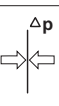
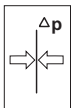




Pressure – Differential pressure

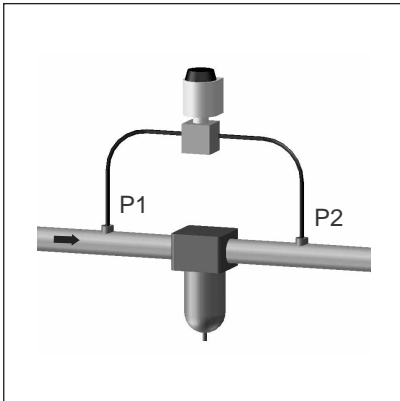
| Contents | Page |
|----------------------------|-------------|
| Application examples | 205 |
| VEGADIF 35 | 206 f. |
| VEGADIF 45 | 208 f. |
| VEGADIF 51 | 210 f. |
| Accessory | 212 f. |
| Dimensions | 214 ff. |





Application examples: Differential pressure measurement

Filter monitoring

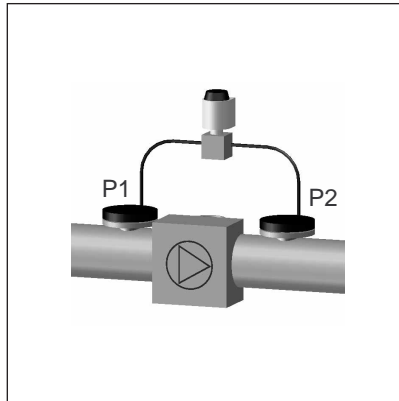


Filter monitoring with VEGADIF 35

A measuring system consists of:

- one VEGADIF 35 differential pressure transmitter

Pump control

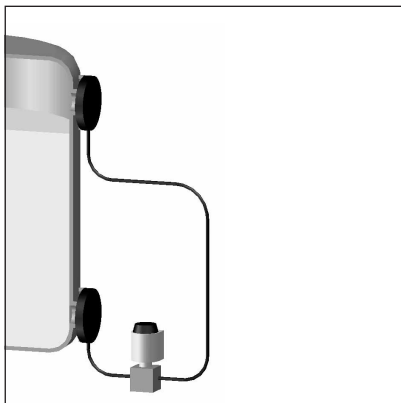


Pump control with VEGADIF 51

A measuring system consists of:

- one VEGADIF 51 differential pressure transmitter

Level measurement in vessels with static pressure



Level measurement with VEGADIF 51

A measuring system consists of:

- one VEGADIF 51 differential pressure transmitter



- Further possibilities for differential pressure measurement see chapter "Hydrostatic" and "Process pressure"

VEGADIF 35

Differential pressure transmitter with metal measuring cell

Suitable for differential pressure measurements on filter and pump monitorings as well as flow measurements

- metal differential pressure measuring cell with piezoresistive sensor element
- exchangeable electronics and measuring cell
- housing of powder-coated Aluminium in protection IP65
- microcomputer-controlled electronics
- accuracy class 0.1



Approval

- A** without
- D** PTB Ex Zone 0
- C** ATEX II 1/2G EEx ia II C

Electronics version

- B** 4...20mA/HART® with display
- H** 4...20mA/HART®

Measuring range, PN/Diaphragm material

- 4A** 10 mbar, max.140 bar/1.4401
- BA** 10 mbar, max.140 bar/Hastelloy C276
- 4C** 40 mbar, max.140 bar/1.4401
- BC** 40 mbar, max.140 bar/Hastelloy C276
- 4E** 160 mbar, max.140 bar/1.4401
- BE** 160 mbar, max.140 bar/Hastelloy C276
- 4G** 1000 mbar, max.140 bar/1.4401
- BG** 1000 mbar, max.140 bar/Hastelloy C276
- 4K** 6 bar, max.140 bar/1.4401
- BK** 6 bar, max.140 bar/Hastelloy C276
- 4M** 40 bar, max.140 bar/1.4401
- BM** 40 bar, max.140 bar/Hastelloy C276
- 5G** 1000 mbar, max.420 bar/1.4401
- HG** 1000 mbar, max.420 bar/Hastelloy C276
- 5K** 6 bar, max.420 bar/1.4401
- HK** 6 bar, max.420 bar/Hastelloy C276
- 5M** 40 bar, max.420 bar/1.4401
- HM** 40 bar, max.420 bar/Hastelloy C276

Measuring unit

- 1VA** Nominal value in mbar/bar
- 2VA** Nominal value in kPa/MPa
- 3VA** Nominal value in mm H₂O
- 4VA** Nominal value in inch H₂O
- 5VA** Nominal value in kgf/cm²
- 6VA** Nominal value in psi
- 9VA** acc. to specification

Process seal/Temperature range

- 1** FPM-Viton/-20...+85°C
- 2** NBR/-20...+85°C
- 3** PTFE/-40...+85°C
- 6** FPM-Viton f. oxygen applic./-10...+85°C
- 9** Others

Process connection ¼-18NPT/Fastening

- A** Flange C22.8/DIN19213/M10/M12
- B** Flange C22.8/7/16 - 20 UNF
- C** Flange 1.4435(316L)/DIN19213/M10/M12
- D** Flange 1.4435(316L)/7/16 - 20 UNF
- I** Flange Hastelloy C276/DIN19213/M10/M12
- F** Flange Hastelloy C276,7/16 - 20 UNF
- H** Flanges volume reduced 1.4435(316L)/7/16 - 20 UNF
- Y** Others



- **Process seal "6"**: only with process connection "C" and "D"
- **Accessory** see page 210 f.

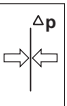


VEGADIF 45

Differential pressure transmitter with isolating diaphragm

Suitable for pressure measurements of very corrosive products and/or high process temperatures

- metal differential pressure measuring cell with piezoresistive sensor element
- exchangeable electronics
- housing of powder-coated Aluminium in protection IP65
- microcomputer-controlled electronics
- accuracy class 0.2



Approval

- A** without
- D** PTB Ex Zone 0
- C** ATEX II 1/2G EEx ia II C

Electronics version

- B** 4...20mA/HART® with display
- H** 4...20mA/HART®

Nominal range, PN

- 4E** 160 mbar,max.140 bar
- 4G** 1000 mbar,max.140 bar
- 4K** 6 bar,max.140 bar

Measuring unit

- 1VA** Nominal value in mbar/bar
- 2VA** Nominal value in kPa/MPa
- 3VA** Nominal value in mm H2O
- 4VA** Nominal value in inch H2O
- 5VA** Nominal value in kgf/cm²
- 6VA** Nominal value in psi
- 9VA** acc. to specification

Process seal/Temperature range

- 1** FPM-Viton/-20...+85°C
- 2** NBR/-20...+85°C
- 3** PTFE/-40...+85°C
- 6** FPM-Viton f. oxygen applic./-10...+85°C
- 9** Others

Process connection ¼-18NPT/Fastening

- C** Flange 1.4435(316L)/DIN19213/M10
- D** Flange 1.4435(316L)/7/16 - 20 UNF
- Y** Others

Process flange, plus side/Material

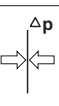
- A** Flange DN50PN10/40/1.4435(316L)
- C** Flange DN80PN40/1.4435(316L)
- D** Flange DN80PN10/40/extension 50mm/1.4435(316L)
- E** Flange DN80PN10/40/extension 100mm/1.4435(316L)
- F** Flange DN80PN10/40/extension 200mm/1.4435(316L)
- G** Flange DN100PN40/1.4435(316L)
- P** Flange 2"150lb ANSI/1.4435(316L)
- R** Flange 3"150lb ANSI/1.4435(316L)
- S** Flange 3"150lb ANSI/extension 2"/1.4435(316L)
- T** Flange 3"150lb ANSI/extension 4"/1.4435(316L)
- U** Flange 3"150lb ANSI/extension 8"/1.4435(316L)
- W** Flange 4"300lb ANSI/1.4435(316L)
- 1** Flange 10K,JIS 50A/1.4435(316L)
- 2** Flange 10K,JIS 80A/1.4435(316L)
- 3** Flange 10K,JIS 100A/1.4435(316L)
- Y** Others

Diaphragm material/Fill fluid

- 1** 1.4435/silicone oil/-40..+200°C(Pabs<1bar-40..+180°C)
- 2** 1.4435/vegetable oil/-10..+200°C(Pabs<1bar-10..+120°C)
- 3** 1.4435/glycerine/-15...+200°C
- 4** 1.4435/high-temp.oil/-10..+350°C(Pabs<1bar-10..+200°C)
- 5** 1.4435/oil f. oxygen/-40..+175°C(Pabs<1bar-40..+80°C)
- 9** Others

DIF45- [] [] [] [] [] [] [] [] [] [] [] [] [] []

• Accessory see page 210 f.



VEGADIF 51

Differential pressure transmitter with isolating diaphragm and capillary lines

Suitable for differential pressure measurements of high viscosity products and/or high temperatures

- metal differential pressure measuring cell with piezoresistive sensor element
- exchangeable electronics
- housing of powder-coated Aluminium in protection IP65
- microcomputer-controlled electronics
- accuracy class 0.2



Approval

- A** without
- D** PTB Ex Zone 0
- C** ATEX II 1/2G EEx ia II C

Electronics version

- B** 4...20mA/HART® with display
- H** 4...20mA/HART®

Measuring range, PN

- 4E** 160 mbar,max.140 bar
- 4G** 1000 mbar,max.140 bar
- 4K** 6 bar,max.140 bar

Measuring unit

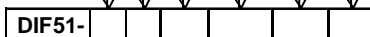
- 1VA** Nominal value in mbar/bar
- 2VA** Nominal value in kPa/MPa
- 3VA** Nominal value in mm H2O
- 4VA** Nominal value in inch H2O
- 5VA** Nominal value in kgf/cm²
- 6VA** Nominal value in psi
- 9VA** acc. to specification

Isolating diaphragm series/Diaphragm material

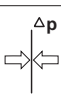
- AA** Cell DN50PN16/400/1.4435(316L)
- AB** Cell DN50PN16/400/Hastelloy C276
- AC** Cell DN50PN16/400/Tantalum
- AK** Cell DN80PN16/400/1.4435(316L)
- AM** Cell DN80PN16/400/PTFE
- AN** Cell DN80PN16/400/Hastelloy C276
- AP** Cell DN80PN16/400/Tantalum
- AR** Cell DN100PN16/400/1.4435(316L)
- CK** Cell 3" Class 150/2500/1.4435(316L)
- CR** Cell 4" Class 150/2500/1.4435(316L)
- FA** Nut DN50PN25 DIN11851/1.4435(316L)
- FE** Nut DN65PN25 DIN11851/1.4435(316L)
- FK** Nut DN80PN25 DIN11851/1.4435(316L)
- GA** Socket DN50PN25 DIN11851/1.4435(316L)
- GE** Socket DN65PN25 DIN11851/1.4435(316L)
- GK** Socket DN80PN25 DIN11851/1.4435(316L)
- HA** Tri-Clamp 2" PN25/1.4435(316L)
- HK** Tri-Clamp 3" PN25/1.4435(316L)
- KE** DRD-flange PN25/1.4435(316L)
- YY** Others

Capillary length/Fill fluid

- 11** 1m with silicone oil/-40..+200°C(Pabs<1bar-40..+180°C)
- 12** 2m with silicone oil /-40..+200°C(Pabs<1bar-40..+180°C)
- 14** 4m with silicone oil/-40..+200°C(Pabs<1bar-40..+180°C)
- 18** 8m with silicone oil/-40..+200°C(Pabs<1bar-40..+180°C)
- 21** 1m with vegetable oil/-10..+200°C(-10..+120°C)
- 22** 2m with vegetable oil/-10..+200°C(-10..+120°C)
- 24** 4m with vegetable oil/-10..+200°C(-10..+120°C)
- 28** 8m with vegetable oil/-10..+200°C(-10..+120°C)
- 31** 1m with high-temp. oil/-10..+350°C(-10..+200°C)
- 32** 2m with high-temp. oil/-10..+350°C(-10..+200°C)
- 34** 4m with high-temp. oil/-10..+350°C(-10..+200°C)
- 41** 1m w. oil f. oxygen/-40..+175°C(Pabs<1bar-10..+80°C)
- 42** 2m w. oil f. oxygen/-40..+175°C(Pabs<1bar-10..+80°C)
- 44** 4m w. oil f. oxygen/-40..+175°C(Pabs<1bar-10..+80°C)
- 48** 8m w. oil f. oxygen/-40..+175°C(Pabs<1bar-10..+80°C)
- 99** Others



• Accessory see page 210 f.



Accessory

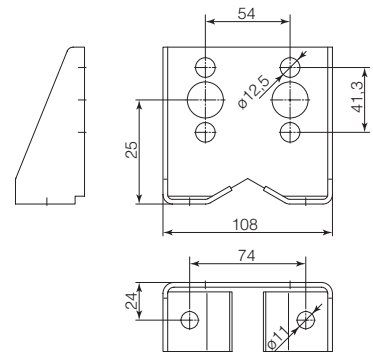
- 1 set oval flange adapter 1/2" NPT, thread 7/16 UNF, C-steel 1.0460; article-no. 2.19262
- 1 set oval flange adapter 1/2" NPT, thread 7/16 UNF, stainless steel 1.4404; article-no. 2.19264
- 1 set oval flange adapter 1/2" NPT, thread M10, C-steel 1.0460; article-no. 2.19263
- 1 set oval flange adapter 1/2" NPT, thread M10, stainless steel 1.4404; article-no. 2.19265

- Closing screw 1.4571 article-no. 2.17725
- Ventilation valve 1.4571 article-no. 2.17724

Mounting angle for VEGADIF 35 and 51

for wall or 2"-pipe mounting

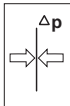
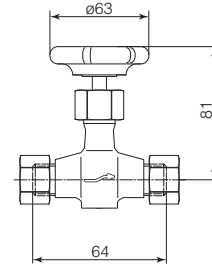
- universal angle with screws with
7/16 UNF, M10, M12
Material: stainless steel article-no. 2.21774



Blocking valve

with cutting ring screwing on both sides, PN 250

- C22.8 chromised 1.0460 article-no. 2.20218
- stainless steel 1.4571 article-no. 2.20219

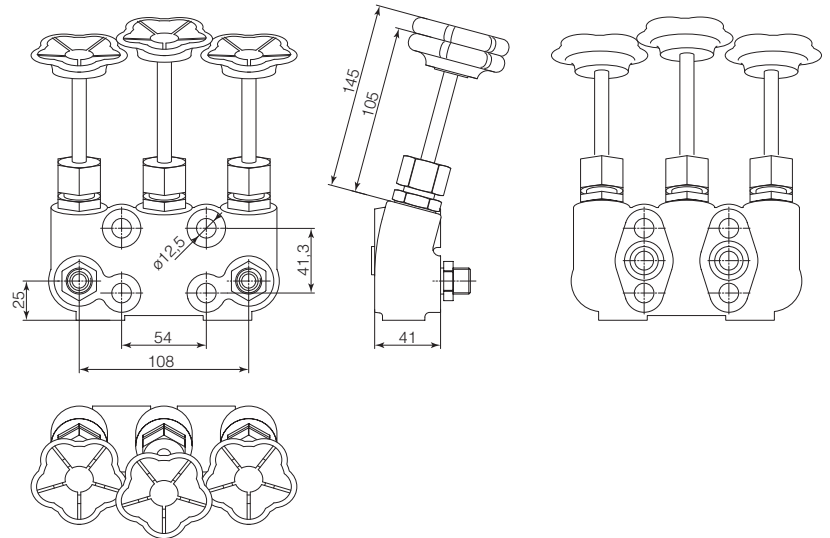


Three-fold valve block DIN 19 213
for direct flanging to VEGADIF, PN 100

- C22.8 chromised 1.0460 article-no. 2.19546
- stainless steel 1.4571 article-no. 2.19547

Mounting accessory for valve block:

- screws $\frac{7}{16}$ UNF; C-steel article-no. 2.19543
- screws M10 x 55; C-steel article-no. 2.19544
- screws $\frac{7}{16}$ UNF; 1.4571 article-no. 2.23330
- screws M10 x 55; 1.4571 article-no. 2.21736

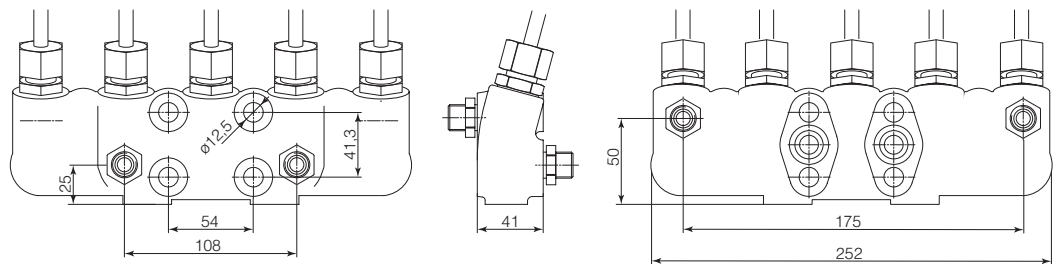


Five-fold valve block DIN 19 213
for direct flanging to VEGADIF, PN 100

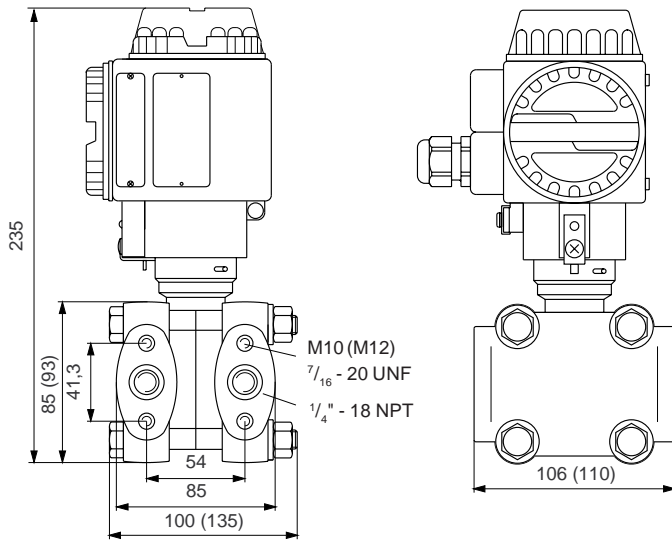
- C22.8 chromised 1.0460 article-no. 2.19542
- stainless steel 1.4571 article-no. 2.19545

Mounting accessory for valve block:

- screws $\frac{7}{16}$ UNF; C-steel article-no. 2.19543
- screws M10 x 55; C-steel article-no. 2.19544
- screws $\frac{7}{16}$ UNF; 1.4571 article-no. 2.23330
- screws M10 x 55; 1.4571 article-no. 2.21736

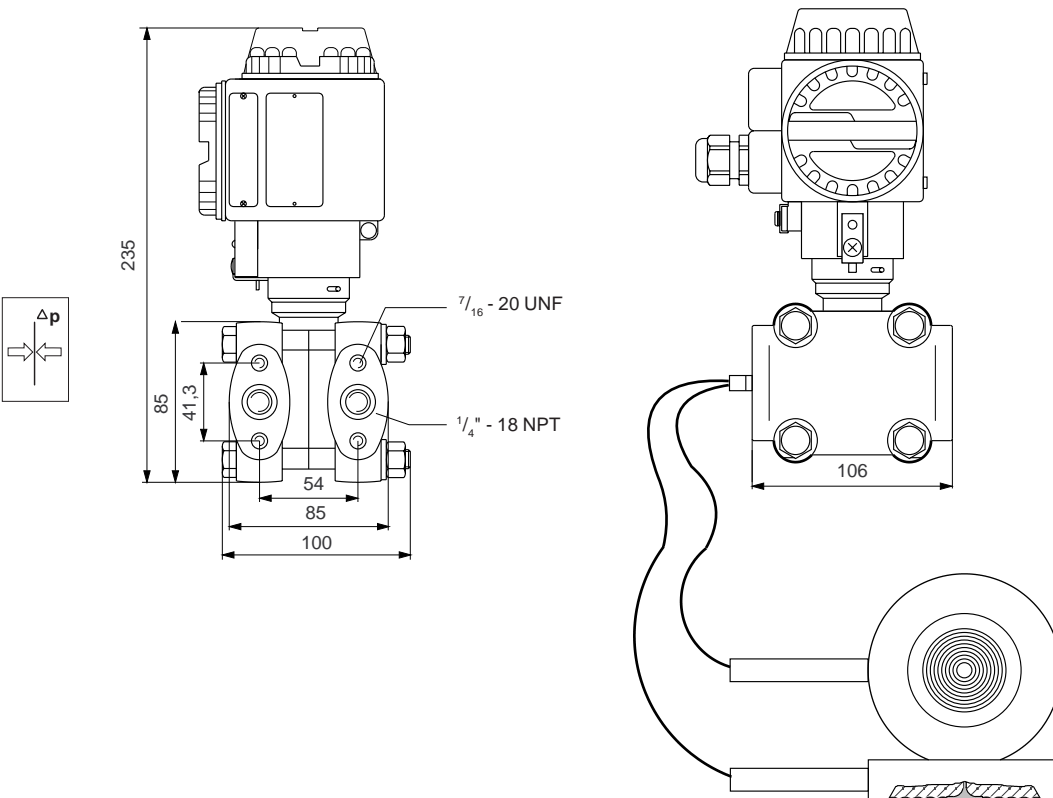


VEGADIF 35

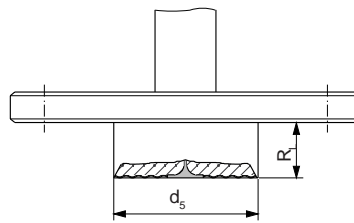
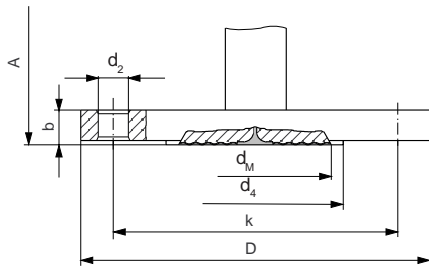
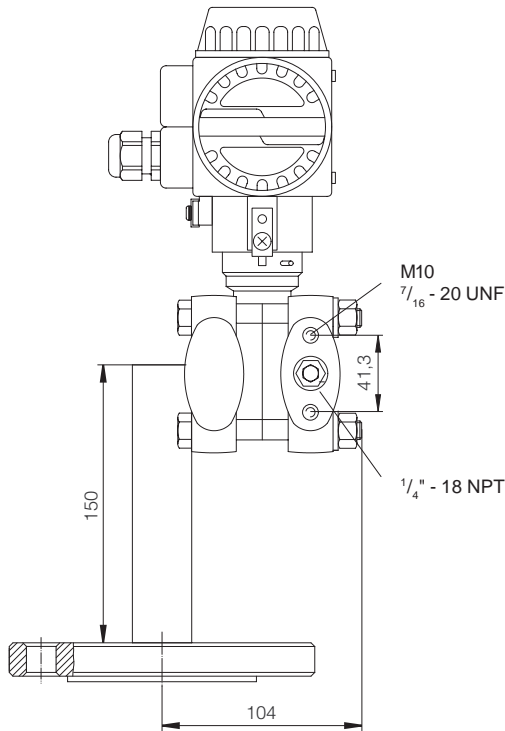


• The values in brackets relate to PN 420

VEGADIF 51



VEGADIF 45



- A = installation height
- D = outer flange diameter
- b = flange thickness
- k = diameter of hole circle
- d₂ = diameter of hole
- d₄ = seal ledge diameter
- d₅ = extension diameter
- R_L = extension length
- d_M = diaphragm diameter



Flange connection acc. to DIN 2501, seal ledge acc. to DIN 2526 Form D

| Order code | Flange Size/Nominal press. | D | b | d ₄ | graduat. circle k | Holes | | Extension | | Diaphragm ø d _M | Installation height A |
|------------|----------------------------|-----|----|----------------|-------------------|-------|----------------|------------------|-----------------------|----------------------------|-----------------------|
| | | | | | | No. | d ₂ | ø d ₅ | Length R _L | | |
| B | DN 50/PN 40 | 165 | 20 | 102 | 125 | 4 | 18 | | | 46 | 360 |
| C | DN 80/PN 40 | 200 | 24 | 138 | 160 | 8 | 22 | | | 70 | 360 |
| D | DN 80/PN 40 | 200 | 24 | 138 | 160 | 8 | 22 | 76.5 | 50 | 70 | 360 |
| E | DN 80/PN 40 | 200 | 24 | 138 | 160 | 8 | 22 | 76.5 | 100 | 70 | 360 |
| F | DN 80/PN 40 | 200 | 24 | 138 | 160 | 8 | 22 | 76.5 | 200 | 70 | 360 |
| G | DN 100/PN 40 | 235 | 26 | 162 | 190 | 8 | 26 | | | 70 | 360 |

Flange connection acc. to ANSI B 16,5

| Order code | Flange Size/Nominal pressure | D | b | d ₄ | graduat. circle k | Holes | | Seal ledge | | Diaphragm d _M | Installation height A | |
|------------|------------------------------|--------------|-------------|----------------|-------------------|-------|----------------|------------------|-----------------------|--------------------------|-----------------------|----------|
| | | | | | | No. | d ₂ | ø d ₅ | Length R _L | | | |
| P | 2"/150 psi | 6 152 | 3/4 19.5 | 3 5/8 92 | 4 3/4 120.7 | 4 | 3/4 20 | | | 1 3/4 46 | 14.2 360 | in mm |
| R | 3"/150 psi | 8 1/4 191 | 15/16 26 | 6 152.4 | 6 152.4 | 4 | 3/4 20 | | | 2 3/4 70 | 14.2 360 | in mm |
| S | 3"/150 psi | 8 1/4 191 | 15/16 26 | 6 152.4 | 6 152.4 | 4 | 3/4 20 | 3 76.5 | 2 50.8 | 2 3/4 70 | 14.2 360 | in mm |
| T | 3"/150 psi | 8 1/4 191 | 15/16 26 | 6 152.4 | 6 152.4 | 4 | 3/4 20 | 3 76.5 | 4 101.6 | 2 3/4 70 | 14.2 360 | in mm |
| U | 3"/150 psi | 8 1/4 191 | 15/16 26 | 6 152.4 | 6 152.4 | 4 | 3/4 20 | 3 76.5 | 8 203.2 | 2 3/4 70 | 14.2 360 | in mm |
| W | 4"/300 psi | 10 254 | 1 1/2 32 | 6 2/9 158 | 7 8/9 200.1 | 8 | 14/16 23 | | | 2 3/4 70 | 14.2 360 | in mm |

