## 2/2-Way, Stainless Steel, DN 15-50 mm, PN10



## Design

This continuous control system is a combination of a piston operated diaphragm valve with stainless steel body, a position sensor and an electro-pneumatic control system. The position sensor measures the actual regulating distance of the valve.

The micro-processor controlled electronics continuously compares this actual value to a controller output, pre-defined by the standard signal input. In case of a control difference, the electro-pneumatic control system corrects the control position. Due to the 4...20 mA standard transmitter input the positioner can also be used as a cascaded process controller for controlled variables such as flow, temperature, pressure, level etc. The diaphragm between the actuator and body of the valve hermetically isolates the fluid from the actuator.

- Programmable flow curves:
- linear, equal percentage
- freely programmable via restart points
- No control air consumption in stabilized condition
- Excellent flow characterisitic combined with high flow rates

## Advantages / Benefits

- Integrated, cascaded process controller with parameter definable PID-algorithm
- Automatic self-adjustment of basic parameters
- User-friendly operation
   menu-guided
- Code-protection against unauthorized access
- Fluid is hermetically isolated from the actuator by diaphragm
- ►CE certified

## Applications

#### Fluids

Polluted, dirty, abrasive or high viscosity liquids up to 140 °C.

#### Applications

- Textile dyeing and bleaching
- Food processing
- Chemical process engineering
- Water treatment
- Medical technology (Sterilizers)
- Mechanical engineering



# Diaphragm Valve System for continuous control General Purpose

#### Technical Data Positioner Type 1067

### Electrical Data

Voltage supply: Power consumption: Signal input for positioner:

Binary input:

Connection:

#### Pneumatic Data Instrument air:

Pressure range: Air performance Air inlet valve: Exhaust valve:

Internal air consumption in leveled status: Connection:

#### Installation and

Operation Data Overall dimensions of postioner Body material: Fluid plate material: Weight of positioner: Rating: Operating temperature: 24 V DC < 10 W Unit signal: 4 ... 20 mA 0 ... 20 mA 0 ... 10 V Configurable as normally open or closed contact. Clamping screw 1,5 mm Cable gland 2 x PG 9

Air, filtered compressed air, lubricated or nonlubricated 0 ... 6 bar

33 (66) NI/min <sup>(1)</sup>
38 (76) NI/min <sup>(1)</sup>
<sup>(1)</sup>In case of pressure drop from 6 to 5 bar. (Figures in brackets as option).

0 NI/min Internal screw thread G 1/8''

(B x H x T): 125 mm x 80 mm x 77 mm Aluminium, laquered Aluminium, anodized approx. 1 kg IP 65 0 ... 60 °C

# Technical Data Control Valve 2031

### Valve

Size (DN): Rangeability: Flow features:

Flow capacity:

Medium temperature: Max. Operating pressure:

Actuator

Actuator size ( ø mm ): Signal (bar):

Function:

15, 20, 25, 32, 40, 50 Control range  $\geq$ 50:1 Modified equal percentage see table page 4

-10°C...+140°C 10 bar (at ambient temperature)

see table page 3 Air min. 5.5 bar, air max. 7 bar

Normally closed under spring force.

#### **Functional Diagram**





#### **Ordering Chart**

Orifice	Actuator-	Max. operating	Seal	Weight	Item-No. for different connection					
DN	size	pressure	(Diaphragm)		G-thread	ded port	Weld-ends			
[mm]	[mm]	[bar]		[kg]	[inch]	Item-No.	[mm]	Item-No.		
15	63	10.0	EPDM	2.0	G 1/2	425 885 C	21.3 x 1.6	425 871 M		
	63	10.0	PTFE/EPDM		G 1/2	425 886 D	21.3 x 1.6	425 872 N		
20	80	10.0	EPDM		G 3/4	425 888 P	26.9 x 1.6	425 874 Q		
	80	10.0	PTFE/EPDM		G 3/4	425 889 Q	26.9 x 1.6	425 875 R		
25	80	10.0	EPDM	3.2	G 1	425 890 M	33.7 x 2.0	425 876 J		
	80	8.0	PTFE/EPDM		G 1	425 891 A	33.7 x 2.0	425 877 K		
32	100	10.0	EPDM	4.9	G 11/4	425 892 B	42.4 x 2.0	425 878 U		
	100	8.0	PTFE/EPDM		G 11/4	425 893 C	42.4 x 2.0	425 879 V		
40	125	10.0	EPDM	6.8	G 11/2	425 895 E	48.3 x 2.0	425 881 G		
	125	10.0	PTFE/EPDM		G 11/2	425 896 F	48.3 x 2.0	425 882 H		
50	125	8.0	EPDM	8.6	G 2	425 897 G	60.3 x 2.0	425 883 A		
	125	7.0	PTFE/EPDM		G 2	425 898 R	60.3 x 2.0	425 884 B		



Pressure Control Flow Control Temperature Control



# Diaphragm Valve System for continuous control General Purpose

### **Specifications - Flow Capacity**

Plug travel [%]	DN15	DN20	DN25	DN32	DN40	DN50
0	0.00	0.00	0.00	0.00	0.00	0.00
10	0.05	0.08	0.28	0.40	0.60	1.50
20	0.20	0.70	1.20	1.60	3.10	5.30
30	0.50	2.10	2.50	4.20	7.10	8.40
40	1.10	4.30	5.40	8.80	13.60	18.30
50	1.80	6.10	8.60	13.20	18.30	30.10
60	2.80	8.10	12.60	17.70	26.10	42.70
70	3.80	10.10	15.70	22.40	35.10	58.30
80	4.70	12.10	18.80	28.20	40.80	67.60
90	5.20	13.40	21.70	32.00	42.70	72.80
100	5.40	13.50	22.00	33.00	43.00	74.00

#### Dimensions [mm]



#### Variable dimensions [mm]

											G-port connect.		Rc-port connect.	
DN	Actuator size	С	øD1	øD3	F	Н	L	L1	S	SW	В	К	В	К
15	63	139	21.3	80	25.0	223	102	110	1.6	27	G 1/2	14	Rc 1/2	13.0
20	80	147	26.9	101	42.0	257	118	119	1.6	32	G 3/4	12	Rc 3/4	14.5
25	80	147	33.7	101	45.0	260	127	129	2.0	41	G 1	14	Rc 1	16.5
32	100	160	42.4	127	60.0	301	146	148	2.0	50	G 11/4	16	Rc 11/4	19.0
40	125	173	48.3	153	74.0	354	159	161	2.0	60	G 11/2	18	Rc 11/2	19.0
50	125	173	60.3	153	78.0	358	191	192	2.0	70	G 2	20	Rc 2	23.0

In case of special requirements please consult for advice.

We reserve the right to make technical changes without notice.

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**bürkert**