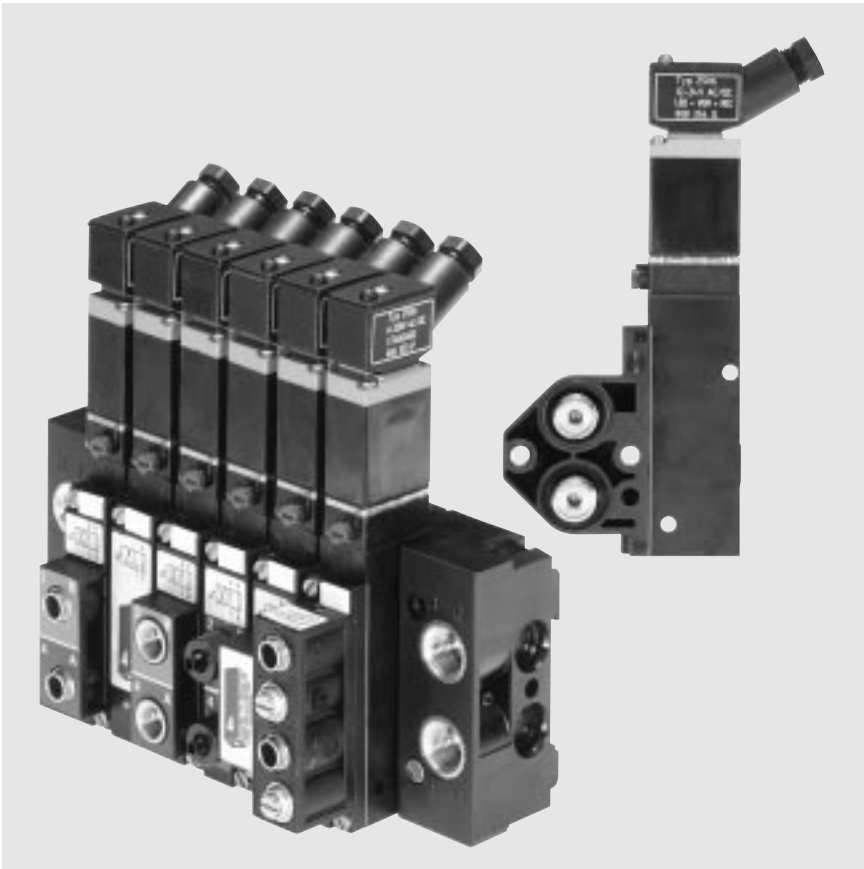


3/2 and 4/2 multi-way valves ; servo-assisted;  
block assembly or Namur flange; DN 4; flow rate: 300 l/min



## Advantages / Benefits

- ▶ EEx-ia-IIC T6 approved
- ▶ Available for block assembly and with Namur flange
- ▶ High flow rate at compact design
- ▶ Maintenance-free and no wear due to high level dry run properties
- ▶ With manual override
- ▶ Various options for the service ports 2 and 4
- ▶ High switch reliability
- ▶ Block assembly version fieldbus compatible
- ▶ Low weight

## Design/Function

Type 5470 Ex includes high switch reliable diaphragm seat valves as 3/2 and 4/2 way version. The valve consists of three modules, valve body with servo-diaphragm, plungers and seat seals as well as numerous connection possibilities for the service ports 2 and 4.

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.

Tag connectors are used as electrical contact (acc. DIN 43 650 Form C) with the cable plug type 2506.

**The extendable type 5470 Ex** can be used for **block modules** or for entire valve blocks (tag connectors on top, coil spacing 19 mm).

The available valve block can be controlled by various Fieldbus systems, Multipole or common terminals.

The block assembly is made with pneumatic modules type MP05 through integrated lock technology and screwing.

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

## Applications

### Fluids

Lubricated and unlubricated air, neutral gases

### Applications

In hazardous areas  
Control valves (single valves, valve blocks) for pneumatic linear and rotary actuators (actuator systems) preferably for

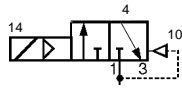
- Food and beverage industry
- General processing industry
- Packing machine manufacturers.
- Textile industry
- Machine tool manufacturers
- Wood working machine manufacturers

**bürkert**  
Easy Fluid Control Systems

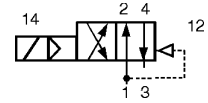
**Technical data type 5470 Namur Ex-Version**

**Circuit functions**

**C** 3/2 way valve,  
when de-energized,  
outlet port 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 [mm]	Flow rate <sup>1)</sup> QnN-value air [l/min]	Pressure range <sup>2)</sup> [bar]	Power consumption [W]	Port connections
C (3/2)	4,0	300	2 - 8	0.5	Supply ports 1 and 3: plug-in coupling ø 6 mm in front or downwards Service ports 2 and 4: sub-base or Namur flange
G (4/2)	4,0	300	2 - 8	0.5	Supply ports 1 and 3: plug-in coupling ø 6 mm or threaded port G 1/8 Service ports 2 and 4: sub-base or Namur flange

<sup>1)</sup> Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve and at +20 °C.  
<sup>2)</sup> All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

**Valve specifications**

Body material	PA (Polyamide)
Valve internal parts	Ultradid
Return spring	Stainless Steel
Seal material	NBR
Fluids	Lubricated, unlubricated compressed air, neutral gases
Media temperature	-10 up to +50 °C
Ambient temperature	-10 up to +55 °C
Port connections	
Namur version:	
Connection 2 and 4	Namur flange
Connection 1 and 3 (variation)	• Plug-in coupling ø 6 mm • G 1/8
Block assembly version:	
Connection 1 and 3	Sub-base at the back
Connection 2 and 4	• G 1/8 in front • Plug-in coupling ø 6 mm below or in front • Screwed tube connector SL 6/4 mm, in front
Response times	
Opening <sup>3)</sup>	60 ms
Closing <sup>3)</sup>	50 ms

<sup>3)</sup> 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.

**Solenoid specifications**

Operating voltage	24 V DC (for alternating current cable plug type 2506 with rectifier necessary) <sup>4)</sup>
Voltage tolerance	±10 %
Electr. power consumption	0.5 W
Duty cycle	100 % continuously rated
Electr. connection	tag connectors acc. DIN 43650 Form C, for cable plug type 2506 (do not use connectors with LED or circuitry)
Rating	IP 65 (with cable plug)
Type of protection	EEx-ia-IIC T6

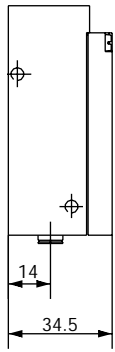
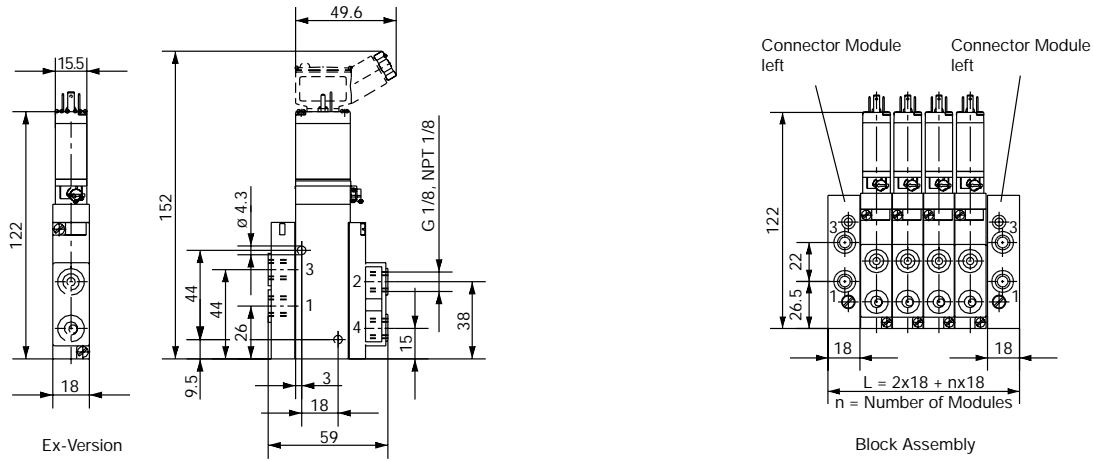
**Electrical specifications**

Power supply only from certified intrinsically safe circuits with following max. valves:	
Explosion group	IIC
Max. safety voltage	U = 28 V
Max. safety current	I = 115 mA
Consumption of energy for block mounting	P = 0.7 W (ambient temp. +60 °C)
Consumption of energy for single mounting	P = 0.8 W (ambient temp. +60 °C)

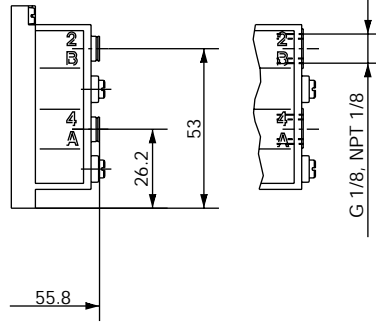
**Installation**

Mounting position:	any, preferably solenoid system upright
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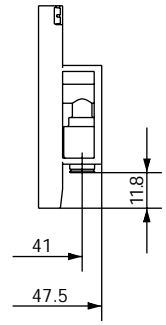
**Block and wall mounting with pneumatic modules type MP05 [mm]**



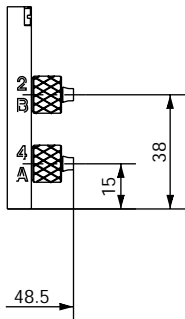
Plug-in coupling  $\varnothing$  6 mm below



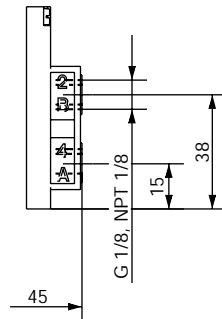
Plug-in coupling  $\varnothing$  6 mm and threaded port G 1/8 in front, with one-way flow restrictor



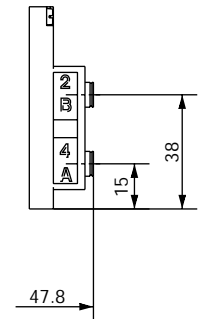
Plug-in coupling  $\varnothing$  6 mm below



Screwed tube connector SL 6/4 mm in front

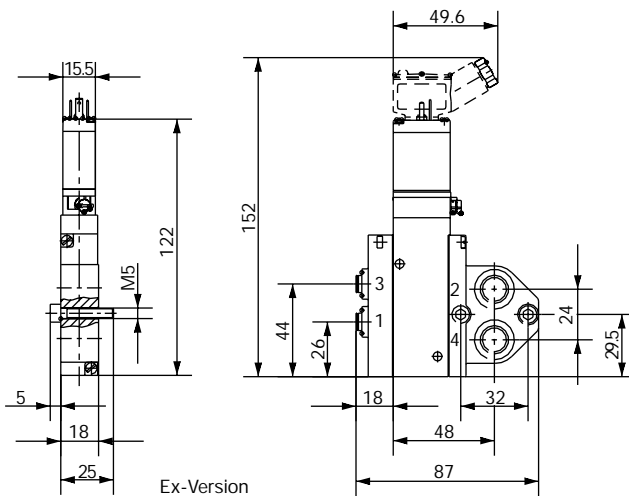


Threaded port G 1/8 in front



Plug-in coupling  $\varnothing$  6 mm in front

Namur



Block assembly with pneumatic modules type MP05, coil spacing 19 mm

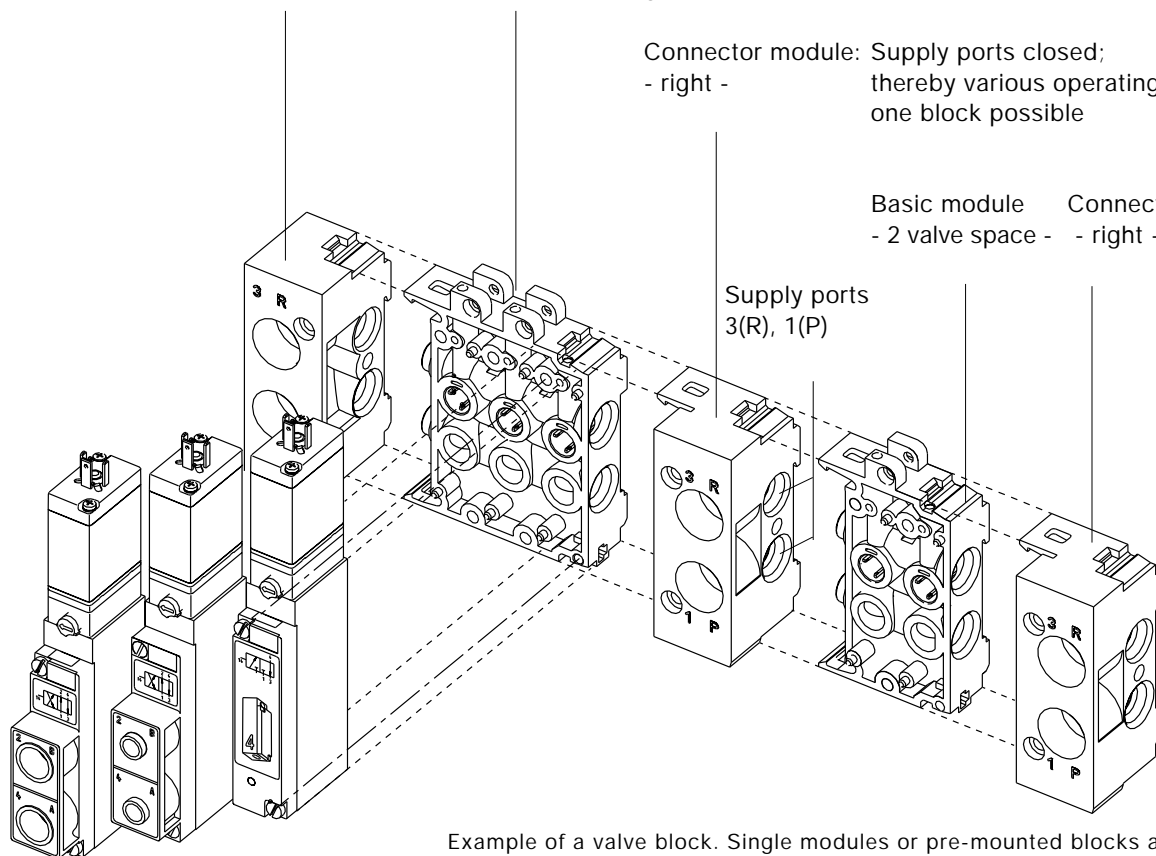
Connector module - left -    Basic module - 3 valve space -    Interface module: Supply ports pushed through for additional pressure supply

or

Connector module: Supply ports closed; thereby various operating pressures in one block possible

Basic module - 2 valve space -    Connector module - right -

Supply ports  
3(R), 1(P)



Example of a valve block. Single modules or pre-mounted blocks are available. When ordering, please inform on the individual modules and the desired configuration from right to left.

For information on assembly of a valve block, please see data sheet Customized Pneumatic Systems Solutions.

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

**Scope of delivery:** All valves with manual override and with NBR seal; tag connectors on top acc. DIN 43 650 C;  
**without cable plug** (see accessories)

**Block assembly versions; EEx-ia-II C T6**

Circuit function	Orifice [mm]	Flow rate QNn value air [l/min]	Supply port connection 1 and 3	Service port connection 2 and 4	Pressure range [bar]	Voltage / frequency [V/Hz]	Electrical power consumption [W]	Item No.
C	4,0	300	Sub base behind	Push-in connection ø 6 mm downwards	2 - 8	24/DC	0.5	139 400 B
			Sub base behind	Push-in connection ø 6 mm in front	2 - 8	24/DC	0.5	139 401 Y
G	4,0	300	Sub base behind	Push-in connection ø 6 mm downwards	2 - 8	24/DC	0.5	139 403 S
			Sub base behind	Push-in connection ø 6 mm in front	2 - 8	24/DC	0.5	139 404 T
			Sub base behind	G 1/8 in front	2 - 8	24/DC	0.5	139 405 U
			Sub base behind	Screwed tube connection SL 4/6 in front	2 - 8	24/DC	0.5	139 406 V

**Namur versions; EEx-ia-II C T6**

Circuit function	Orifice [mm]	Flow rate QNn value air [l/min]	Supply port connection 1 and 3	Service port connection 2 and 4	Pressure range [bar]	Voltage / frequency [V/Hz]	Electrical power consumption [W]	Item No.
C	4,0	300	G 1/8 in front	Namur flange	2 - 8	24/DC	0.5	139 224 V
			Push-in connection in front	Namur flange	2 - 8	24/DC	0.5	139 402 Z
G	4,0	300	G 1/8 in front	Namur flange with one-way flow restrictor	2 - 8	24/DC	0.5	139 407 W
			Push-in connection in front	Namur flange with one-way flow restrictor	2 - 8	24/DC	0.5	139 408 F

# Multi-Way Valves for Pneumatics

servo-assisted, extendable, 18 mm wide



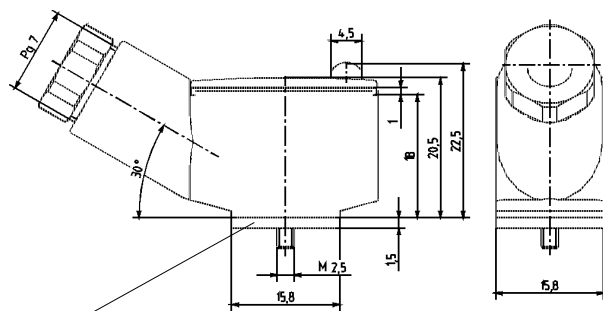
## Ordering chart pneumatic modules type MP05

Module version	Item No.	Module version	Item No.
Connector module left, G 1/8	133 175 N	Basic module 2 valve space	132 516 B
Connector module left, G 1/4	132 512 F	Basic module 3 valve space	132 517 C
Connector module right, G 1/8	133 177 Q	Basic module 2 valve space with 1-way flow restrictor	132 518 M
Connector module right, G 1/4	132 514 H	Basic module 3 valve space with 1-way flow restrictor	132 519 N

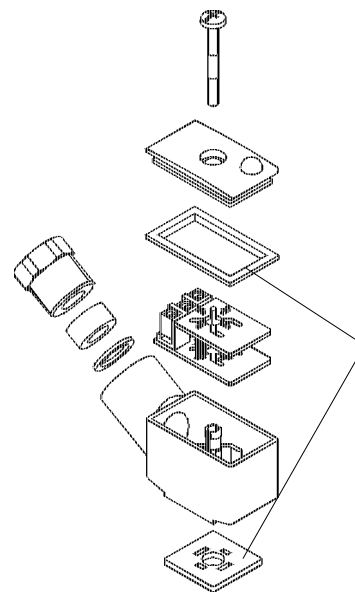
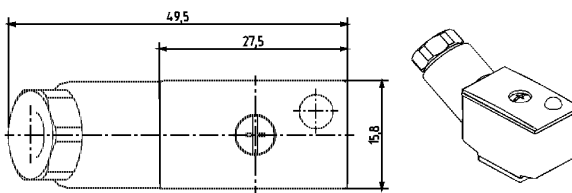
## Ordering chart accessories

Accessory part	Characteristics	Item No.
Cable plug type 2506 1)	without circuit, 0 - 250 V	008 353 P
Manifold G 1/8	Intermediate supply	643 019 C
Manifold NPT 1/8	Intermediate supply	643 028 D
Blanking screw	G 1/8	631 019 Y
Blanking screw	G 1/4	631 020 V
Blanking plug for plug-in coupling	Ø 6 mm	015 397 J
Pressure rings for plug-in coupling	Ø 6 mm	015 401 P
Covering plate (black)	for vacant valve spaces	643 223 D
Indicating tag	64 pieces	623 816 L

<sup>1)</sup> 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.



Flat seal



**Attention!**  
Pay attention to a correct fit of the flat seal when mounting the cable plug!

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