

Electro-Pneumatically Operated

# Quick-Closing Valve for gas with hydraulic opening delay feature

## Type KVII/FR

DN 65 – 300 PN 10 – 40



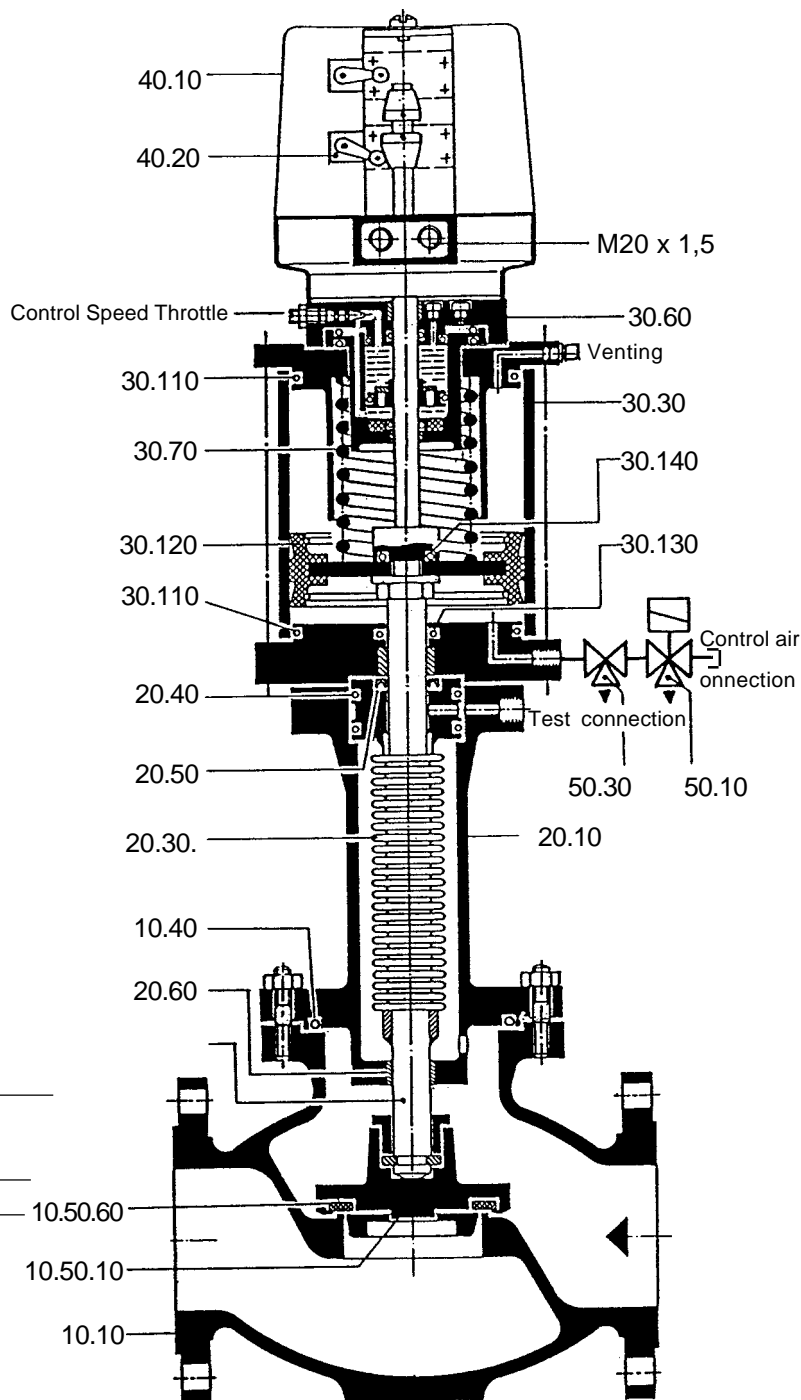
**DIN EN 161 KI.A**  
**DIN 3394-1 / T1 KI.A**  
**German Clean Air Act**

Pressure Equipment Directive 97/23/EC

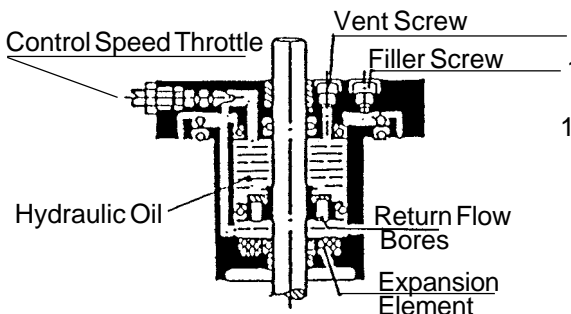
# CE 0035

- 10.10 Body
- \* 10.40 Body gasket
- 10.50.10 Plug
- \* 10.50.60 Plug gasket
- 20.10 Bonnet
- \* 20.30 Stem with stainless steel bellows
- \* 20.40 O-ring
- \* 20.50 Lip seal
- 20.60 Guide bushing
- 30.30 Piston tube
- \* 30.60 Hydraulic brake
- \* 30.70 Compression spring
- \* 30.110 O-ring
- \* 30.120 Piston sleeve
- \* 30.130 O-ring
- \* 30.140 O-ring
  
- \* 40.10 Hood
- \* 40.20 Limit switch
- \* 50.10 3/2-way solenoid valve
- \* 50.30 Quick-acting vent

\* Spares



### Hydraulic Opening Delay Feature



Timer element optimizing the flow rate during starting

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### Field of Use

Gas firing systems on steam boilers to DIN EN 12 952 / DIN EN 12 953  
Gas-carrying pipe systems in all sectors of industry

### Application

*As regulating unit for the burning material mass flow to control the control activity as per DIN EN 12 952-8 para 4.4.1*

*Requirements for firing systems for liquid and gaseous fuels for the boiler as per DIN EN 12 953-7*

*Automatic shut-off valves for gas burners and gas appliances as per DIN EN 161*

*Industrial thermoprocessing equipment as per DIN EN 746-2*

Automatic shut-off valve in piping systems.

### Operating Data

Medium: Gaseous fuels according to PED 97/23/EC  
Gas to DVGW specification sheet G 260  
Industrial fuel gas and gas  
Other media as per material selection

Operating temperature: 0 to 90 °C  
Ambient temperature: -15 to 60 °C  
Control medium: Compressed air at 4 to 8 bar  
Steuerspannung: 230 V, 50 Hz, 24 VDC and other voltages  
Mounting position: optional

### Valve Characteristics

Nominal diameter	DN	65	80	100	125	150	200	250	300
Adm. operat. pressure	bar	10	10	10	6	6	6	3	2
$k_{vs}$ value	m <sup>3</sup> /h	77	120	185	285	410	725	1140	1640
Closing time		< 1 second							
Operating time		5 – 30 second adjustable							

### Function

Quick closing action by spring force without compressed air as auxiliary energy, solenoid control valve in idling state

Valve opens by compressed air as auxiliary energy, solenoid control valve in operating state

### Certification

Registration: PIN-No. according to PED 97/23/EC  
TÜV component tested: DIN-EN 161 Class A, up to and including 4 bar  
DIN 3394 / T1 Class A, from >4 – 16 bar  
TÜV certificate: In compliance with TA-Luft (German Clean Air Act)

### Special Design Types

2 - stage control feature; quick-closing valve with control characteristic

### Note

Strainers are needed to comply with DIN EN 12 952 / DIN EN 12 953 / DIN EN 746-2 para 5.3.2.2 (see types SF and SFY)

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### Technical Data

Single-seated straight-through globe valve to DIN

Stem sealing to TA-Luft requirements  
Stainless steel bellows with additional lip seal,  
Test connection

Flexible plug gasket with metallic supporting element

Double stem guiding system maintenance-free

Medium flow in closing direction, gives additional sealing power

Piston actuator with integrated closing spring and hydraulic opening decelerator

### Materials

Body: GP240GH  
Valve seat: 1.4571 armoured  
Plug gasket: NBR  
Bellows: 1.4541  
Stem: 1.4021  
Piston tube: Aluminium

### Attachment Parts

- 1 3/2-way solenoid valve, directly actuated, pressure 0 – 8 bar
- 1 Quick-acting venting valve
- 2 Limit switches for "OPEN" and "CLOSED" positions
- 1 Protective hood, transparent, for limit switches and visual position indication

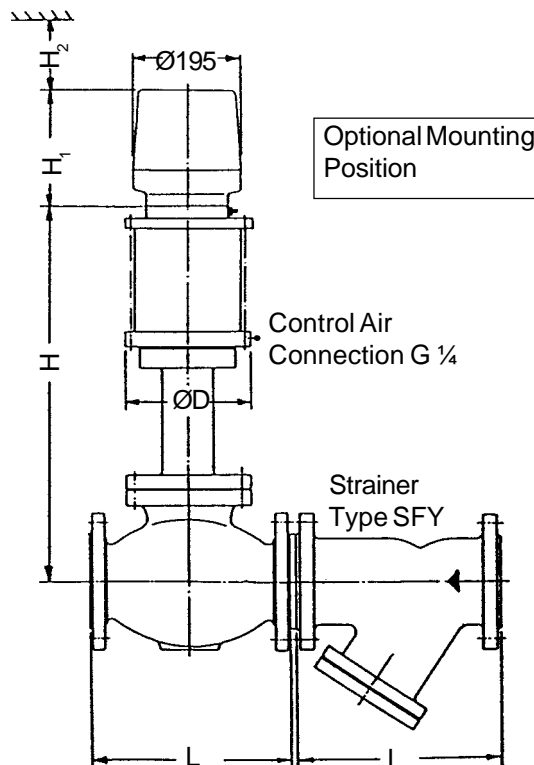
**Other materials and attachment parts available on request.**

Valve dimensions DIN PN 10 – 40

DN	mm					kg	kg SFY	L=ANSI 300 lbs
	L	D	H	H <sub>1</sub>	H <sub>2</sub>			
65	290	195	560	180	120	52	19	
*80	310	250	580	180	120	64	24	317,5
*100	350	250	590	180	120	79	35	355,6
125	400	250	710	250	180	129	51	
*150	480	250	725	250	180	174	71	444,5
*200	600	370	800	250	180	244	133	559
250	730	370	920	250	180	324	154	
300	850	370	935	250	180	405	255	

### Other Design Variants

Flanges ANSI 150 lbs. / Length DIN  
\*Flanges and length ANSI 300 lbs.  
Welded ends



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