



## 2-way Diaphragm Valve, stainless steel body, manually operated, port connection DN8-50

- 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

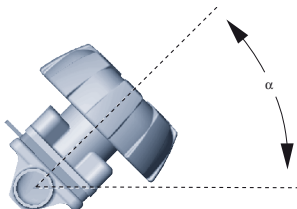
The manually-operated diaphragm valve in compact form of the Type 3233 GP consists of a flow-optimised stainless steel body with various surface finishes, a diaphragm and a manual actuator.

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  $35^\circ$   
plus  $1^\circ$  to  $5^\circ$  inclination to the pipe axis.



Technical data	
<b>Port connection</b>	DN8-50
<b>Body material</b> Cold-formed pipe valve body	Stainless steel 1.4404, 316L
<b>Actuator materials</b> Hand wheel and bonnet DN8-50 DN65-100	PPS or stainless steel Grey cast iron, white epoxy coated
<b>Seal material</b>	EPDM, PTFE/EPDM (FKM on request)
<b>Media</b>	Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids
<b>Viscosity</b>	Up to viscous
<b>Surface quality</b>	Glass-beaded (1.6 $\mu\text{m}$ )
<b>Media temperature</b>	- 10 to + 130 °C Briefly up to + 150 °C for steam sterilisation
<b>Ambient temperature</b>	Up to + 130 °C, briefly up to + 150 °C
<b>Port connections</b> • Threaded ports • Welded acc. to • Flanged acc. to	G ¼ to G 2 EN ISO 1127/ISO 4200 or DIN 11850 Series 2 DIN EN 1092-1
<b>Installation</b>	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.
<b>Options</b>	Locking function

## Technical data, continued

### $K_v$ values and weight

Port connection DN [mm]	$K_v$ value water [m <sup>3</sup> /h]	$K_v$ value water port connection DIN 11850 S2 [m <sup>3</sup> /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 <sup>1)</sup>	4.8	9.5

<sup>1)</sup> see ordering chart p. 3

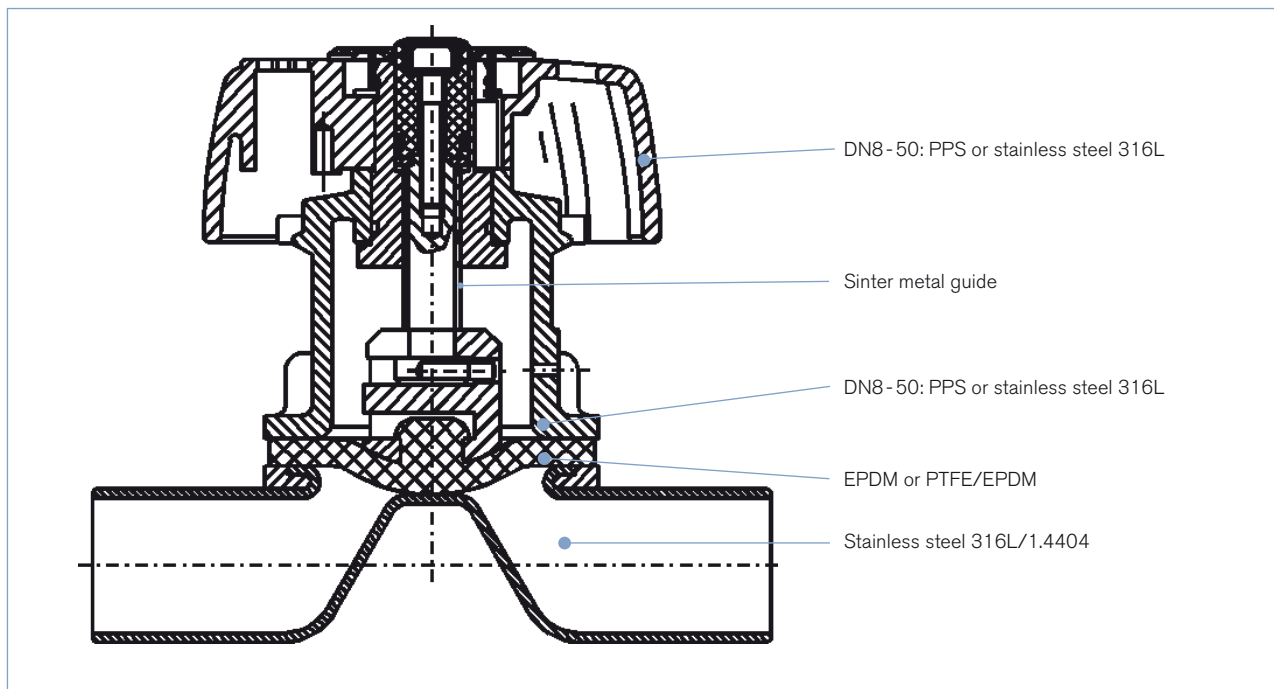
### Flow rate: $K_v$ value water [m<sup>3</sup>/h]

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]	K <sub>v</sub> value water [m <sup>3</sup> /h]	Handwheel/bonnet PPS/PPS		Handwheel/bonnet PPS/St. st.	
					Article no. EPDM diaphragm	Article no. PTFE/ EPDM diaphragm	Article no. EPDM diaphragm	Article no. PTFE/ EPDM diaphragm
<b>Acc. EN ISO 1127/ISO 4200</b>								
8	8	13.5	10	1.0	704943	704945	704939	704941
15	15	21.3	10	6.5	435241	435253	435235	435247
20	20	26.9	10	12.0	435242	435254	435236	435248
25	25	33.7	10	18.0	435243	435255	435237	435249
32	32	42.4	10	33.0	435244	435256	435238	435250
40	40	48.3	10	45.0	435245	435257	435239	435251
50	50	60.3	7	56.0	435246	435258	-	-
			10	56.0	-	-	435240	435252
<b>Acc. DIN 11850 Serie 2</b>								
10	8	13.0	10	1.0	704944	704946	704940	704942
15	15	19.0	10	4.0	435265	435277	435259	435271
20	15	23.0	10	4.5	435266	435278	435260	435272
25	20	29.0	10	12.5	435267	435279	435261	435273
32	25	35.0	10	17.0	435268	435280	435262	435274
40	32	41.0	10	24.5	435269	435281	435263	435275
50	40	53.0	10	35.0	435270	435282	435264	435276

## 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 connection threaded port	Max. operating pres- sure [bar]	K <sub>v</sub> value water [m <sup>3</sup> /h]	Handwheel/bonnet PPS/PPS		Handwheel/bonnet PPS/St. st.	
					Article no. EPDM diaphragm	Article no. PTFE/ EPDM diaphragm	Article no. EPDM diaphragm	Article no. PTFE/ EPDM diaphragm
8	8	G ¼	10	1.0	704949	704950	704947	704948
15	15	G ½	10	6.5	435289	435300	435283	435294
20	20	G ¾	10	12.0	435290	435301	435284	435295
25	25	G 1	10	18.0	435291	435302	435285	435296
32	32	G 1 ¼	10	33.0	435156	435303	435286	435297
40	40	G 1 ½	10	45.0	435292	435304	435287	435298
50	50	G 2	7	56.0	435293	435305	-	-
			10	56.0	-	-	435288	435299

## 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]	K <sub>v</sub> value water [m <sup>3</sup> /h]	Handwheel/bonnet PPS/PPS		Handwheel/bonnet PPS/St. st.	
					Article no. EPDM diaphragm	Article no. PTFE/EPDM diaphragm	Article no. EPDM diaphragm	Article no. PTFE/EPDM diaphragm
Acc. DIN EN 1092 - 1								
15	15	4 × 90°	10	6.5	435091	435103	435097	435109
20	20	4 × 90°	10	12.0	435092	435104	435098	435110
25	25	4 × 90°	10	18.0	435093	435105	435099	435111
32	32	4 × 90°	10	33.0	435094	435106	435100	435112
40	40	4 × 90°	10	45.0	435095	435107	435101	435113
50	50	4 × 90°	7	56.0	435096	435108	-	-
			10	56.0	-	-	435102	435114

**i** Further versions on request

**Material**  
Seal: FKM

Dimensions [mm]

**Welded body**  
**DN8 and DN10**  
Acc. EN ISO 1127/ISO 4200 and DIN 11850 S2

**DN15 - 50**  
Acc. EN ISO 1127/ISO 4200 and DIN 11850 S2

**Flanged body**  
**DN15 - 50**  
Acc. DIN EN 1092 - 1

**Threaded body**  
**DN8 - 50**

Body dimensions							Welded					Threaded		Flanged		
Ori- fice DN	EN ISO 1127/ISO 4200			DIN 11850 S2			All	EN ISO 1127/ ISO 4200		DIN 11850 S2		G	L1	DIN EN 1092 - 1	D3	L2
	Ø D1	H1	H2	Ø D1	H1	H2	L	s	D2	s	D2					
8/10	35	54	59	35	54	59	90	1.6	13.5	1.5	13	G ¼	85	-	-	-
15	80	87	94	80	85.5	92.5	110	1.6	21.3	1.5	19	G ½	102	95	130	-
20	80	93	104	80	87.5	94.5	119	1.6	26.9	1.5	23	G ¾	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 ¼	146	140	180	-
40	114	120	139	114	114	128	161	2.0	48.3	1.5	41	G 1 ½	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 <sub>N</sub> , W) <sup>1)</sup>	<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"/>	

<sup>1)</sup> standard unit:  
Liquid Q = m<sup>3</sup>/h;  
Steam W = kg/h;  
Gas Q<sub>N</sub> = Nm<sup>3</sup>/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 (Article no. 440 788)
- Test report EN-ISO 10204 2.2 (Article 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
- 3 A 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
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VARIABLE CODES

Surface finish, internal

NO05	Internal glass beaded Ra=1.6µm
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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=13.5 × 1.6	
10	SA41=17.2 × 1.6	SD40=13 × 1.5
15	SA42=21.3 × 1.6	SD42=19 × 1.5
20	SA43=26.9 × 1.6	SD43=23 × 1.5
25	SA44=33.7 × 2.0	SD44=29 × 1.5
32	SA45=42.4 × 2.0	SD45=35 × 1.5
40	SA46=48.3 × 2.0	SD46=41 × 1.5
50	SA47=60.3 × 2.0	SD47=53 × 1.5

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 ¼
15	GM84 - G ½
20	GM85 - G ¾
25	GM86 - G 1
32	GM87 - G 1 ¼
40	GM88 - G 1 ½
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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