burkert
FLUID CONTROL SYSTEMS

2/2-way Diaphragm Valve with stainless steel design, welded or clamp connection, DN 8-50

- Hermetical separation of fluids from the operating mechanism by diaphragm
- Zero dead volume
- Various surface finishes
- Certified according to FDA
- Clean design for optimal use in hygienic environment

Type 2103 forged On/Off can be combined with…

Type 8690
Pneum. control unit with feedback

Type 8691
Control Head

Type 8695
Control Head

Type 8645
Automation system FreeLINE

Type 8222
Conductivity transmitter

The externally piloted diaphragm valve consists of a pneumatically operated piston actuator, a diaphragm and a 2-way valve housing made of forged stainless steel. The high-quality actuator with a stainless steel cover is designed for usage in hygienic or aggressive environments.

The flow optimised and zero dead volume valve body makes high flow rates possible and a variety of applications to be realised.

The design enables the easy integration of automation modules whether they are electrical/optical position feedback, pneumatic control units, an integrated fieldbus interface or even an explosion proof feedback.

The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67/NEMA4X protection class and superior chemical resistance.

Technical data	
Orifice	8 to 50
Body material	Forged stainless steel 316L / 1.4435/BN2 Fe < 0.5% / C ≤ 0.03%
Actuator material	
Actuator	PPS
Cover	Stainless steel 1.4561 (316Ti)
Diaphragm materials	EPDM, PTFE/EPDM (advanced PTFE/EPDM, FKM on request)
Media	Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids
Viscosity	up to viscous
Surface finishes	(average surface finish)
internal mechanical polished (external forged surface)	Ra ≤ 0.6 µm
On request:	
internal electro polished (external forged surface electro polished)	Ra ≤ 0.4 µm
internal mirror finished	Ra ≤ 0.25 µm
Medium temperatures	
EPDM, PTFE/EPDM, advanced PTFE/EPDM (on request)[1]	-10 to +130 °C (briefly up to +150°C for steam sterilisation)
FKM on request	-10 to +130°C
Ambient temperature	+5 to +60 °C
Control medium	Neutral gases, air
Max. pilot pressure	max. 10 bar, 7 bar with actuator size 130 mm
Port connections Welded acc.	EN ISO 1127/ISO 4200, DIN 11850 Series 2, ASME BPE, BS4825, SMS 3008 (on request)
Clamp acc.	DIN 32676, ASME BPE, ISO 2852 (on request)
Sterile threaded ports	on request
Pilot air ports	Push-in connector for external ø 6 mm or 1/4" tube, thread G1/8 (on request)
Installation	as required, preferably with actuator in upright position

1) Advanced PTFE/EPDM is recommended for sterilization cycle

Content

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Technical data valves

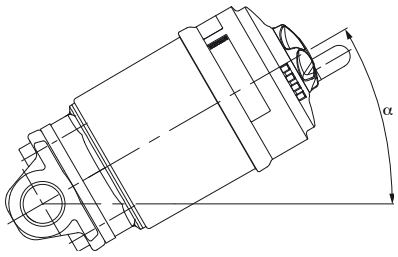
Kv-value

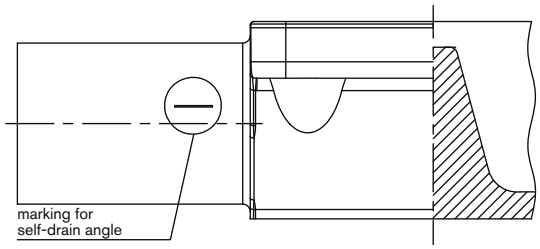
Orifice		Kv value water	Actuator size Ø	Permitted pilot pressure [bar]		Max. operating pressure [bar] for seal material	
[mm]	[inch]	(m³/h)	[mm]	min.	max.	EPDM, FKM [bar]	PTFE/EPDM and advanced PTFE/EPDM [bar]
8	1/4″	1.0	50	5	10	10	10
10	3/8″	1.0	50	5	10	10	10
15	1/2″	5.5	70	5	10	10	10
20	3/4″	10.0	70	5	10	10	10
25	1″	14.0	70	5	10	6.5	6
			90	5.5	10	10	8
40	1 1/2″	30.0	130	5.0	7	10	10
50	2″	51.5	130	5.0	7	8	7

Flow rate: Kv value water (m³/h)
Measured at +20 °C, 1 bar pressure at valve inlet and free outlet.

Pressure values (bar)
Measured as overpressure to the atmospheric pressure.

Installation for self-draining operation





α = 15 up to 35° (Marking must face upwards, 12 o'clock position) plus 3° to 5° inclination to the pipe axis.
Drain marks permanently marked on both sides of the valve body show the correct mounting position to optimise drain ability.

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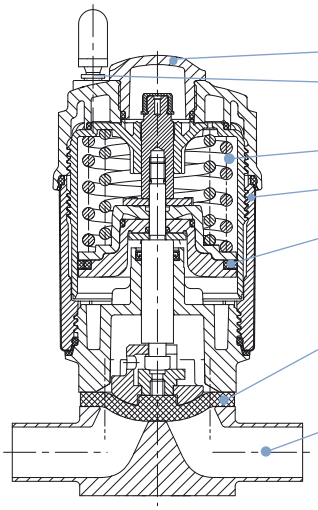
Approvals

Suitability for foodstuffs / sterile applications

- The composition of the EPDM, PTFE/EPDM and advanced PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations*, published by the *FDA* (Food and Drug Administration, USA).
- The EPDM diaphragms correspond to the KTW Recommendation (Plastics in the Drinking Water Sector). A Manufacturer's Declaration will be supplied on request.

Materials



Optical position indicator	Transparent cap polysulfone PSU
Pilot air ports	Push-in connector PP (standard) *On request*: Thread 1/8" stainless steel 1.4305
Actuator	PPS
Cover	Stainless steel 1.4561 (316Ti)
Piston seal	FKM
Diaphragm	EPDM, PTFE/EPDM (advanced PTFE/EPDM, FKM on request)
Valve body	Forged stainless steel 316L/1.4435/BN2

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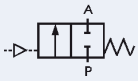
Ordering chart Type 2103 forged diaphragm valve

Welded connection, surface finish mechanical polished, Ra ≤ 0.6 µm, further on request

Control function	Orifice [mm]	Orifice [inch]	External-Ø [mm]	Kv value water (m³/h)	Actuator size ø [mm]	Pilot pressure [bar]	Max. operating pressure [bar]	Item no. mechanichal polished, Ra ≤ 0.6 µm
A 2/2-way valve, normally closed (NC) 	**Acc. to EN ISO 1127/ISO 4200**							
	Diaphragm material EPDM							
	8	1/4″	13.5	1.0	50	5-10	10	218 005
	15	1/2″	21.3	5.5	70	5-10	10	218 006
	20	3/4″	26.9	10.0	70	5-10	10	218 007
	25	1″	33.7	14.0	70	5-10	6.5	218 008
					90	5.5-10	10	218 009
	40	1 1/2″	48.3	30.0	130	5-7	10	218 010
	50	2″	60.3	51.5	130	5-7	8	218 011
	Diaphragm material PTFE/EPDM							
	8	1/4″	13.5	1.0	50	5-10	10	218 012
	15	1/2″	21.3	5.5	70	5-10	10	218 013
	20	3/4″	26.9	10.0	70	5-10	10	218 014
	25	1″	33.7	14.0	70	5-10	6	218 015
					90	5.5-10	8	218 016
	40	1 1/2″	48.3	30.0	130	5-7	10	218 017
	50	2″	60.3	51.5	130	5-7	7	218 018
	Acc. to DIN 11850 Serie 2							
	Diaphragm material EPDM							
	10	3/8″	13	1.0	50	5-10	10	218 019
	15	1/2″	19	5.5	70	5-10	10	218 020
	20	3/4″	23	10.0	70	5-10	10	218 021
	25	1″	29	14.0	70	5-10	6.5	218 022
					90	5.5-10	10	218 023
	40	1 1/2″	41.0	30.0	130	5-7	10	218 024
	50	2″	53.0	51.5	130	5-7	8	218 025
	Diaphragm material PTFE/EPDM							
	10	3/8″	13	1.0	50	5-10	10	218 026
	15	1/2″	19	5.5	70	5-10	10	218 027
	20	3/4″	23	10.0	70	5-10	10	218 028
	25	1″	29	14.0	70	5-10	6	218 029
					90	5.5-10	8	218 030
	40	1 1/2″	41.0	30.0	130	5-7	10	218 031
	50	2″	53.0	51.5	130	5-7	7	218 032

Further versions on request

Material
Seal: advanced PTFE/EPDM, FKM

Port connection
Welded acc. SMS3008

Control function
B (normally open) and I (double-acting)

Additional
Further surface finishes

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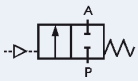
Ordering chart Type 2103 forged diaphragm valve, continued

Welded connection, surface finish mechanical polished, Ra ≤ 0.6 µm, further on request

Control function	Orifice [mm]	Orifice [inch]	External-Ø [mm]	Kv-value water [m³/h]	Actuator size ø [mm]	Pilot pressure [bar]	Max. operating pressure [bar]	Item no. mechanical polished, Ra ≤ 0.6 µm
A 2/2-way valve, normally closed (NC) 	**Acc. to ASME BPE**							
	Diaphragm material EPDM							
	8	1/4″	6.35	1.0	50	5-10	10	218 033
	10	3/8″	9.53	1.0	50	5-10	10	218 034
	15	1/2″	12.7	5.5	70	5-10	10	218 035
	20	3/4″	19.05	10.0	70	5-10	10	218 036
	25	1″	25.4	14.0	70	5-10	6.5	218 037
					90	5.5-10	10	218 038
	40	1 1/2″	38.1	30.0	130	5-7	10	218 039
	50	2″	50.8	51.5	130	5-7	8	218 040
	Diaphragm material PTFE/EPDM							
	8	1/4″	6.35	1.0	50	5-10	10	218 041
	10	3/8″	9.53	1.0	50	5-10	10	218 042
	15	1/2″	12.7	5.5	70	5-10	10	218 043
	20	3/4″	19.05	10.0	70	5-10	10	218 044
	25	1″	25.4	14.0	70	5-10	6	218 045
					90	5.5-10	8	218 046
	40	1 1/2″	38.1	30.0	130	5-7	10	218 047
	50	2″	50.8	51.5	130	5-7	7	218 048
	Acc. to BS 4825							
	Diaphragm material EPDM							
	8	1/4″	6.35	1.0	50	5-10	10	218 049
	10	3/8″	9.53	1.0	50	5-10	10	218 050
	15	1/2″	12.7	5.5	70	5-10	10	218 051
	20	3/4″	19.05	10.0	70	5-10	10	218 052
	Diaphragm material PTFE/EPDM							
	8	1/4″	6.35	1.0	50	5-10	10	218 053
	10	3/8″	9.53	1.0	50	5-10	10	218 054
	15	1/2″	12.7	5.5	70	5-10	10	218 055
	20	3/4″	19.05	10.0	70	5-10	10	218 056

Further versions on request

Material
Seal: advanced PTFE/EPDM, FKM

Port connection
Welded acc. to SMS3008

Control function
B (normally open) and I (double-acting)

Additional
Further surface finishes

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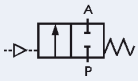
Ordering chart Type 2103 forged diaphragm valve, continued

Clamp connection, surface finish mechanical polished, Ra ≤ 0.6 µm, further on request

Control function	Orifice [mm]	Orifice [inch]	External-Ø [mm]	Kv value water (m³/h)	Actuator size ø [mm]	Pilot pressure [bar]	Max. operating pressure [bar]	Item no. mechanical polished, Ra ≤ 0.6 µm
A 2/2-way valve, normally closed (NC) 	**Acc. to DIN 32676**							
	Diaphragm material EPDM							
	15	1/2″	34.0	5.5	70	5-10	10	218 057
	20	3/4″	34.0	10.0	70	5-10	10	218 058
	25	1″	50.5	14.0	70	5-10	6.5	218 059
					90	5.5-10	10	218 060
	40	1 1/2″	50.5	30.0	130	5-7	10	218 061
	50	2″	64.0	51.5	130	5-7	8	218 062
	Diaphragm material PTFE/EPDM							
	15	1/2″	34.0	5.5	70	5-10	10	218 063
	20	3/4″	34.0	10.0	70	5-10	10	218 064
	25	1″	50.5	14.0	70	5-10	6	218 065
					90	5.5-10	8	218 066
	40	1 1/2″	50.5	30.0	130	5-7	10	218 067
	50	2″	64.0	51.5	130	5-7	7	218 068
	Acc. to ASME BPE - short dimension							
	Diaphragm material EPDM							
	8	1/4″	25.0	1.0	50	5-10	10	218 069
	10	3/8″	25.0	1.0	50	5-10	10	218 070
	15	1/2″	25.0	5.5	70	5-10	10	218 071
	20	3/4″	25.0	10.0	70	5-10	10	218 072
	25	1″	50.5	14.0	70	5-10	6.5	218 073
					90	5.5-10	10	218 074
	40	1 1/2″	50.5	30.0	130	5-7	10	218 075
	50	2″	64.0	51.5	130	5-7	8	218 076
	Diaphragm material PTFE/EPDM							
	8	1/4″	25.0	1.0	50	5-10	10	218 077
	10	3/8″	25.0	1.0	50	5-10	10	218 078
	15	1/2″	25.0	5.5	70	5-10	10	218 079
	20	3/4″	25.0	10.0	70	5-10	10	218 080
	25	1″	50.5	14.0	70	5-10	6	218 081
					90	5.5-10	8	218 082
	40	1 1/2″	50.5	30.0	130	5-7	10	218 083
	50	2″	64.0	51.5	130	5-7	7	218 084
	Acc. to ASME BPE - long dimension							
	Diaphragm material EPDM							
	8	1/4″	25.0	1.0	50	5-10	10	218 085
	15	1/2″	25.0	5.5	70	5-10	10	218 086
	20	3/4″	25.0	10.0	70	5-10	10	218 087
	25	1″	50.5	14.0	70	5-10	6.5	218 088
					90	5.5-10	10	218 089
	40	1 1/2″	50.5	30.0	130	5-7	10	218 090
	50	2″	64.0	51.5	130	5-7	8	218 091
	Diaphragm material PTFE/EPDM							
	8	1/4″	25.0	1.0	50	5-10	10	218 092
	15	1/2″	25.0	5.5	70	5-10	10	218 093
	20	3/4″	25.0	10.0	70	5-10	10	218 094
	25	1″	50.5	14.0	70	5-10	6	218 095
					90	5.5-10	8	218 096
	40	1 1/2″	50.5	30.0	130	5-7	10	218 097
	50	2″	64.0	51.5	130	5-7	7	218 098

Further versions on request

Material
Seal: advanced PTFE/EPDM, FKM

Control function
B (normally open) and I (double-acting)

Port connection
Clamp acc. to ISO 2852

Additional
Further surface finishes

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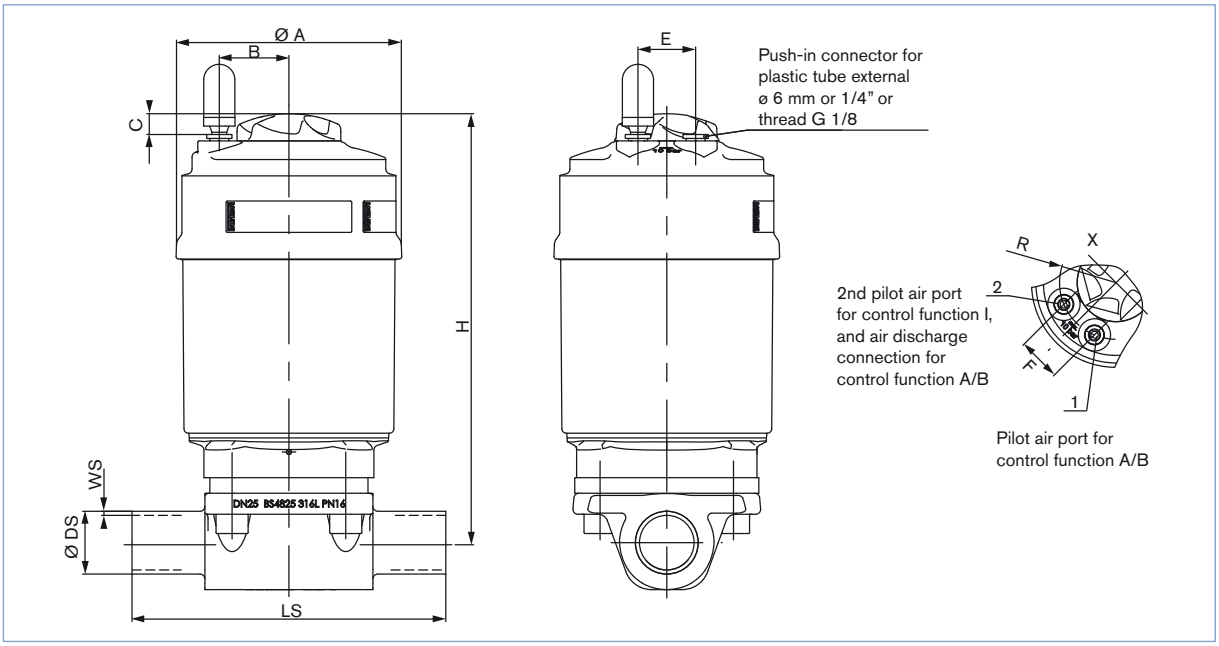
Dimensions Type 2103 forged diaphragm valve [mm]

Welded connection



EN ISO 1127/ISO 4200 and DIN 11850 S2

All bodies											EN ISO 1127/ ISO 4200		DIN 11850 S2	
Orifice		Actuator size Ø												
[mm]	[inch]	[mm]	Ø A	B	F	C	R	E	H	LS	Ø DS	WS	Ø DS	WS
8	1/4″	50	64.5	17.15	19.8	6.1	17.15	19.8	129	90	13.5	1.6	–	–
10	3/8″	50	64.5	17.15	19.8	6.1	17.15	19.8	144	110	17.2	1.6	13.0	1.5
15	1/2″	70	91	30.5	23.3	8.5	30.5	23.3	161	110	21.3	1.6	19.0	1.5
20	3/4″	70	91	30.5	23.3	8.5	30.5	23.3	171	119	26.9	1.6	23.0	1.5
25	1″	70	91	30.5	23.3	8.5	30.5	23.3	174	129	33.7	2.0	29.0	1.5
		90	120	30.5	23.3	8.5	30.5	23.3	207	129	33.7	2.0	29.0	1.5
40	1 1/2″	130	159	30.5	23.3	8.5	30.5	23.5	288	161	48.3	2.0	41.0	1.5
50	2″	130	159	30.5	23.3	8.5	30.5	23.5	311	192	60.3	2.0	53.0	1.5

ASME BPE and BS 4825

All bodies											ASME BPE		BS 4825	
Orifice		Actuator size Ø												
[mm]	[inch]	[mm]	Ø A	B	F	C	R	E	H	LS	Ø DS	WS	Ø DS	WS
8	1/4″	50	64.5	17.15	19.8	6.1	17.15	19.8	129	78	6.35	0.89	6.35	1.2
10	3/8″	50	64.5	17.15	19.8	6.1	17.15	19.8	144	108	9.53	0.89	9.53	1.2
15	1/2″	70	91	30.5	23.3	8.5	30.5	23.3	161	108	12.70	1.65	12.70	1.2
20	3/4″	70	91	30.5	23.3	8.5	30.5	23.3	171	117	19.05	1.65	19.05	1.2
25	1″	70	91	30.5	23.3	8.5	30.5	23.3	174	127	25.40	1.65	25.40	1.65
		90	120	30.5	23.3	8.5	30.5	23.3	207	127	25.40	1.65	25.40	1.65
40	1 1/2″	130	159	30.5	23.3	8.5	30.5	23.3	288	159	38.10	1.65	38.10	1.65
50	2″	130	159	30.5	23.3	8.5	30.5	23.3	311	190	50.80	1.65	50.80	1.65

On request: SMS 3008

Orifice		Actuator size Ø										
[mm]	[inch]	[mm]	Ø A	B	F	C	R	E	H	LS	Ø DS	WS
25	1″	70	91	30.5	23.3	8.5	30.5	23.3	174	127	25	1.2
		90	120	30.5	23.3	8.5	30.5	23.3	207	127	25	1.2

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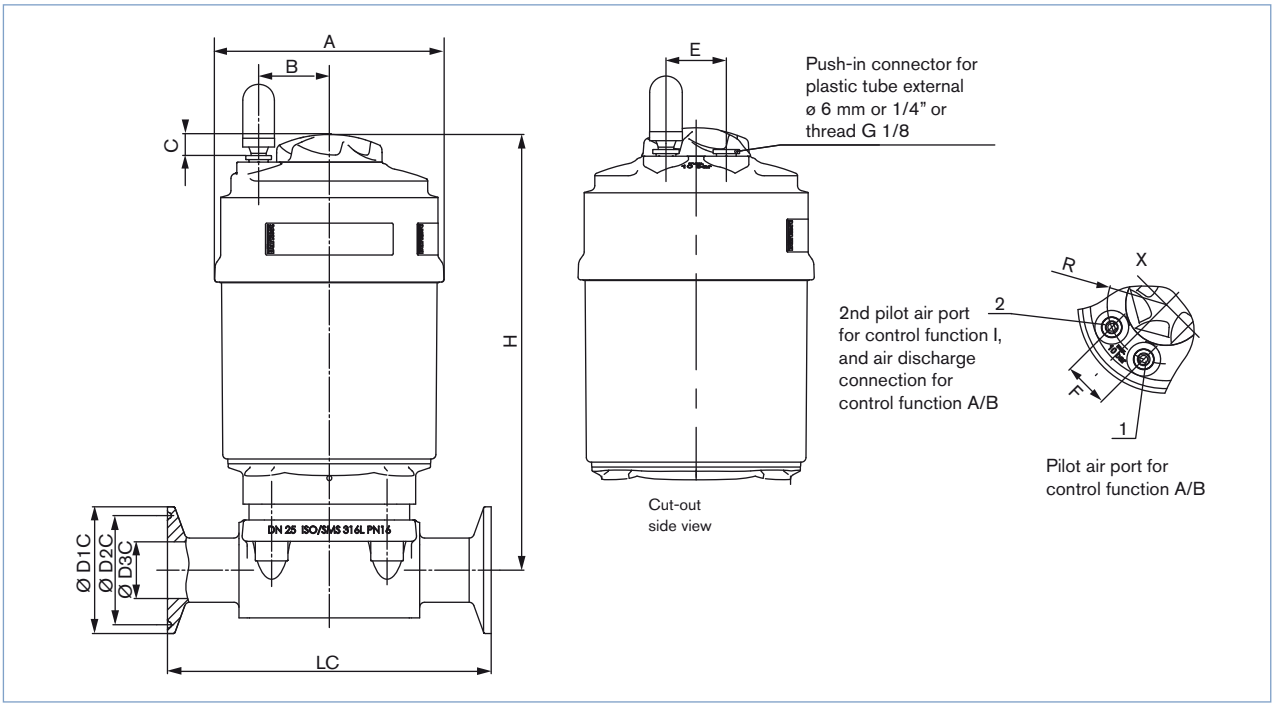
Dimensions Type 2103 forged diaphragm valve [mm], continued

Clamp connection



DIN 32676

Orifice [mm]	Orifice [inch]	Actuator size Ø [mm]	Ø A	B	F	C	R	E	H	LC	Ø D1C	Ø D2C	Ø D3C
15	1/2″	70	91	30.5	23.3	8.5	30.5	23.3	161	110	34	27.5	16
20	3/4″	70	91	30.5	23.3	8.5	30.5	23.3	171	119	34	27.5	20
25	1″	70	91	30.5	23.3	8.5	30.5	23.3	174	129	50.5	43.5	26
		90	120	30.5	23.3	8.5	30.5	23.3	207	129	50.5	43.5	26
40	1 1/2″	130	159	30.5	23.3	8.5	30.5	23.5	288	161	50.5	43.5	38
50	2″	130	159	30.5	23.3	8.5	30.5	23.5	311	192	64	56.5	50

ASME BPE

Orifice [mm]	Orifice [inch]	Actuator size Ø [mm]	Ø A	B	F	C	R	E	H	LC long dimension	LC short dimension	Ø D1C	Ø D2C	Ø D3C
8	1/4″	50	64.5	17.15	19.8	6.1	17.15	19.8	129	78	64.5	25	21.8	3.95
10	3/8″	50	64.5	17.15	19.8	6.1	17.15	19.8	144	89	89	25	21.8	9.4
15	1/2″	70	91	30.5	23.3	8.5	30.5	23.3	161	108	89	25	21.8	9.4
20	3/4″	70	91	30.5	23.3	8.5	30.5	23.3	171	117	102	25	21.8	15.75
25	1″	70	91	30.5	23.3	8.5	30.5	23.3	174	127	114	50.5	43.5	22.2
		90	120	30.5	23.3	8.5	30.5	23.3	207	127	114	50.5	43.5	22.2
40	1 1/2″	130	159	30.5	23.3	8.5	30.5	23.5	288	159	140	50.5	43.5	34.9
50	2″	130	159	30.5	23.3	8.5	30.5	23.5	311	190	159	64	56.5	47.6

On request: ISO 2852

Orifice [mm]	Orifice [inch]	Actuator size Ø [mm]	H	LC	Ø D1C	Ø D2C	Ø D3C
25	1″	70	174	129	50.5	43.5	22.6
		90	207	129	50.5	43.5	22.6

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Ordering information for valve system On/Off ELEMENT Type 8801-DF

A **valve system On/Off ELEMENT Type 8801-DF** consists of a **diaphragm valve Type 2103** and a pneumatic control unit **Type 8690** or control head **Type 8691** (for valve actuator sizes ø 70/ø90/ø130 mm) or control head **Type 8695** (for valve actuator size ø 50 mm) (see separate datasheets).
For the configuration of further valve systems please use the "Request for quotation" on p.14 go to page
You order two components and receive a complete assembled and certified valve.

Ordering the valve system On/Off ELEMENT Type 8801-DF with valve actuator sizes ø70/ø90/ø130 mm

Diaphragm valve Type 2103 with actuator size ø70/ø90/ø130 mm

Control unit

Pneum. control unit
Type 8690

Control head
Type 8691

Diaphragm valve with desired control unit

Valve system On/Off ELEMENT Type 8801-DF-K Type 2103 + 8690

Valve system On/Off ELEMENT Type 8801-DF-H Type 2103 + 8691

Click on the orange box "More info." below... you will come to our website for the resp. product where you can download the datasheet.

Pneumatic control unit Type 8690

More info.

The new generation of integrated controllers for combination with actuators from the process valve series Type 21xx is specially designed for the requirements of hygienic process environments.
The pneumatic control unit Type 8690 combines electrical position feedback and pneumatic control for single or double-acting actuators, and is also optionally available as an intrinsically safe model to ATEX.

Main customer benefits:
- Compact design of the valve system with integrated controller meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Integrated pilot valve with manual actuation
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaptations allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

Control head Type 8691

More info.

The new generation of integrated control heads for combination with actuators from the process valve series Type 21xx is specially designed for the requirements of hygienic process environments.
The intelligent control head, Type 8691, detects the valve position by means of a contact-free analog position sensor circumventing excessive wear of mechanical parts. Single or double-acting actuators are controlled via the integral pilot valve. Communication interfaces AS-Interface and DeviceNet are available as options.

Main customer benefits:
- Compact, hygienic design of the valve system with integrated controller meets the demands of plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Automatic setting of the control head at the push of a button
- Even under dirty or dark environments, a clearly visible status display due to powerful LEDs
- Monitoring and diagnosis: Process valve systems with field bus interface used in modern plant processes
- Integrated pilot valve with manual actuation
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaptations allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

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Ordering information for valve system On/Off ELEMENT Type 8801-DF, continued

A **valve system On/Off ELEMENT Type 8801-DF** consists of a **diaphragm valve Type 2103** and a pneumatic control unit **Type 8690** or control head **Type 8691** (for valve actuator sizes ø70/ø90/ø130 mm) or control head **Type 8695** (for valve actuator size ø 50 mm) (see separate datasheets).
For the configuration of further valve systems please use the "Request for quotation" on p.14 go to page
You order two components and receive a complete assembled and certified valve.

Ordering the valve system On/Off ELEMENT Type 8801-DF with valve actuator size ø 50 mm

Diaphragm valve Type 2103 with actuator size ø 50 mm

Control unit

Control head Type 8695

Diaphragm valve with desired control unit

Valve system On/Off ELEMENT Type 8801-DF-M Type 2103 + 8695

Click on the orange box "More info." below... you will come to our website for the resp. product where you can download the datasheet.

Control head Type 8695

More info.

The new generation of integrated control heads for combination with small actuators from the process valve series Type 21xx is specially designed for the requirements of hygienic process environments. The intelligent control head, Type 8695, detects the valve position by means of a contact-free analog position sensor circumventing excessive wear of mechanical parts. Single and double-acting actuators are controlled via the integral pilot valve. An AS-Interface communication interface is available as an option.

Main customer benefits:
- Compact, hygienic design of the valve system with integrated controller meets the demands of plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Automatic setting of the control head at the push of a button
- Visual status display on the control head
- Monitoring and diagnosis: Process valve systems with fieldbus interface used in modern plant processes
- Integrated pilot valve
- Simple and reliable actuator adaption

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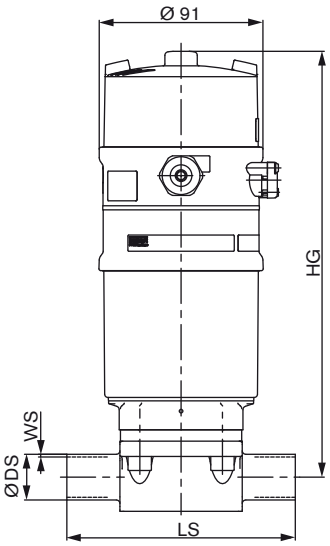
Dimensions for valve system On/Off ELEMENT Type 8801-DF [mm]

Dimensions valve system On/Off ELEMENT Type 8801-DF-K with pneumatic control unit Type 8690 [mm]

Welded connection



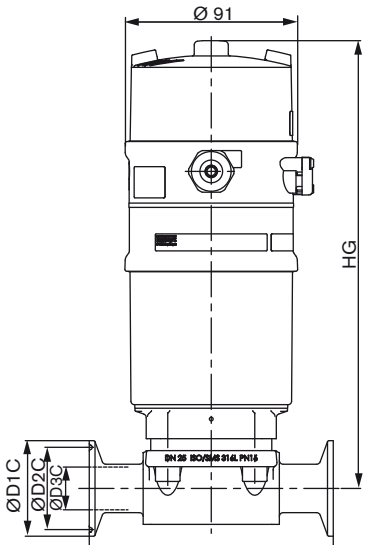
EN ISO 1127/ISO 4200 and DIN 11850 S2 (SMS 3008 on request)

Orifice		Actuator size			EN ISO 1127/ ISO 4200		DIN 11850 Serie 2		SMS 3008 (on request)	
[mm]	[inch]	[mm]	HG	LS	Ø DS	WS	Ø DS	WS	Ø DS	WS
15	1/2"	70	224	110	21.3	1.6	19	1.5	–	–
20	3/4"	70	234	119	26.9	1.6	23	1.5	–	–
25	1"	70	237	129	33.7	2.0	29	1.5	25	1.2
		90	270	129	33.7	2.0	29	1.5	25	1.2
40	1 1/2"	130	351	161	48.3	2.0	41	1.5	38	1.2
50	2	130	374	192	60.3	2.0	53	1.5	51	1.2

ASME BPE and BS 4825

Orifice		Actuator size Ø			ASME BPE		BS 4825	
[mm]	[inch]	[mm]	HG	LS	Ø DS	WS	Ø DS	WS
15	1/2"	70	224	108	12.70	1.65	12.70	1.2
20	3/4"	70	234	117	19.05	1.65	19.05	1.2
25	1"	70	237	127	25.40	1.65	25.40	1.65
		90	270	127	25.40	1.65	25.40	1.65
40	1 1/2"	130	351	159	38.10	1.65	38.10	1.65
50	2	130	374	190	50.80	1.65	50.80	1.65

Clamp connection



DIN 32676 and ASME BPE

Orifice		Actua-tor size Ø		DIN 32676				ASME BPE				
								LC				
[mm]	[inch]	[mm]	HG	LC	Ø D1C	Ø D2C	Ø D3C	long dimen-sion	short dimen-sion	Ø D1C	Ø D2C	Ø D3C
15	1/2"	70	224	110	34	27.5	16	108	89	25	–	9.4
20	3/4"	70	234	119	34	27.5	20	117	102	25	–	15.75
25	1"	70	237	129	50.5	43.5	26	127	114	50.5	43.5	22.2
		90	270	129	50.5	43.5	26	127	114	50.5	43.5	22.2
40	1 1/2"	130	351	161	50.5	43.5	38	159	140	50.5	43.5	34.9
50	2	130	374	192	64.0	56.5	50	190	159	64	56.5	47.6

On request: ISO 2852

Orifice		Actuator size Ø					
[mm]	[inch]	[mm]	HG	LC	Ø D1C	Ø D2C	Ø D3C
25	1"	70	237	129	50.5	43.5	22.6
		90	270	129	50.5	43.5	22.6

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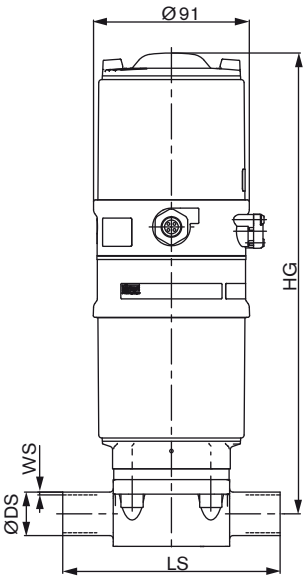
Dimensions for valve system On/Off ELEMENT Type 8801-DF [mm], continued

Dimensions valve system On/Off ELEMENT Type 8801-DF-H with control head Type 8691 [mm]

Welded connection



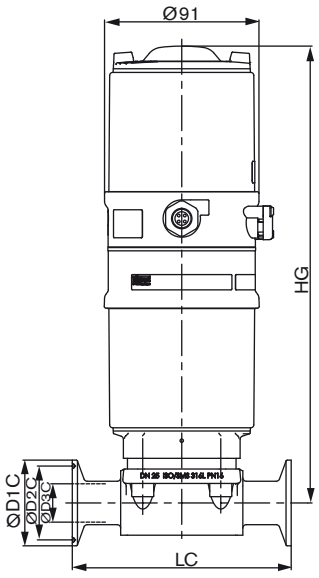
EN ISO 1127/ISO 4200 and DIN 11850 S2 (SMS 3008 on request)

Orifice		Actuator size Ø			EN ISO 1127/ ISO 4200		DIN 11850 Serie 2		SMS 3008 (on request)	
[mm]	[inch]	[mm]	HG	LS	Ø DS	WS	Ø DS	WS	Ø DS	WS
15	1/2"	70	257	110	21.3	1.6	19	1.5	–	–
20	3/4"	70	267	119	26.9	1.6	23	1.5	–	–
25	1"	70	270	129	33.7	2.0	29	1.5	25	1.2
		90	303	129	33.7	2.0	29	1.5	25	1.2
40	1 1/2"	130	384	161	48.3	2.0	41	1.5	38	1.2
50	2	130	407	192	60.3	2.0	53	1.5	51	1.2

ASME BPE and BS 4825

Orifice		Actua-tor size Ø			ASME BPE		BS 4825	
[mm]	[inch]	[mm]	HG	LS	Ø DS	WS	Ø DS	WS
15	1/2"	70	257	108	12.70	1.65	12.70	1.2
20	3/4"	70	267	117	19.05	1.65	19.05	1.2
25	1"	70	270	127	25.40	1.65	25.40	1.65
		90	303	127	25.40	1.65	25.40	1.65
40	1 1/2"	130	384	159	38.10	1.65	38.10	1.65
50	2	130	407	190	50.80	1.65	50.80	1.65

Clamp connection



DIN 32676 and ASME BPE

Orifice		Actuator size Ø		DIN 32676				ASME BPE				
								LC				
[mm]	[inch]	[mm]	HG	LC	Ø D1C	Ø D2C	Ø D3C	long dimen-sion	short dimen-sion	Ø D1C	Ø D2C	Ø D3C
15	1/2"	70	257	110	34	27.5	16	108	89	25	–	9.4
20	3/4"	70	267	119	34	27.5	20	117	102	25	–	15.75
25	1"	70	270	129	50.5	43.5	26	127	114	50.5	43.5	22.2
		90	303	129	50.5	43.5	26	127	114	50.5	43.5	22.2
40	1 1/2"	130	384	161	50.5	43.5	38	159	140	50.5	43.5	34.9
50	2	130	407	192	64.0	56.5	50	190	159	64.0	56.5	47.6

On request: ISO 2852

Orifice		Actuator size Ø					
[mm]	[inch]	[mm]	HG	LC	Ø D1 C	Ø D2 C	Ø D3 C
25	1″	70	270	129	50.5	43.5	22.6
		90	303	129	50.5	43.5	22.6

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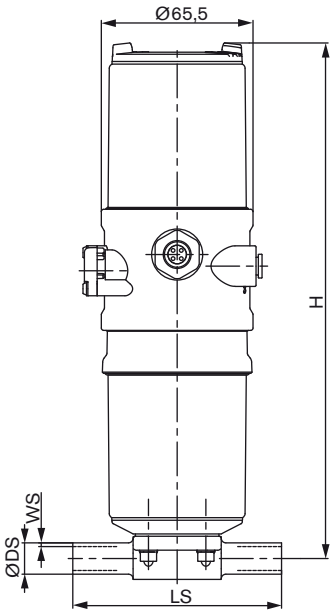
Dimensions for valve system On/Off ELEMENT Type 8801-DF [mm], continued

Dimensions valve system On/Off ELEMENT Type 8801-DF-M with control head Type 8695 [mm]

Welded connection



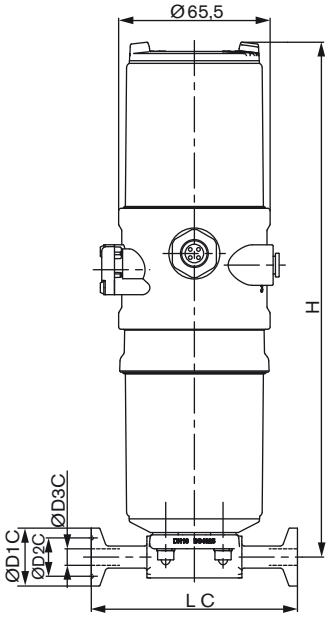
EN ISO 1127/ISO 4200 and DIN 11850 S2

Orifice		Actuator size			EN ISO 1127/ ISO 4200		DIN 11850 Serie 2	
[mm]	[inch]	[mm]	H	LS	Ø DS	Ø WS	Ø DS	Ø WS
8	1/4"	50	223	90	13.5	1.6	–	–
10	3/8"	50	238	110	17.2	1.6	13.0	1.5

On request: ASME BPE and BS 4825

Orifice		Actuator size Ø			ASME BPE		BS 4825	
[mm]	[inch]	[mm]	H	LS	Ø DS	WS	Ø DS	WS
8	1/4"	50	223	78	6.35	0.89	6.35	1.2
10	3/8"	50	238	108	9.53	0.89	9.53	1.2

Clamp connection



DIN 32676

Orifice		Actuator size		DIN 32676			
[mm]	[inch]	[mm]	H	LC	øD1 C	øD2 C	øD3 C
10	3/8"	50	238	110	34	27.5	16

ASME BPE

Orifice		Actuator size		ASME BPE				
				LC				
[mm]	[inch]	[mm]	H	long dimension	short dimension	ØD1 C	ØD2 C	ØD3 C
8	1/4"	50	223	78	64.5	25	21.8	3.95
10	3/8"	50	238	89	89	25	21.8	9.4

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

Valve system On/Off ELEMENT Type 8801-DF - 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

Pipe line DN PN

Pipe material

■ **Process medium**

■ **Type of media** ☐ Liquid ☐ Steam ☐ Gas

Valve features

Specification key

automatically transferred from last page go to page

☐ ☐ ☐ VS ☐ ☐

Surface finish (if not standard) internal µm external µm

Pilot pressure min. max.

Control unit features

For actuator sizes ø70/ø90/ø130 mm

☐ **Pneumatic Control Unit Type 8690** More info.

Pneumatic function
☐ Single-acting ☐ Double-acting
☐ Without pilot valve

Position feedback
☐ 1x inductive ☐ 2x inductive
☐ 1x inductive (NAMUR) ☐ 2x inductive (NAMUR)
☐ 1x mechanical ☐ 2x mechanical

Supply voltage
☐ 24 V / DC (ATEX Zone 2/22)
☐ Ex ia IIC T6 (ATEX Zone 1)

Pilot air ports
☐ Push-in connector external ø 6mm or 1/4" ☐ Thread G 1/8"

Please specify item no. if known:

☐ **Control Head Type 8691** More info.

Pneumatic function
☐ Single-acting ☐ Double-acting

Pilot air ports
☐ Push-in connector external ø 6mm or 1/4"
☐ Thread G 1/8"

Communication
☐ ASI
☐ Multipol M12
☐ Flat cable clip, 1 m cable
☐ DeviceNet

Please specify item no. if known:

For actuator size ø50 mm

☐ **Control Head Type 8695** More info.

Pneumatic function
☐ Single-acting ☐ Double-acting

Pilot air ports
☐ Push-in connector external ø 6mm or 1/4"
☐ Thread G 1/8"

Communication
☐ ASI

Please specify item no. if known:

Comments

* To find your nearest Bürkert facility, click on the orange box → www.burkert.com

Reset form

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Valve system On/Off Classic Type 8801-DF – request for quotation, *cont.*

Control unit features

Pilot valve	Stroke limitation
☐ **Pilot valve**	☐ **Stroke limitation**
Power supply ☐	☐ **Min./max. stroke limitation,** with visual position indicator ☐ **Max. stroke limitation,** without visual position indicator
Please specify item no. if known: ☐	**Please specify item no. if known:** ☐

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 Raw Material EN-ISO 10204 3.1 (included in delivery)
- ☐ EN161 (European Gas Device guideline)
- ☐ FDA - USP certificate

Comment / sketch

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bürkert

Valve features, specification key

Example	**A**	**15**	**AB**	**VS**	**SA42**	**NO23**
Specification key				VS		

Please make a choice

CONTROL FUNCTION

A	normally closed by spring action
B	normally open by spring action
I	double acting

SIZE [mm]

08
10
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

VS	Forged 1.4435BN2/ASME BPE

VARIABLE CODES

Surface finish, internal		
NO07	Int. mirror finished Ra=0.25 µm	
NO14	Int. mechanical polished Ra=0.5µm	
NO17	Int. electro polished Ra=0.4µm	
NO23	Int. mechanical polished Ra=0.6µm	*Standard*

PORT CONNECTION

Welded connection

Port conn [mm]	EN ISO 1127/ ISO 4200	SMS 3008	DIN 11850 Series 0	DIN 11850 Series 1	DIN 11850 Series 2	DIN 11850 Series 3	BS 4825	ASME BPE	JIS Sanitary	JIS Utility
8	SA40=13.5x1.6		SC42=10x1.0				SODB=6.35x1.2	SA90=6.35x0.89	SA70=13.8x1.65	
10	SA41=17.2x1.6			SF40=12x1.0	SD40=13x1.5	SE40=14x2.0	SODC=9.53x1.2	SA91=9.53x0.89	SA71=17.3x1.65	
15	SA42=21.3x1.6		SC43=18x1.5	SF41=18x1.0	SD42=19x1.5	SE42=20x2.0	SODD=12.7x1.2	SA92=12.7x1.65	SA72=21.7x2.1	
20	SA43=26.9x1.6		SC44=22x1.5	SF42=22x1.0	SD43=23x1.5	SE43=24x2.0	SODE=19.05x1.2	SA93=19.05x1.65	SA76=27.2x2.1	SA80=27.2x2.1
25	SA44=33.7x2.0	SA60=25.0x1.2	SC45=28x1.5	SF43=28x1.0	SD44=29x1.5	SE44=30x2.0	SODF=25.4x1.65	SODF=25.4x1.65	SA73=25.4x1.2	SA81=34x2.0
32	SA45=42.4x2.0		SC46=34x1.5	SF44=34x1.0	SD45=35x1.5	SE45=36x2.0				SA83=42.7x2.0
40	SA46=48.3x2.0	SA62=38.0x1.2	SC47=40x1.5	SF45=40x1.0	SD46=41x1.5	SE46=42x2.0	SODH=38.1x1.65	SODH=38.1x1.65	SA74=38.1x1.2	SA84=60.5x2.0
50	SA47=60.3x2.0	SA63=51.0x1.2	SC48=52x1.5	SF46=52x1.0	SD47=53x1.5	SE47=54x2.0	SODI=50.8x1.65	SODI=50.8x1.65	SA75=50.8x1.5	

Clamp connection

Port conn [mm]	ISO 2852 SMS 3017	ASME BPE short dimension	ASME BPE long dimension	DIN 32676
8	TC51=Clamp 34 - für Rohr ISO 4200	TI40=Clamp 25 - Rohr 6.35x0.89	TG40=Clamp 25 - Rohr 6.35x0.89	
10	TC41=Clamp 34 - für Rohr ISO 4200	TI41=Clamp 25 - Rohr 9.53x0.89	TG41=Clamp 25 - Rohr 9.53x0.89	TD41=Clamp 34 - Rohr 13x1.5
15	TC42=Clamp 34 - für Rohr ISO 4200	TI42=Clamp 25 - Rohr 12.7x1.65	TG42=Clamp 25 - Rohr 12.7x1.65	TD42=Clamp 34 - Rohr 19x1.5
20	TC43=Clamp 50.5 - für Rohr ISO 4200	TI43=Clamp 25 - Rohr 19.05x1.65	TG43=Clamp 25 - Rohr 19.05x1.65	TD43=Clamp 34 - Rohr 23x1.5
25	TC44=Clamp 50.5 - für Rohr ISO 4200	TI44=Clamp 50.5 - Rohr 25.4x1.65	TG44=Clamp 50.5 - Rohr 25.4x1.65	TD44=Clamp 50.5 - Rohr 29x1.5
40	TC46=Clamp 64 - für Rohr ISO 4200	TI46=Clamp 50.5 - Rohr 38.1x1.65	TG45=Clamp 50.5 - Rohr 38.1x1.65	TD46=Clamp 50.5 - Rohr 41x1.5
50	TC47=Clamp 77.5 - für Rohr ISO 4200	TI47=Clamp 64 - Rohr 50.8x1.65	TG46=Clamp 64 - Rohr 50.8x1.65	TD47=Clamp 64 - Rohr 53x1.5

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In case of special application conditions, please consult for advice.

Subject to alteration.

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