Type PKIII

Butterfly flap valve for Gaseous Media
Electro-Pneumatic Operated

APPLICATION AREA

> Gas firing systems on steam boilers
  acc. to DIN EN12952/12953
> Industrial thermoprocessing equipment
  acc. to DIN EN 746
> Pipe systems for gaseous fuels
  for all industrial sectors

ADVANTAGE

> Closing time <3 seconds
> Safety guaranteed by the proven sealing system with soft seal
  (leakage rate A in acc. with EN 12266-1)
> Closing of the valve is dampened to reduce pressure surges in the pipeline
> Heavy duty design for high amount of operating cycles
> High performance valve design for long service life
**APPLICATION**

> Automatic operated emergency shutdown device
> Safety device for gas burner
> Automatic shut-off valve in piping systems

**TECHNICAL DATA**

> Single-seated straight-through globe flap acc. to DIN/EN standard
> Body and disc as welded steel construction
> Seat ring made of stainless steel
> Double shaft sealing with O-ring and connection for tightness test
> Additional sealing force generated through primary pressure loaded onto the flap disc
> On top piston actuator with closing spring set
> Maintenance-free plain bearing teflon-based
> Flap disc with safety metallic overload protection
> Flap disc closing function operated parallel on flap disc sealing
> Flap disc function generated by special double deflexion lever
> Hydraulic closing delay

**CERTIFICATES**

EC-Type examination (Modul B) acc. to directive 2014/68/EU

EC-Type examination certificate with product-identnumber acc. to gas appliance directive 2009/142/EC (till DN 1600) based on:

DIN EN 13611 / DIN EN 161

Certificate:

> TA-Luft DIN EN ISO 15848-1 VDI 2440
> SIL2 / EN 61508

**OPERATING DATA**

**Media:**

> Gaseous fuels acc. to PED 2014/68/EU
> Fuels acc. to G260; gas group 1., 2. and 3
> Other gaseous media

**Operating pressure:**

Max. 2.5 bar g < DN 700 (static)
Max. 1.0 bar g > DN 800 (static)

**Operating temperature:**

-25 to +300 °C

**Ambient temperature:**

-25 to +80 °C

**Control medium:**

Compressed air at 4-8 bar g

**Air quality:**

acc. to DIN ISO 8573-1

**Control voltage:**

230 V, 50 Hz, 24 V DC

**Power:**

10.6 VA / 6.8 W

**IP Protection Class:**

IP 65

**Mounting position:**

no restriction

**Mounting location:**

Indoor/Outdoor

**CLOSING TIME**

<table>
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<tr>
<th>DN</th>
<th>250-500</th>
<th>600-1300</th>
<th>&gt;1300</th>
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<td>&lt;1 s</td>
<td>&lt;1 s</td>
<td>&lt;4 s</td>
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<td>100%</td>
<td>&lt;2 s</td>
<td>&lt;3 s</td>
<td>&lt;6 s</td>
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**OPTION**

> Closing by weight
> Actuator arranged laterally
> Dust bin
**FUNCTION**

In position [1] the flap is closed by spring force. By activating the 3/2-way solenoid valve, compressed air is admitted to the pneumatic actuator. The flap is opened against the closing springs respectively and the pressure load of the operating medium, releasing the passage. During the opening procedure, the rotary movement of the drive shaft will lift the flap disc via the driving lever from the seat, at first in parallel direction. In opened position [2], the flap disc is arranged in parallel with the axis of the casing.

**CLOSING**

In the case of control energy failure or fault cuts-off, the pressure volume in the pneumatic drive will be expanded via an attached quick-venting valve. The flap will be closed by the accumulated energy of the closing springs or by the closing weight respectively. The flap disc moved parallel to the flap seat. This achieves the optimum and lasting tightness.
1 Clamp ring
2 Flap disc sealing
3 Flap disc
4 Actuating bolt
5 Plain bearing
6 O-Ring
7 O-Ring
8 Plain bearing
9 Feather key
10 Steering arm
11 O-Ring
12 Center lever
13 Feather key
14 Casing

* Spare parts
safe and reliable
Type PKIII
Butterfly flap valve for Gaseous Media
Electro-Pneumatic Operated

DN 300-3000  PN 2.5-16

AIR CONTROL SCHEME

Control air-inlet

50.10 Ball valve

50.20 Strainer

50.30 Adjustable throttle valve

50.40 3/2-Way solenoid valve

50.50 Quick venting valve

50.60 Exhaust throttle with drilling hole, Ø 1.5 mm

50.70 Pneumatic-tube

20.10 Pneum. Actuator

20.40 Hyd. flap brake

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safe and reliable

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DN 300-3000  PN 2,5-16

DIMENSIONS

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>DN 1600 on request; Flange dimensions acc. to DIN