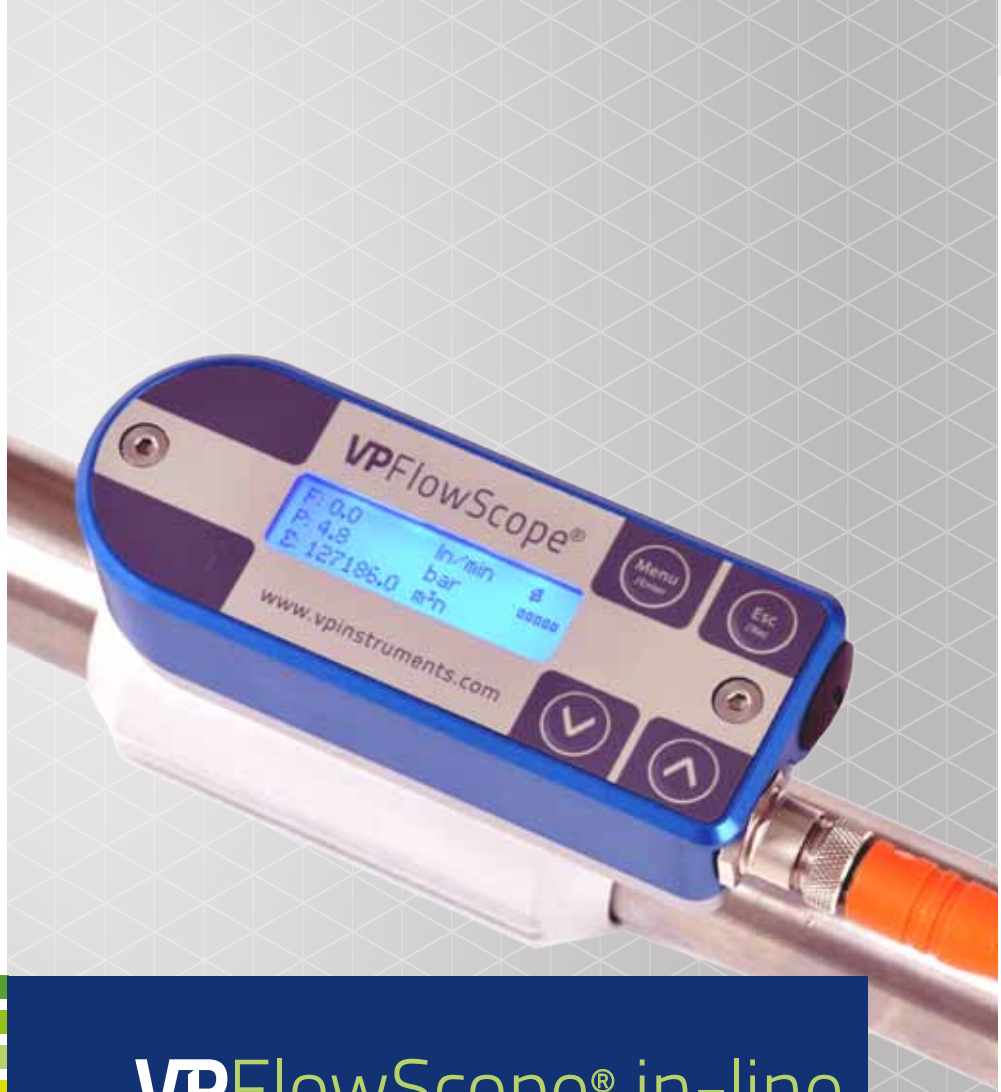

VPFlowScope® in-line

> Mass Flow, Pressure & Temperature
> Bi-directional measurements (optional)
> 2 million point data logger (optional)

VPFlowScope® In-line

With the three in one VPFlowScope® in-line, VPInstruments sets the new standard for compressed air measurement. Flow, Pressure and Temperature measured at the same time, at the same point with a single instrument makes measuring child's play. All key performance indicators of your compressed air system are finally measured together, the way they should be. It's time to reveal and unleash the real savings potential of your factory.

The VPFlowScope® in-line is your best choice to move forward with creating better efficiency levels in your compressed air and technical gas systems. Now you have an instrument that provides you with flow, pressure and temperature measurement in one single device, for point of use applications.

Again, the VPFlowScope® in-line shows you when, where and how much you can save. The advanced features of the VPFlowScope® in-line complete the product family and it is just as easily integratable as the VPFlowScope® probe.

General applications

- Point of use measurement
- Cost allocation
- Sub metering of compressed air
- Ring networks (bi-directional)
- Leakage monitoring
- Consumption metering of Nitrogen, Carbon Dioxide, Argon, Helium or any other dry, non-corrosive and inert gases

Specifications

VPFlowScope® in-line

Flow Sensor

Measuring principle	Thermabridge mass flow sensor

Range and diameter	Flow (SI)	Flow (IM)	Size
VPS.R080.M050	0.32 ... 80 (m^3_n/hr)	0.19 ... 50 SCFM	0.5 inch
VPS.R250.M100	0.88 ... 250 (m^3_n/hr)	0.52 ... 150 SCFM	1 inch
VPS.R01K.M200	2.86 ... 1000 (m^3_n/hr)	1.68 ... 600 SCFM	2 inch
Reference conditions	0° C, 1013.25 mbar | 32° F, 14.65 psi		
Gases	Compressed air, Nitrogen, or any other inert, non condensing gases		

Sensors	Range (SI)	Range (IM)
Flow	Thermabridge mass flow sensor	
Accuracy	0,5% FSS with calibration report under calibration conditions with air 5% FSS without calibration report	
Pressure PN16	0 ... 16 bar gauge	0 ... 250 psi gauge
Pressure PN35	0 ... 35 bar gauge	0 ... 500 psi gauge
Accuracy	± 1.5% FSS (0 ... 60°C)	± 1.5% FSS (32 ... 140°F)
Temperature	0 ... 60° C	32 ... 140° F
Accuracy	± 1° (from 10 mn/sec and up) (At zero flow conditions, temperature reading increases due to self-heating by the flow sensor)	

Display	Features
Technology	LCD, 3 line display
Memory (optional)	2 million points data logger

Data outputs

Analog	4 .. 20 mA or pulse, selectable via installation software
Serial IO	Modbus RTU
USB	Mini USB interface for configuration (display version only)

Mechanical	Size	Weight
VPS.R080.M050	135 mm x 49 mm x 85 mm | 5.31" x 1.93" x 3.35"	0.7 Kg | 1.54 lbs
VPS.R250.M100	135 mm x 54 mm x 91 mm | 5.31" x 2.12" x 3.58"	0.7 Kg | 1.54 lbs
VPS.R01K.M200	150 mm x 88 mm x 124 mm | 5.9" x 3.46" x 4.88"	1.6 Kg | 3.53 lbs
IP grade	IP65 | NEMA 4 when mated to connector, at room temperature; direct rain and sunlight should be avoided. Extreme temperature fluctuations may affect the IP grade over time.	
Ambient temperature	0 ... 60° C | 32 ... 140° F	

Total length with pipes	Length	Pipe weight
0.5"	304 mm | 12"	0.3 Kg | 0.66 lbs
1"	501 mm | 19.7"	1.0 Kg | 2.20 lbs
2"	750 mm | 29.5"	3.2 Kg | 7.04 lbs

Electrical

Connection type	M12, 5 pin connector, female, and optional USB mini connector
Power supply	12 ... 24 VDC ± 10% CLASS 2
Power consumption	2,4 Watt (no flow) 4,8 Watt (full flow) +/- 10% 100 mA (no flow). 200 mA (full flow) +/- 10% @24VDC
CE	EN 61326-1(2006) Class A, EN61000-6-1 (2007)

Smart, simple and complete.

The VPFlowScope® in-line provides not just one, but all required parameters: flow, pressure, and temperature are measured at the same time, at the same point. It also features an optional built-in 2 Million point data logger. This means: no more hassle with external loggers, just plug in, press record and go!

- Crystal clear display
- Two million point data logger
- Thermabridge™ flow sensor
- Pressure sensor
- Temperature sensor
- RS485 Modbus RTU
- 4 ... 20 mA
- Pulse
- USB interface

Order codes	Flow Range	Option	Display	Option	Connector
VPS.R080.M050	0.32 ... 80 (m^3_n/hr)	D0	no display	C5	5 pin M12
VPS.R250.M100	0.88 ... 250 (m^3_n/hr)	D10	Display	C8	8 pin M12, for remote display*
VPS.R01K.M200	2.86 ... 1000 (m^3_n/hr)	D11	Display + 2 M point logger		* Only available for VPFlowScope in-line D0

Basic Features

- Thermabridge Flow sensor
- Pressure and temperature sensor
- 4..20 mA or Pulse output (switchable)
- RS485 Modbus RTU

Display features

- 3 Line display
- Multi-session datalogger
- Keypad for configuration
- USB Cable included* *not available for VPFlowScope D0

Connector types

- M12, 5 pin for standard application
- M12, 8 pin for remote display function

Calibration options

VPA.0009.001	ISO Calibration report ± 0,5 % FSS
VPA.5000.911	Bi-directional measurement option

Tubing kits

VPA.1200.005	0,5 inch, in- and outlet tubes
VPA.1200.010	1 inch, in- and outlet tubes
VPA.1200.020	2 inch, in- and outlet tubes

Accessories

D0, D10 and 11 version

VPA.5000.005	Cable, 5m / 16.4 ft with M12 5pin connector on one side, open wires on other side.
VPA.5000.010	Cable, 10m / 32.9 ft with M12 5pin connector on one side, open wires on other side.
VPA.0000.200	Power supply (12V, 5pin, VPFlowScope)

Accessories

D0 version only

VPA.5001.205	Interface box JB5 with 5m/16.4 ft cable + 12 VDC power supply, includes USB converter

VPStudio software

SFT.5003.300	Licensed edition VPS&VPT