



## Pneumatically operated 2/2-way valve with separating diaphragm

- Media separated by diaphragm
- Stainless steel or brass body with threaded connection
- High service life
- Compact design

Product variants described in the data sheet may differ from the product presentation and description.

### Can be combined with



**Type 6014**

Plunger valve 3/2-way direct-acting



**Type 8640**

Modular valve island for pneumatics



**Type 8644**

AirLINE SP electropneumatic automation system



### Type description

The externally piloted 2-way valve is operated by a diaphragm actuator. A diaphragm between valve body and actuator separates the media. A double spindle seal guarantees high tightness and a high service life.

The compact actuator housing is made out of chemical resistant plastic and is ideal for customer specific multifunction block solutions.

This low maintenance and robust valve can be supplemented by a large accessory program.

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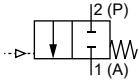
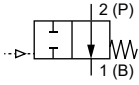
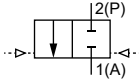
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## 1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 6.
Material	
Body	Brass, stainless steel
Inner part of valve	Stainless steel
Actuator	Epoxy resin
Seal	NBR, FKM, EPDM
Nominal diameter	DN 10, DN 12
Performance data	
Pilot pressure	Further information can be found in chapter "6. Performance specifications" on page 7.
Medium data	
Operating medium	
With NBR	Neutral mediums, e.g. compressed air, natural gas, water, hydraulic oil
With FKM	Per-solution, oxygen, hot air
With EPDM	Oil and fat-free mediums, e.g. hot water, alkaline washing and bleaching lyes
Medium temperature	
With NBR	- 10 °C...+ 90 °C
With FKM	- 10 °C...+ 100 °C
With EPDM	- 10 °C...+ 100 °C
Viscosity	Max. 100 mm <sup>2</sup> /s
Control medium	Neutral gases and liquids, in particular air, water, hydraulic liquids up to max. + 90 °C
Approvals and conformities	
Explosion protection	Further information can be found in chapter "3. Approvals and conformities" on page 4.
Environment and installation	
Ambient temperature	- 10 °C...+ 90 °C
Installation position	As required, preferably with actuator upright

## 2. Control functions

Symbol	Description
	<b>Control function A (CF A)</b> Pneumatically operated 2/2-way on/off valve Flow direction below seat Normally closed by spring force
	<b>Control function B (CF B)</b> Pneumatically operated 2/2-way on/off valve Flow direction above seat Normally opened by spring force
	<b>Control function I (CF I)</b> Pneumatically operated 2/2-way on/off valve on either side Flow direction below seat Switching position dependent on external control

### 3. Approvals and conformities

#### 3.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available versions can be supplied with the below mentioned approvals or conformities.

#### 3.2. Conformity



In accordance with the Declaration of Conformity, the product is compliant with the EU Directives. This includes the following directives:

- Pressure Equipment Directive 2014/68/EU
- Machinery Directive 2006/42/EG

#### 3.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

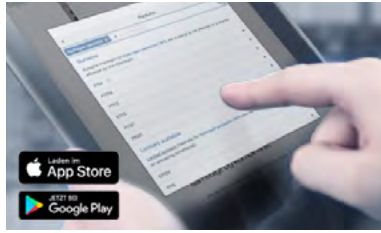
#### 3.4. Explosion protection

Approval	Description																
  	<p><b>Optional: Explosion protection</b> As a category 2 device suitable for zone 1/21 and zone 2/22 (optional).</p> <p><b>ATEX:</b> EPS 18 ATEX 2 008 X II 2G Ex h IIC T4...T2 Gb II 2D Ex h IIIC T135 °C...T300 °C Db</p> <p><b>IECEx:</b> IECEx EPS 18.0007 X Ex h IIC T4...T2 Gb Ex h IIIC T135 °C...T300 °C Db</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Temperature class</th> <th style="width: 15%;">T2</th> <th style="width: 15%;">T3</th> <th style="width: 15%;">T4</th> </tr> </thead> <tbody> <tr> <td>Permissible surface temperature</td> <td>+ 300 °C</td> <td>+ 200 °C</td> <td>+ 135 °C</td> </tr> <tr> <td>Ambient temperature</td> <td>- 40...+ 130 °C</td> <td>- 40...+ 130 °C</td> <td>- 40...+ 100 °C</td> </tr> <tr> <td>Maximum medium temperature</td> <td>+ 285 °C</td> <td>+ 185 °C</td> <td>+ 125 °C</td> </tr> </tbody> </table>	Temperature class	T2	T3	T4	Permissible surface temperature	+ 300 °C	+ 200 °C	+ 135 °C	Ambient temperature	- 40...+ 130 °C	- 40...+ 130 °C	- 40...+ 100 °C	Maximum medium temperature	+ 285 °C	+ 185 °C	+ 125 °C
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Permissible surface temperature	+ 300 °C	+ 200 °C	+ 135 °C														
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## 4. Materials

### 4.1. Bürkert resistApp

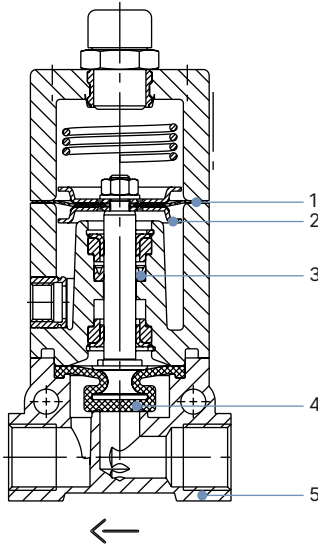


#### Bürkert resistApp – Chemical resistance chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

### 4.2. Material specifications

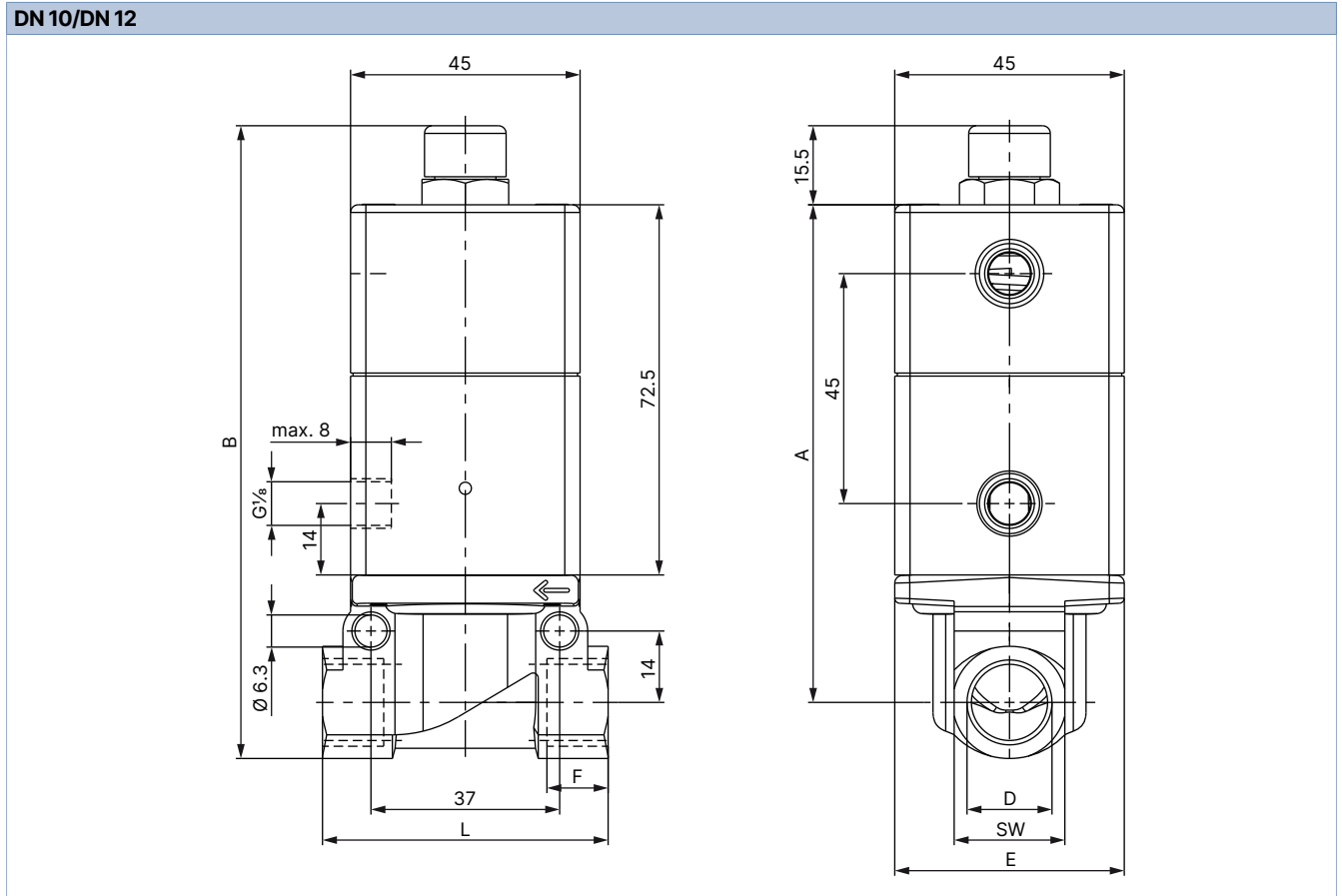


No.	Element	Material
1	Control diaphragm	FKM
2	Spring plate	Stainless steel 1.4301
3	Lip seal	NBR, EPDM, FKM
4	Diaphragm	NBR, EPDM, FKM
5	Body	Brass, stainless steel 1.4581

## 5. Dimensions

**Note:**

- Upper pilot air port only for CF B and CF I
- Dimensions in mm



Nominal diameter	D	A	B	E	F	L	AF
10	G 3/8	97.5	124	45	12	56	22
12	G 1/2	96.5	127.5	40	14	74.5	27

## 6. Performance specifications

### 6.1. Pressure range

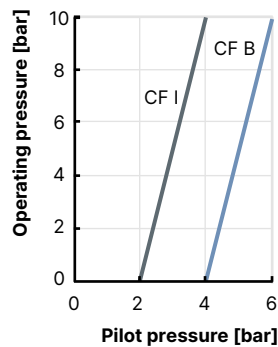
Nominal diameter [mm]	K <sub>v</sub> value water [m <sup>3</sup> /h] <sup>1)</sup>	Port connection	Operating pressure max.			Weight [kg]
			CF A, normal spring [bar] <sup>2)</sup>	CF A, reinforced spring [bar] <sup>2)</sup>	CF B and CF I, normal spring [bar] <sup>2)</sup>	
10	1.0	G 3/8	2.5	5	10	0.5
12	2.1	G 1/2	2	4.5	10	0.6

1.) Measurement at +20 °C, 1 bar at valve inlet and free discharge

2.) Pressure information: overpressure with respect to ambient pressure

### 6.2. Operating pressure/pilot pressure diagram

Control functions B and I



## 7. Ordering information

### 7.1. Bürkert eShop



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### 7.2. Bürkert product filter



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### 7.3. Ordering chart

**Note:**

Valves with threaded connection

Control function	Port connection	Nominal diameter	K <sub>v</sub> value water	Operating pressure max.	Pressure spring actuator	Seal material	Article no.
		[mm]	[m <sup>3</sup> /h] <sup>1)</sup>	[bar] <sup>2)</sup>			
<b>Brass body</b>							
CF A	G 3/8	10	1.0	2.5	Normal	FKM	027963
						NBR	027342
					5	Reinforced	EPDM
				FKM			026903
				NBR			026065
				G 1/2	12	2.1	2
	FKM	026246					
	NBR	026207					
	4.5	Reinforced	EPDM				028023
			FKM				027695
			NBR				027881
	CF B	G 3/8	10	1.0	10	Normal	EPDM
FKM							028037
NBR							026455
G 1/2		12	2.1	10	Normal	EPDM	027987
						FKM	028827
						NBR	027962
<b>Stainless steel body</b>							
CF A	G 1/2	12	2.1	4.5	Reinforced	EPDM	027428
						FKM	026944
						NBR	027328
CF B	G 1/2	12	2.1	10	Normal	EPDM	289834
						FKM	029259

1.) Measurement at + 20 °C, 1 bar at valve inlet and free discharge  
 2.) Pressure information: overpressure with respect to ambient pressure