3/2 and 4/2 multi-way valves; servo-assisted; DN 4; flow rate: 300 l/min.; Namur flange



Design/Function

Type 5470 Namur can be easily mounted to a process valve with the same interface flange.

High switch reliable diaphragm seat valves as 3/2 and 4/2 way version. The main valve consists of three modules, the valve body with servo-diaphragm, plungers and seat seals as well as the P/R and Namur manifold.

The body and valve internal parts are made of high quality thermoplastic, the return spring is made of Stainless Steel.

A 16 mm rocker solenoid valve type 6106 with rectifier is used as pilot.

Advantages / Benefits

- Easy assembly to process valves
- ▶ High flow rate at compact design
- ► Long service life even with non-lube conditions
- **▶** With manual override
- Various options for the supply ports 1 and 3
- ► High switch reliability
- Wide range of cable plugs with circuitry as accessories
- Low weight

Applications

Fluids

Lubricated and unlubricated air, neutral gases

Applications

Control valves for pneumatic linear and rotary actuators (actuator systems) preferably for

- · Food and beverage industry
- General processing industry
- Packing machine manufacturers.
- · Textile industry
- · Machine tool manufacturers
- Wood working machine manufacturers



Multi-Way Valves for Pneumatics

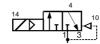
servo-assisted, 18 mm wide

Type 5470

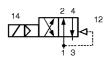
Technical data type 5470 Namur

Circuit functions

C 3/2 way valve, when de-energized, outlet port 4 exhausted



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



Specifications

Circuit function	Orifice	Flow rate ¹⁾	Pressure range ²⁾	Power	Port connections	
		QNn-value air		consumption		
	[mm]	[l/min]	[bar]	[W]		
C (3/2)	4,0	300	2 - 8	1	Supply ports 1 and 3: plug-in coupling ø 6 mm or threaded port G 1/8	
			2 - 10	2 and 3	Service ports 2 and 4: Namur flange	
G (4/2)	4,0	300	2 - 8	1	Supply ports 1 and 3: plug-in coupling ø 6 mm or threaded port G 1/8	
			2 - 10	2 and 3	Service ports 2 and 4: Namur flange	

Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve and at +20 $^{\circ}$ C. All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Valve specifications

Body material PA (Polyamide) Valve internal parts Ultramid Return spring Stainless Steel Seal material **NBR**

Fluids Lubricated, unlubricated

compressed air, neutral gases -10 up to +50 °C Ambient temperature -10 up to +55 °C

Port connections

Media temperature

Connection 2 and 4 Connection 1 and 3 (variation)

Response times 3) 4) Opening

Closing

Namur flange

Plug-in coupling Ø 6 mm

• G 1/8

AC* 15 ms 15 ms AC* 20 ms 12 ms = with rectifier Solenoid specifications

Operating voltage 24 V DC 110-120 V DC 220-240 V DC

(for alternating current cable plug type 2506 with rectifier necessary)4)

Voltage tolerance ±10 %

Electr. power consumption 1 W, 2 W, 3 W

Duty cycle 100 % continuously rated Electr. connection tag connectors acc. DIN 43650 Form C, for cable

plug type 2526

Rating IP 65 (with cable plug) Ex-approval (see data sheet Ex-versions)

Installation

3) Measured at connection 2: time from electrical switching to pressure increase to 90 % (opening) or pressure drop to 10 % (closing) of

operational pressure of 6 bar.

The valves given apply for DC and AC.

When using electronics (diodes for controlling LEDs or for rectifying), the closing time is delayed 8 up to 10 ms.

Mounting position: any, preferably solenoid

system upright

servo-assisted, 18 mm wide

Namur

Ordering chart valves type 5470 Namur (other versions on request)

Scope of delivery: All valves with manual override and with NBR seal; tag connectors acc. DIN 43 650 C sidewards; with cable plug (see accessories)

For DC-version cable plug 2506 Item No. 008 353 P (standard)

For UC-version cable plug 2506 Item No. 008 412 T

Service port connections 2 and 4: Namur flange

Circuit	Orifice	Flow rate	Supply	Pressure	Voltage/	Electrical	Item No.	Item No.
function		QNn value	port connections	range	frequency	power		with
	air	connections	1 and 3			consumption		one-way flow
								restrictor
	[mm]	[l/min]		[bar]	[V/Hz]	[W]		
С	4,0	300	Threaded port	2 - 8	24/DC	1	139 396 S	
			G 1/8	2 - 10	24/DC	2	136 761 U	
					110-120/DC	3	136 762 V	
					220-240/DC	3	136 763 W	
			Plug-in coupling	2 - 8	24/DC	1	139 397 T	
			ø 6 mm	2 - 10	24/DC	2	136 764 X	
					110-120/DC	3	136 765 Y	
					220-240/DC	3	136 766 Z	
G	4,0	300	Threaded port	2 - 10	024/DC	2	136 767 S	
			G 1/8		110-120/DC	3	136 768 B	
					220-240/DC	3	136 769 C	
			Plug-in coupling	2 - 8	024/DC	1		139 398 C
			ø 6mm	2 - 10	024/DC	2	136 770 H	
					110-120/DC	3	136 771 W	
					220-240/DC	3	136 772 X	
			Threaded port	2 - 8	024/DC	1		139 399 D
			G 1/8	2 - 10	024/DC	2		136 773 Y
					110-120/DC	3		136 774 Z
					220-240/DC	3		136 775 S

^{*)} For AC current the cable plug type 2506 with rectifier must be used, see accessories.

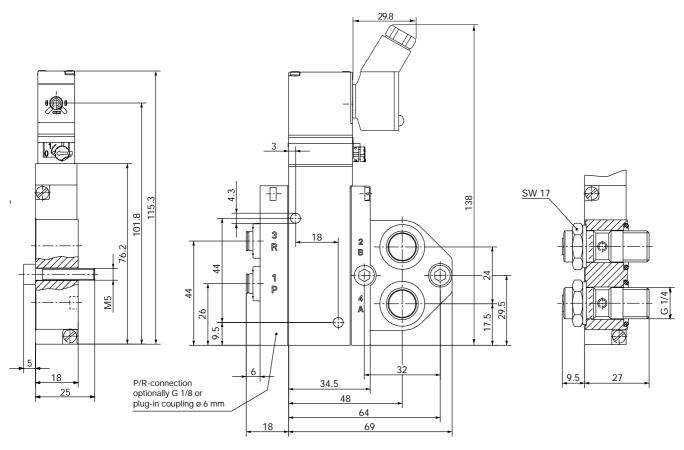
Ordering chart accessories

Accessory part	Characteristics	Order No.
Cable plug type 2506 1)	without circuit, 0 - 250 V	008 353 P
Cable plug type 2506 1)	with rectifier and varistor, 12 - 240 V	008 412 T
Cable plug type 2506 1)	with LED, 12 - 24 V	008 402 A
Cable plug type 2506 1)	with LED and varistor, 12 - 24 V	008 408 Q
Cable plug type 2506 1)	with LED, rectifier and varistor, 12 - 24 V	008 354 Q
Cable plug type 2506 1)	with LED, rectifier and varistor, 200 - 240 V	008 356 J

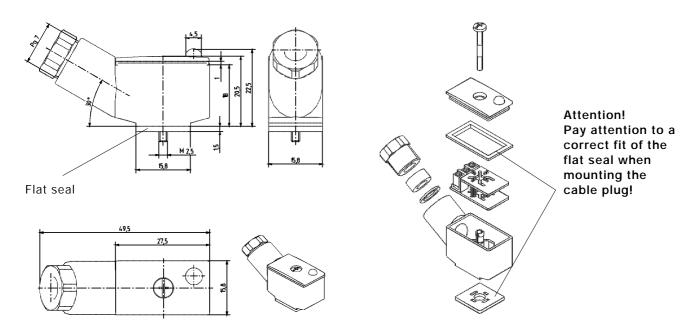
With these accessories, only a minimum of possible cable plugs with circuit are being mentioned. For other versions see data sheet type 2506. A flat seal and a fixing screw are part of the delivery scope of a cable plug.

Dimensions [mm]

3/2 and 4/2 way valves, service ports 2 and 4 as Namur flange, tag connectors sidewards



Cable plug type 2506



Cable plug type 2506 (pin assignment acc. DIN 43650, Form C)