



2-way Diaphragm Valve, stainless steel body, manually operated, port connection DN 8-50

- Cold-formed pipe valve body
- Hermetical separation of fluids from the operating mechanism by diaphragm
- Zero dead volume
- Various surface finishes

Type 3233 GP can be combined with...



Type 2031 GP

Version with pneumatic actuator



Type 8034

Flow meter

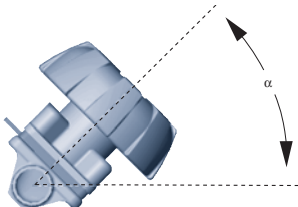
The manually-operated diaphragm valve in compact form of the Type 3233 GP consists of a flow-optimised stainless steel body with various surface finishes, a diaphragm and a manual actuator.

The diaphragm is both a switch element and a sealing element to the outside. It can be easily replaced. The flow can be continually adjusted with the handwheel.

The valves have no dead volume and can be mounted to be self-draining. This enables high flow capacities and a variety of applications to be realised.

Recommendation for draining operation

$\alpha = 15$ up to 35°
plus 1° to 5° inclination to the pipe axis.



| Technical data | |
|--|---|
| Port connection | DN 8 - 50 |
| Body material Cold-formed pipe valve body | Stainless steel 1.4404, 316L |
| Actuator materials Hand wheel and bonnet DN 8-50 DN 65-100 | PPS or stainless steel Grey cast iron, white epoxy coated |
| Seal material | EPDM, PTFE/EPDM (FKM on request) |
| Media | Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids |
| Viscosity | Up to viscous |
| Surface quality | Glass-beaded (1.6 μm) |
| Media temperature | -10 to +130 °C Briefly up to +150 °C for steam sterilisation |
| Ambient temperature | Up to +130 °C, briefly up to +150 °C |
| Port connections • Threaded ports • Welded acc. to • Flanged acc. to | G 1/4 to G2 EN ISO 1127/ISO 4200 or DIN 11850 Series 2 DIN EN 1092-1 |
| Installation | As required, preferably with actuator in upright position. Tilted 15 to 30° to the horizontal and inclined 1° to 5° to the flow direction for draining operation. |
| Options | Locking function |

Technical data, continued

Kv values and weight

| Port connection DN [mm] | Kv value water [m ³ /h] | Kv value water port connection DIN 11850 S2 [m ³ /h] | Max. operating pressure [bar] | Weight [kg] | |
|-------------------------|------------------------------------|---|-------------------------------|-------------|--------------|
| | | | | Welded [kg] | Flanged [kg] |
| 8/10 | 1.0 | 1.0 | 10 | 0.26 | – |
| 15 | 6.5 | 4.0 | 10 | 0.6 | 2.0 |
| 20 | 12.0 | 4.5 | 10 | 1.0 | 2.8 |
| 25 | 18.0 | 12.5 | 10 | 1.1 | 3.2 |
| 32 | 33.0 | 17.0 | 10 | 3.2 | 6.3 |
| 40 | 45.0 | 24.5 | 10 | 4.0 | 7.4 |
| 50 | 56.0 | 35.0 | 7/10 ¹⁾ | 4.8 | 9.5 |

¹⁾ see ordering chart p. 3

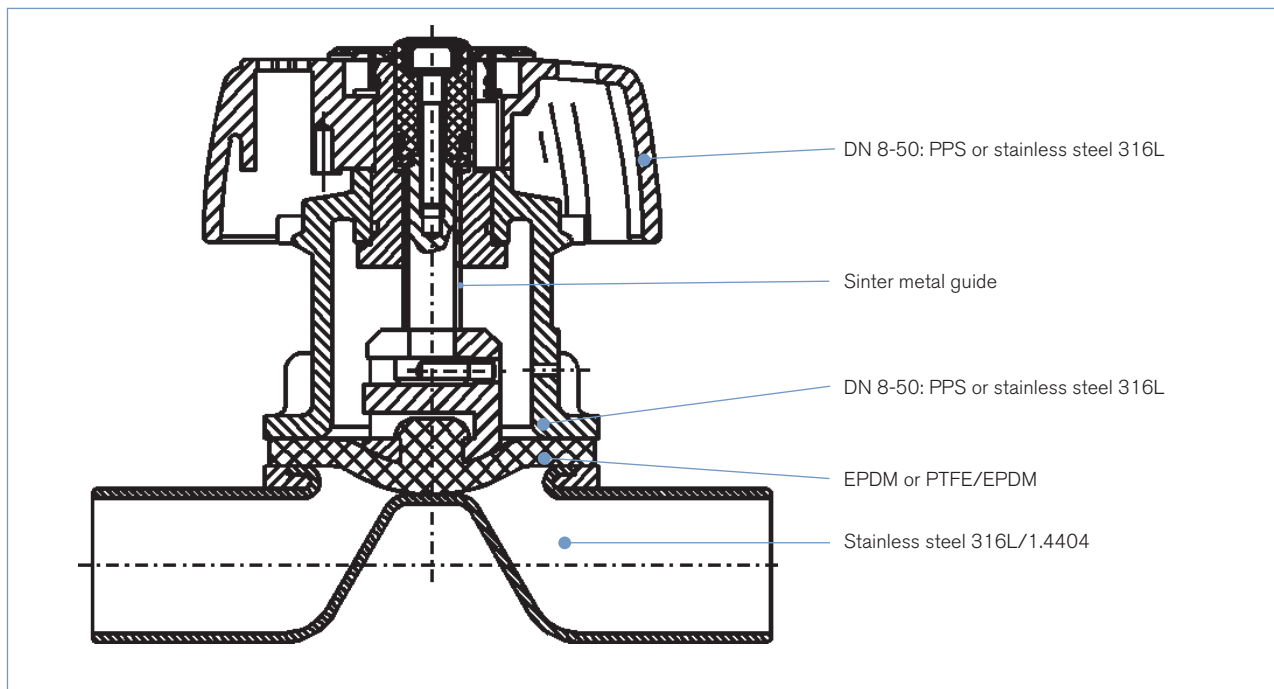
Flow rate: Kv value water [m³/h]

Measured at +20°C, 1 bar pressure at valve inlet and free outlet.

Pressure values [bar]

Gauge pressures with respect to the prevailing atmospheric pressure.

Materials



Approvals

Suitable for foodstuffs/sterile applications



The composition of the EPDM and PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations*, published by the *FDA* (Food and Drug Administration, USA).

Ordering chart for valves (other versions on request)

Welded body according to EN ISO 1127/ISO 4200 or DIN 11850 Series 2, stainless steel, cold-formed body, inside glass-beaded, different material combinations

| Port connection DN [mm] | Orifice (Diaphragm size) [mm] | External Ø [mm] | Max. operating pressure [bar] | Kv value water [m ³ /h] | Handwheel/bonnet PPS/PPS | | Handwheel/bonnet PPS/St. st. | |
|----------------------------------|-------------------------------------|-----------------|----------------------------------|---------------------------------------|----------------------------|-------------------------------------|------------------------------|-------------------------------------|
| | | | | | Item no. EPDM diaphragm | Item no. PTFE/ EPDM diaphragm | Item no. EPDM diaphragm | Item no. PTFE/ EPDM diaphragm |
| Acc. EN ISO 1127/ISO 4200 | | | | | | | | |
| 8 | 8 | 13.5 | 10 | 1.0 | 704 943 | 704 945 | 704 939 | 704 941 |
| 15 | 15 | 21.3 | 10 | 6.5 | 435 241 | 435 253 | 435 235 | 435 247 |
| 20 | 20 | 26.9 | 10 | 12.0 | 435 242 | 435 254 | 435 236 | 435 248 |
| 25 | 25 | 33.7 | 10 | 18.0 | 435 243 | 435 255 | 435 237 | 435 249 |
| 32 | 32 | 42.4 | 10 | 33.0 | 435 244 | 435 256 | 435 238 | 435 250 |
| 40 | 40 | 48.3 | 10 | 45.0 | 435 245 | 435 257 | 435 239 | 435 251 |
| 50 | 50 | 60.3 | 7 | 56.0 | 435 246 | 435 258 | – | – |
| | | | 10 | 56.0 | – | – | 435 240 | 435 252 |
| Acc. DIN 11850 Serie 2 | | | | | | | | |
| 10 | 8 | 13.0 | 10 | 1.0 | 704 944 | 704 946 | 704 940 | 704 942 |
| 15 | 15 | 19.0 | 10 | 4.0 | 435 265 | 435 277 | 435 259 | 435 271 |
| 20 | 15 | 23.0 | 10 | 4.5 | 435 266 | 435 278 | 435 260 | 435 272 |
| 25 | 20 | 29.0 | 10 | 12.5 | 435 267 | 435 279 | 435 261 | 435 273 |
| 32 | 25 | 35.0 | 10 | 17.0 | 435 268 | 435 280 | 435 262 | 435 274 |
| 40 | 32 | 41.0 | 10 | 24.5 | 435 269 | 435 281 | 435 263 | 435 275 |
| 50 | 40 | 53.0 | 10 | 35.0 | 435 270 | 435 282 | 435 264 | 435 276 |

 Further versions on request

 Material
Seal: FKM

Threaded body, with stainless steel, cold-formed body, inside glass-beaded, different material combinations

| Port connection DN [mm] | Orifice (Diaphragm size) [mm] | Port conection threaded port | Max. operating pres- sure [bar] | Kv value water [m ³ /h] | Handwheel/bonnet PPS/PPS | | Handwheel/bonnet PPS/St. st. | |
|----------------------------|-------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|----------------------------|-------------------------------------|------------------------------|-------------------------------------|
| | | | | | Item no. EPDM diaphragm | Item no. PTFE/ EPDM diaphragm | Item no. EPDM diaphragm | Item no. PTFE/ EPDM diaphragm |
| 8 | 8 | G 1/4 | 10 | 1.0 | 704 949 | 704 950 | 704 947 | 704 948 |
| 15 | 15 | G 1/2 | 10 | 6.5 | 435 289 | 435 300 | 435 283 | 435 294 |
| 20 | 20 | G 3/4 | 10 | 12.0 | 435 290 | 435 301 | 435 284 | 435 295 |
| 25 | 25 | G 1 | 10 | 18.0 | 435 291 | 435 302 | 435 285 | 435 296 |
| 32 | 32 | G 1 1/4 | 10 | 33.0 | 435 156 | 435 303 | 435 286 | 435 297 |
| 40 | 40 | G 1 1/2 | 10 | 45.0 | 435 292 | 435 304 | 435 287 | 435 298 |
| 50 | 50 | G 2 | 7 | 56.0 | 435 293 | 435 305 | – | – |
| | | | 10 | 56.0 | – | – | 435 288 | 435 299 |

 Further versions on request

 Material
Seal: FKM

Ordering chart for valves (other versions on request), continued

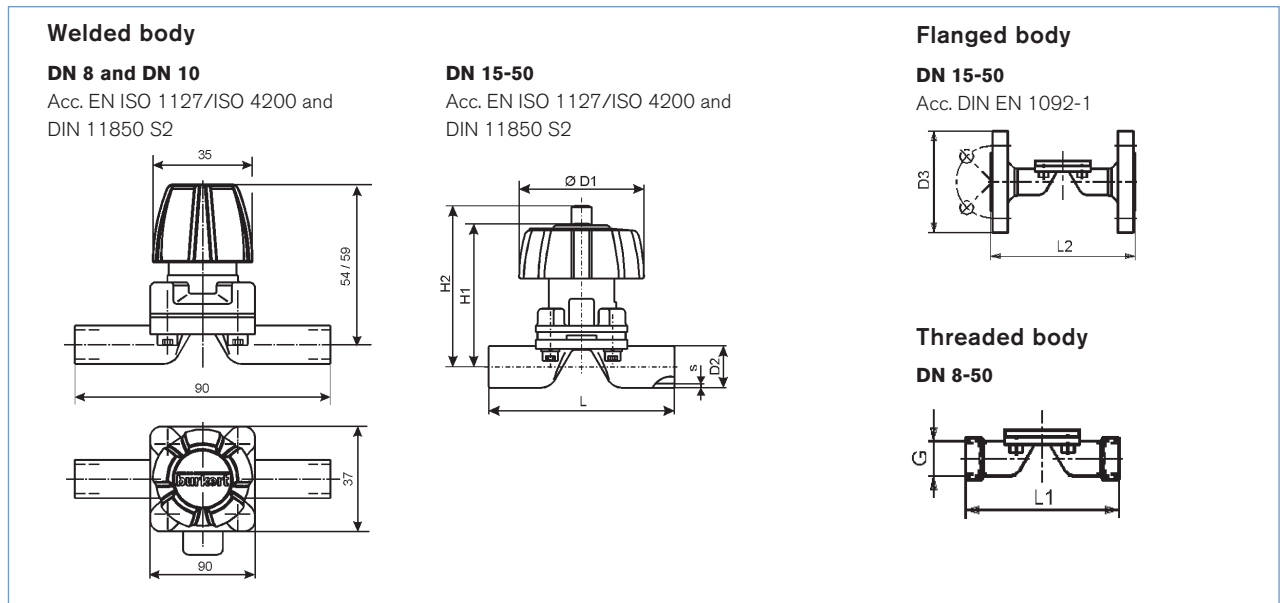
Flanged body according to DIN EN 1092-1, with stainless steel, cold-formed body, inside glass-beaded, different material combinations

| Port connection DN [mm] | Orifice (Diaphragm size) [mm] | Port connection threaded port | Max. operating pressure [bar] | Kv value water [m ³ /h] | Handwheel/bonnet PPS/PPS | | Handwheel/bonnet PPS/St. st. | |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------|------------------------------|------------------------------|------------------------------|
| | | | | | Item no. EPDM diaphragm | Item no. PTFE/EPDM diaphragm | Item no. EPDM diaphragm | Item no. PTFE/EPDM diaphragm |
| Acc. DIN EN 1092-1 | | | | | | | | |
| 15 | 15 | 4 x 90° | 10 | 6.5 | 435 091 | 435 103 | 435 097 | 435 109 |
| 20 | 20 | 4 x 90° | 10 | 12.0 | 435 092 | 435 104 | 435 098 | 435 110 |
| 25 | 25 | 4 x 90° | 10 | 18.0 | 435 093 | 435 105 | 435 099 | 435 111 |
| 32 | 32 | 4 x 90° | 10 | 33.0 | 435 094 | 435 106 | 435 100 | 435 112 |
| 40 | 40 | 4 x 90° | 10 | 45.0 | 435 095 | 435 107 | 435 101 | 435 113 |
| 50 | 50 | 4 x 90° | 7 | 56.0 | 435 096 | 435 108 | - | - |
| | | | 10 | 56.0 | - | - | 435 102 | 435 114 |

i Further versions on request

Material
Seal: FKM

Dimensions [mm]



| Body dimensions | | | | | | | Welded | | | | | Threaded | | Flanged | |
|-----------------|----------------------|-----|-----|--------------|------|-------|--------|----------------------|------|--------------|----|----------|-----|---------------|-----|
| Orifice | EN ISO 1127/ISO 4200 | | | DIN 11850 S2 | | | All | EN ISO 1127/ISO 4200 | | DIN 11850 S2 | | G | | DIN EN 1092-1 | |
| DN | Ø D1 | H1 | H2 | Ø D1 | H1 | H2 | L | s | D2 | s | D2 | G | L1 | D3 | L2 |
| 8/10 | 35 | 54 | 59 | 35 | 54 | 59 | 90 | 1.6 | 13.5 | 1.5 | 13 | G 1/4 | 85 | - | - |
| 15 | 80 | 87 | 94 | 80 | 85.5 | 92.5 | 110 | 1.6 | 21.3 | 1.5 | 19 | G 1/2 | 102 | 95 | 130 |
| 20 | 80 | 93 | 104 | 80 | 87.5 | 94.5 | 119 | 1.6 | 26.9 | 1.5 | 23 | G 3/4 | 118 | 105 | 150 |
| 25 | 80 | 97 | 109 | 80 | 94 | 105 | 129 | 2.0 | 33.7 | 1.5 | 29 | G 1 | 127 | 115 | 160 |
| 32 | 114 | 115 | 130 | 80 | 97.5 | 109.5 | 148 | 2.0 | 42.4 | 1.5 | 35 | G 1 1/4 | 146 | 140 | 180 |
| 40 | 114 | 120 | 139 | 114 | 114 | 128 | 161 | 2.0 | 48.3 | 1.5 | 41 | G 1 1/2 | 159 | 150 | 200 |
| 50 | 114 | 135 | 160 | 114 | 121 | 140 | 192 | 2.0 | 60.3 | 1.5 | 53 | G 2 | 191 | 165 | 230 |

Note
You can fill out the fields directly in the PDF file before printing out the form.

Diaphragm valves – request for quotation

▶ Please fill out and send to your nearest Bürkert facility* with your inquiry or order

| | |
|---------------|----------------|
| Company | Contact person |
| Customer no. | Department |
| Address | Tel./Fax |
| Postcode/town | E-Mail |

= mandatory fields to fill out Quantity Required delivery date

Operating data

| | | | |
|--|---------------------------------|--------------------------------|------------------------------|
| <input type="checkbox"/> Process medium | <input type="text"/> | | |
| <input type="checkbox"/> Type of media | <input type="checkbox"/> Liquid | <input type="checkbox"/> Steam | <input type="checkbox"/> Gas |
| <input type="checkbox"/> Flow rate (Q, Q _N , W) ¹⁾ | <input type="text"/> nominal | <input type="text"/> unit | |
| <input type="checkbox"/> Temperature at valve inlet | <input type="text"/> | <input type="text"/> | |
| <input type="checkbox"/> Absolute pressure at valve inlet | <input type="text"/> | <input type="text"/> | |
| <input type="checkbox"/> Steam sterilisation | temperature | <input type="text"/> | |

¹⁾ standard unit:
Liquid Q = m³/h;
Steam W = kg/h;
Gas Q_N = Nm³/h

Valve features

Specification key

automatically transferred from next page

3233-2-0

VA

Surface finish (if not standard)

internal μm external μm

Certifications

- Attestation of compliance with the order EN-ISO 10204 2.1 (Item-No. 440 788)
- Test report EN-ISO 10204 2.2 (Item-No. 803 722)
- Certification of Conformity for the Surface Quality DIN4762-DIN4768-ISO/4287/1
- Certification of Conformity for Pickling and Electropolishing Processes
- FDA and USP compliance
- 3A certificate

Comment / sketch

| |
|--|
| |
| |
| |
| |
| |
| |

Valve features, specification key

Example

15 AB VA SA40 D050 NO05

Specification key

Please make a choice

ORIFICE [mm] (Diaphragm size)

| |
|----|
| 08 |
| 15 |
| 20 |
| 25 |
| 32 |
| 40 |
| 50 |

SEAL MATERIAL

| | |
|----|----------------------------------|
| AB | EPDM in food quality |
| EA | PTFE/EPDM |
| FF | FKM |
| EU | advanced PTFE/EPDM in two pieces |
| ET | advanced PTFE (bonded on EPDM) |

BODY MATERIAL

| | |
|----|---|
| VA | Cold-formed stainless steel 1.4404/316L |
|----|---|

VARIABLE CODES

| | |
|--------------------------|--------------------------------|
| Surface finish, internal | |
| NO05 | Internal glass beaded Ra=1.6µm |

ACTUATOR VERSION

| | |
|------|------------------------------------|
| D050 | Top and handwheel PPS |
| D051 | Top stainless steel, handwheel PPS |
| D052 | Top and handwheel stainless steel |



PORT CONNECTION

Welded

| Port conn. [mm] | EN ISO 1127/ ISO 4200 | DIN 11850 Series 2 |
|-----------------|-----------------------|--------------------|
| 8 | SA40=13.5x1.6 | |
| 10 | SA41=17.2x1.6 | SD40=13x1.5 |
| 15 | SA42=21.3x1.6 | SD42=19x1.5 |
| 20 | SA43=26.9x1.6 | SD43=23x1.5 |
| 25 | SA44=33.7x2.0 | SD44=29x1.5 |
| 32 | SA45=42.4x2.0 | SD45=35x1.5 |
| 40 | SA46=48.3x2.0 | SD46=41x1.5 |
| 50 | SA47=60.3x2.0 | SD47=53x1.5 |

Flange

| Port conn. [mm] | DIN EN 1092-1 |
|-----------------|---------------------------|
| 15 | FD22 - L=130 mm, Ø=95 mm |
| 20 | FD23 - L=150 mm, Ø=105 mm |
| 25 | FD24 - L=160 mm, Ø=115 mm |
| 32 | FD25 - L=180 mm, Ø=140 mm |
| 40 | FD26 - L=200 mm, Ø=150 mm |
| 50 | FD27 - L=230 mm, Ø=165 mm |

Thread

| Port conn. [mm] | G |
|-----------------|----------------|
| 8 | GM82 - G 1/4 |
| 15 | GM84 - G 1/2 |
| 20 | GM85 - G 3/4 |
| 25 | GM86 - G 1 |
| 32 | GM87 - G 1 1/4 |
| 40 | GM88 - G 1 1/2 |
| 50 | GM89 - G 2 |

Clamp

| Port conn. [mm] | ISO 2852 SMS 3017 |
|-----------------|-------------------------------------|
| 8 | TC51=Clamp 34 - for tube ISO 4200 |
| 10 | TC41=Clamp 34 - for tube ISO 4200 |
| 15 | TC42=Clamp 34 - for tube ISO 4200 |
| 20 | TC43=Clamp 50.5 - for tube ISO 4200 |
| 25 | TC44=Clamp 50.5 - for tube ISO 4200 |
| 40 | TC46=Clamp 64 - for tube ISO 4200 |
| 50 | TC47=Clamp 77.5 - for tube ISO 4200 |

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