



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 point with a single instrument makes measuring child's play. All key performance indicators of your compressed air system are finally measured together, like it should be. It's time to reveal and unleash the real savings potential of your factory.

The bright blue display provides real-time information, and with the built-in 2 million point data logger, recording is as easy as taking a picture.

With the VPFlowScope in-line you have the perfect tool for measuring machine consumption, cost allocation, pressure loss and leakage management monitoring. The unique bi-directional sensor sensitivity tells you exactly when, where and how much air has passed the sensor in all directions.

VPFlowScope® in-line

- > Flow
- > Pressure
- > Temperature
- > Bi-directional option
- > 2M point data logger



INSTRUMENTS



Your savings. Our mission.

A new revolutionary multi-use flow meter. Developed with the ISO 50001 and ISO 11011 in mind for energy management programs. Obtaining your saving levels becomes child's play.

The VPFlowScope® in-line is your best choice when you need to move forward in 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 improvements 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
- > Aeration monitoring in water treatment plants
- > General test and measurement applications
- > OEM applications
- > Technical gas mixing
- > Measuring of welding gas, packaging gas
- > Consumption metering of Nitrogen, Carbon Dioxide, Argon, Helium or any other dry, non-corrosive and inert gas.

Take that next step!

With the VPFlowScope® in-line, you are about to take the next step in compressed air energy management. Now you have a true energy meter for point of use. The combination of flow, pressure and temperature provides key data on the real air consumption, the efficiency of your distribution network and your savings potential. It provides all the data to make the right decisions every day and fits any energy management program focused on leakage control and cost allocation.

VPFLOWSCOPE IN-LINE MODELS	D0	D10	D11
Crystal clear 3 row display		✓	✓
Data logger			✓
Mass flow	✓	✓	✓
Pressure	✓	✓	✓
Temperature	✓	✓	✓
Optional bi-directional sensitivity	✓	✓	✓
Mini USB interface		✓	✓
JB5 interface box connection	✓	✓	✓
4 ... 20mA output	✓	✓	✓
Pulse output	✓	✓	✓

Specifications - Thermal

VPFlowScope® in-line

Flow Sensor

Measuring principle Thermabridge mass flow sensor

Flow range per diameter

	Flow (SI)	Flow (IM)	Size
VPS.R080.M050	0.23 ... 80 m ³ n/hr	0.13 ... 50 SCFM	0.5 inch
VPS.R250.M100	0.91 ... 250 m ³ n/hr	0.54 ... 150 SCFM	1 inch
VPS.R01K.M200	3.55 ... 1000 m ³ n/hr	2.15 ... 600 SCFM	2 inch

Reference conditions 0° C, 1013.25 mbar | 32° F, 14.65 psi

Gases Compressed air, Nitrogen and 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	0 ... 16 bar gauge	0 ... 250 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

Technology LCD, 3 line display

Memory (optional) 2 million points data logger

Features

Data outputs

Analog 4 .. 20 mA or pulse, selectable via installation software

Serial IO Modbus RTU

Interface USB for configuration (display versions only)

Mechanical

	Size	Weight
VPS.R080.M050	135 mm x 50 mm x 85 mm 5.31" x 1.97" x 3.35"	0.7 Kg 1.54 lbs
VPS.R250.M100	135 mm x 50 mm x 85 mm 5.31" x 1.97" x 3.35"	0.7 Kg 1.54 lbs
VPS.R01K.M200	155 mm x 90 mm x 125 mm 6.1" x 3.54" x 4.92"	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 VDC ± 10% CLASS 2

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!



Order codes	Flow Range	Option	Display	Option	Connector
VPS.R080.M050	0 ... 80 m3/hr	D0	no display	C5	5 pin M12
VPS.R250.M100	0 ... 250 m3/hr	D10	Display	C8	8 pin M12, for remote display*
VPS.R01K.M200	0 ... 1000 m3/hr	D11	Display + 2 M point logger	* Only available for VPFlowScope in-line D0	
Basic Features		Display features		Connector types	
Thermabridge Flow sensor Pressure and temperature sensor 4...20 mA or Pulse output (switchable) RS485 Modbus RTU		3 Line display Multi-session datalogger Keypad for configuration USB Cable included* *not available for VPFlowScope D0		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				

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