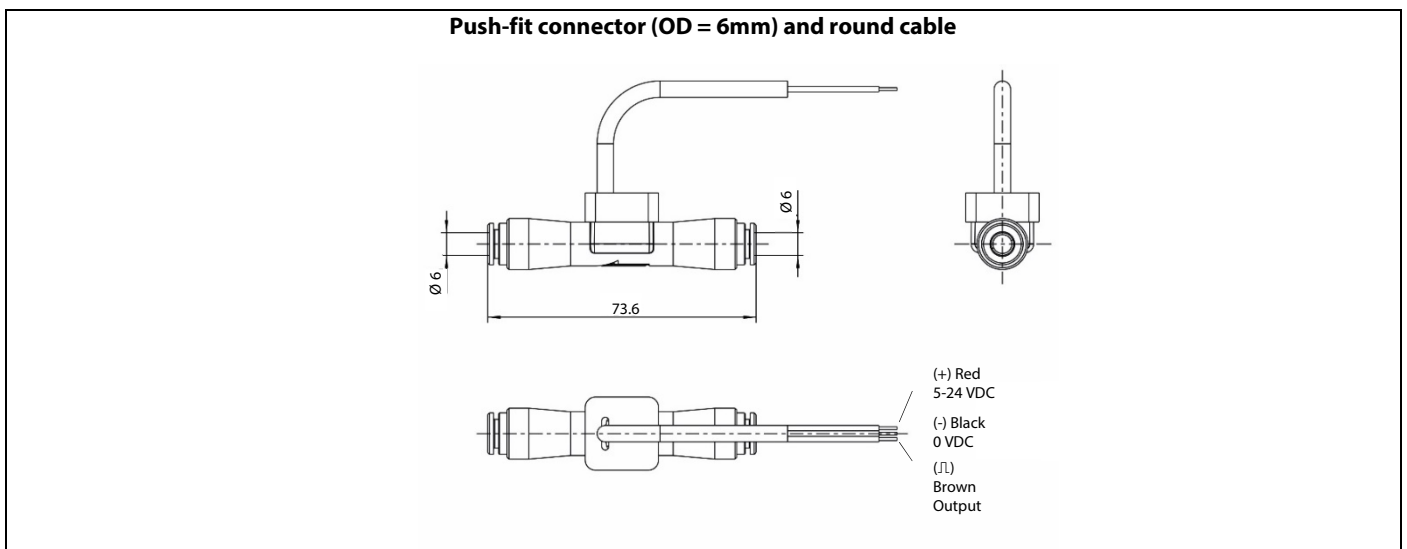
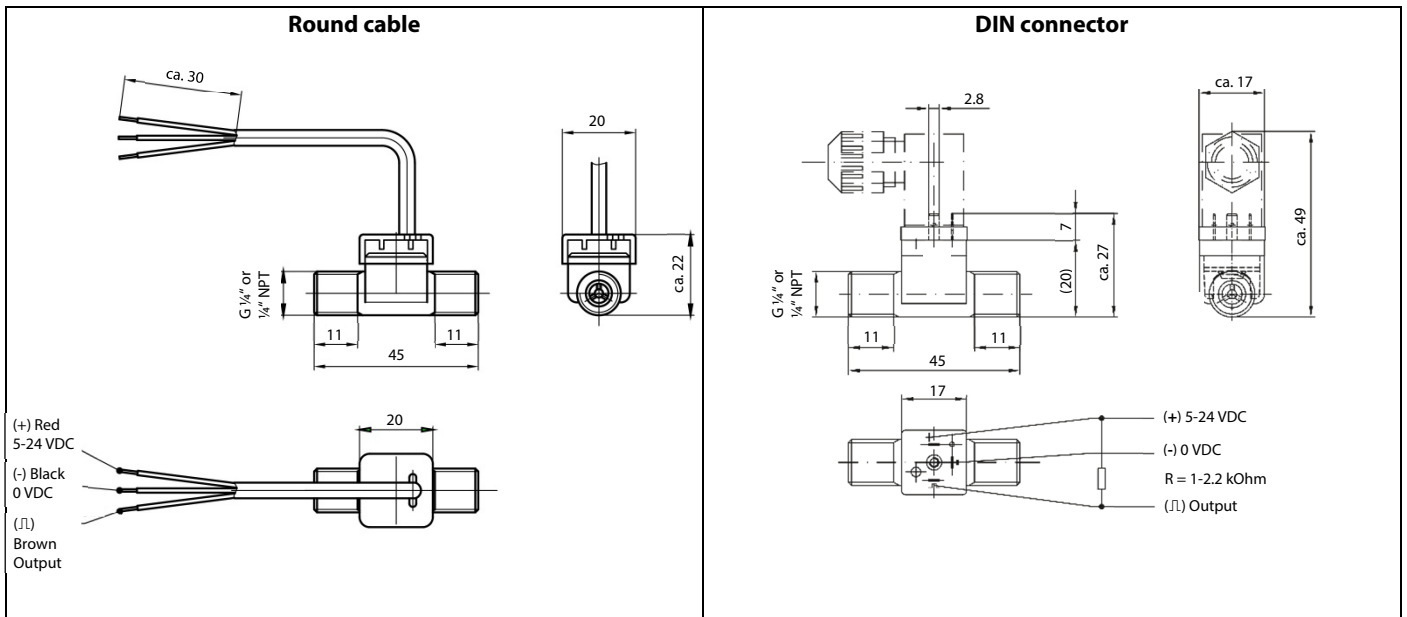
Weight			
	Housing	Connector	Weight
	Trogamid CX7323	DIN	15 g
	Trogamid CX7323	1 m cable	30 g
	Stainless steel, INOX 1.4401 / AISI 316	DIN	60 g
	Grilamid LV-50H FWA, reinforced fiberglass	DIN	15 g
	Grilamid LV-50H FWA, reinforced fiberglass	DIN, push-fit connector	25 g
	Grilamid LV-50H FWA, reinforced fiberglass	1 m cable, push-fit connector	40 g

Approvals		
	Housing	Approvals
	Trogamid CX7323	KTW, NSF/ANSI 61, WRAS, ROHS, CE
	Stainless steel, INOX 1.4401 / AISI 316	KTW, ROHS, CE
	Grilamid LV-50H FWA, reinforced fiberglass	KTW, ROHS, CE

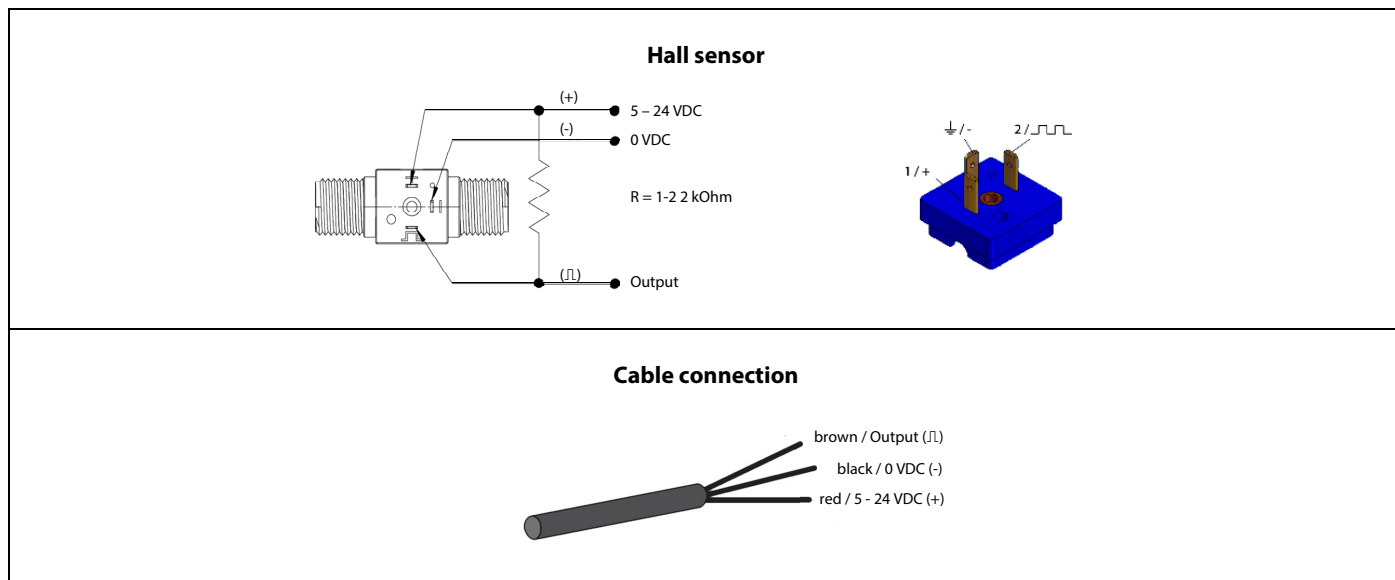
PRESSURE DROP



DRAWINGS



ELECTRICAL WIRING



ORDERING MATRIX

Select process and electrical connection	Code				
Mechanical connector and body material: G 1/4" Trogamid G 1/4" Stainless steel G 1/4" Grilamid reinforced fiberglass NPT 1/4" Trogamid Push-fit OD = 6mm, Grilamid reinforced fiberglass Electrical connection: DIN connector Cable – select cable length, see option Turbine model: Option cable length: 1 m	56547				
	56133				
	66129				
	56548				
	66136				
			-163		
			-165		
				-2F66	
					-1

Examples:	Code			
VISION 1005 2F66 G1/4" Trogamid + DIN connector	56547	-163	-2F66	
VISION 1005 2F66 G1/4" Trogamid + 1m cable	56547	-165	-2F66	-1