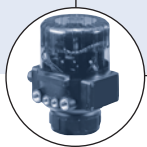




## 2/2-way Angle-Seat Valve for media up to +180 °C, DN15-50

- High flow rates
- Very high cycle life
- Tri-Clamp® \*) body according to EN ISO 2852, BS 4821 or ASME BPE
- Deliverable with flow direction below or above seat
- Simple conversion of the circuit function

Type 2000 can be combined with...



**Type 8631**

TopControl On/Off



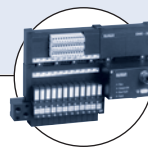
**Type 1062**

Electrical position feedback



**Type 6012/6014 P**

Pilot valve



**Type 8640/8644**

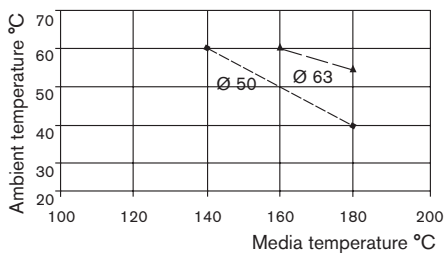
Valve block

The externally piloted angle-seat valve is operated with a single or double-acting piston actuator. The actuator is available in two different materials, PA and PPS depending on the ambient temperature. The reliable self-adjusting packing gland provides high sealing integrity. High flow rates are attained with the stainless steel 2-way body.

These maintenance-free and robust valves can be retrofitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

For valves with port connection threaded port and weld end please see separate datasheets.

1) **Note:** For PA actuators in the sizes 50 and 63, the combination of max. media temperature and max. ambient temperature is as shown in the following chart



Technical data	
<b>Orifice</b>	DN15 to 50
<b>Body materials</b>	Tri-Clamp® connection Stainless steel 316L
<b>Actuator material</b>	PA (PPS on request)
<b>Seal material</b>	PTFE (NBR, FKM, EPDM on request)
<b>Medien</b>	Water, alcohol, oils, fuel, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam
<b>Viscosity</b>	max. 600 mm <sup>2</sup> /s
<b>Packing gland</b> (with silicone grease)	PTFE V-rings with spring compensation
<b>Media temperature<sup>1)</sup></b>	-10 to +180 °C with PTFE seal
<b>Ambient temperature</b>	
PA actuator <sup>1)</sup>	-10 to +60 °C
PPS actuator <sup>1)</sup> Ø 50-80	+5 to +140 °C
PPS actuator <sup>1)</sup> Ø 100-125	+5 to +90 °C
<b>Installation</b>	As required, preferably with actuator in upright position
<b>Control medium</b>	Neutral gases, air
<b>Max. pilot pressure</b>	
Actuator size Ø 50-80	PA and PPS 10 bar
Actuator size Ø 100	PA 10 bar
Actuator size Ø 100	PPS 7 bar
Actuator size Ø 125	PA and PPS 7 bar
<b>Port connection</b>	
Tri-Clamp® <sup>1)</sup> acc. to	EN ISO 2852 BS 4821 ASME BPE
<b>Surface finish</b>	
on request	standard Ra, internal and external ≤ 3.2 µm int. Ra ≤ 0.8 µm, ext. Ra ≤ 3.2 µm electro polished int. Ra ≤ 0.4 µm, ext. Ra ≤ 3.2 µm electro polished

\*) Tri-Clamp® is a registered Trademark of Alfa Laval Inc.

## Ordering information for Angle Seat Valve System Type 8801-YA/8803-YA

A complete continuous angle seat valve system Type 8801-YA/8803-YA consists of an angle seat control valve Type 2000 and a valve actuation system TopControl Type 8631 or an electrical position feedback Type 1062. The control head is only delivered in combination with an actuator as a part of a complete control valve. The following information is necessary for the selection of a complete control valve:

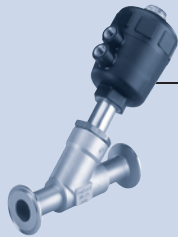
• **Item no.** of the seat control valve **Type 2000** (see Ordering chart)

• **Item no.** of the desired positioner **Type 8631 or Type 1062** (see separate datasheets)

Please also use the "request for quotation" form on p. 8 for ordering the complete system [go to page](#)

### Example for variations of continuous angle seat valve system

#### Angle seat valve Type 2000 with required process connection



#### Control Head



8631



1062

#### Angle seat valve with required body and port connection

For port connections weld end and threaded ports, see separate datasheets



**Angle seat valve  
TopControl system  
2000+8631  
(Type 8801-YA)**



**Angle seat valve  
Electrical Position  
Feedback system  
2000+1062  
(Type 8803-YA)**

When you 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 8631 TopControl On/Off



DeviceNet™

More info.

The Type 8631 TopControl On/Off head performs the task of completely automating pneumatically operated process valves. Mechanical mounting and pneumatic coupling to the process valve result in a unit that is both visually pleasing and functionally compact. Valve position feedback and pneumatic actuation can also be integrated into common fieldbusses such as AS-Interface or DeviceNet.

Main customer benefits are:

- Control of process valves
  - single-acting/double-acting
  - with external pneumatic control
- Position feedback with maximum two adjustable inductive limit switches or two micro limit switches
- Electrical control of the control head, optionally via multipole (parallel wiring) or field bus interface (AS-Interface or DeviceNet)
- Pressure-relief valve
- Suitable for hazardous locations per zone 1 or zone 2 and 22

#### Electrical Position Feedback Type 1062



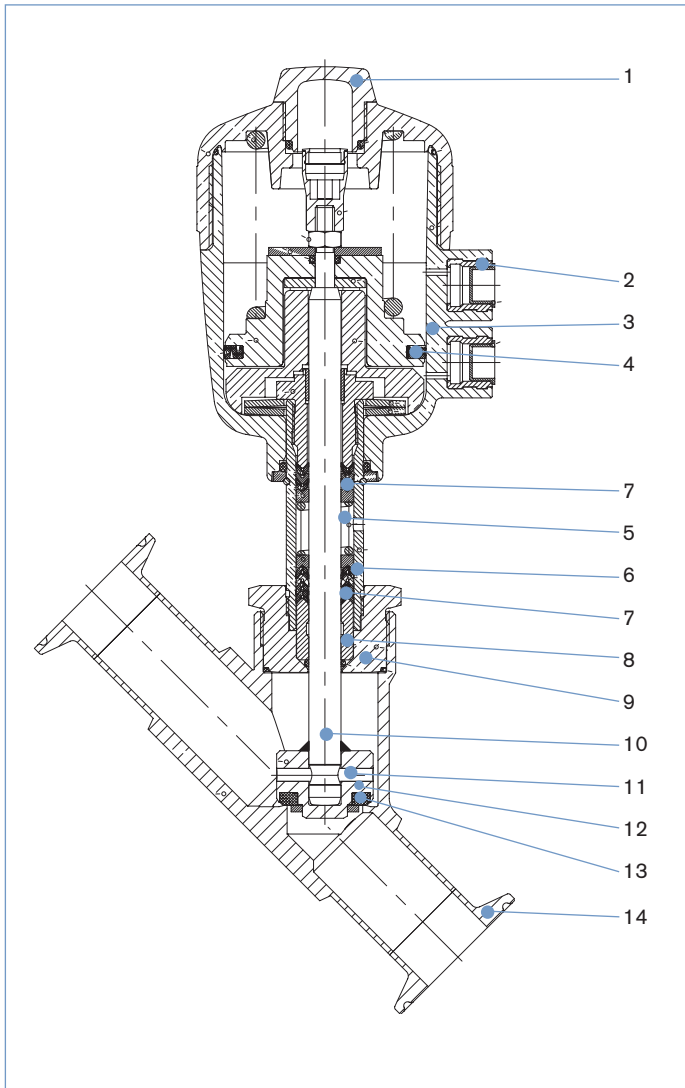
More info.

Positions are electrically signaled according to switch type:

- open,
  - closed or
  - open and closed.
- LEDs provide optical position indication (except for Namur Ex-version). Mechanical or inductive switches are housed in a compact splash-proof enclosure. The position indicator can be rotated 360° and is easily fitted to the valve. Trip cams do not require adjustment.

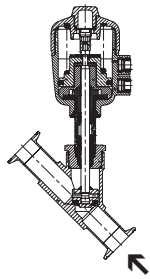
The unit only needs to be screwed on and connected to be ready for operation.

Materials



- |           |                 |                                  |
|-----------|-----------------|----------------------------------|
| <b>1</b>  | Transparent cap | PC (with PPS actuator; PSU)      |
| <b>2</b>  | Pilot air ports | Stainless steel 1.4305           |
| <b>3</b>  | Actuator        | PA (PPS on request)              |
| <b>4</b>  | Piston seal     | NBR (with PPS actuator; FKM)     |
| <b>5</b>  | Spring          | Stainless steel 1.4310           |
| <b>6</b>  | Tube            | Stainless steel 1.4401           |
| <b>7</b>  | V-Seals         | PTFE (FKM on request)            |
| <b>8</b>  | Wiper           | PTFE                             |
| <b>9</b>  | Nipple          | Stainless steel 1.4401           |
| <b>10</b> | Spindle         | Stainless steel 1.4401           |
| <b>11</b> | Pins            | Stainless steel 1.4401           |
| <b>12</b> | Swivel plate    | Stainless steel 1.4401           |
| <b>13</b> | Seal            | PTFE (NBR, FKM, EPDM on request) |
| <b>14</b> | Valve body      | Stainless steel 316L             |

Technical data for valves with flow direction below seat (for gas and liquid)



Flow direction below seat

Orifice [mm]	Actuator size [mm]	Kv value water (m³/h)	Min. pilot pressure CFA [bar]	Max. operating pressure up to ±180°		Weight [kg]
				CFA [bar]	CFB [bar]	
15	50	4.2	3.9	16	16	0.8
20	50	8.0	3.9	11	16	1.0
25	50	14.5	–	–	16	1.2
	63	19	4.2	11	16	1.8
32	63	27	4.2	6	16	2.3
	80	28	5.0	15	16	3.1
40	63	35	–	–	16	2.7
	80	38	5.0	9	16	3.5
50	63	49	–	–	13	4.0
	100	55	4.4	7.2	–	7.0

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

Pilot pressure diagram with control function B and flow direction below seat

Diagram 1

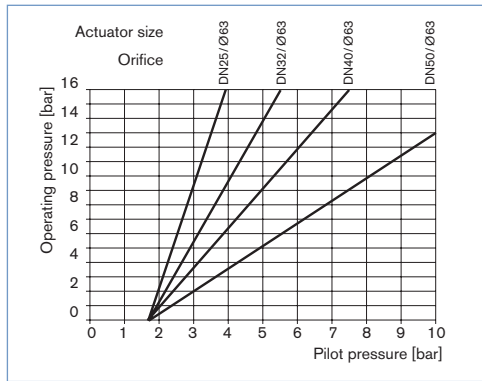
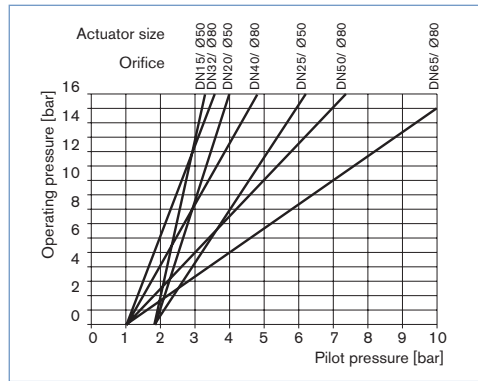


Diagram 2



Ordering chart for valves with flow direction below seat (further versions on request)

Valves with Tri-Clamp® connection acc. to ISO 2852, ASME BPE or BS 4825, body in stainless steel, actuator material PA, Ra internal/external ≤ 3.2 µm

Control function	Orifice [mm]	Actuator size Ø [mm]	Port connection Tri-Clamp® external Ø [mm]			Min. pilot pressure [bar]	Operating pressure up to 180 °C [bar]	Item no.		
			ISO 2852	ASME BPE	BS 4825			ISO 2852	ASME BPE	BS 4825
	15	50	34.0	25.0	25.0	3.9	16	415 070	175 574	183 245
	20	50	50.5	25.0	25.0	3.9	11	415 071	175 575	183 246
	25	63	50.5	50.5	50.5	4.2	11	415 072	175 576	175 576
	32	80	50.5	–	–	5	15	415 073	–	–
	40	80	64.0	50.5	50.5	5	9	415 074	175 579	175 579
	50	100	77.5	64.0	64.0	4.4	7.2	415 075	175 580	175 580
	15	50	34.0	25.0	25.0	see diagram 1 and 2 above	16	415 076	–	–
	20	50	50.5	25.0	25.0		16	415 077	–	–
	25	50	50.5	50.5	50.5		16	415 078	–	–
	32	63	50.5	–	–		16	415 079	–	–
	40	63	64.0	50.5	50.5		16	415 080	–	–
	50	63	77.5	64.0	64.0		13	415 081	–	–

**i** Further versions on request

**Material**  
 Seal: NBR, FKM, EPDM  
 Actuator: PPS

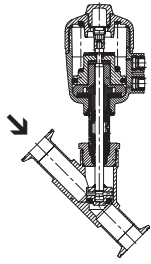
**Port connections**  
 Weld end, threaded port

**Additional**  
 Surface finish: int. Ra ≤ 0.8 µm, ext. Ra ≤ 3.2 µm electro polished, int. Ra ≤ 0.4 µm, ext. Ra ≤ 3.2 µm electro polished

**Control function**  
 Double-acting actuator

**Approvals**  
 GL, SIL

Technical data for valves with flow direction above seat (only for gas and steam)



Orifice [mm]	Actuator size [mm]	Kv value water (m³/h)	Max. operating pressure up to ±180°	Weight [kg]
15	50	4.2	16	0.8
20	50	8.0	16	1.0
25	63	19.0	16	1.8
32	63	27.0	16	2.2
40	63	35.0	16	2.7
50	63	49.0	16	4.0

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

Flow direction above seat

Attention!

Valves with flow direction above the seat are only conditionally usable for liquid media. There is a danger of waterhammer!

Pilot pressure diagram with control function A and flow direction above seat

Diagram 3

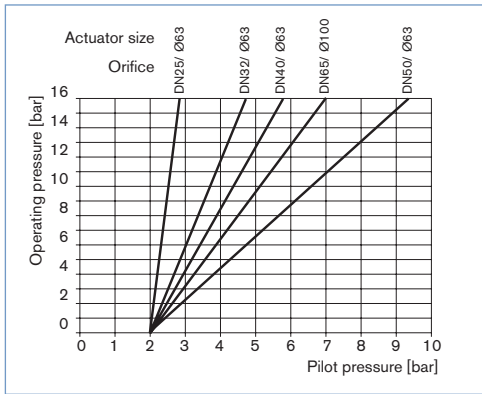
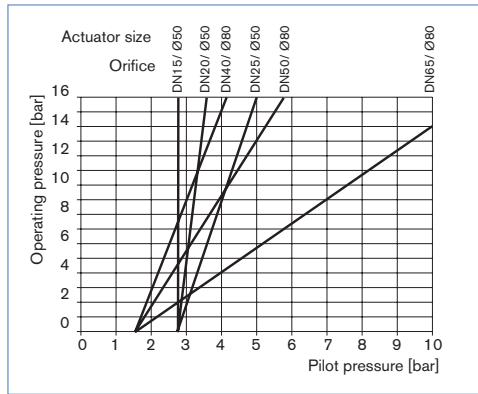


Diagram 4



Ordering chart for valves with flow direction above seat (further versions on request)

Valves with Tri-Clamp® connection acc. to ISO 2852, ASME BPE or BS 4825, body in stainless steel, actuator material PA, Ra internal/external ≤ 3.2 µm

Control function	Orifice [mm]	Actuator size Ø [mm]	Port connection Tri-Clamp® external Ø [mm]			Min. pilot pressure [bar]	Operating pressure up to 180 °C [bar]	Item no.		
			ISO 2852	ASME BPE	BS 4825			ISO 2852	ASME BPE	BS 4825
	15	50	34.0	25.0	25.0	see diagram 3 and 4 above	16	415 082	183 247	183 249
	20	50	50.5	25.0	25.0	11	415 083	183 248	183 264	
	25	63	50.5	50.5	50.5	11	415 084	183 265	183 265	
	32	63	50.5	-	-	15	415 085	-	-	
	40	63	64.0	50.5	50.5	9	415 086	183 266	183 266	
	50	63	77.5	64.0	64.0	7.2	415 087	183 267	183 267	

**i** Further versions on request

**Material**  
 Seal: NBR, FKM, EPDM  
 Actuator: PPS

**Port connections**  
 Weld end, threaded port

**Additional**  
 Surface finish: int. Ra ≤ 0.8 µm, ext. Ra ≤ 3.2 µm electro polished,  
 int. Ra ≤ 0.4 µm, ext. Ra ≤ 3.2 µm electro polished

**Control function**  
 Double-acting actuator

**Approvals**  
 GL, SIL

## Ordering chart for accessories

### 3/2-way pilot valves with banjo bolts

Seal material valve FKM, seal material banjo bolt NBR

Valve for actuator size [Ø mm]	Type	Pressure inlet P (valve body)	Service port A (banjo bolt)	Orifice [mm]	Q <sub>Nn</sub> value air [l/min]	Pressure range [bar]	Electrical coil connection Ind. Std.	Power consumption [W]	Item no. Voltage/frequency [V/Hz]	
									024/DC	230/50
50-63	6012P	Tube fitting ø6 mm	G 1/4	1.2	48	0-10	Form B	4	552 283	552 286
50-125	6014P	G 1/4	G 1/4	2	120	0-10	Form A	8	424 103	424 107

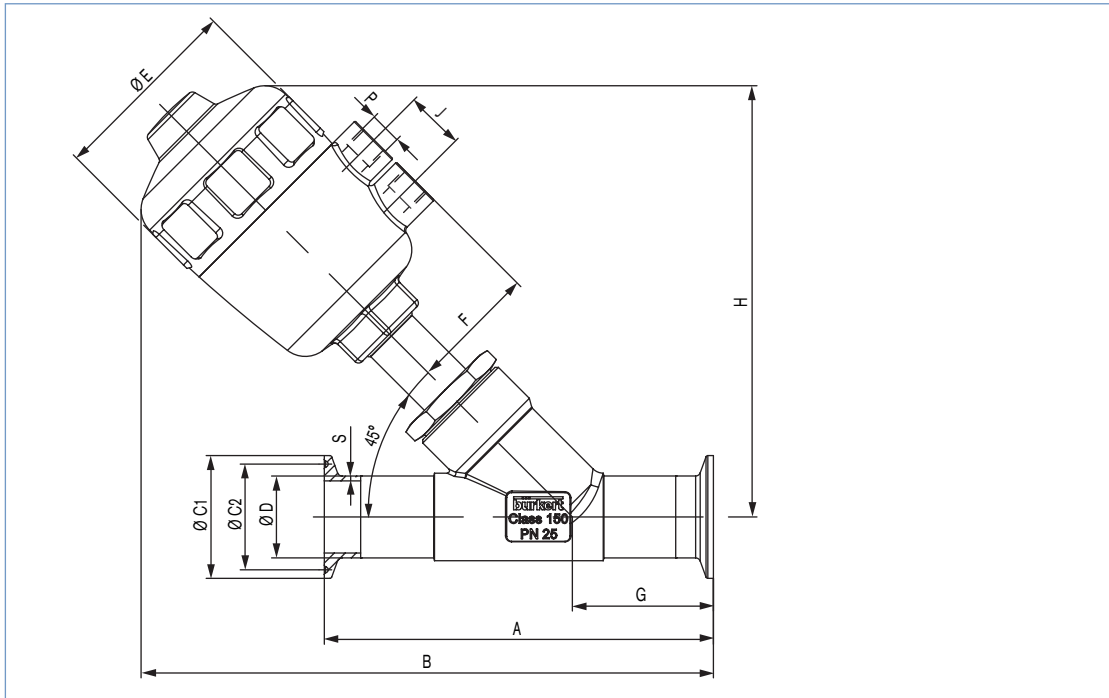
### Cable plug Type 2507, Form B or Type 2508, Form A

	Item no.
Type 2507, Form B Industrial standard, 0 to 250 V without circuitry (Type 6012 P)	423 845
Type 2508, Form A acc. DIN EN 175301-803, 0 to 250 V without circuitry (Type 6014 P, Type 0331P)	008 376

For further accessories see datasheet for Type 1062 or the accessories datasheet Type 2XXX for the full options programme.

**Note:** For design reasons, some of the accessories cannot be supplied for actuator size Ø 40 mm. Please request the accessories datasheet Type 2XXX.

Dimensions [mm]



Dimensions according to EN ISO 2852 [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	34.0	27.5	21.3	49	1.6
20	50	64	149	44	G 1/4	24	150	205.5	50.5	43.5	26.9	56.5	1.6
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	33.7	58	2
	63	80	178	52	G 1/4	24	160	236	50.5	43.5	33.7	58	2
32	63	80	188	52	G 1/4	24	180	245.5	50.5	43.5	42.4	57.5	2
	80	101	209	60	G 1/4	24	180	266.5	50.5	43.5	42.4	57.5	2
40	63	80	191	52	G 1/4	24	200	260	64	56.5	48.3	69	2
	80	101	213	60	G 1/4	24	200	282	64	56.5	48.3	69	2
50	63	80	209	52	G 1/4	24	230	286.5	77.5	70.5	60.3	77.5	2.6
	100	127	277	73	G 1/4	30	230	354.5	77.5	70.5	60.3	77.5	3.6

Dimensions according to ASME BPE [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	25.2	20.2	12.7	49	1.65
20	50	64	149	44	G 1/4	24	150	205.5	25.2	20.2	19.05	56.5	1.65
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	25.4	58	1.65
	63	80	178	52	G 1/4	24	160	230	50.5	43.5	25.4	58	1.65
40	63	80	191	52	G 1/4	24	200	260	50.5	43.5	38.1	69	1.65
	80	101	213	60	G 1/4	24	200	282	50.5	43.5	38.1	69	1.65
50	63	80	209	52	G 1/4	24	230	286.5	64.0	56.5	50.8	77.5	1.65
	100	127	277	73	G 1/4	30	230	354.5	64.0	56.5	50.8	77.5	1.65

Dimensions according to BS 4825 [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	25.2	20.2	12.7	49	1.2
20	50	64	149	44	G 1/4	24	150	205.5	25.2	20.2	19.05	56.5	1.2
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	25.4	58	1.65
	63	80	178	52	G 1/4	24	160	236	50.5	43.5	25.4	58	1.65
40	63	80	191	52	G 1/4	24	200	260	50.5	43.5	38.1	69	1.65
	80	101	213	60	G 1/4	24	200	282	50.5	43.5	38.1	69	1.65
50	63	80	209	52	G 1/4	24	230	286.5	64.0	56.5	50.8	77.5	1.65
	100	127	277	73	G 1/4	30	230	354.5	64.0	56.5	50.8	77.5	1.65

**Note**

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

**Process 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**

Site of control	<input type="text"/>		
Measuring and control task	<input type="text"/>		
Pipeline	DN <input type="text"/>	PN <input type="text"/>	
Pipe material	<input type="text"/>		
Process medium	<input type="text"/>		
Type of media	<input type="checkbox"/> Liquid	<input type="checkbox"/> Steam	<input type="checkbox"/> Gas
Flow rate (Q, Q <sub>N</sub> , W) <sup>1)</sup>	<input type="text"/> min	<input type="text"/> standard	<input type="text"/> max <input type="text"/> unit
Temperature at valve inlet T1	<input type="text"/>	<input type="text"/>	<input type="text"/>
Absolute pressure at valve inlet P1	<input type="text"/>	<input type="text"/>	<input type="text"/>
Absolute pressure at valve outlet P2	<input type="text"/>	<input type="text"/>	<input type="text"/>
Steam pressure P <sub>v</sub>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kinematic viscosity (ν)	<input type="text"/>	mm <sup>2</sup> /s or cSt	
Dynamic viscosity (η)	<input type="text"/>	mPa.s or cP	
Standard density	<input type="text"/>	Kg/m <sup>3</sup>	
Max. sound level accepted	<input type="text"/>	dB (A)	

<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**

Valve type	<input type="checkbox"/> Globe	<input type="checkbox"/> Angle seat	<input type="checkbox"/> Diaphragm	<input type="checkbox"/> Ball valve	<input type="checkbox"/> Butterfly	<input type="checkbox"/> Other
Body material	<input type="checkbox"/> Stainless steel	<input type="checkbox"/> PVC	<input type="checkbox"/> PP	<input type="checkbox"/> PVDF	<input type="checkbox"/> Other	
Surface finish <sup>2)</sup>	<input type="text"/> internal		<input type="text"/> external			
Seat sealing material	<input type="checkbox"/> Metal	<input type="checkbox"/> PTFE	<input type="checkbox"/> EPDM <sup>2)</sup>	<input type="checkbox"/> FKM <sup>2)</sup>		
Nominal pressure	PN <input type="text"/>					
Nominal size	DN <input type="text"/>					
Type of connection	<input type="checkbox"/> Flange	<input type="checkbox"/> Socket union	<input type="checkbox"/> Welded	<input type="checkbox"/> Internal thread	<input type="checkbox"/> External thread	<input type="checkbox"/> Tri-Clamp <sup>*</sup>
Standard connection	<input type="checkbox"/> ISO	<input type="checkbox"/> DIN	<input type="checkbox"/> ANSI	<input type="checkbox"/> JIS	<input type="checkbox"/> Other	
Function	<input type="checkbox"/> NC <sup>3)</sup>	<input type="checkbox"/> NO <sup>3)</sup>	<input type="checkbox"/> Double-acting			
Pilot pressure	<input type="text"/> min.	<input type="text"/> max.				

<sup>2)</sup> only diaphragm valve <sup>3)</sup> NC: normally closed by spring action; NO: normally open by spring action  
\* Tri-Clamp® is a registered Trademark of Alfa Laval Inc.

**Control Head**

**Electrical position feedback**

<input type="checkbox"/> Type 8631	<input type="checkbox"/> Type 1062
<b>Control</b> <input type="checkbox"/> 24 V DCI <input type="checkbox"/> ASI-Bus <input type="checkbox"/> DeviceNet <input type="checkbox"/> Ex-version	<b>Limit switches</b> <input type="checkbox"/> mechanical <input type="checkbox"/> Voltage 12-48 V <input type="checkbox"/> Voltage 110-250 V <input type="checkbox"/> inductive <input type="checkbox"/> NAMUR EExi
<b>Feedback</b> <input type="checkbox"/> mechanical limit switches <input type="checkbox"/> inductive proximity switches	<b>Status</b> <input type="checkbox"/> closed <input type="checkbox"/> open <input type="checkbox"/> open/closed
<b>Electrical connection</b> <input type="checkbox"/> Cable connector <input type="checkbox"/> Multipol circular connector	
Please specify item no. if known: <input type="text"/>	Please specify item no. if known: <input type="text"/>

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