



## Advantages/Benefits

- ▶ Namur interface - G 1/4
- ▶ When de-energized, pressure port connected to outlet 2 outlet 4 exhausted.
- ▶ High flow rate
- ▶ Long service life
- ▶ Applications with lubricated or unlubricated air
- ▶ Lockable manual override standard
- ▶ No "stick-slip-effect"
- ▶ EEx ib IIC T6 (Type 550)  
EEx ed IIC T5 (Type 650)

## Design/Function

The Type 450 is a high-quality spool valve, combining the advantages of elastomeric and metal-to-metal sealed valves.

The valve has a long and reliable service life on lubricated and unlubricated air. The self-cleaning action on the seal makes it insensitive to dirt particles in compressed air.



There is no stiction with intermittent use.

Due to the low power consumption, the epoxy-encapsulated solenoid can be controlled via a PLC. All of the solenoid actuators are available in wide-band voltage ranges, with combined 50 and 60Hz operation for AC versions.

## Applications

- Pneumatic control
- Cylinder control in machine engineering
- Actuated valve control
- Safety interlocks

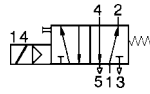
# 5/2-Way Spool Valve with Namur Interface

**Type 450**  
**Type 550**   
**Type 650** 

## Technical Data

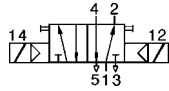
### Circuit Function

**H** 5/2-way valve,  
when de-energized, pressure port 1  
connected to outlet 2, outlet 4  
exhausted.



Spring return

5/2-way valve,  
when de-energized, pressure port 1  
connected to outlet 2, outlet 4  
exhausted.



Impulse valve

### Body Materials

Aluminium,  
Internal parts aluminium and stainless steel

### Specifications

Orifice 6 mm  
Flow 750 l/min.

### Operating Data (Valve)

#### Seal Materials / Fluids Handled / Temp.-Range

POM/ lubricated or unlubricated air -10 to  
NBR +70 °C<sup>1)</sup>

<sup>1)</sup> for Types 550 and 650: to +60 °C

For more detailed information please refer to resistance  
chart (Leaflet-No. 1896009).

Max. ambient temperature Type 450: +55 °C  
Type 550,650: +40 °C

Port connection Namur sub-base - G 1/4

### Operating Data (Actuator)

#### Operating voltages

Type 450 24-28, 230-250 V/ 50, 60 Hz  
Type 550 24 V/=  
Type 650 24, 110, 220, 240 V/UC (universal  
current)

Note for Type 650 A bridge rectifier has been incorpo-  
rated in the solenoid system, which  
makes it suitable for both AC and DC  
operation. (Universal current to DIN  
40700).

Voltage tolerance ±10 %

Power consumption Type 450: 2,5 to 4 Watt  
Type 650: 5 Watt

Duty cycle 100% continuously rated

Rating with cable plug, cable or  
junction box IP 65

### Installation / Accessories



Installation as required

#### Electrical connection

- Type 450, 550 • cable plug for 6-7 mm ø cable  
(supplied as standard)
- Type 650 • moulded-in cable H05RN-F3  
G, 3 x 0,75 mm<sup>2</sup>, length 3 m, with  
tension relieving cable gland
- junction box without safety fuse

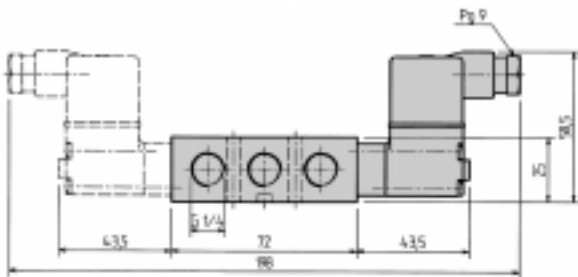
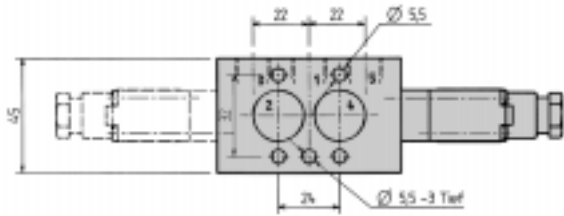
Safety fuse A safety fuse with a medium  
response time and rated according to  
the nominal current should be incorpo-  
rated in the circuit.

# 5/2-Way Spool Valve with Namur Interface

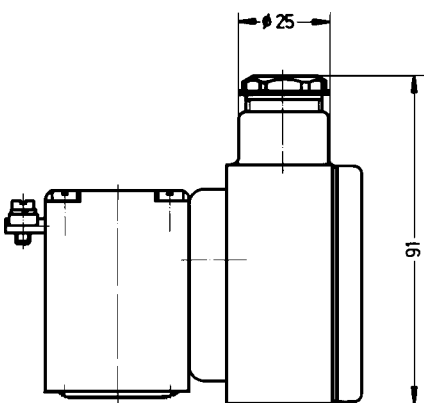
Type 450  
 Type 550   
 Type 650 

Dimensions in mm

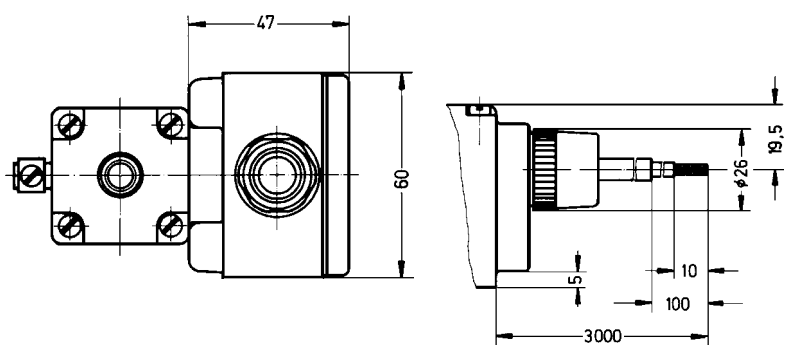
## Version with M5 Mounting screws



## Ex-version with junction box





## With moulded-in cable



### Note

The solenoid systems of the Types 550 and 650 are mounted vertically to the spool valve body.

# 5/2-Way Spool Valve with Namur Interface

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**Type 550**   
**Type 650** 

## Ordering Chart (Other Versions on Request)

Circuit Function	Orifice DN [mm]	Flow Rate Air QNn [l/min]	Port Connection	Pressure Range [bar]	Approval PTB.-No. Type 550: Ex-87.B.2023 Type 650: Ex-89.C.1034	Weight [kg]	Voltage/Frequency [V/Hz]	Order-No.		
H <sup>1)</sup>	6,0	750	Namur	2-8	-	Type 450	0,32	024-30/=	031 455 L	
					-	Type 450	0,32	24-28/50,60	031 456 M	
					-	Type 450	0,32	230-250/50,60	031 458 X	
H <sup>1)</sup>	6,0	750	Namur	2-8	Ex ed	Type 650	0,62	024/UC	031 649 E	
					Ex ed	Type 650	0,62	024/UC	031 688 N <sup>3)</sup>	
					Ex ed	Type 650	0,62	110/UC	031 650 B	
					Ex ed	Type 650	0,62	110/UC	031 489 P <sup>3)</sup>	
					Ex ed	Type 650	0,62	220/UC	031 651 Y	
					Ex ed	Type 650	0,62	220/UC	031 490 L <sup>3)</sup>	
H <sup>1)</sup>	6,0	750	Namur	2-7	Ex ib	Type 550	0,32	24/=	031 614 K	
H <sup>2)</sup>	6,0	750	Namur	2-7	Ex ed	Type 650	0,62	24/UC	031 484 A	
									110/UC	031 485 B
									220/UC	031 593 F
							220/UC	031 486 C <sup>3)</sup>		

<sup>1)</sup> With spring return, <sup>2)</sup> Impulse operated, <sup>3)</sup> With junction box without safety fuse

## Accessories

Code	Order-No.
Rubber blanking gasket for 3/2-way Version (for conversion from 5/2- to 3/2-way)	015 411 G

## Accessories for Type 650

Safety Fuses	[mA]	Order-No.
24 V	400	007 073 Z
110 V	100	007 068 C
220/240 V	63	007 067 T

## Electrical Accessories for Type 550

Code / Specification Version	Explosion Group	Max. Safety Values		Nominal Voltage [V]	Nom. Curr. [mA]	Polarity	Approval No.	Order-No.
		Voltage [V]	Current [mA]					
Safety barrier Coil version	IIC	28	110	24	40	negative polarity	Ex-78/2007X	006 562 X
						positive polarity	Ex-78/2007X	006 700 N
Installation accessory for barrier								007 152 V

In case of special requirements  
please consult for advice.

We reserve the right to make technical  
changes without notice.

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