



At the touch of a button:  
 - reset of counter reading  
 - selection of units

## Features

- Insertion type sensor for installations under pressure
- Thermal mass flow, independent of pressure and temperature changes
- Velocity, flow and consumption can be displayed
- Ip65 casing provides robust protection in rough industrial environment
- Very fast response time
- High accuracy and wide measuring range
- Tube diameters of 1" to 12". Other diameters on request

### Technical data VA 400

Measured unit	m <sup>3</sup> /h, m <sup>3</sup> /min, l/min, cfm, m/s, kg/min, kg/h, kg/s
Accuracy	± [3% of measured value + 0.3% full scale]
Medium	Air, gas, non explosive
Operating temperature	-30 ... 140 °C probe tube -30 ... 70 °C casing
Operating pressure	Up to 5.0 MPa
Analogue output	Signal: 4 ... 20 mA Scaling: 0 ... max range Max. load: ≤ 500 R
Pulse output	Active pulse output: 1 pulse per unit consumption
Power supply	12 ... 30 VDC, 100 mA

The CS flow sensor VA 400 is based on the thermal mass flow principle. It measures volumetric standard flow over a wide measuring range. The result is pressure and temperature independent.

The sensor installation into the pipe is done through a 1/2" ball valve. This makes it possible to do the installation under pressure without shutting down the compressed air line.

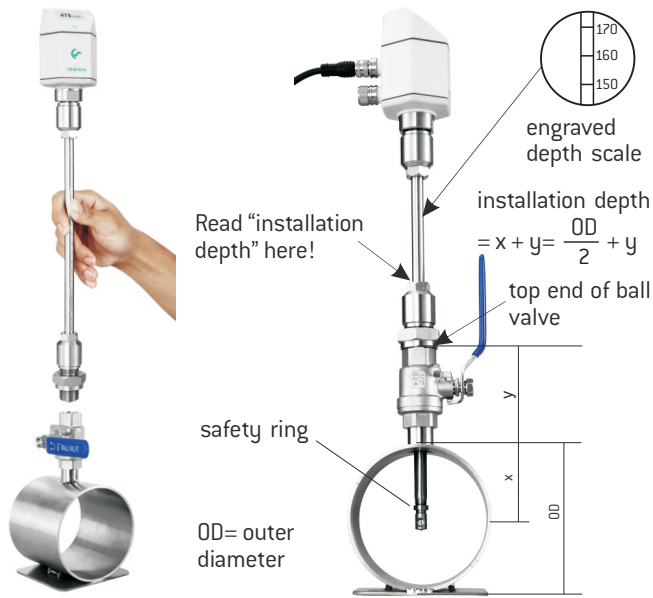
The sensor is available in two measuring ranges VA 400-S (standard range), VA 400-M (max range). The unit can be ordered with and without local display.

The version with display shows the volumetric flow and the total consumption. Via the keyboard tube diameters and the consumption counter can be set.

Various settings such as gas type, flow unit and reference standards can be set ex factory or through our service kit. The service kit consists of a PC software and a interface box which connects the sensor to the USB port of the PC.

Every sensor includes an analogue output (4 ... 20mA) for flow and a pulse output for the consumption counter.

# VA 400 versatile flow / consumption sensor (insertion type)



Sensor installation through a 1/2" ball valve under pressure

## Volumetric flow ranges VA 400

Inch	mm	VA 400-S [m³/h]	VA 400-M [m³/h]
1"	27.3	0.5~150	0.6~300
2"	53.1	2~600	2.5~1200
3"	84.9	5~1580	7~3140
4"	100.3	7~2200	9~4400
5"	133.7	13~3920	18~7810
6"	162.3	18~5800	25~11520
8"	200.0	26~8800	33~17540
10"	250.0	40~13760	52~27430
12"	300.0	60~19840	80~39550

Mentioned flow rates are standard flows at 20 °C and 0.1MPa.

The table above shows flow ranges up to 300 mm pipe diameter at standard conditions in air. At other standard conditions and in other gases flow ranges are different.

In larger pipe diameters flow can also be measured.

## Recommended flow sets



### Stationary flow station

Order No.	Description
0695 4001	VA 400-S, flow sensor, standard range, 220mm shaft, 1/2" G thread
0500 3000	DS 300, Base unit, 100...240 VAC, 50-60Hz, wall casing
A1030	2 input channels for CS sensors (FA 400, VA 400)
0990 0010	Plug&Play option: Complete wired (5m sensor cable and mains plug), programmed according to your order



### Portable flow station

Order No.	Description
0500 3101	DS 300-P2, 2 channel data recorder, including USB cable and mains cord
0695 0083	VA 400-S, flow sensor, standard range, incl. 5 m cable
0699 0419	Dew point sensor FA 410, -80...+20 °C, incl. 5 m cable and measuring chamber
0554 6005	Probe case



## Order form

Please use this order form for inquiries and orders. Please also provide us information about your application, such as nominal flow rate, pressure, etc. so that we can offer the most suitable device and prepare all settings for you.

VA 400		Shaft	Thread	Direction	Medium	Diameter	
	-						
0695 4000	-						VA 400-S, flow sensor, <b>standard range</b> with <b>display</b>
0695 4001	-						VA 400-S, flow sensor, <b>standard range</b>
0695 4003	-						VA 400-M, flow sensor, <b>max range</b> with <b>display</b>
0695 4004	-						VA 400-M, flow sensor, <b>max range</b>
A1000		A					220 mm
A1001		B					160 mm
A1002		C					300 mm
A1003		D					400 mm
A1004			A				G 1/2"
A1005			B				NPT 1/2"
A1006			C				PT 1/2"
A1023				A			Flow from left to right
A1024				B			Flow from right to left
A1007					A		Air
A1008					B		CO <sub>2</sub>
A1009					C		O <sub>2</sub>
A1010					D		N <sub>2</sub>
A1011					E		N <sub>2</sub> O
A1012					F		Ar
A1013					G		NG
A1015					H		Other gas (specify gas or gas mix)
						53.1	Enter diameter in mm

In cases where the desired measuring range exceeds our specification, please contact us for high speed solution.

## Application information

	Min	Max
Flow rate:		
Pressure:		
Temperature:		
Flow unit:		
Scaling:	4 mA:	
	20 mA:	
	Temperature	<b>Pressure</b>
Standard:	20 °C	0.1MPa
Other:		

Name:

Company:

Address:

Email:

### Send to:

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