



Vision

Turbine Flow Meters

Flow Sensor

Vision Series 3000

DESCRIPTION

The small flow sensors VISION measurement technology is ideal for the accurate measurement of low viscous and non-aggressive fluids. The VISION 3000 series is most suited for the measurement of flow rates from 5 to 65 l/min. The flow sensors can be mounted in any position.

MEASURING PRINCIPLE

Flow sensors 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 3012

Performance	
Flow rate	5...65 l/min
Accuracy	±3% of reading
Repeatability	< 0.5% under the same operating conditions
Operating temperature	-20...100° C
Operating pressure rate	max. 25 bar
Burst pressure	100 bar

Pick up					
Pulse sensor	Hall sensor				
Input power	5...24V DC				
Output signal	Open collector (NPN sinking) @ max. 20 mA, 1...2.2 kOhm pull up resistor required				
Power consumption	approx. 8 mA				
K-factor	Version	Material	Nominal size	Flow range	K-factor
	VISION 3012	Trogamid CX7323	12 mm	5 – 65 l/min	210 pulse/liter



Badger Meter

Material	
Housing	Trogamid CX7323
Rotor	PPS Ferrite bound
Bearings	2x Hostaform, Ball bearings

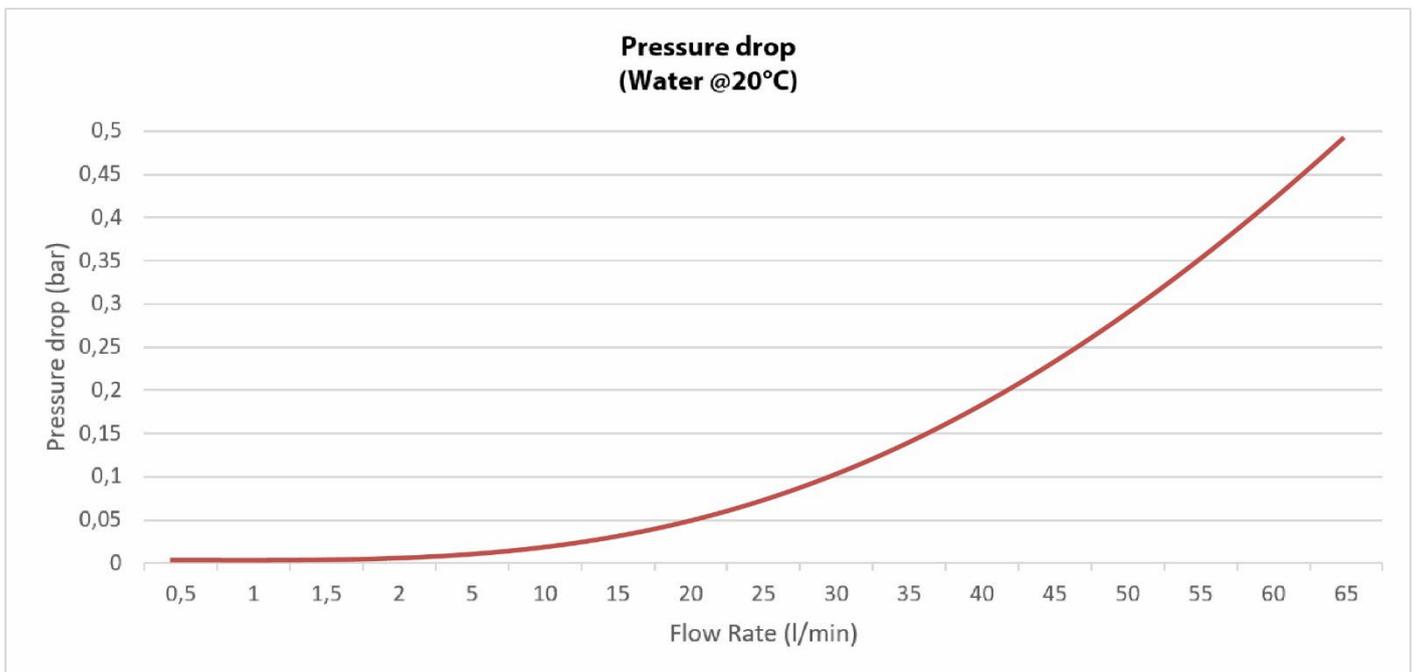
Fluids	
Viscosity	0.8...16 mm ² /sec (mPas/cST)
Fluid type	Liquids
Filter	20...40 micron recommended

Installation	
Nominal size DN	12 mm
Mounting position	In any orientation, observe flow direction
Electrical connection	3 Pin (2.8 × 0.5) for MINI DIN Connector, EN 60529
	Round cable 3 × AWG 24 with free cable ends
IP Protection class (DIN Connector)	IP67
Mechanical connection	G 3/4", NPT 3/4"
Tightening torque for screwed connection	approx. 6 Nm

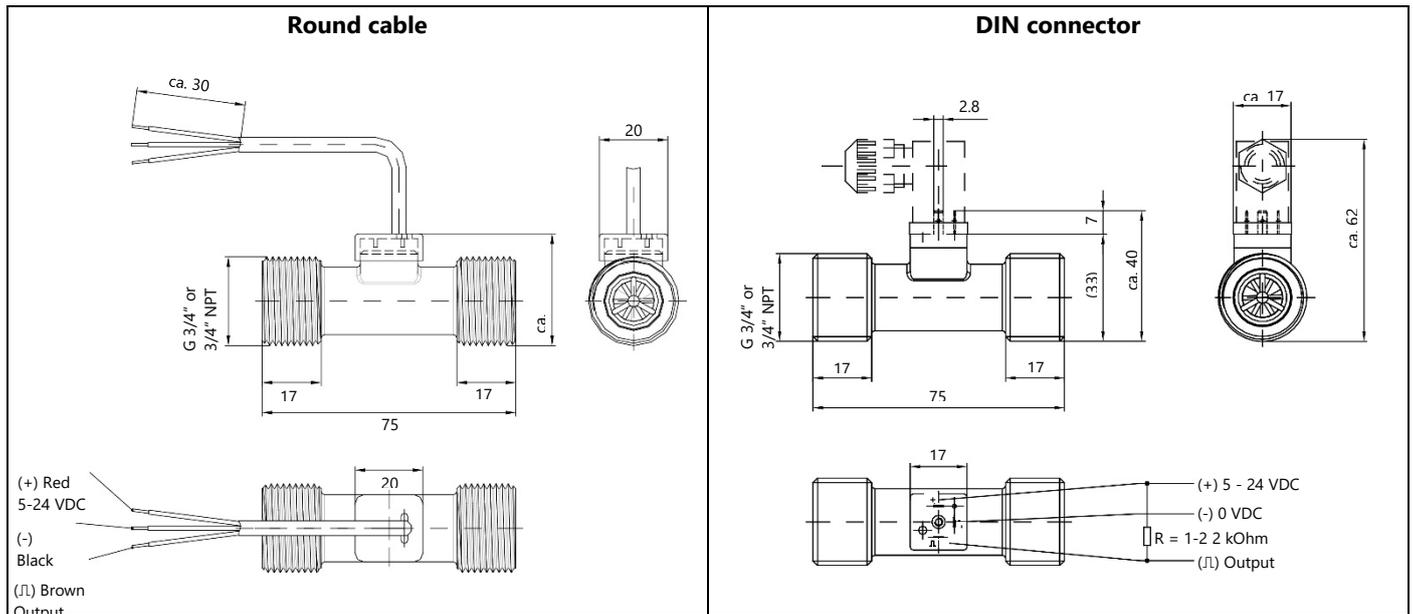
Weight			
	Housing	Connector	Weight
	Trogamid CX7323	DIN	35 g
	Trogamid CX7323	1 m cable	50 g

Approvals		
	VISION with housing of	Approvals
	Trogamid CX7323	ROHS, CE, UKCA

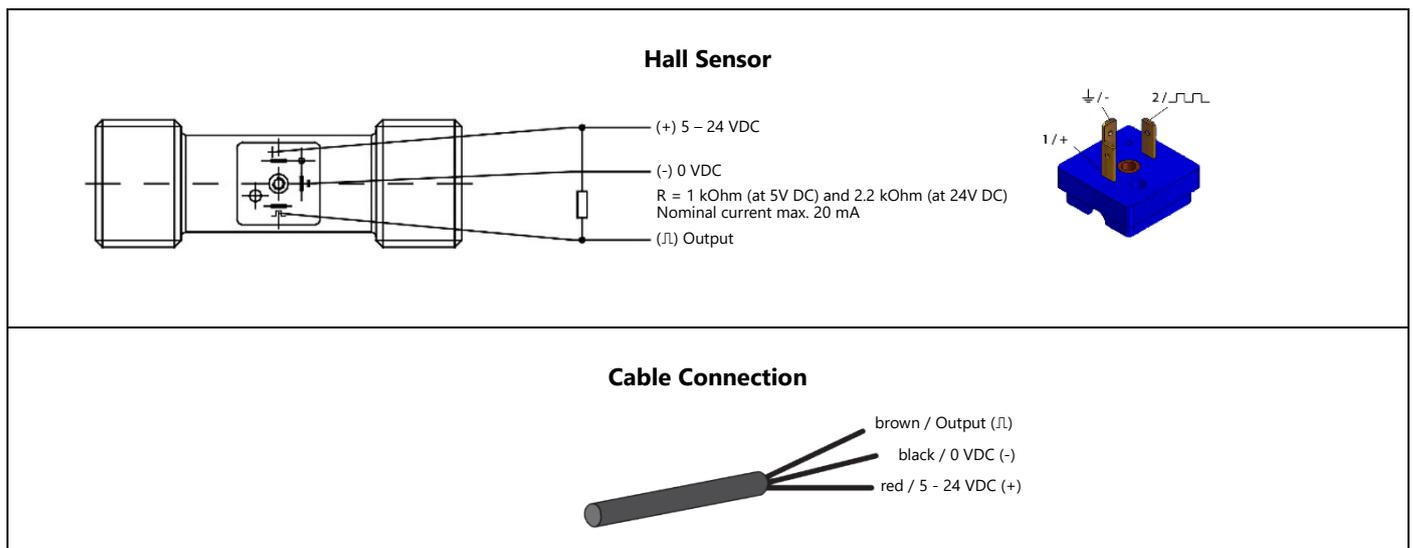
PRESSURE DROP



DRAWINGS



ELECTRICAL WIRING



ORDERING MATRIX - VISION 3000

Select process and electrical connection	Code			
Mechanical connector:				
G 3/4" Trogamid	56422			
NPT 3/4" Trogamid	56423			
Electrical connection:				
DIN connector		-163		
Cable – select cable length, see option		-165		
Turbine model:				
VISION 3012			-4F16	
Option cable length:				
1 m (standard)				-1
2 m				-2
3 m				-3
Examples:				
VISION 3012 G 3/4" with DIN connector	56422	-163	-4F16	
VISION 3012 G 3/4" with 1m cable	56422	-165	-4F16	-1
VISION 3012 G 3/4" with 2m cable	56422	-165	-4F16	-2

Control. Manage. Optimize.

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