

Specifications

Flow sensor

Flow ranges:	0 (0.5)...80 m/sec and 0 (3)...150 m/sec
Accuracy:	2% of reading under calibration conditions; Please refer to the user's manual for details. Recommended pipe diameter: 50 mm and up.
Reference temperature:	0 degrees Celsius
Gases :	Compressed air, Nitrogen, inert, non condensing gases
Gas temperature range:	0...+60 deg C

Pressure sensor

Pressure sensor range:	0...16 bar gage
Accuracy:	+/- 1.5% FSS (0...60 deg C) Temperature compensated

Temperature sensor

Temperature sensor range:	0...+60 deg C
Accuracy:	+/- 1 deg C (from 10 m/sec and up) + 5 deg C (at zero flow conditions)

Data outputs

Digital:	RS485, MODBUS RTU protocol
Analog:	4..20 mA output, selectable via software to indicate flow, pressure or temperature

Display/data logger

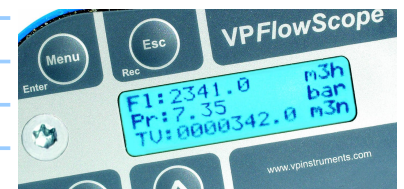
Technology:	Liquid Crystal (LCD)
Back light:	Blue, with auto power save
Data logger	500,000 points

Mechanical

Probe lengths:	400 mm (300, 600 mm)
Process connection:	Swagelok compression fitting , 0,5 inch
Pressure rating	PN20
Protection grade	IP52 when mated to display module

Electrical

Connection type:	M12, 5 pole
Power supply:	12...24 VDC +/- 10 % Class 2 (UL)
UL/ CUL:	14 AZ, Industrial Control Equipment
CE:	EN 61326-1, EN 50082-1



Technology



The VPFlowScope offers a unique combination of flow, pressure and temperature measurement, an easy to read display and an integrated data logger.

The display provides all the information you need to set up your audit in the field... and without the need to carry a laptop into the field. And with the built-in data logger, you can record consumption profiles over a longer period of time.

Quick Installation Procedure

The VPFlowScope probe is inserted through a ball valve and can be retracted after use. During this procedure, the VPFlowScope is secured with a safety line.

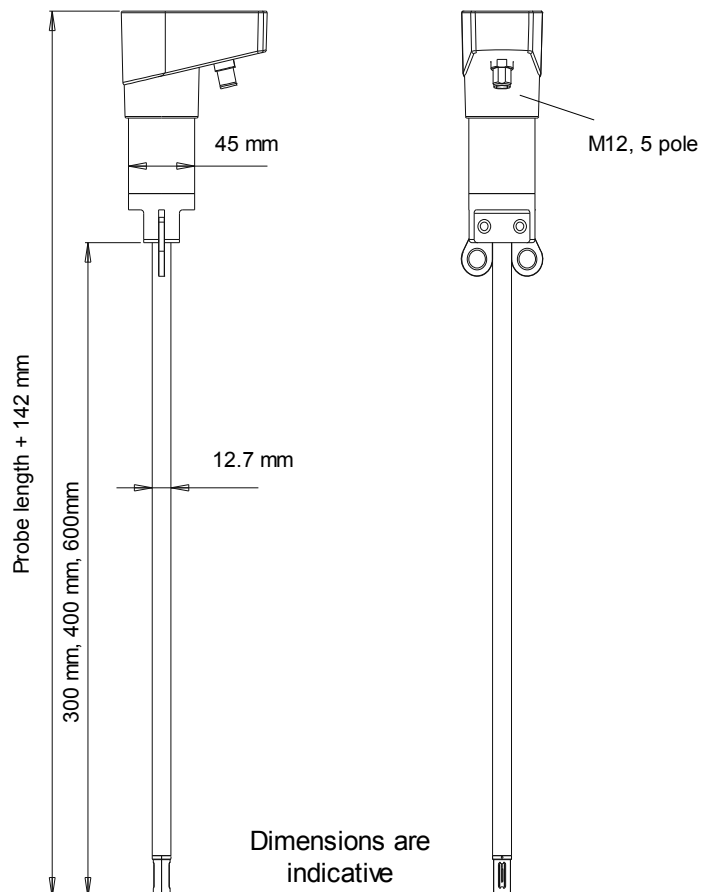
Easy Configuration

The VPFlowScope needs to know the inner pipe diameter to calculate the actual mass flow. You can enter the diameter via the keypad or via the convenient VPStudio™ software. And there is no need to browse through complicated tables: the VPFlowScope has a built-in correction algorithm for flow-profile-related effects.

Data Readout

The VPFlowScope offers both 4...20 mA and RS485 (Modbus). These interfaces are part of the standard configuration, which help keep choices simple and keep investment costs transparent.

Drawings



Order codes

Start kits:

Order code	Description
VPS.RXXX.PXXX-KIT	Value kit includes:
R= range (80, 150)	- Software for configuration and data processing
P= probe length (300,400,600 mm)	- Desktop interface + power supply
	- 5 m electrical cable (M12 connector)
	- Compression fitting with Teflon ferrules
	- Safety chain
	- English user manual

Complete sensor systems:

A complete sensor system consists of the VPFlowScope and the data logging display. Cables and accessories need to be ordered separately.

Order code	Description
VPS.R080.P300	Range =80 m _n /sec, Length = 300 mm
VPS.R080.P400	Length = 400 mm
VPS.R080.P600	Length = 600 mm
VPS.R150.P300	Range =150 m _n /sec, Length = 300 mm
VPS.R150.P400	Length = 400 mm
VPS.R150.P600	Length = 600 mm

Accessories:

Order code	Description
External display	
VPT.0005.000	External display with integrated data logger and power supply (100..240 VAC) in IP55 aluminum casing. Can be wall mounted. Available 01/2007
Software	
SFT.0003	Combined data analysis and configuration software suite.
VPA.500.105	Cable, M12 Male-Female, 5 meter
VPA.500.110	Cable, M12 Male- open wires, 10 meter
VPA.500.200	Desktop/ field interface box + power supply
VPA.500.300	Desktop/ field USB-RS485 converter

Spare parts:

Order code	Description
Sensor module	
VPS.R080.P300.PN20	Range =80 m _n /sec,
VPS.R080.P400.PN20	
VPS.R080.P600.PN20	
Sensor module	
VPS.R150.P300.PN20	Range =150 m _n /sec, Length = 300 mm
VPS.R150.P400.PN20	Length = 400 mm
VPS.R150.P600.PN20	Length = 600 mm
Display module	
VPM.D001.000	Spare/ extra data logging display module.
VPA.001.000 (HAC001)	Compression fitting
VPA.003.000 (HAC003)	Safety chain for insertion probes