

2/2-way Diaphragm Control Valve, plastic body, pneumatically operated, DN 15-100



Complete Burkert system using Type 2730 with TopControl 8630

Type 2730 can be combined with...



Type 8630

Positioner
TopControl
continuous



Type 1067

Positioner
SideControl



Type 8635

Positioner
SideControl



Type 8323

Pressure
transmitter



Type 8030

Flow sensor



Type ST20

Temperature
sensor

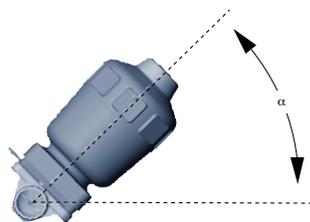
- Hermetical separation of fluids from the operating mechanism by diaphragm
- Integrated cascade process controller with PID algorithm
- Automatic self-adjustment of basic parameters means autotune for the valve and for PID
- Zero dead volume

The diaphragm control valve Type 2730 consists of a pneumatically operated piston actuator, a diaphragm and a 2-way valve housing made of plastic. The actuator has been designed so that the stroke can be continuously changed. This makes a favourable characteristic possible for the continuous change of the flow.

Type 2730 can be actuated by the TopControl Continuous Type 8630 or SideControl Type 1067 or Type 8635 forming a mechanical and functional unit and thus offering a complete control valve system. Using this control valve, continuous regulation tasks for fluids can be solved.

Installation for self-draining operation

$\alpha = 15$ up to 30° plus 3 to 5° inclination to the pipe axis



Technical data

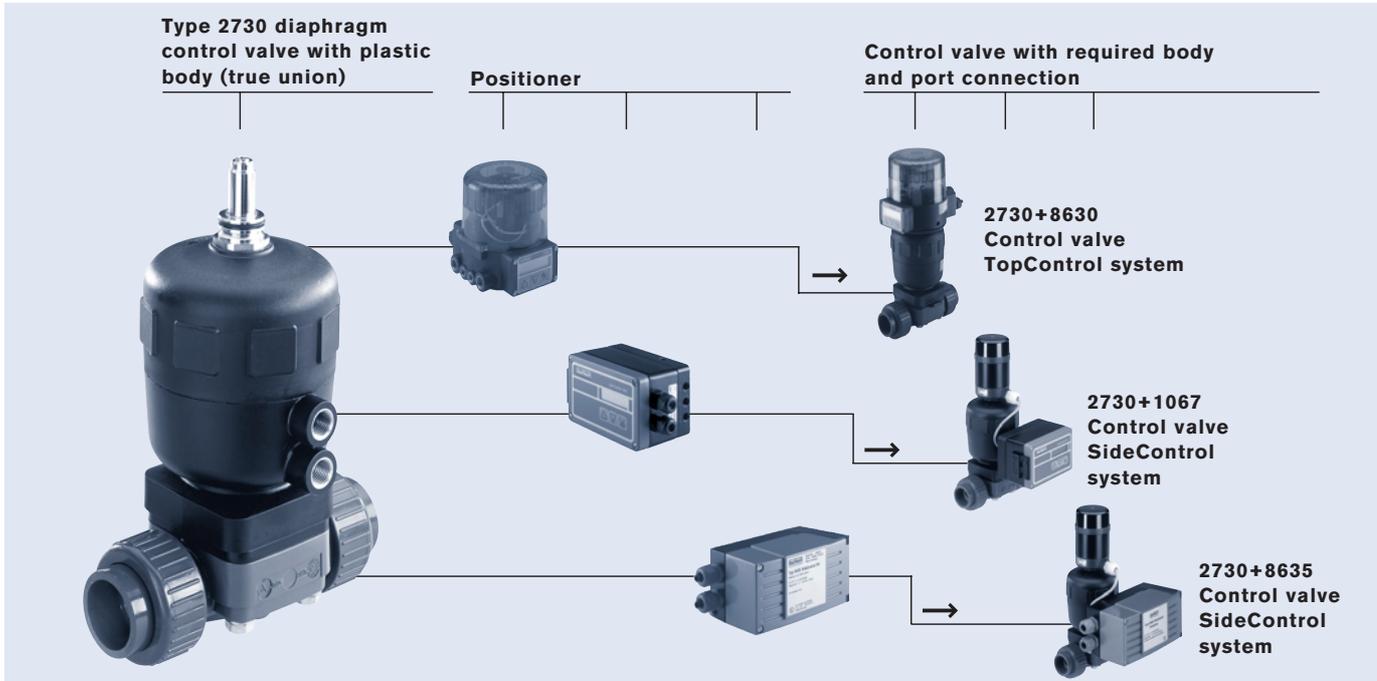
Materials		
Body	True union Spigot Flange \geq DN 65	PVC (PP and PVDF on request) PVC, PP (PVDF on request) PVC PA (polyamide)
Actuator		PA (polyamide)
Sealing materials		
EPDM, PTFE/EPDM		
Process media		
For neutral gases or liquids, aggressive or abrasive fluids		
Viscosity		
Up to viscous		
Media temperature		
see chart p. 3		
Ambient temperature		
-10 to +60°C		
Control medium		
(for coupling with a positioner) Instrumental air class 3 acc. DIN ISO 8573-1		
Pilot pressure		
5,5 to 7 bar Actuators \varnothing 80 to 125 mm 5 to 6 bar Actuators \varnothing 175 and 225 mm		
Threads for pilot air		
G 1/4 stainless steel (SS)		
Flow characteristic		
see chart p. 3		
Port connections		
<ul style="list-style-type: none"> ▪ True union ▪ Spigot ▪ Flange 		
Installation		
As required, preferably with actuator in upright position		
With self-draining operation		
see drawing beside		

Control valve system

A complete control valve system consists of a diaphragm control valve Type 2730 and a valve actuation system SideControl Type 1067 or Type 8635 or TopControl Type 8630. The positioners are 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 diaphragm control valve **Type 2730** (see Ordering chart)
- **Item no.** of the desired positioner **Type 8630, 1067 or 8635** (see separate datasheets)

Examples for variations of a complete control valve systems



Valve actuation system: TopControl Type 8630



0/4-20 mA
0-5/10 V  DeviceNet™

The Type 8630 is a digital electropneumatic positioner to be combined with pneumatically actuated process valves. Its compact design with an integrated position encoder and digital text display was designed for the growing requirements of industrial applications. Signal processing, regulation, and control of the internal positioning system are done using microprocessor-controlled electronics. Thanks to its easy-to-use operating structure, the positioner is simple and easy to operate despite its wide range of functionality.

Important features:

- Automatic commissioning of the control valve system and the optional process controller using the functions X-Tune or P.Co-Tune
- Automatic or manual definition of correction characteristic curves
- Binary inputs and outputs
- Analog output
- Fit seamlessly to Bürkert process valve systems
- 24VDC 3-wire

Valve actuation system: SideControl Type 8635, 2-wire, intrinsically safe



4-20 mA  

The Type 8635 is a digital electropneumatic positioner to be combined with pneumatically actuated process valves. Its robust, compact design was designed for the growing requirements of the process technology industry. Signal processing, regulation, and control of the internal positioning system are done using microprocessor-controlled electronics. Thanks to its easy-to-use operating structure, the positioner is simple and easy to operate despite its wide range of functionality.

Important features:

- Automatic commissioning of the control valve system and the optional process controller using the functions X-Tune or P.Co-Tune
- Automatic or manual definition of correction characteristic curves
- Binary inputs and outputs
- Analog output
- Mounting on variable acting valves according to DIN IEC 534-6 (NAMUR) and Bürkert process control valves
- 2-wire, power supply through setpoint or PROFIBUS PA
- ATEX certification
 - II 2G EEx ia IIC T6 Zone 1
 - II 3G/D EEx ia IIC T6 Zone 2/22
- Robust housing of hardcoated and plastic plated aluminum

Valve actuation system: SideControl Type 1067



0/4-20 mA
0-10 V

The Type 1067 is a digital electropneumatic positioner to be combined with pneumatically actuated process valves. Its robust, very compact design was designed for the growing requirements of the process technology industry.

Signal processing, regulation, and control of the internal or external positioning system are done using microprocessor-controlled electronics. Thanks to its easy-to-use operating structure, the positioner is simple and easy to operate despite its wide range of functionality.

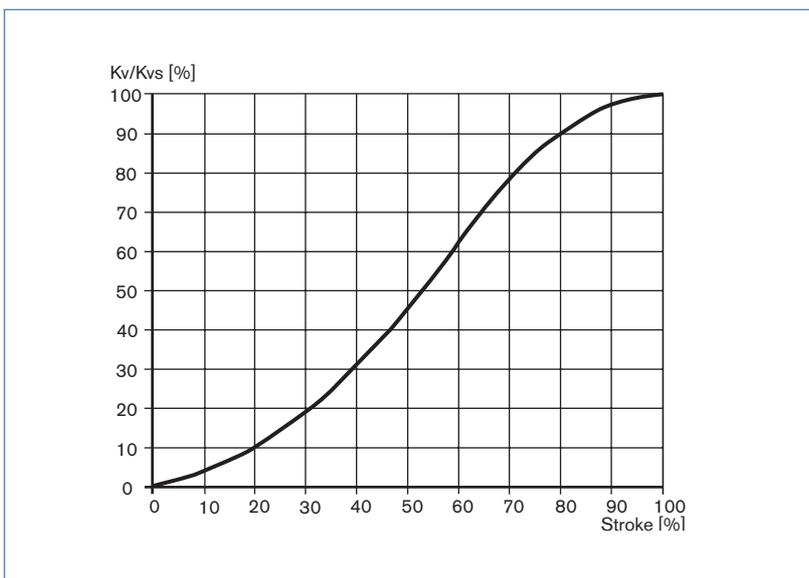
Important features:

- Automatic commissioning of the control valve system using the X-Tune functions
- Automatic or manual definition of correction characteristic curves
- Binary inputs and outputs
- Analog output
- Mounting on variable acting valves according to DIN IEC 534-6 (NAMUR) and Bürkert process control valves
- 3-wire, 24 VDC
- Keypad/display unit
- Remote version with positioner separate from control valve

Technical data

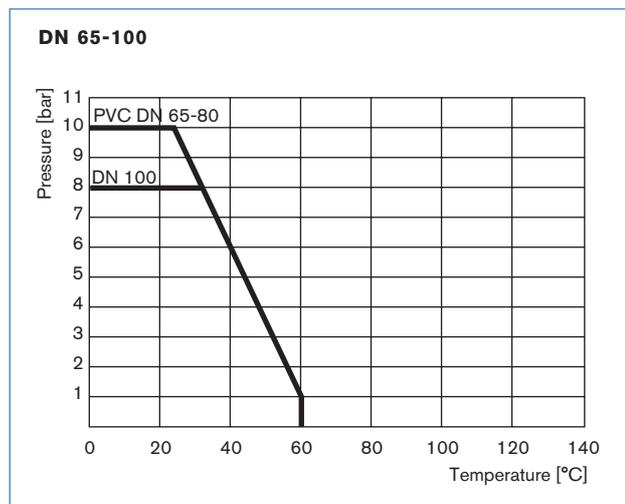
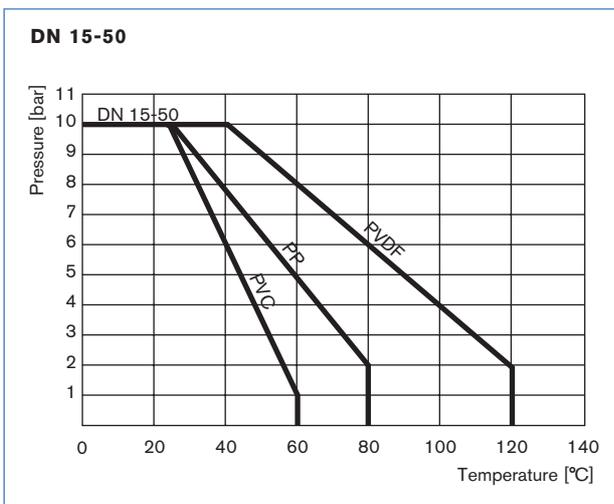
Orifice [mm]	Actuator size [mm]	Kvs value [m³/h]	Weight without TopControl [kg]
15	F-80	4.0	1.7
20	F-80	7.0	1.8
25	F-80	12.5	1.9
32	G-100	19.0	3.4
40	H-125	27.0	5.4
50	H-125	45.0	6.6
65	H-125	55.0	9.5
	K-175	60.0	15.5
80	K-175	105.0	18.0
	L-225	105.0	24.0
100	L-225	160.0	27.5

Flow characteristic



For further information about flow rates please see datasheet Type 273X

Pressure-temperature compatibility



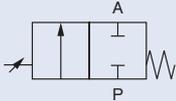
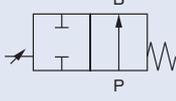
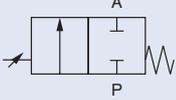
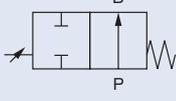
Important for the material selection!

Note that the permissible operating pressure is dependent on the media temperature

Ordering chart (other versions on request)

PA actuator: Plastic body with true union connection, \geq DN 65 with flange connection, PP with spigot connection

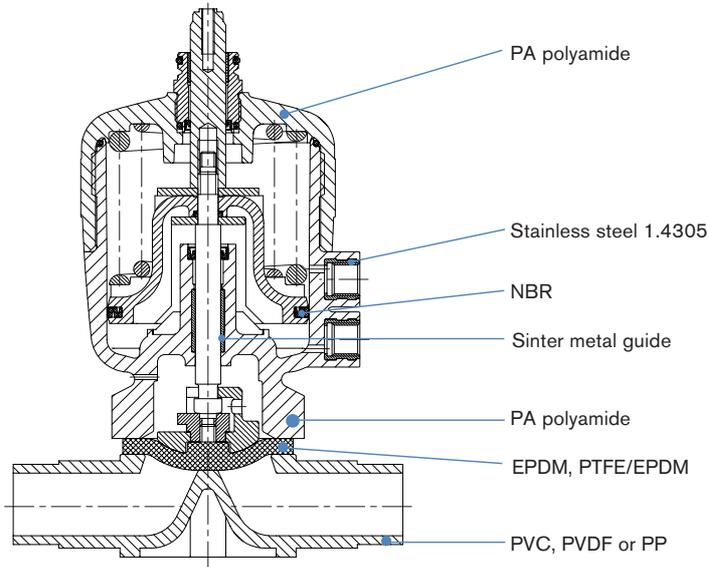
for approved media temperature please see chart "pressure-temperature compatibility"

Control function	Port connection [mm]	Actuator size \varnothing [mm]	Kvs value [m ³ /h]	Operating pressure max. ¹⁾ [bar]	Item no. PVC body with true union	Item no. PP body with spigot	Item no. PVC body with flange
EPDM diaphragm material							
A  NC by spring return	15	F-80	4	10	148 228	148 250	-
	20	F-80	7	10	148 229	148 251	-
	25	F-80	12.5	10	148 230	148 252	-
	32	G-100	19	10	148 231	148 253	-
	40	H-125	27	10	148 232	148 254	-
	50	H-125	45	8	148 233	148 255	-
	65	H-125	58	7	-	-	157 521
		K-175	60	10	-	-	157 522
		L-225	105	10	-	-	157 526
	100	L-225	160	8	-	-	157 527
B  NO by spring return	15	F-80	4	10	148 234	148 256	-
	20	F-80	7	10	148 235	148 257	-
	25	F-80	12.5	10	148 236	148 258	-
	32	G-100	19	10	148 237	148 259	-
	40	H-125	27	10	148 238	148 260	-
	50	H-125	45	7	148 239	148 261	-
	65	H-125	58	7.5	-	-	158 321
		K-175	60	10	-	-	158 322
		80	K-175	105	9	-	-
	100	K-175	160	7	-	-	158 324
PTFE/EPDM diaphragm material							
A  NC by spring return	15	F-80	4	10	147 567	147 486	-
	20	F-80	7	10	148 240	148 262	-
	25	F-80	12.5	7.5	148 241	148 263	-
	32	G-100	19	8	148 242	148 264	-
	40	H-125	27	10	148 243	148 265	-
	50	H-125	45	7	147 980	148 266	-
	65	H-125	58	4	-	-	157 529
		K-175	60	8.5	-	-	157 530
		80	L-225	105	10	-	-
	100	L-225	160	4	-	-	157 535
B  NO by spring return	15	F-80	4	9	148 244	148 267	-
	20	F-80	7	8.5	148 245	148 268	-
	25	F-80	12.5	8	148 246	148 269	-
	32	G-100	19	10	148 247	148 270	-
	40	H-125	27	10	148 248	148 271	-
	50	H-125	45	4	148 249	148 272	-
	65	H-125	58	6.5	-	-	158 325
		K-175	60	10	-	-	158 326
		80	K-175	105	7.5	-	-
	100	K-175	160	4	-	-	158 328

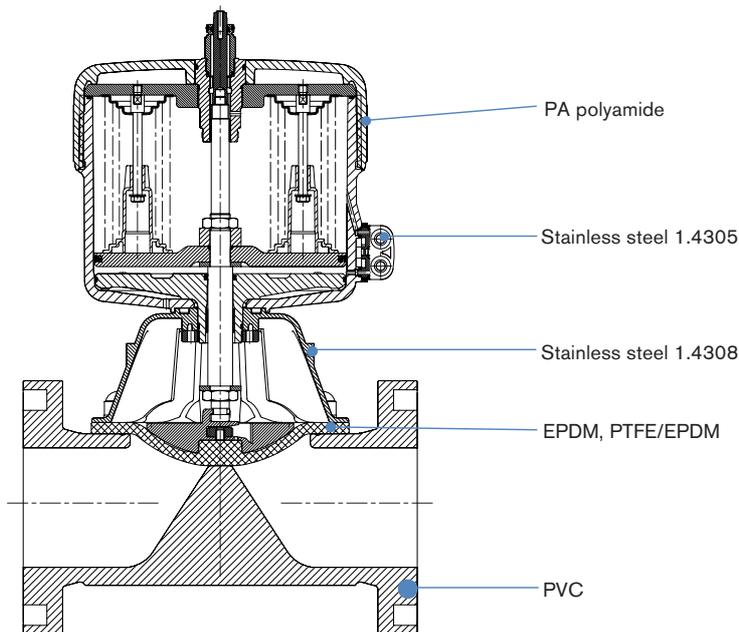
¹⁾ With a pilot pressure of 5.5 bar

Materials

DN 15-50



DN 65-100



Approvals

Suitable for foodstuffs / sterile applications

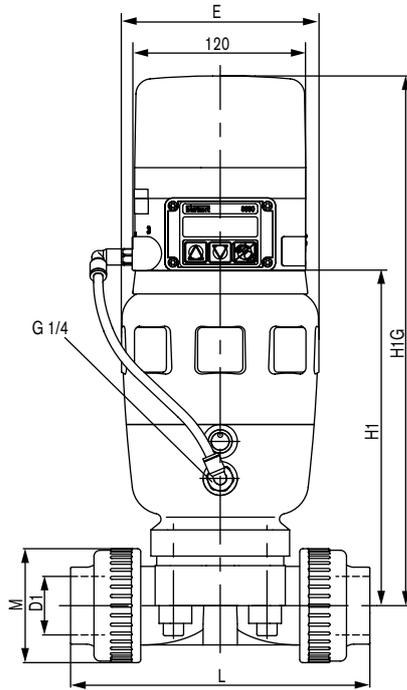


- The composition of the EPDM and PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations*, published by the *FDA* (Food and Drug Administration, USA).
- The EPDM diaphragms correspond to the *KTW-Recommendation* (Plastics in the Drinking Water Sector), A Manufacturer's Declaration will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

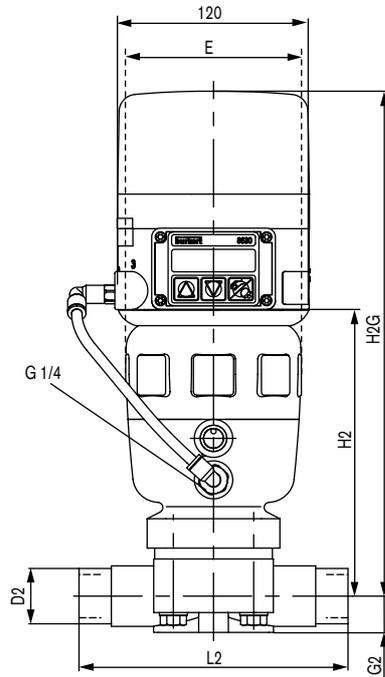
Dimensions [mm]

DN 15-50 with TopControl Continuous Type 8630

PVC body with true union connection



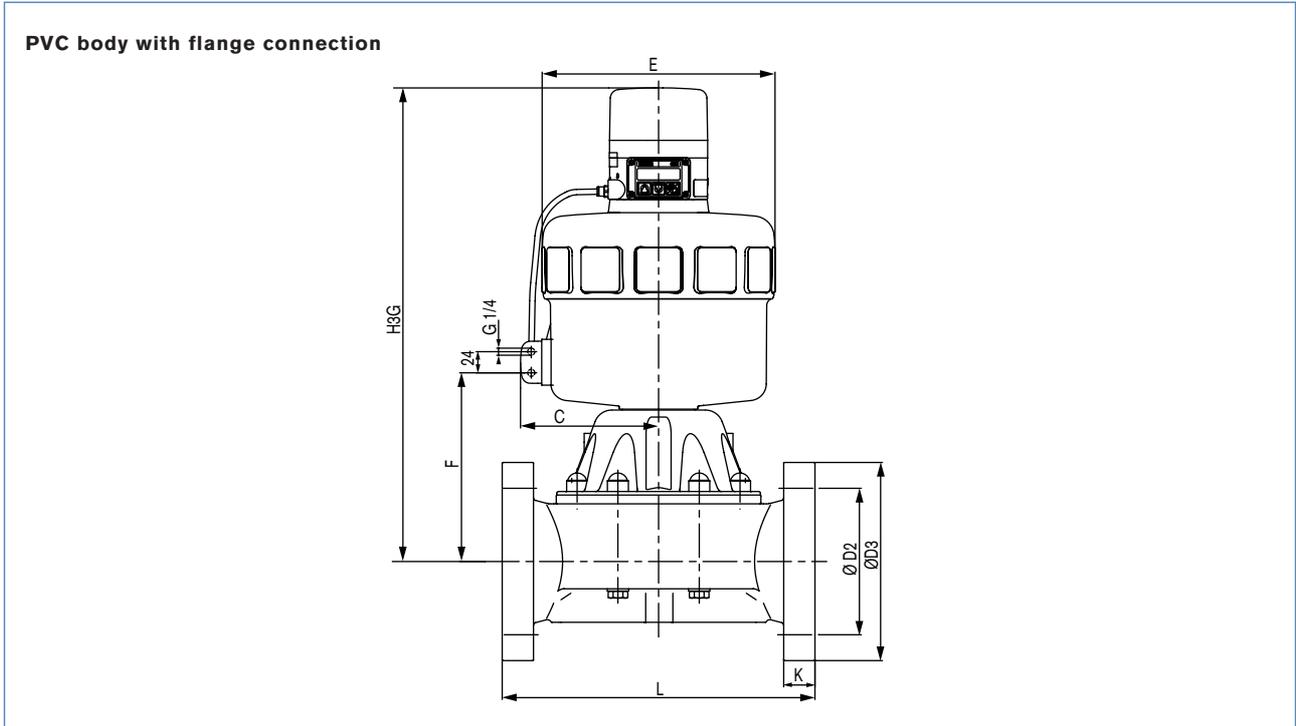
PP body with spigot connection



All bodies			PVC with true union connection						PP with spigot connection				
Orifice	Actuator size	E	D1	H1	H1G	L	M	D2	G2	H2	H2G	L2	
15	F-80	101	20	127	254	128	43	20	14	126	253	124	
20	F-80	101	25	161	288	152	53	25	18	161	288	144	
25	F-80	101	32	164	291	166	60	32	21	154	291	154	
32	G-100	127	40	216	346	192	74	40	26	215	345	174	
40	H-125	153	50	262	392	222	83	50	33	261	391	194	
50	H-125	153	63	269	399	266	103	63	39	278	408	224	

Dimensions [mm]

DN 65-100 with TopControl Continuous Type 8630



PVC with flange connection

Orifice [mm]	Actuator size	Port connection	E	C	ØD2	ØD3	F	H3G	K	L
65	H-125	Loose flanges	158	86	145	185	129	425	29	290
	K-175	Loose flanges	211	130	145	185	180	517	29	290
80	K-175	Fixed flanges	211	130	160	200	197	528	36	310
	L-225	Fixed flanges	261	155	160	200	198	523	36	310
100	K-175	Fixed flanges	211	130	180	225	209	545	36	350
	L-225	Fixed flanges	261	155	180	225	210	540	36	350

Please note

This is an "on-line" formular, i.e. you can fill out the formular directly in the pdf document before you print it out

Control 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

Measuring and control task

Pipeline DN PN

Pipe material

Process medium

Type of media Liquid Steam Gas

Min Standard Max unit

Flow rate (Q, Q_N, W)¹⁾

Temperature at valve inlet T1

Absolute pressure at valve inlet P1

Absolute pressure at valve outlet P2

Steam pressure P_v

Kinematic viscosity (ν) mm²/s or cSt

Dynamic viscosity (η) mPa.s or cP

Standard density Kg/m³

Max. sound level accepted dB (A)

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

Valve features

Control valve type Globe Angle seat Diaphragm Ball valve Butterfly Other

Body material Stainless Steel PVC PP PVDF Other

Surface finish²⁾ internal external

Seat sealing material Metal PTFE EPDM²⁾ FPM²⁾

Nominal pressure PN

Nominal size DN

Type of connection Flange Socket union Welded Int. thread Ext. thread Tri-Clamp[®]

Standard connection ISO DIN ANSI JIS Other

Function NC NO Double-acting

Pilot pressure min. max.

²⁾ Only diaphragm valve

Positioner / Controller

<input type="checkbox"/> Type 1067 - 3 wire	<input type="checkbox"/> Type 8630 - 3 wire	<input type="checkbox"/> Type 8635 - 2 wire
<input type="checkbox"/> Valve mounted <input type="checkbox"/> Remote version Power supply 24 VDC Communication Setpoint/ output analog signal <input type="checkbox"/> Positioner version Input 0/4 - 20 mA / 0-10 V Output <input type="checkbox"/> 4 - 20mA or <input type="checkbox"/> Binary <input type="checkbox"/> PID Controller version ³⁾ Input measuring signal 4 - 20 mA	Power supply 24 VDC Communication Setpoint/ output analog signal or via BUS <input type="checkbox"/> Profibus DP <input type="checkbox"/> Device Net <input type="checkbox"/> Positioner version Input 0/4 - 20 mA / 0 - 5/10 V Output <input type="checkbox"/> 4 - 20mA or/and <input type="checkbox"/> Binary <input type="checkbox"/> PID Controller version ³⁾ Input measuring signal 4 - 20 mA / Pt100 / Frequency Inductive proximity switch <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> Standard <input type="checkbox"/> EEx ia Power supply 24 VDC via setpoint or BUS Communication Setpoint/ output analog signal or via BUS <input type="checkbox"/> Profibus PA <input type="checkbox"/> Hart <input type="checkbox"/> Positioner version Input 4 - 20 mA Output <input type="checkbox"/> 4 - 20mA or/and <input type="checkbox"/> Binary <input type="checkbox"/> PID Controller version ³⁾ Input measuring signal 4 - 20 mA Inductive proximity switch <input type="checkbox"/> 1 <input type="checkbox"/> 2

³⁾ same setpoint for Input and Output signal as for Positioner version

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

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

We reserve the right to make technical changes without notice.

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