

Operating manual



VA 300

Stationary

flow and air consumption measurement
for compressed air and gases



Important information

The operating instructions must be read in full and carefully observed before starting up the device.

The manufacturer cannot be held liable for any damage which occurs as a result of non-observance or non-compliance with this manual.

Should the device be tampered with in any manner other than a procedure which is described and specified in the manual, the warranty is cancelled and the manufacturer is exempt from liability.

The device is destined exclusively for the described application.

CS Messtechnik offers no guarantee for the suitability for any other purpose and is not liable for errors which may have slipped into this operating manual. They are also not liable for consequential damage resulting from the delivery, capability or use of this device.

Area of application

The CS VA 300 product range is designed for stationary and mobile use in compressed air pipes, air ducts or shafts.

It is used for the measurement and control of flow and air consumption in operating air pressure and other gases.

The principle of measurement is based on the evacuation of heat from an electrically heated sensor into the surrounding air flow.

The measuring devices operate independently of pressure and temperature.

When the sensor is fitted in a pipe, the output signal from the speed of flow is used to calculate the standard volume flow or mass flow of the medium.

Safety instructions

Must be read before starting up the device!

Warning:

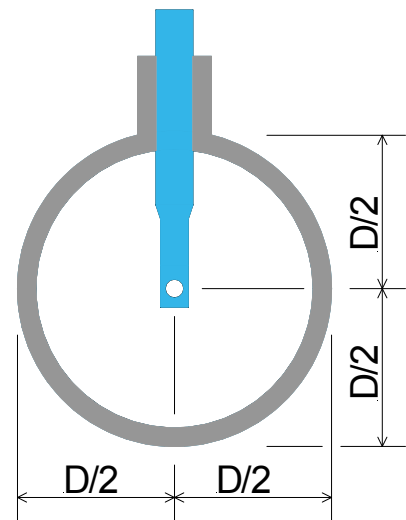
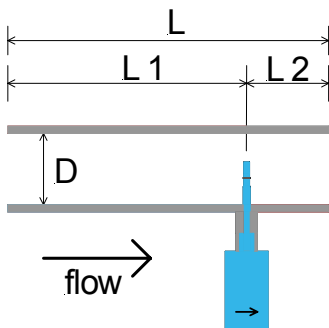
- Do not exceed the pressure range of 50 bar.
- Installation under pressure up to 16 bar is possible without mounting device. When the pressure is between 16 and 50 bar it is needed to use the mounting device.
- Observe the measuring range of the sensor.
- Overheating destroys probes.
- Observe permissible storage, transport and operating temperatures.
- Improper handling or use of force when opening the device cancels all warranty claims.
- Adjustment and calibration work must only be carried out by trained personnel from the field of measuring and control engineering.
- Always observe the direction of flow when positioning the sensor.
- The safety ring on the sensor head must always remain undamaged and sit correctly in the intended groove.
- The screwed fixture must be pressure tight.
- The adapter sleeve must be tightened with a torque of 20 – 30 Nm.
- Avoid condensation on the sensor element or water drops in the measuring air at all costs as they cause faulty measuring results.
- The values of the inlet and outlet sections must not fall below the specified minimum values as this causes increased deviations in the measuring results.

Determining the point of installation

In order to maintain the accuracy stipulated in the data sheets, the sensor must be inserted in the centre of a straight pipe section with unhindered flow characteristics.

Unhindered flow characteristics are achieved if the sections in front of the sensor (inlet) and behind the sensor (outlet) are sufficiently long, absolutely straight and lack obstructions such as edges, seams, curves etc.

Careful attention must be paid to the design of the outlet section as obstructions can cause counter-flow turbulence as well as turbulence in the direction of the flow.



- L = Length of the entire measurement section
- L1 = Length of inlet section
- L2 = Length of outlet section
- D = Diameter of measurement section

The following table shows the equalising sections necessary in relation to existing obstructions.

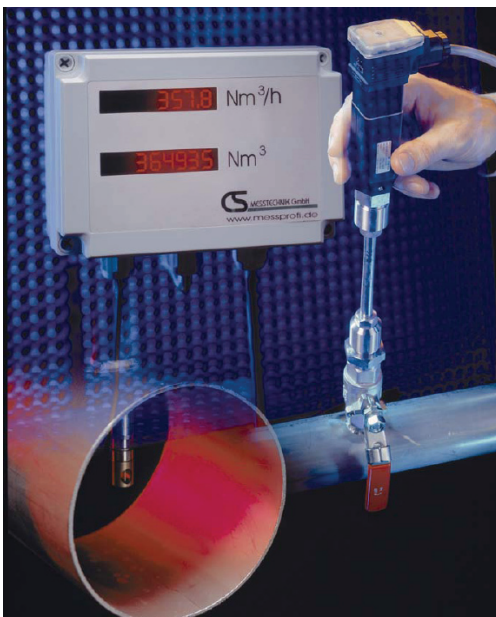


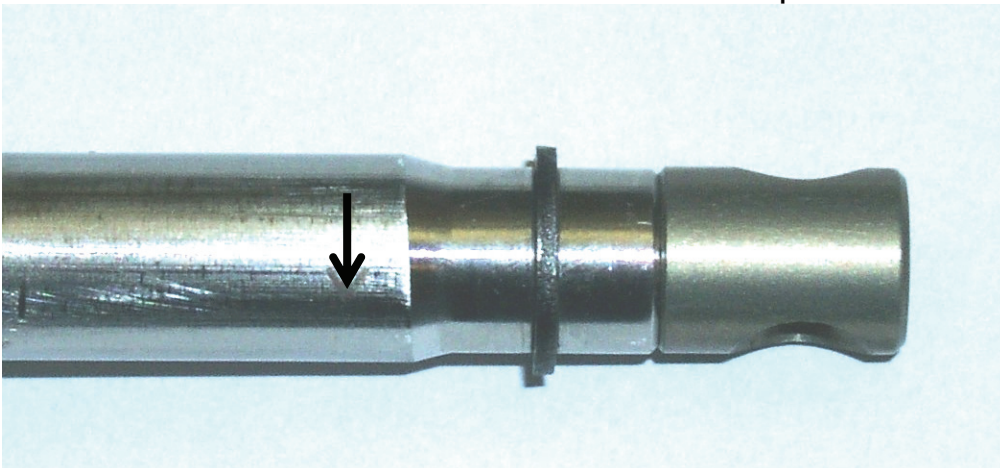
Table of inlet and outlet sections

Flow obstruction before the measurement section	Min. length inlet (L1)	Min. length outlet (L2)
Slight curve (bend < 90°)	12 x D	5 x D
Reduction (Tube narrows towards measurement section)	15 x D	5 x D
Expansion (Rohr expands towards measurement section)	15 x D	5 x D
90° bend or T piece	15 x D	5 x D
2 x 90° bends on one level	20 x D	5 x D
2 x 90° bends 3 dimensional change of direction	35 x D	5 x D
Shut-off valve	45 x D	5 x D

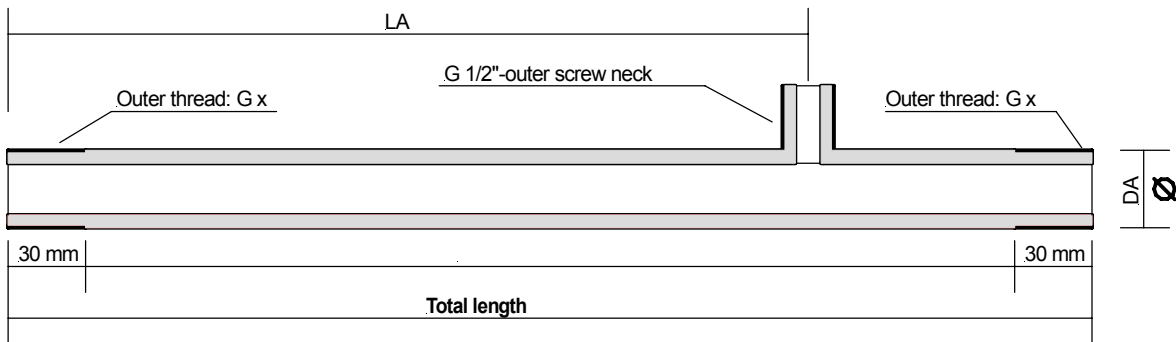
The respective minimum values required are indicated here.
If it is not possible to observe the stipulated equalising sections, considerable deviations in measuring results must be expected.


Installation position

The sensor head must sit in the centre of the pipe.
Observe the direction of flow indicated on the tip of the sensor.



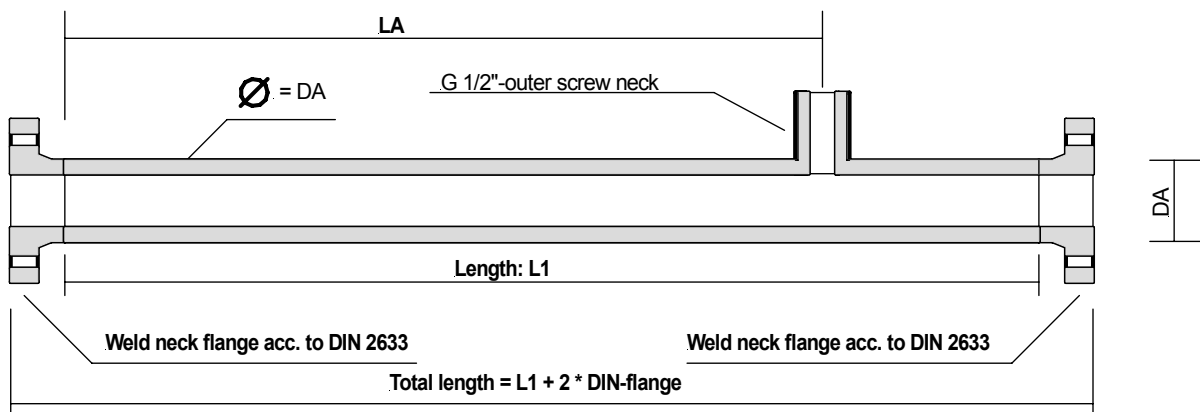
Measurement section for VA 300 probes




Strömungsrichtung / Direction of air flow 

Outer dia. DA	Length LA	Thread G x	Pipe	Total length
21.3 mm	350 mm	G 1/2"	21.3 * 2.6 mm, Stahl 1.4301	500 mm
26.9 mm	430 mm	G 3/4"	26.9 * 2.6 mm, Stahl 1.4301	600 mm
33.7 mm	530 mm	G 1"	33.7 * 3.2 mm, Stahl 1.4301	750 mm
42.4 mm	660 mm	G 1 1/4"	42.4 * 3.2 mm, Stahl 1.4301	900 mm
48.3 mm	750 mm	G 1 1/2"	48.3 * 3.2 mm, Stahl 1.4301	1000 mm
60.3 mm	930 mm	G 2"	60.3 * 3.6 mm, Stahl 1.4301	1250 mm
76.1 mm	1170 mm	G 2 1/2"	76.1 * 3.6 mm, Stahl 1.4301	1500 mm

Measurement section for VA 300 probes with flange connection



Strömungsrichtung / Direction of air flow 

Outer dia. DA	Length L1	LA	DIN - flange	Pipe	Total length = L1 + 2 * DIN flange
88.9 mm	1750 mm	1330 mm	DN 80 / 88.9	88.9 * 2.0 mm, Stahl 1.4301	1750 + (2*50) = 1850 mm
114.3 mm	2000 mm	1700 mm	DN 100 / 114.3	114.3 * 2.0 mm, Stahl 1.4301	2000 + (2*52) = 2104 mm
139.7 mm	2750 mm	2050 mm	DN 125 / 139.7	139.7 * 3.0 mm, Stahl 1.4301	2750 + (2*55) = 2860 mm
168.3 mm	3000 mm	2450 mm	DN 150 / 168.3	168.3 * 3.0 mm, Stahl 1.4301	3000 + (2*55) = 3110 mm

Assembly instructions

Safety information must be observed.

Assembly is carried out by inserting the connection thread (1/2" thread, SW 27) into the connection piece.

The sensor is then inserted to the required immersion depth and aligned according to the direction of air flow.

A depth gauge engraved on the probe tube will assist you, along with a flow alignment arrow and an aligning aid.

Once the sensor has been aligned, the adapter sleeve must be tightened with the stipulated torque (SW 17).

Attention: Alignment of the sensor must not be modified when tightening the connection thread and adapter sleeve.

If this should occur, check the immersion depth and alignment again and correct if necessary.

The angular deviation should not be greater than $\pm 2^\circ$ in relation to the ideal position as otherwise the measuring accuracy will decrease.

Commissioning

The valid measuring range and delivery configuration are programmed by the manufacturer on the basis of the user's specifications.

The **stationary** flow and air consumption measuring devices from the VA 300 series function according to the "plug and play" principle. The device is ready for operation as soon as the power supply is connected.

Modifications to the measuring ranges and signal output configurations can be carried out by the manufacturer or by the user with the aid of the appropriate software.

With mobile flow and air consumption measuring devices, the user will be able to carry out these modifications using the software and RS232 interface.



Display with mains unit for VA300

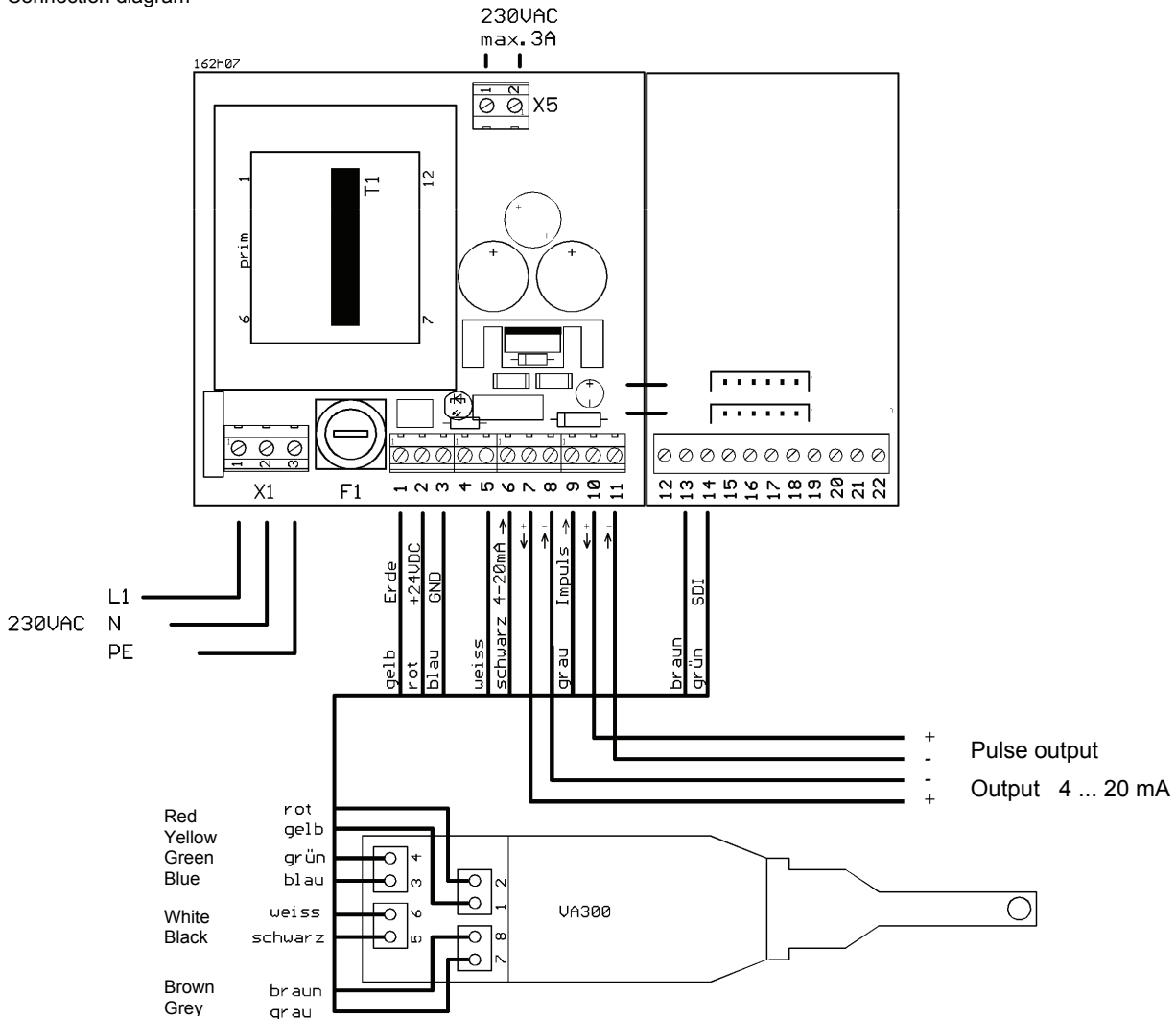
d162h07.pdf

Technical data:			Max. connection
X1	Mains connection	230 V 50/60 Hz	1.50 mm ²
X2	Signal connections	230V 50/60 Hz, max. 3 A	0.50 mm ²
X5			1.50 mm ²
F1	Primary fuse mains unit	0.08 A delay action, 5 x20 mm, 250V	

Dimensions: 180 x 130 x 100 mm (l x w x h)

Information: Only connect the probe/device and change the fuse when the power supply is disconnected.

Connection diagram



X1 Mains connection

- 1 L1
- 2 N
- 3 PE

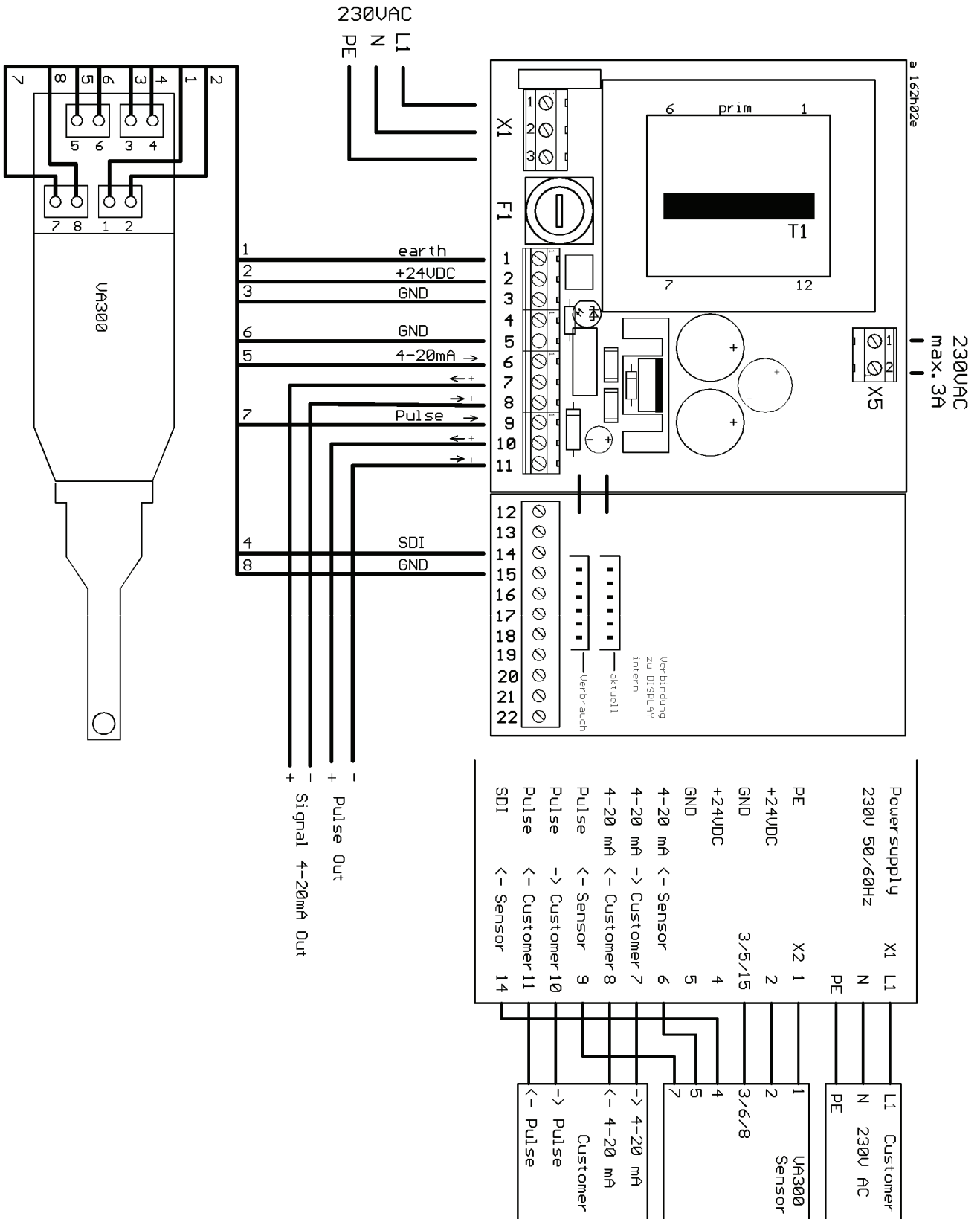
VA 300

- | | |
|----------------------------|--------|
| 1 Earth | Yellow |
| 2 Power supply 24 VDC | Red |
| 3 GND | Blue |
| 4 SDI interface | Green |
| 5 + Analogue output 4-20mA | Black |
| 6 - Analogue output 4-20mA | White |
| 7 + Pulse output | Grey |
| 8 - Pulse output | Brown |

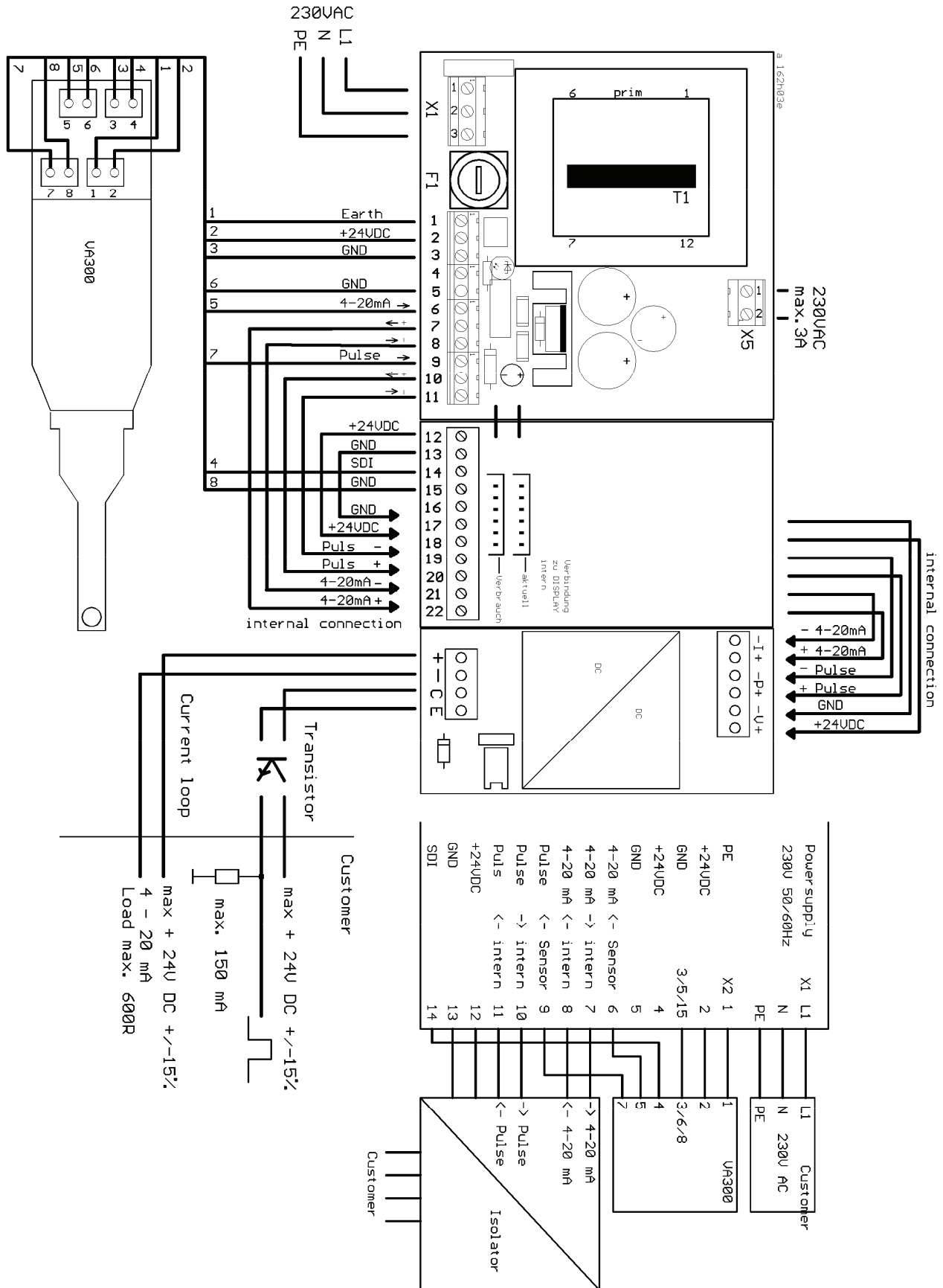
Flow processor signal connection

- | | |
|---------------------------------------|--------------------------------------|
| 1 Earth | 12 Not reserved |
| 2 Power supply 24 VDC | 13 - Pulse VA300 |
| 3 GND | 14 SDI (digital signal transmission) |
| 4 Not reserved | 15 Not reserved |
| 5 - Signal 4-20mA VA300 | 16 Not reserved |
| 6 + Signal 4-20mA VA300 | 17 Not reserved |
| 7 + Analogue output 4-20mA - customer | 18 Not reserved |
| 8 - Analogue output 4-20mA - customer | 19 Not reserved |
| 9 + Pulse VA300 | 20 Not reserved |
| 10 + Pulse output - customer | 21 Not reserved |
| 11 - Pulse output - customer | 22 Not reserved |

Display with mains unit for VA300

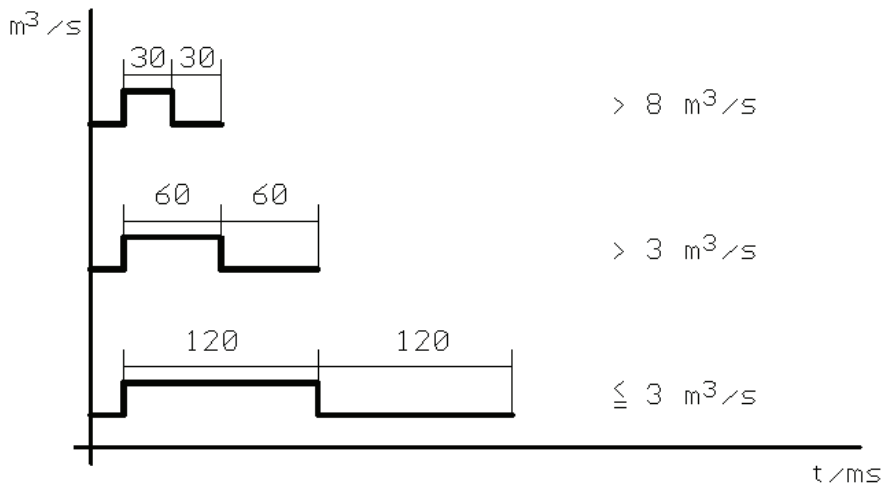


Display with mains unit for VA300 and galvanic separation for impulse and analogue output



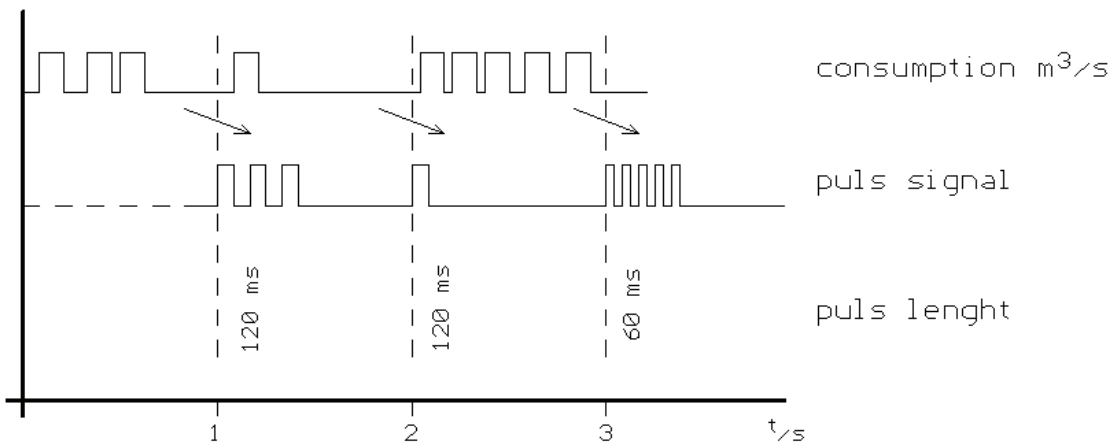
Impulse length Signal showing valid from software version 2.2

puls lenght dependent on consumption



internal puls receiver:

Add the number of m^3/s and display alternate every second
puls lenght dependent on consumption



148h05e

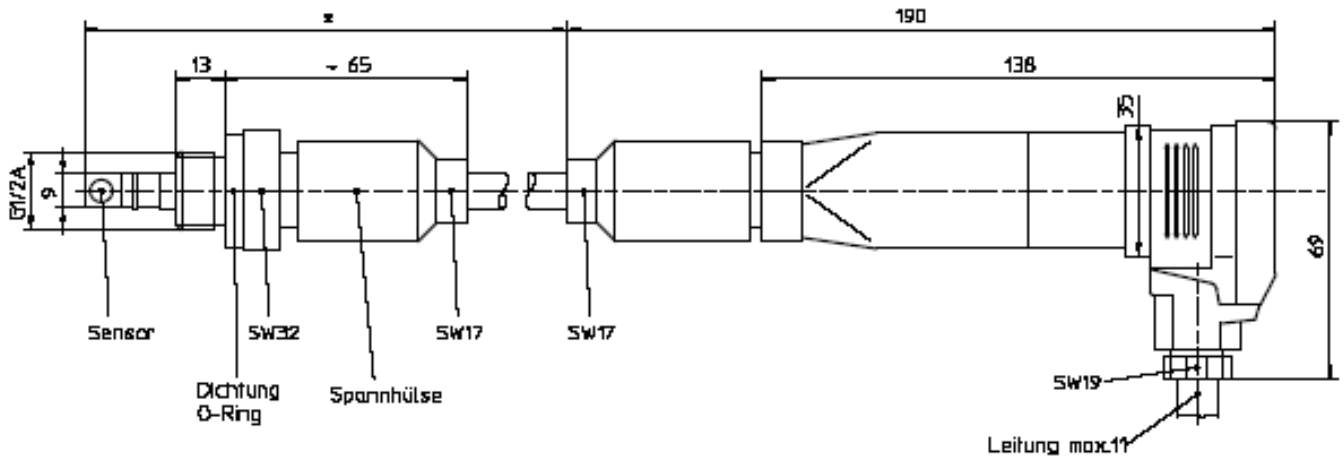
Consumption depending puls lengths

Volume flow [m^3/sec]	Puls lenght [msec]	max. Consumption [m^3/min]	max. Consumption [m^3/h]
bis 3	120	180	10800
ab 3	60	480	28800
ab 8	30	960	57600

Flow measuring ranges

Inner diameter		Standard version VA 300 - 80	Max. version VA 300 - 120
Inch	mm	Measuring range from ... to	Measuring range from ... to
1/4"	6	0.8 ... 80 l/min	1.0 ... 110 l/min
1/2"	16.1	2.5 ... 760 l/min	3.5 ... 1100 l/min
3/4"	21.7	0.3 ... 90 m ³ /h	0.4 ... 120 m ³ /h
1"	27.3	0.5 ... 150 m ³ /h	0.6 ... 200 m ³ /h
1 1/4"	36.0	0.9 ... 280 m ³ /h	1.2 ... 360 m ³ /h
1 1/2"	41.9	1.2 ... 370 m ³ /h	1.5 ... 500 m ³ /h
2"	53.1	2 ... 600 m ³ /h	2.5 ... 800 m ³ /h
2 1/2"	71.1	3.5 ... 1100 m ³ /h	5 ... 1500 m ³ /h
3"	84.9	5 ... 1600 m ³ /h	7 ... 2200 m ³ /h
4"	110.3	9 ... 2700 m ³ /h	12 ... 3600 m ³ /h
5"	133.7	13 ... 4000 m ³ /h	18 ... 5300 m ³ /h
6"	162.3	18 ... 5800 m ³ /h	25 ... 8000 m ³ /h
8"		On request	On request

Drawing of VA 300 probe



Measuring ranges in relation to inner pipe diameter

This table is used when the standard VA 300-80 probe is to be used in different pipes.

Please note:

The VA 300-80 standard probe is programmed for the following standard features:

Inner pipe diameter : **53.1 mm**

Analogue output 4 to 20 mA : **0 to 600 m³/h** (corresponds with 92.7 m/sec.
max. flow to hit sensor)

Standard conditions : **DIN 1945 / ISO 1217** (20 °C; 1000 mbar)

Inner pipe diameter		Volume flow (final value of meas. range)				max.	Profile	Adaption factor	
Inch	mm	m ³ /h	m ³ /min	l/min	l/s	m/s	factor		
1/4"	6.0	4.7	0.08	78.7	1.31	92.7	0.500	0.0079	
	10.0	15.1	0.25	251.1	4.19	92.7	0.575	0.0251	
	15.0	38.9	0.65	648.6	10.81	92.7	0.660	0.0649	
1/2"	16.1	45.6	0.76	760.8	12.68	92.7	0.672	0.0761	
	21.7	89.1	1.48	1484.9	24.75	92.7	0.722	0.1485	
	1"	25.0	122.2	2.04	2036.3	33.94	92.7	0.746	0.2036
	26.0	132.9	2.21	2214.3	36.90	92.7	0.750	0.2214	
	27.3	147.5	2.46	2457.5	40.96	92.7	0.755	0.2458	
	28.5	162.0	2.70	2699.6	44.99	92.7	0.761	0.2700	
	30.0	180.9	3.01	3014.8	50.25	92.7	0.767	0.3015	
1 1/4"	32.8	218.8	3.65	3646.2	60.77	92.7	0.776	0.3646	
	36.0	266.3	4.44	4437.6	73.96	92.7	0.784	0.4438	
	36.3	270.7	4.51	4511.9	75.20	92.7	0.784	0.4512	
1 1/2"	39.3	320.1	5.34	5335.7	88.93	92.7	0.791	0.5336	
	40.0	332.5	5.54	5541.4	92.36	92.7	0.793	0.5542	
	41.9	366.7	6.11	6111.0	101.8	92.7	0.797	0.6111	
	43.1	389.4	6.49	6490.4	108.1	92.7	0.800	0.6491	
	45.8	441.9	7.37	7365.7	122.7	92.7	0.804	0.7366	
2"	50.0	530.6	8.84	8844.1	147.4	92.7	0.810	0.8845	
	51.2	557.1	9.29	9285.1	154.7	92.7	0.811	0.9286	
	53.1	600.0	10.00	10000	166.6	92.7	0.812	1.0000	X
	54.5	632.8	10.55	10546	175.7	92.7	0.813	1.0547	
	57.5	707.8	11.80	11797	196.6	92.7	0.817	1.1798	
	60.0	773.6	12.89	12892	214.8	92.7	0.820	1.2894	
	64.2	888.9	14.81	14814	246.9	92.7	0.823	1.4816	

Measuring ranges in relation to inner pipe diameter

This table is used when the standard **VA 300-80 probe** is to be used in different pipes.

Inner pipe diameter		Volume flow (final value of meas. range)				max.	Profile	Adaptation factor	
Inch	mm	m ³ /h	m ³ /min	l/min	l/s	m/s	factor		
2 1/2"	65.0	913.5	15.22	15224	253.7	92.7	0.824	1.5225	
	70.3	1071.1	17.85	17851	297.5	92.7	0.826	1.7852	
	71.1	1095.6	18.26	18260	304.3	92.7	0.826	1.8260	
	76.1	1258.2	20.97	20969	349.4	92.7	0.828	2.0970	
3"	80.0	1390.4	23.17	23173	386.2	92.7	0.828	2.3174	
	81.0	1425.4	23.76	23756	395.9	92.7	0.828	2.3757	
	82.5	1480.5	24.67	24674	411.2	92.7	0.829	2.4675	
	84.9	1569.8	26.16	26162	436.0	92.7	0.830	2.6163	
	90.0	1766.1	29.44	29435	490.6	92.7	0.831	2.9436	
4"	100.0	2183.1	36.38	36384	606.4	92.7	0.832	3.6384	
	107.1	2507.1	41.78	41784	696.4	92.7	0.833	4.1784	
	110.0	2644.7	44.08	44077	734.6	92.7	0.833	4.4078	
5"	125.0	3423.3	57.1	57055	950.9	92.7	0.835	5.7055	
	133.7	3921.1	65.4	65351	1089.2	92.7	0.836	6.5352	
6"	150.0	4941.4	82.4	82356	1372.6	92.7	0.837	8.2357	
	159.3	5579.8	93.0	92996	1549.9	92.7	0.838	9.2996	
	182.5	7323.4	122.1	122055	2034.3	92.7	0.838	12.206	
	190.0	7947.1	132.5	132451	2207.5	92.7	0.839	13.245	
8"	200.0	8816.2	146.9	146936	2448.9	92.7	0.840	14.694	
	206.5	9398.5	156.6	156642	2610.7	92.7	0.840	15.664	
10"	250.0	13775	229.6	229587	3826.5	92.7	0.840	22.959	
	260.4	14945	249.1	249086	4151.4	92.7	0.840	24.909	
12"	300.0	19836	330.6	330606	5510.1	92.7	0.840	33.061	
	309.7	21139	352.3	352331	5872.2	92.7	0.840	35.233	
	339.6	25418	423.6	423646	7060.8	92.7	0.840	42.365	
	388.8	33317	555.3	555291	9254.9	92.7	0.840	55.529	
	500.0	55101	918.4	918350	15305	92.7	0.840	91.835	
	600.0	79345	1322	1322424	22040	92.7	0.840	132.24	
	700.0	107998	1800	1799966	29999	92.7	0.840	179.99	
	800.0	141058	2351	2350976	39182	92.7	0.840	235.09	
	900.0	178527	2975	2975455	49590	92.7	0.840	297.54	
	1000.0	220404	3673	3673401	61223	92.7	0.840	367.34	

Measuring ranges in relation to inner pipe diameter

This table is used when the **VA 300-120 probe (maximum version)** is to be used in different pipes.

Please note:

The VA 300-120 maximum version is programmed for the following standard features:

Inner pipe diameter : **53.1 mm**

Analogue output 4 to 20 mA : **0 to 800 m³/h** (corresponds with 123,6 m/sec.
max. flow to hit sensor)

Standard conditions : **DIN 1945 / ISO 1217** (20 °C; 1000 mbar)

Inner pipe diameter		Volume flow (final value of meas. range)				max.	Profile factor	Adaptation factor	
Inch	mm	m ³ /h	m ³ /min	l/min	l/s	m/s	PF		
1/4"	6,0	6,3	0,10	105,0	1,75	123,7	0,500	0,0079	
	10,0	20,1	0,33	334,8	5,59	123,7	0,575	0,0251	
	15,0	51,9	0,86	864,8	14,4	123,7	0,660	0,0648	
1/2"	16,1	60,8	1,01	1012	16,9	123,7	0,672	0,0760	
3/4"	21,7	118,8	1,98	1980	33,0	123,7	0,722	0,1485	
1"	25,0	162,9	2,72	2715	45,3	123,7	0,746	0,2036	
	26,0	177,2	2,95	2952	49,2	123,7	0,750	0,2215	
	27,3	196,6	3,28	3277	54,6	123,7	0,755	0,2457	
	28,5	215,9	3,60	3407	60,0	123,7	0,761	0,2698	
	30,0	241,2	4,02	4020	67,0	123,7	0,767	0,3015	
1 1/4"	32,8	291,7	4,86	4862	81,0	123,7	0,776	0,3646	
	36,0	355,0	5,92	5917	98,6	123,7	0,784	0,4437	
	36,3	359,6	5,94	5925	99,0	123,7	0,784	0,4495	
1 1/2"	39,3	426,9	7,11	7114	118,6	123,7	0,791	0,5336	
	40,0	443,3	7,39	7389	123,1	123,7	0,793	0,5541	
	41,8	486,5	8,11	8109	135,2	123,7	0,797	0,6082	
	43,1	519,2	8,65	8654	144,2	123,7	0,800	0,6402	
	45,8	588,5	9,81	9809	163,6	123,7	0,804	0,7356	
2"	50,0	706,6	11,78	11778	196,3	123,7	0,810	0,8832	
	51,2	742,8	12,38	12380	206,3	123,7	0,811	0,9285	
	53,1	800,0	13,33	13333	222,2	123,7	0,812	1,0000	x
	54,5	844,9	14,08	14081	234,6	123,7	0,813	1,0560	
	57,5	945,1	15,75	15751	262,5	123,7	0,817	1,1813	
	60,0	1032,8	17,21	17213	286,8	123,7	0,820	1,2909	
	64,2	1186,8	19,78	19779	329,6	123,7	0,823	1,4834	

Measuring ranges in relation to inner pipe diameter

This table is used when the **VA 300-120 (maximum version)** probe is to be used in different pipes.

Meßrohr Innendurchmesser		Volumenstrom (Meßbereichsendwert)				max.	Profile factor	Anpassungs- faktor	
Zoll	mm	m³/h	m³/min	l/min	l/s	m/s	PF		
2 1/2"	65,0	1218,0	20,30	20300,4	338,34	123,7	0,824	1,5225	
	70,3	1428,2	23,80	23803,6	396,73	123,7	0,826	1,7852	
	71,1	1460,9	24,35	24348,4	405,81	123,7	0,826	1,8260	
	76,1	1677,7	27,96	27960,9	466,01	123,7	0,828	2,0970	
3"	80,0	1854,0	30,90	30900,2	515,00	123,7	0,828	2,3174	
	81,0	1900,7	31,68	31677,6	527,96	123,7	0,828	2,3757	
	82,5	1974,1	32,90	32901,3	548,36	123,7	0,829	2,4675	
	84,9	2093,1	34,89	34885,5	581,42	123,7	0,830	2,6163	
4"	90,0	2355,0	39,25	39249,8	654,16	123,7	0,831	2,9436	
	100,0	2910,9	48,51	48514,8	808,58	123,7	0,832	3,6384	
	107,1	3342,9	55,72	55715,4	928,59	123,7	0,833	4,1784	
	125,0	4564,7	76,1	76077,8	1268,0	123,7	0,835	5,7055	
5"	133,7	5228,4	87,1	87140,6	1452,3	123,7	0,836	6,5352	
	150,0	6588,9	109,8	109814,4	1830,2	123,7	0,837	8,2357	
	159,3	7440,1	124,0	124001,5	2066,7	123,7	0,838	9,2996	
	182,5	9765,0	162,8	162750,0	2712,5	123,7	0,838	12,206	
6"	190,0	10584,1	176,4	176401,6	2940,0	123,7	0,838	13,229	
	200,0	11727,5	195,5	195458,8	3257,6	123,7	0,838	14,659	
	206,0	12441,7	207,4	207362,3	3456,0	123,7	0,838	15,551	
	206,5	12502,2	208,4	208370,1	3472,8	123,7	0,838	15,627	
8"	260,4	19928,0	332,1	332133,4	5535,6	123,7	0,840	24,909	
	300,0	26449,9	440,8	440831,9	7347,2	123,7	0,840	33,061	
	309,7	28188,0	469,8	469799,9	7830,0	123,7	0,840	35,233	
	339,6	33893,6	564,9	564892,6	9414,9	123,7	0,840	42,365	
12"	388,8	44425,7	740,4	740428,4	12340,5	123,7	0,840	55,529	
	500,0	73472,0	1224,5	1224533,1	20408,9	123,7	0,840	91,835	
	600,0	105799,7	1763,3	1763327,7	29388,8	123,7	0,840	132,243	
	700,0	144005,1	2400,1	2400084,9	40001,4	123,7	0,840	179,997	
	800,0	188088,3	3134,8	3134804,8	52246,7	123,7	0,840	235,098	
	900,0	238049,2	3967,5	3967487,3	66124,8	123,7	0,840	297,546	
	1000,0	293888,0	4898,1	4898132,5	81635,5	123,7	0,840	367,341	

Technical data

Measurands:	m ³ /h m/s (The underlying standard is valid: DIN 1945. ISO 1217 at 20°C and 1000 mbar)
Principle of measurement:	calorimetric measurement
Sensor:	2 x PT100
Measuring medium:	Air, gas
Operating temperature:	-30 to 140°C probe tube -30 to 80 °C housing
Operating pressure:	up to 50 bar
Analogue output:	4 to 20 mA for m ³ /h
Pulse output:	1 pulse per m ³ (High signal 24 VDC 2ms)
Power supply: (stationary with flow processor)	230 VDC. 50 to 60 Hz
Power supply: (mobile, probe only)	24 VDC smoothed +- 15%
Accuracy: With measurement section	+ - 3% of m.v. + - 2% of m.v. (option via 5 point ISO precision calibration) This data is only valid in relation to the measurement section
Accuracy: Without measurement section	+ -4 % of m.v. + -3 % of m.v. (option via 5 point ISO precision calibration) This data is only valid when the correct inner diameter is entered.
Display:	Flow in m ³ /h (instantaneous value, 4 figures) Meter in m ³ (total air consumption, 8 figures)
Selectable units:	m ³ /h (standard factory setting) m ³ /min. l/min. l/s. ft/min. cfm

Service information

Maintenance

The sensor head should be checked regularly for dirt and cleaned if necessary. Should dirt, dust or oil build up on the sensor element, a deviation will occur in the measured value.

A yearly check is recommended. Should the compressed air be heavily soiled, this interval must be shortened.

Cleaning the sensor head

The sensor head can be cleaned by carefully moving it to and fro in warm water with a small amount of washing up liquid. Avoid physical intervention on the sensor (e.g. using a sponge or brush).

If soiling cannot be removed, service and maintenance must be carried out by the manufacturer.

Re: calibration

If no customer specifications are given, then we recommend that calibration is carried out every 12 months. The sensor must be sent to the manufacturer for this purpose.

Spare parts and repair

Spare parts are not available for reasons of measuring accuracy. If parts are faulty, they must be sent to the supplier for repair.

If the measuring device is used in important company installations, we recommend that you keep a spare measuring system ready.

Calibration certificates

Calibration certificates are issued by the manufacturer on request. This is a fee-paying service. Precision is tested with PTB (German National Metrology Institute) volume flow nozzles.

EC Declaration of Conformity

for

**DIRECTIVE 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 27. January 2003
on waste electrical and electronic equipment (WEEE)**

and

**DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 27. January 2003
on the restriction of the use of certain hazardous substances in electrical and electronic
equipment (RoHS)**

of the down mentioned instruments from CS Messtechnik GmbH:

Pressure dewpoint meter: FA 300 and accessories

Flow- and consumption meter: VA 300 and accessories

CS Messtechnik GmbH as the manufacturer herewith declares that the above instruments and accessories belongs to the category 9 (WEEE 2002/96/EC). Therefore the above instruments do not fall upward aforementioned directive RoHS 2002/95/EC and are not affected by the material restriction. In accordance with directive WEEE 2002/96/EC the measuring instruments specified above are taken back from CS Messtechnik GmbH to the disposal.

CS Messtechnik GmbH

Harrislee, 16.January 2006

Am Oker 28c
D-24955 Harrislee
Tel. 0461 / 700 2025
Fax 0461 / 700 2026

Christian Schuldt, Managing Director

Contact

- Advice
- Sales
- Customer-service
- Seminars

SOUTHERN Sales Office

An der Hohlgass 16
D-78052 VS-Tannheim

Tel. +49 (0) 7705 – 977765

Fax +49 (0) 7705 – 977767

E-Mail bs@messprofi.de
www.messprofi.de

NORTHERN Sales Office

Am Oxer 28c
D-24955 Harrislee

Tel. +49 (0) 461 – 700 2025

Fax +49 (0) 461 – 700 2026

E-Mail cs@messprofi.de
www.messprofi.de