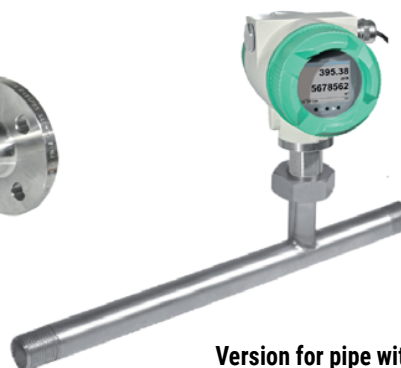


## VA 570 - Inline flow meter



Flange version



Version for pipe with R thread  
or NPT thread

VA 570 is supplied with an integrated measuring section. The measuring sections are available in flanged version or with R resp. NPT thread.

A special feature is the removable measuring head. So the measuring unit can be removed easily and quickly for calibration or cleaning purposes without having to dismount the measuring section intricately. During this period the measuring section is sealed by a closing cap (accessory).

The screwing with a centring device is designed such that the sensor is positioned accurately in the center when screwing it into the measuring section; furthermore, it enables an exact positioning in the flow direction. This eliminates unnecessary measuring faults.

### Approvals:



II 2G Ex db IIC T4 Gb



II 2D Ex tb IIIC T90°C Db



The sensor can be removed  
and cleaned

### Special measurement technology features:

- 4 values on the display: Flow, total consumption, velocity, temperature. Units freely adjustable
- All measured values, settings such as gas type, inner diameter, serial number and so on can be accessed via Modbus-RTU
- Comprehensive diagnostic functions readable on the display or remote access via Modbus such as calibration cycle, error codes, serial number
- Notification in case of exceeding the calibration cycle
- Standard version accuracy 1.5% of m.v.  $\pm$  0.3% of f.s.

## Special measurement technology features:

- Precision version accuracy 1.0% of m.v.  $\pm$  0.3% of f.s
- Measuring span of 1 : 1000 (0.33 ft/s up to 735 ft/s)
- Configuration and diagnosis via display, hand-held device PI 500, PC service software on-site
- Gas type (air, nitrogen, oxygen, argon and so on) freely adjustable via PC service software or external device DS 400, DS 500, PI 500
- Reference conditions °C and PST / hPA freely adjustable
- In-Situ adjustment, leak flow volume suppression
- Pressure loss negligible

## Special mechanical features:

- Robust impact-proof aluminum die cast housing for the outdoor area IP 67
- All wetted parts made from stainless steel 1.4404
- On request with DVGW approval for natural gas (up to 232 psi)
- Pressure range up to 232 psi, special version up to 580 psi
- Media temperature range up to 356 °F (ATEX version up to 248 °F)
- No moveable parts, no wear
- Sensor tip very robust, easy to clean
- Housing rotatable, display rotatable by -356 °F

## Measuring range - Flow VA 570

|                                                         |                       | 1/2"       | 3/4"       | 1"         | 1 ¼"       | 1 ½"       | 2"         | 2 ½"        | 3"          |
|---------------------------------------------------------|-----------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
|                                                         |                       | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm)  | m³/h (cfm)  |
| Reference conditions DIN 1945 / ISO 1217: 68 °F, 14 psi |                       |            |            |            |            |            |            |             |             |
| Air                                                     | Low-Speed (164 ft/s)  | 20 (14)    | 45 (25)    | 75 (45)    | 140 (80)   | 195 (115)  | 320 (190)  | 550 (325)   | 765 (450)   |
|                                                         | Standard (304 ft/s)   | 45 (25)    | 85 (50)    | 145 (85)   | 265 (155)  | 365 (215)  | 600 (350)  | 1025 (600)  | 1420 (835)  |
|                                                         | Max (607 ft/s)        | 90 (50)    | 175 (100)  | 290 (170)  | 530 (310)  | 730 (430)  | 1195 (700) | 2050 (1205) | 2840 (1670) |
|                                                         | High-Speed (735 ft/s) | 110(60)    | 215 (125)  | 355 (210)  | 640 (375)  | 885 (520)  | 1450 (850) | 2480 (1460) | 3440 (2025) |

|                                      |                       | 1/2"       | 3/4"       | 1"         | 1 ¼"       | 1 ½"       | 2"          | 2 ½"        | 3"          |
|--------------------------------------|-----------------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|
|                                      |                       | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm) | m³/h (cfm)  | m³/h (cfm)  | m³/h (cfm)  |
| Setting to DIN 1343: 32 °F, 14.7 psi |                       |            |            |            |            |            |             |             |             |
| Argon<br>(Ar)                        | Low-Speed (164 ft/s)  | 35 (20)    | 75 (40)    | 120 (70)   | 220 (130)  | 305 (180)  | 505 (295)   | 865 (510)   | 1200 (705)  |
|                                      | Standard (304 ft/s)   | 70 (40)    | 135 (80)   | 230 (135)  | 415 (245)  | 570 (335)  | 935 (550)   | 1605 (945)  | 2225 (1310) |
|                                      | Max (607 ft/s)        | 140 (80)   | 275 (160)  | 460 (270)  | 830 (485)  | 1140 (670) | 1870 (1100) | 3205 (1885) | 4440 (2615) |
|                                      | High-Speed (735 ft/s) | 170 (100)  | 335 (195)  | 555 (325)  | 1005 (590) | 1385 (815) | 2265 (1330) | 3880 (2285) | 5380 (3165) |
| Carbondi-<br>oxide<br>(CO2)          | Low-Speed (164 ft/s)  | 20 (14)    | 45 (25)    | 75 (45)    | 140 (80)   | 195 (115)  | 320 (185)   | 545 (320)   | 760 (445)   |
|                                      | Standard (304 ft/s)   | 45 (25)    | 85 (50)    | 145 (85)   | 260 (155)  | 360 (210)  | 590 (345)   | 1015 (595)  | 1405 (825)  |
|                                      | Max (607 ft/s)        | 90 (50)    | 175 (100)  | 290 (170)  | 525 (305)  | 720 (425)  | 1185 (695)  | 2030 (1190) | 2810 (1655) |
|                                      | High-Speed (735 ft/s) | 105 (60)   | 210 (125)  | 350 (205)  | 635 (370)  | 875 (515)  | 1430 (840)  | 2455 (1445) | 3405 (2000) |
| Nitrogen<br>(N2)                     | Low-Speed (164 ft/s)  | 20 (13)    | 40 (25)    | 70 (40)    | 130 (75)   | 180 (105)  | 295 (175)   | 505(300)    | 705 (415)   |
|                                      | Standard (304 ft/s)   | 40 (20)    | 80 (45)    | 135 (75)   | 240 (140)  | 335 (195)  | 550 (320)   | 945 (555)   | 1305 (770)  |
|                                      | Max (607 ft/s)        | 80 (45)    | 160 (95)   | 270 (155)  | 485 (285)  | 670 (395)  | 1100 (645)  | 1885 (1110) | 2610 (1535) |
|                                      | High-Speed (735 ft/s) | 100 (55)   | 195 (115)  | 325 (190)  | 590 (345)  | 815 (475)  | 1330 (780)  | 2280 (1340) | 3165 (1860) |
| Oxygen<br>(O2)                       | Low-Speed (164 ft/s)  | 20 (13)    | 45 (25)    | 75 (40)    | 135 (80)   | 185 (110)  | 305 (180)   | 525 (310)   | 730(430)    |
|                                      | Standard (304 ft/s)   | 40 (25)    | 80 (45)    | 140 (80)   | 250 (145)  | 345 (205)  | 570 (335)   | 980 (575)   | 1355 (795)  |
|                                      | Max (607 ft/s)        | 85 (50)    | 165 (95)   | 280 (165)  | 505 (295)  | 695 (410)  | 1140 (670)  | 1955 (1150) | 2710 (1590) |
|                                      | High-Speed (735 ft/s) | 105 (60)   | 205 (120)  | 340 (200)  | 610 (360)  | 845 (495)  | 1380 (810)  | 2365 (1390) | 3280 (1930) |

|                            |                       |          |           |           |           |           |            |             |             |
|----------------------------|-----------------------|----------|-----------|-----------|-----------|-----------|------------|-------------|-------------|
| <b>Nitrous oxide (N2O)</b> | Low-Speed (164 ft/s)  | 20 (14)  | 45 (25)   | 75 (45)   | 140 (80)  | 190 (110) | 315 (185)  | 540(320)    | 750(440)    |
|                            | Standard (304 ft/s)   | 40 (25)  | 85 (50)   | 140 (85)  | 260 (150) | 355 (210) | 585 (345)  | 1005 (590)  | 1395 (820)  |
|                            | Max (607 ft/s)        | 85 (50)  | 170 (100) | 285 (170) | 520 (305) | 715 (420) | 1170 (690) | 2010 (1180) | 2785 (1640) |
|                            | High-Speed (735 ft/s) | 105 (60) | 210 (120) | 345 (205) | 630 (370) | 865 (510) | 1420 (835) | 2435 (1430) | 3375 (1985) |
| <b>Natural gas (NG)</b>    | Low-Speed (164 ft/s)  | 14,4 (8) | 25 (15)   | 45 (25)   | 85 (50)   | 115 (65)  | 190 (110)  | 325 (190)   | 450(265)    |
|                            | Standard (304 ft/s)   | 25 (15)  | 50 (30)   | 85 (50)   | 155 (90)  | 215 (125) | 355 (205)  | 605 (355)   | 840 (495)   |
|                            | Max (607 ft/s)        | 50 (30)  | 105 (60)  | 170 (100) | 310 (185) | 430 (250) | 705 (415)  | 1210 (710)  | 1680 (985)  |
|                            | High-Speed (735 ft/s) | 65 (35)  | 125 (70)  | 210 (120) | 380 (220) | 520 (305) | 855 (500)  | 1465 (865)  | 2035 (1195) |



## Optional: Connection to different Bus systems

There are different options available for connection to modern Bus systems:

- Ethernet interface (Modbus-TCP) / PoE
- M-BUS
- Modbus-RTU
- Profibus DP interface (in process)
- Profinet interface (in process)
- HART (in process)



Ethernet Modbus TCP  
M12 Ethernet port, x-coded

For further accessories refer to pages 116 to 120



## VA 570 - Inline flow meter

**Example order code VA 570: 0695 0570\_A1\_B1\_C1\_D1\_E1\_F1\_G1\_H1\_I1\_J1\_K1\_L1\_M1\_R1**

| Process connection |                                |
|--------------------|--------------------------------|
| <b>A1</b>          | R male thread                  |
| <b>A2</b>          | NPT male thread                |
| <b>A3</b>          | Flange DIN EN 1092-1           |
| <b>A4</b>          | Flange ANSI 16.5 Class 150 lbs |
| <b>A5</b>          | Flange ANSI 16.5 Class 300 lbs |

| Display option |                         |
|----------------|-------------------------|
| <b>B1</b>      | with integrated display |
| <b>B2</b>      | without display         |

| Option signal outputs / bus connection |                                                                                                                                                        |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C1</b>                              | 2 units 4...20 mA analog output (electrically isolated), pulse output, RS 485 (Modbus-RTU)                                                             |
| <b>C4</b>                              | 1 x 4...20 mA analog output (not electrically isolated), pulse output, RS 485 (Modbus-RTU)                                                             |
| <b>C5</b>                              | Ethernet interface (Modbus / TCP), 1 x 4...20 mA analog output (not electrically isolated), pulse output, RS 485 (Modbus-RTU)                          |
| <b>C8</b>                              | M-Bus, 1 x 4...20 mA analog output (not electrically isolated), pulse output, RS 485 (Modbus-RTU)                                                      |
| <b>C9</b>                              | Ethernet interface PoE (Power over Ethernet) (Modbus/ TCP), 1 x 4...20 mA analog output (not electrically isolated), pulse output, RS 485 (Modbus-RTU) |

| Adjustment/calibration |                                                                  |
|------------------------|------------------------------------------------------------------|
| <b>D1</b>              | No real gas adjustment - gas type configuration per gas constant |
| <b>D2</b>              | Real gas adjustment in the gas type selected below               |

| Gas type   |                                                          |
|------------|----------------------------------------------------------|
| <b>E1</b>  | Compressed air                                           |
| <b>E2</b>  | Nitrogen (N2)                                            |
| <b>E3</b>  | Argon (Ar)                                               |
| <b>E4</b>  | Carbon dioxide (CO2)                                     |
| <b>E5</b>  | Oxygen (O2)                                              |
| <b>E6</b>  | Nitrous oxide (N2O)                                      |
| <b>E7</b>  | Natural gas (NG)                                         |
| <b>E8</b>  | Helium (He) (real gas adjustment D2 required)            |
| <b>E9</b>  | Propane (C3H8) (real gas adjustment D2 required)         |
| <b>E10</b> | Methane (CH4)                                            |
| <b>E11</b> | Biogas (methane 50% : CO2 50%)                           |
| <b>E12</b> | Hydrogen (H2) (real gas adjustment D2 required)          |
| <b>E90</b> | Further gas / please indicate gas type (on request)      |
| <b>E91</b> | Gas mixture / please indicate mixture ratio (on request) |

| Reference standard |                 |
|--------------------|-----------------|
| <b>F1</b>          | 68 °F, 14.5 psi |
| <b>F2</b>          | 32 °F, 14.7 psi |

| Reference standard |                  |
|--------------------|------------------|
| <b>F3</b>          | 59 °F, 14.22 psi |
| <b>F4</b>          | 59 °F, 14.7 psi  |

| Maximum pressure |         |
|------------------|---------|
| <b>G1</b>        | 232 psi |
| <b>G2</b>        | 580 psi |

| Surface condition |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| <b>H1</b>         | standard version                                                                 |
| <b>H2</b>         | Special cleaning - oil and grease free (e. g. for oxygen applications and so on) |
| <b>H3</b>         | Silicone-free version including special cleaning oil- and grease-free            |

| Accuracy class |                                                     |
|----------------|-----------------------------------------------------|
| <b>I1</b>      | ± 1.5% of the measured value ± 0.3% f.s. (standard) |
| <b>I2</b>      | ± 1% of the measured value ± 0.3% f.s. (precision)  |

| Maximum gas temperature on the sensor tip |                                                      |
|-------------------------------------------|------------------------------------------------------|
| <b>J1</b>                                 | up to 248 °F gas temperature (only for ATEX version) |
| <b>J2</b>                                 | up to 356 °F gas temperature (standard)              |

| Approvals |                                                             |
|-----------|-------------------------------------------------------------|
| <b>K1</b> | Non-explosive area - no approval                            |
| <b>K2</b> | ATEX II 2G Ex d IIC T4 Gb<br>ATEX II 2D Ex tb IIIC T90°C Db |
| <b>K3</b> | DVGW approval for natural gas (max. pressure 232 psi)       |

| Measuring range (see table) |                               |
|-----------------------------|-------------------------------|
| <b>M1</b>                   | Max version (607 ft/s)        |
| <b>M2</b>                   | Low-speed version (164 ft/s)  |
| <b>M3</b>                   | Standard version (304 ft/s)   |
| <b>M4</b>                   | High-speed version (735 ft/s) |

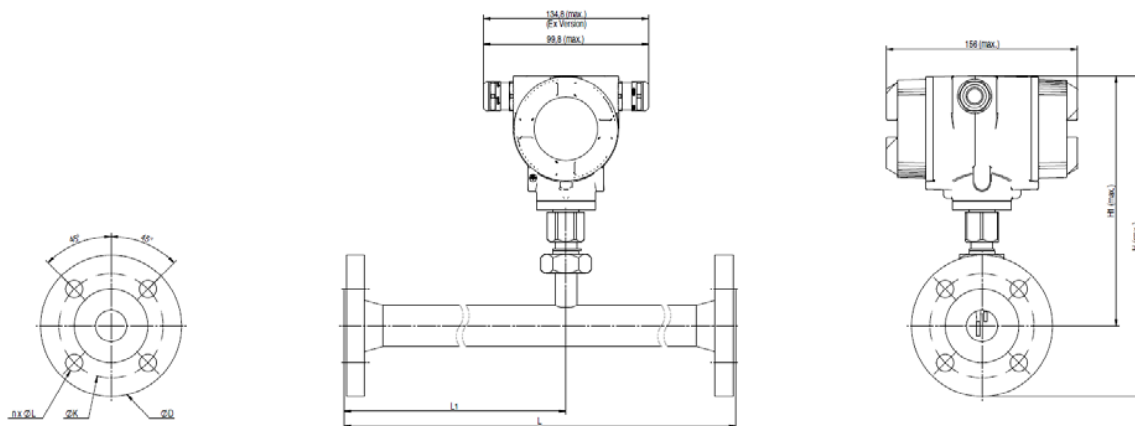
| Special measuring range |                                                             |
|-------------------------|-------------------------------------------------------------|
| <b>R1</b>               | Special measuring range (please specify when placing order) |

## Order no. VA 570

| DESCRIPTION                                                                                                                   | ORDER NO.                     |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| VA 570 flow meter with integrated 1/2" measuring section                                                                      | 0695 0570 + order code A...R_ |
| VA 570 flow meter with integrated 3/4" measuring section                                                                      | 0695 0571                     |
| VA 570 flow meter with integrated 1" measuring section                                                                        | 0695 0572                     |
| VA 570 flow meter with integrated 1 1/4" measuring section                                                                    | 0695 0573                     |
| VA 570 flow meter with integrated 1 1/2" measuring section                                                                    | 0695 0574                     |
| VA 570 flow meter with integrated 2" measuring section                                                                        | 0695 0575                     |
| VA 570 flow meter with integrated 1/2" measuring section with flange                                                          | 0695 2570                     |
| VA 570 flow meter with integrated 3/4" measuring section with flange                                                          | 0695 2571                     |
| VA 570 flow meter with integrated 1" measuring section with flange                                                            | 0695 2572                     |
| VA 570 flow meter with integrated 1 1/4" measuring section with flange                                                        | 0695 2573                     |
| VA 570 flow meter with integrated 1 1/2" measuring section with flange                                                        | 0695 2574                     |
| VA 570 flow meter with integrated 2" measuring section with flange                                                            | 0695 2575                     |
| VA 570 flow meter with integrated 2 1/2" measuring section with flange                                                        | 0695 2576                     |
| VA 570 flow meter with integrated 3" measuring section with flange                                                            | 0695 2577                     |
| <b>Further accessories:</b>                                                                                                   |                               |
| Closing cap for measuring section in aluminum                                                                                 | 0190 0001                     |
| Closing cap for measuring section stainless steel 1.4404                                                                      | 0190 0002                     |
| Connection cable for probes 16 ft with open ends                                                                              | 0553 0108                     |
| Connection cable for probes 32.81 ft with open ends                                                                           | 0553 0109                     |
| Ethernet connection cable length 16 ft, M12 plug x-coded (8 pin) to RJ 45 plug                                                | 0553 2503                     |
| Ethernet connection cable length 32.81 ft, M12 plug x-coded (8 pin) to RJ 45 plug                                             | 0553 2504                     |
| Mains unit in wall housing for maximum 2 sensors of the series VA/FA 5xx, 100-240 V, 23 VA, 50-60 Hz / 24 VDC, 0.35 A         | 0554 0110                     |
| ISO calibration certificate at 5 measuring points for VA sensors                                                              | 3200 0001                     |
| Additional calibration point (point freely selectable) Volume flow                                                            | 0700 7720                     |
| CS Service Software VA 550 incl. interface cable to PC (USB) and power supply - for configuration / parametrisation of VA 550 | 0554 2007                     |
| PNG cable screwing - standard VA 550/570                                                                                      | 0553 0552                     |
| PNG cable screwing - for ATEX version VA 550/570                                                                              | 0553 0551                     |

## TECHNICAL DATA VA 570

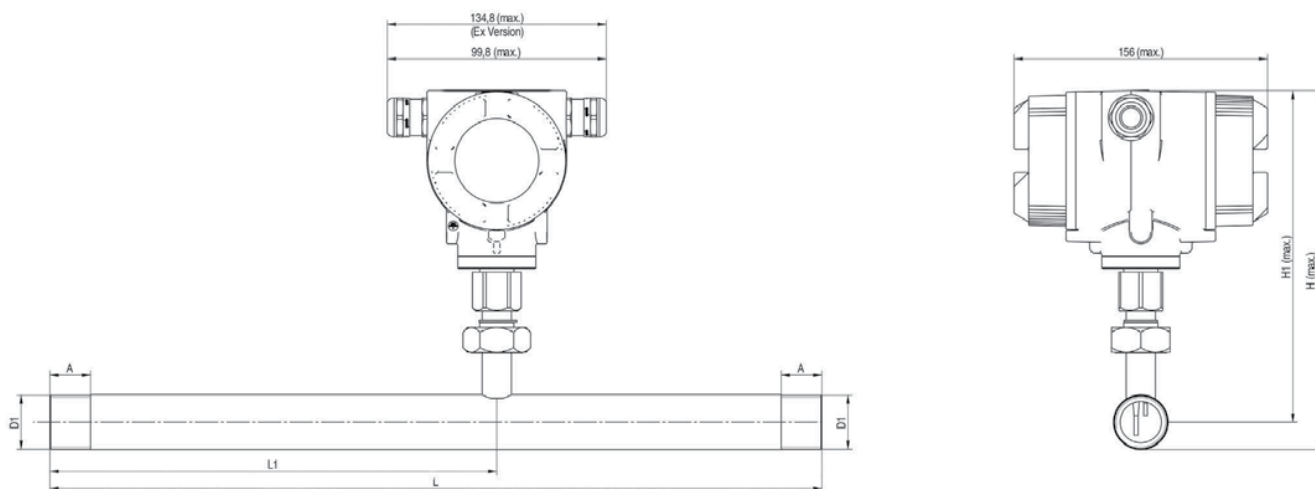
|                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Measuring range VA 570:</b>                                                                                         | up to 164 SCFM, low-speed version*<br>up to 304 SCFM, standard version*<br>up to 607 SCFM, max. version*<br>up to 735 SCFM, high-speed version*<br>* Measuring range Nm <sup>3</sup> /h for different pipe diameters and gases, see table measuring ranges flow<br>* All measured values related to DIN 1343 standard conditions 32 °F and 14.7 psi ex works |
| <b>Accuracy:</b><br>Accuracy class (o. M. V. = of measured value)(o. F. S. = of full scale)                            | $\pm 1.5\%$ of m.v. $\pm 0.3\%$ of f.s.<br>on request:<br>$\pm 1.0\%$ of m.v. $\pm 0.3\%$ of f.s.                                                                                                                                                                                                                                                            |
| <b>Accuracy indications:</b>                                                                                           | relative to ambient temperature 71.6 °F $\pm 2$ °F, system pressure 6 bar                                                                                                                                                                                                                                                                                    |
| <b>Repeatability:</b>                                                                                                  | 0.25% of m.v. in case of correct mounting (mounting aid, position, inlet section)                                                                                                                                                                                                                                                                            |
| <b>Measuring principle:</b>                                                                                            | Thermal mass flow sensor                                                                                                                                                                                                                                                                                                                                     |
| <b>Response time:</b>                                                                                                  | $t_{90} < 3$ s                                                                                                                                                                                                                                                                                                                                               |
| <b>Operating / ambient temperature range:</b>                                                                          | -4...158 °F                                                                                                                                                                                                                                                                                                                                                  |
| <b>Media temperature range:</b>                                                                                        | -4 °F .... 356 °F (ATEX version: -4 °F ... 248 °C)                                                                                                                                                                                                                                                                                                           |
| <b>Adjustment possibilities via display, external hand- held device PI 500, PC Service Software, remote diagnosis:</b> | Nm <sup>3</sup> /h, Nm <sup>3</sup> /min, NI/min, l/s, ft/min, cfm, kg/h, kg/min, inner diameter, reference conditions °C/° F, mbar/hPa, zero point correction, leak flow volume suppression, scaling analog output 4...20 mA, pulse/alarm, error codes etc.                                                                                                 |
| <b>Outputs:</b>                                                                                                        | Standard: 1 x 4...20 mA analog output (not electrically isolated), pulse output, RS 485 (Modbus-RTU) Optional: 2 x 4 ... 20 mA active, Modbus TCP, HART, Profibus DP, Profinet, M-Bus                                                                                                                                                                        |
| <b>Burden:</b>                                                                                                         | < 500 Ohm                                                                                                                                                                                                                                                                                                                                                    |
| <b>Additional average value calculation:</b>                                                                           | for all parameters freely adjustable from 1 minute up to 1 day, e. g. 1/2 hours average value, average day value                                                                                                                                                                                                                                             |
| <b>Protection class:</b>                                                                                               | IP 67<br>IP 64 for ATEX II 2D Ex tb IIIC T90°C Db                                                                                                                                                                                                                                                                                                            |
| <b>Material:</b>                                                                                                       | Die-cast aluminum housing, sensor tube stainless steel 1.4404                                                                                                                                                                                                                                                                                                |
| <b>Operating pressure:</b>                                                                                             | 232 psi, in special version 580 psi                                                                                                                                                                                                                                                                                                                          |
| <b>Power supply:</b>                                                                                                   | 18...36 VDC, 5 W                                                                                                                                                                                                                                                                                                                                             |
| <b>Approval:</b>                                                                                                       | ATEX II 2G Ex db IIC T4 Gb<br>ATEX II 2D Ex tb IIIC T90°C Db<br>DVGW                                                                                                                                                                                                                                                                                         |



VA 570 - with flange

|           |              |              |          |           |          |           | Flange DIN EN 1092-1 |        |            |
|-----------|--------------|--------------|----------|-----------|----------|-----------|----------------------|--------|------------|
| Pipe size | AD pipe - mm | ID pipe - mm | L - Inch | L1 - Inch | H - Inch | H1 - Inch | Ø D mm               | Ø K mm | n x Ø L mm |
| 1/2"      | 21.3         | 16.1         | 11.80*   | 8.27      | 10.51    | 8.58      | 95                   | 65     | 4 x 14     |
| 3/4"      | 26.9         | 21.7         | 18.70*   | 10.83     | 10.63    | 8.58      | 105                  | 75     | 4 x 14     |
| 1"        | 33.7         | 27.3         | 18.70*   | 10.83     | 10.83    | 8.58      | 115                  | 85     | 4 x 14     |
| 1 1/4"    | 42.4         | 36.0         | 18.70*   | 10.83     | 11.34    | 8.58      | 140                  | 100    | 4 x 18     |
| 1 1/2"    | 48.3         | 41.9         | 18.70*   | 10.83     | 11.55    | 8.58      | 150                  | 110    | 4 x 18     |
| 2"        | 60.3         | 53.1         | 18.70*   | 10.83     | 11.81    | 8.58      | 165                  | 125    | 4 x 18     |
| 2 1/2"    | 76.1         | 68.9         | 18.70*   | 10.83     | 12.60    | 8.98      | 185                  | 145    | 8 x 18     |
| 3"        | 88.9         | 80.9         | 18.70*   | 10.83     | 12.91    | 8.98      | 200                  | 160    | 8 x 18     |

\*Attention: Shortened inlet section. Please observe the recommended minimum inlet section (length = 15 x inner diameter)!



**VA 570 - Threaded version**

| Connection thread | AD pipe - mm | ID pipe - mm | L - Inch | L1 - Inch | H - Inch | H1 - Inch | A - Inch |
|-------------------|--------------|--------------|----------|-----------|----------|-----------|----------|
| R 1/2"            | 21.3         | 16.1         | 11.80*   | 8.27      | 8.98     | 8.58      | 0.79     |
| R 3/4"            | 26.9         | 21.7         | 18.70*   | 10.83     | 9.09     | 8.58      | 0.79     |
| R 1"              | 33.7         | 27.3         | 18.70*   | 10.83     | 9.25     | 8.58      | 0.98     |
| R 1 1/4"          | 42.4         | 36.0         | 18.70*   | 10.83     | 9.41     | 8.58      | 0.98     |
| R 1 1/2"          | 48.3         | 41.9         | 18.70*   | 10.83     | 9.53     | 8.58      | 0.98     |
| R 2"              | 60.3         | 53.1         | 18.70*   | 10.83     | 9.76     | 8.58      | 1.18     |

\*Attention: Shortened inlet section. Please observe the recommended minimum inlet section (length = 15 x inner diameter)!



**Note**

