

DESCRIPTION

The small flow sensors VISION measurement technology is ideal for the accurate measurement of low viscous and non-aggressive fluids. The VISION Cartridge 1000 series is most suited for the measurement of flow rates from 0.1...2.5 l/min. The flow sensor is a cartridge that can be plugged into an existing customer housing. 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

General

Type	VISION Cartridge 1000
Weight	3 g
Approvals	KTW-BWGL, ROHS, CE, UKCA

Performance

Flow Rate	0.1...2.5 l/min for Vision Cartridge 1005 2F66
Accuracy	±3% of reading
Repeatability	< 0.5% under the same operating conditions
Operating Temperature	-20...100° C
Operating Pressure Rate	Depending on installation

Pickup (upon request)

Pulse Sensor	Recommended: *Hall sensor Micronas HAL 15xy (TO92UA)
Input Power	5...24V DC*
Output Signal	Open collector (NPN sinking) @ max. 20 mA, 1...2.2 kOhm pull-up resistor required*
Power Consumption	Approximately 8 mA*
Installation	* Hall sensor centered above the housing close to the rotor
K-factor	15700 pulses/liter

Material

Housing	Trogamid CX7323
Rotor	PPS Ferrite bound
Bearings	2 PTFE / Graphite bearings

Fluids

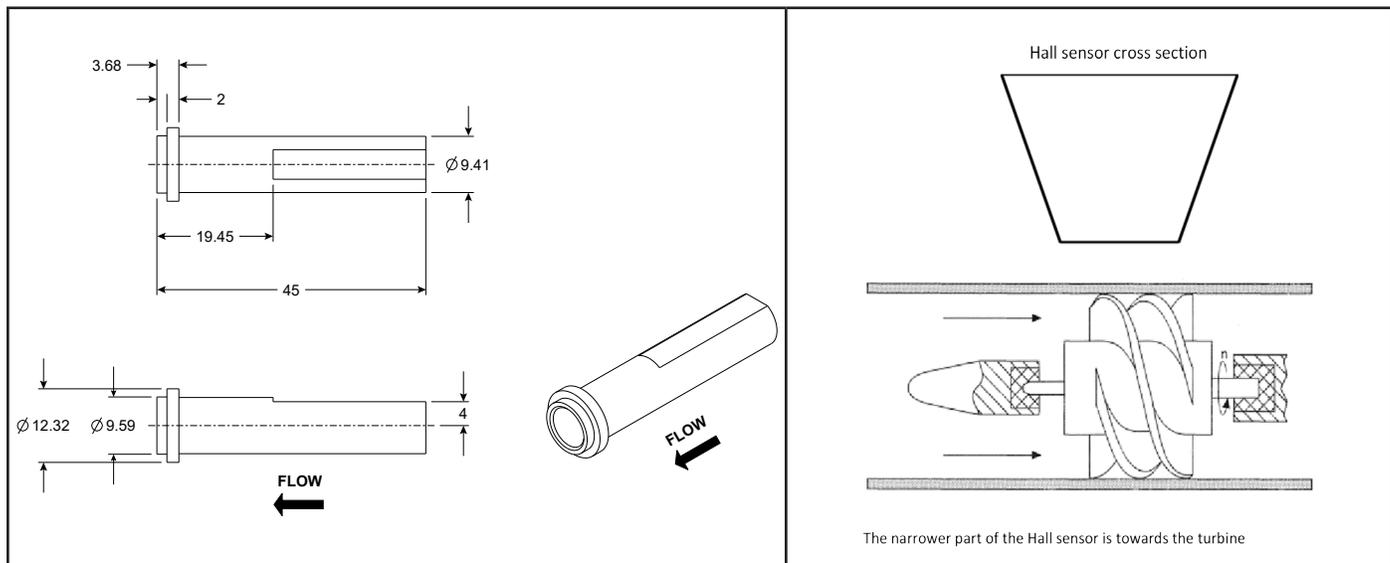
Viscosity	0.8 – 16 mm ² /sec (mPas/cST)
Fluid type	Liquids
Filter	20...40 micron recommended

Installation

Nominal Size DN	5 mm
Overall Length	45 mm
Mounting Position	In any orientation, observe flow direction
Electrical Connection	From customer side
Mechanical Connection	Plug-in housing for installation in an existing housing, no mechanical connection included

DRAWINGS

HALL SENSOR ORIENTATION



ELECTRICAL WIRING

According to the specifications of the selected Hall sensor.

ORDER CODE

VISION Cartridge 1005 2F66 for 0.1...2.5 l/min, 15700 PPL