

2/2 way; DN 10 - 13 mm; 1 up to 7 bar



Advantages / Benefits

- ▶ Reduction of Cost of Ownership up to 60%
- ▶ Modular system design
- ▶ Block assembly by lock technology
- ▶ Easy change between distributing and collecting function by turn of valve insert
- ▶ Free combination of valve sizes DN10 and DN13
- ▶ High flexibility with different port connections also with integrated check valve
- ▶ Flexibility with additional functions (integrable sensors, separation of fluids, additional inputs)
- ▶ Low weight by thermo-plastic technology
- ▶ Waterhammer free

Design/Function

The servo-assisted solenoid valve with servo diaphragm is normally closed (NC).

In this condition, a pressure is being built up above the diaphragm - the valve holds tight.

When energized, the space above the servo diaphragm is pressure relieved and lifted up by the medium - the valve opens.

The modular extendable valve system can be built up in all possible combinations with up to 12 valves each as distributor or collector in two sizes with different port connection modules. The valve can be put together in collecting function or distributing function by easily twisting the valve insert.

Any kind of combination of functions in one block is possible.

Additional functions as e.g. temperature indication or flow measurement can be added by integrating a corresponding sensor directly into the valve block.

In order to be as flexible as possible, a variety of port connections is available as standard. The inner thread port connections are at the bottom, pointing downwards while the outer thread port connections and the plug-on connection for hoses are pointing sideways.

The block material is Polyamide glass-fiber reinforced.

The advantages are: Low weight and a certain chemical resistance.

Applications

Fluids

Neutral liquids, i.e. water, hydraulic oil, oils and fat (without additions) up to 60°C

Applications

- Distributing and collecting functions in water / sewage treatment
- HEVAC
- Hydraulic circuits
- Car wash devices
- Chemical industry
- Machine industry

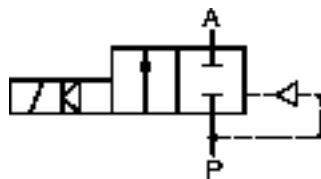
bürkert
Easy Fluid Control Systems

Technical data type 6227

Circuit function

Symbol

A 2/2 way flow valve, normally closed, with 2 way pilot control and coupled solenoid system



Valve specifications

| | | |
|---------------------------------|--|-------------------|
| Pressure range | Collector | 1.0 up to 7.0 bar |
| | Distributor | 0.5 up to 7.0 bar |
| Port connection | | |
| Block | G 1/2 and G 3/4 | |
| Valve | G 3/8 inner-thread | |
| | G 3/4 outer-thread | |
| | Plug-on ø 13 mm | |
| Seal material | NBR (FPM / EPDM on request) | |
| Fluids | Neutral liquids, e.g. water, hydraulic oil, oils and fat without additives | |
| Media temperature | 0 up to +70°C | |
| Ambient temperature | max. +55°C | |
| Viscosity | max. 21 mm ² /s | |
| Response times ^{3) 4)} | DN10 | DN13 |
| Opening | 30 ms | 70 ms |
| Closing | 200 ms | 300 ms |
| Flow rate | Kv-value (m ³ /h) | |
| | Distributor | Collector |
| DN10 | 1.4 | 1.5 |
| DN13 | 2.4 | 2.7 |
| Installation | as required, preferably with solenoid system upright | |
| Width per valve | DN10 | 33 mm |
| | DN13 | 44 mm |

Solenoid specifications

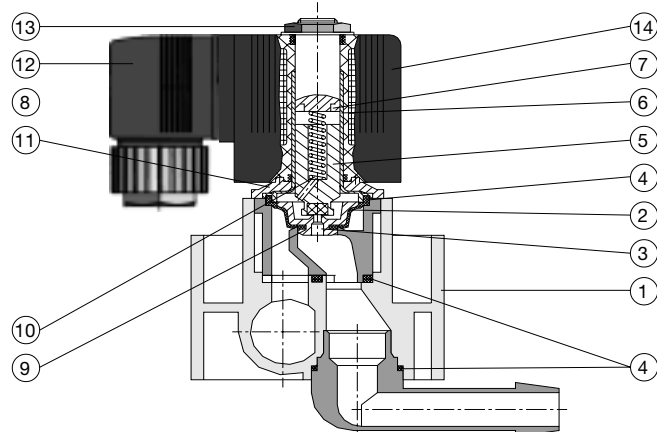
| | | |
|---------------------------|--|-------------|
| Operating voltages | AC 24, 110, 230 V / 50 Hz | |
| | DC 12 and 24 V / = | |
| Voltage tolerance | ±10 % | |
| Electr. power consumption | | |
| Voltage (AC) | Inrush | 20 VA |
| | Hold | 13 VA / 5 W |
| Voltage (DC) | Inrush | 5 W |
| | Hold | 5 W |
| Duty cycle | 100 % continuously rated | |
| Cycling rate | up to 60 c.p.m. | |
| Rating with cable plug | IP 65 | |
| Electr. connection | Delivery standard: Cable plug acc. DIN 43 650 A, 0 - 250 V (other versions see accessories) | |

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.

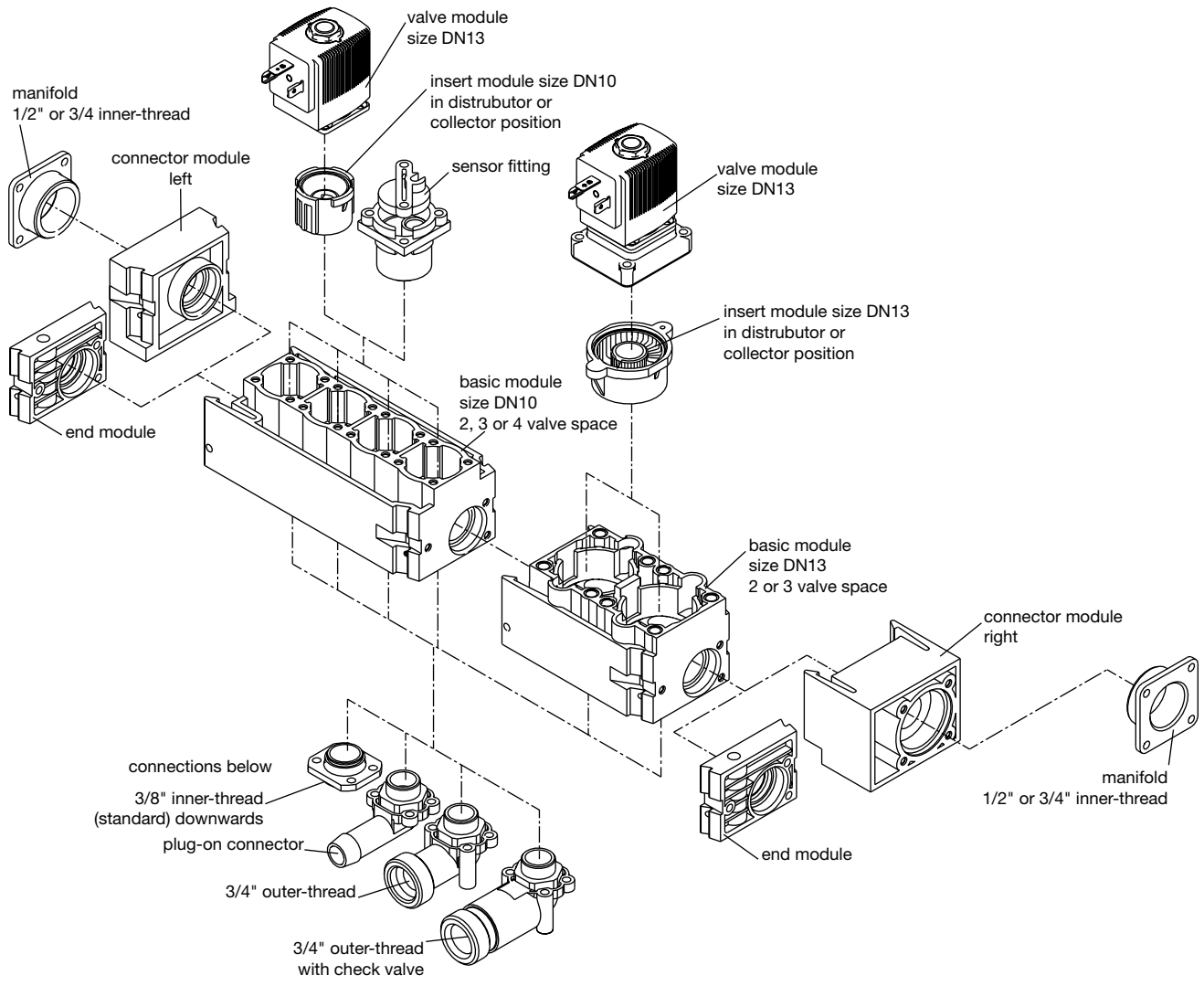
⁴⁾ When using electronics (diodes for controlling LEDs or for rectifying), the closing time is delayed 8 up to 10 ms.

Installation



| | | |
|----|---------------------|---------------------------------|
| 1 | Valve body | Polyamid glass fiber reinforced |
| 2 | Diaphragm | NBR |
| 3 | Plunger-seal | NBR |
| 4 | O-rings | NBR |
| 5 | Plunger | 1.4105 |
| 6 | Armature guide tube | 1.4301 |
| 7 | Shading ring | Cu (copper) |
| 8 | Stopper | 1.4105 |
| 9 | Diaphragm support | PPSGF40 |
| 10 | Spring | 1.4310 |
| 11 | Bonnet | Steel ST3 |
| 12 | Cable plug | PA (Polyamide) |
| 13 | Locknut | 9SMnPb28K (surface Zm5glcA) |
| 14 | Coil | Polyamid |

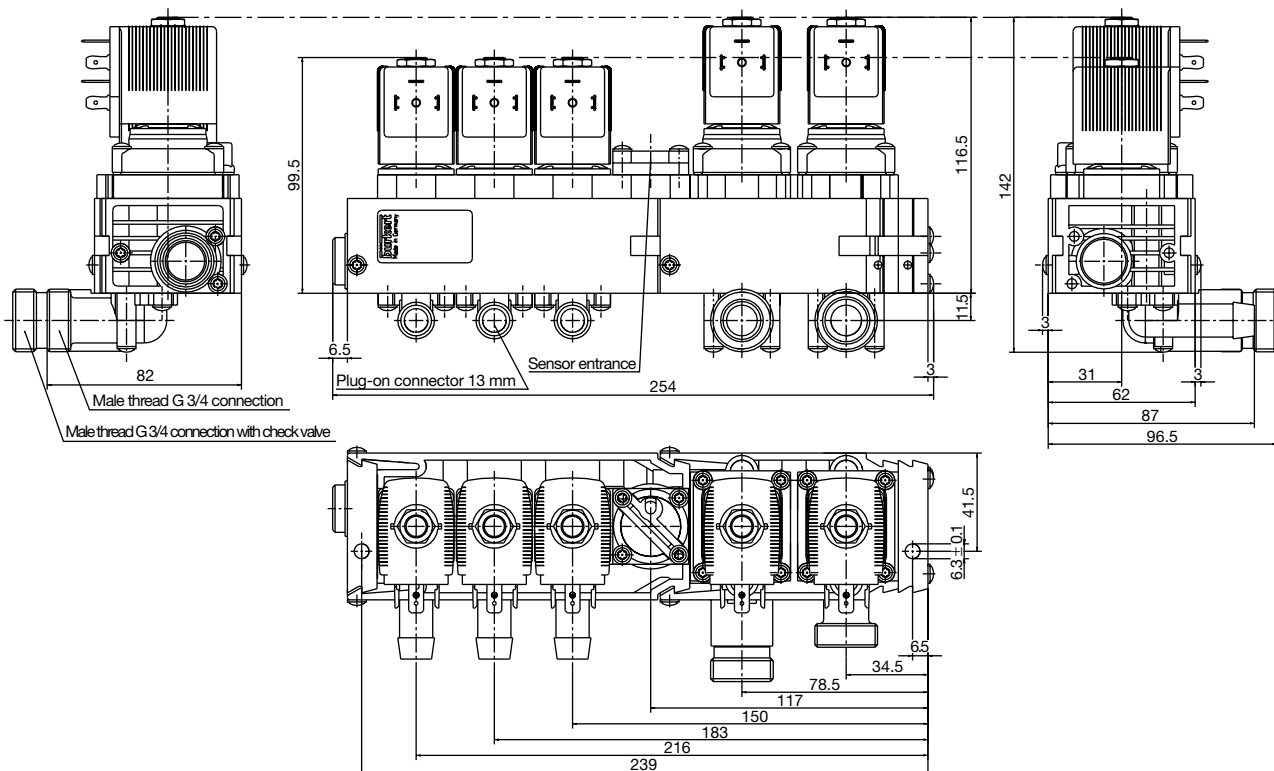
System overview with all available modules



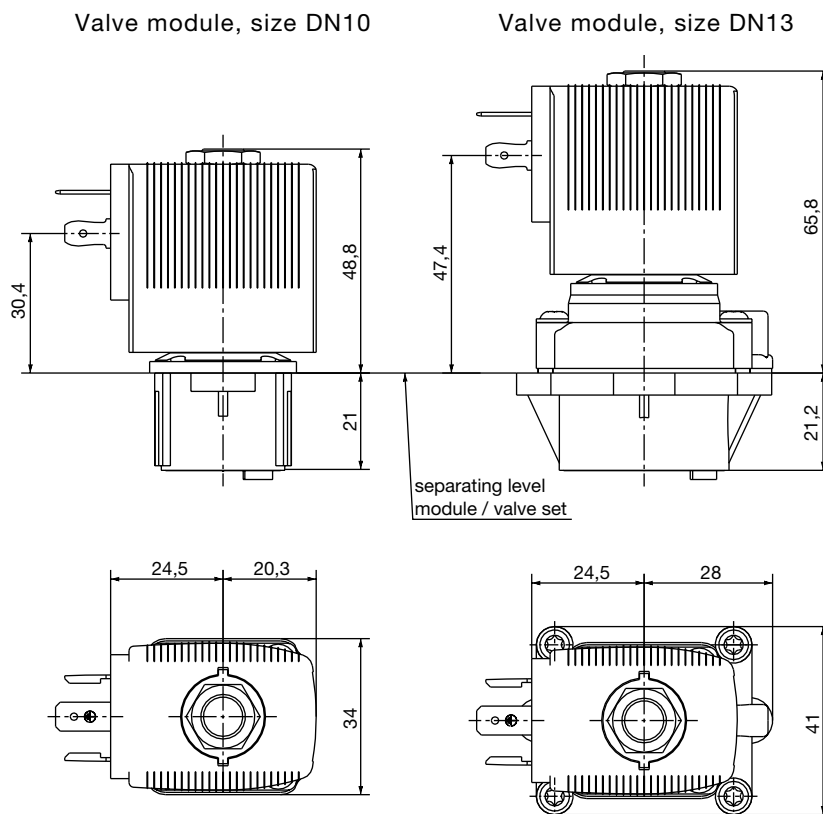
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Dimensions on a block sample [mm] (without cable plug type 2508)

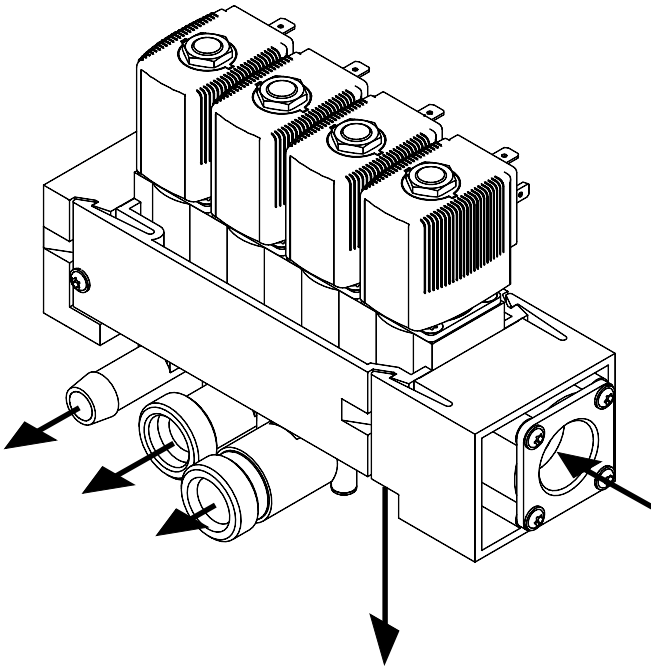


Dimensions of valve modules [mm] (without cable plug type 2508)

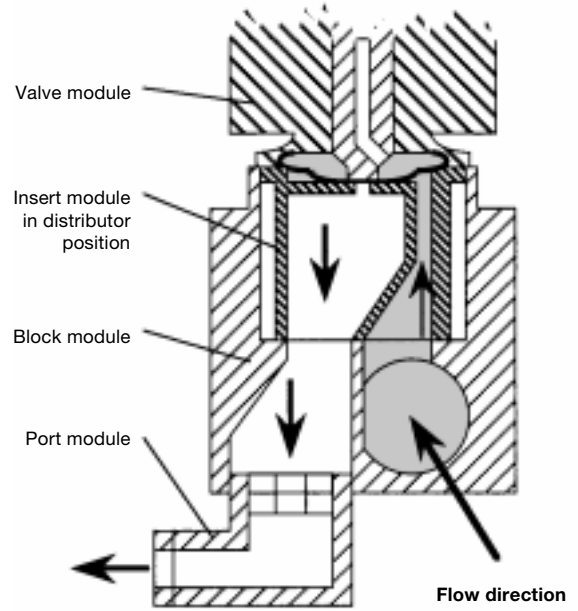


Operating modes

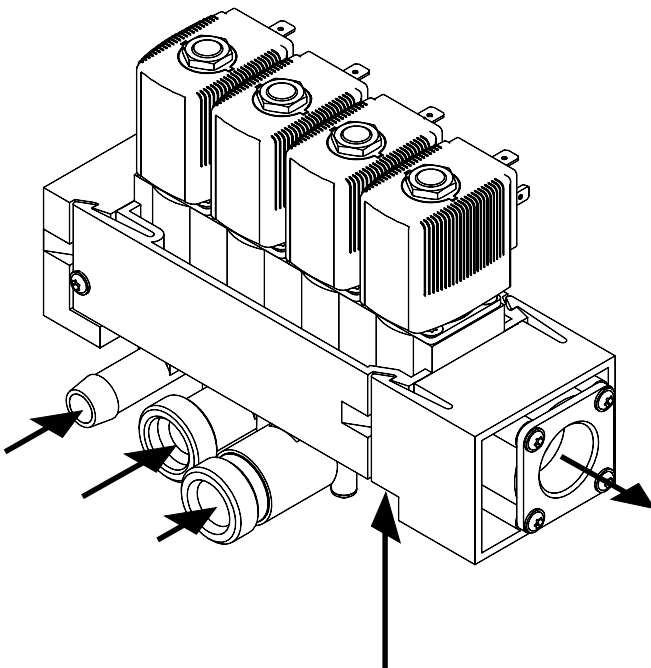
Distributor mode:



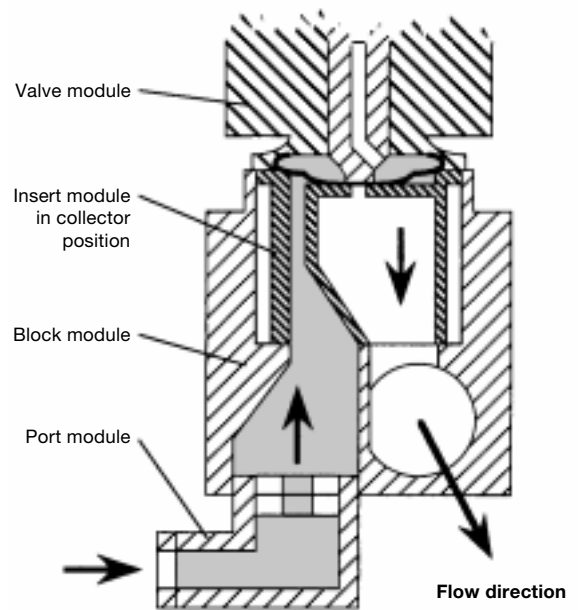
Distributor mode (scheme):



Collector mode:



Collector mode (scheme):



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Fax order form: Individual system configuration (max. 12 valves):

Part 1

Select modules according specific application from right to left:

| | |
|---|------------|
| Mark: Voltage, Cable Plug, Block Modules, End Modules Left & Right, Port Modules | ▶ X |
| Mark: Valve as C ollector Function | ▶ C |
| Mark: Valve as D istributor Function | ▶ D |
| Mark: S ensor Insert with (only block modules DN10 possible) | ▶ S |
| Mark: B lind plate | ▶ B |

| | | |
|------------------------------|---|-------|
| Configuration number: | ▶ | |
| Quantity: | ▶ | |

Voltage:

| | |
|-------------|--------------------------|
| 12 V/DC | <input type="checkbox"/> |
| 24 V/DC | <input type="checkbox"/> |
| 24 V/50 Hz | <input type="checkbox"/> |
| 110 V/50 Hz | <input type="checkbox"/> |
| 230 V/50 Hz | <input type="checkbox"/> |

Cable plug:

| | |
|--------------------------|--------------------------|
| Standard | <input type="checkbox"/> |
| with LED | <input type="checkbox"/> |
| with LED and varistor | <input type="checkbox"/> |

End modules left:

| | | |
|--------------------------|--------------------------|--------------------------|
| Terminate | G 3/4 | G 1/2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Block modules with valve modules

DN 10 - 2 valve space modules

| | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

End modules right:

| | | |
|--------------------------|--------------------------|--------------------------|
| G 1/2 | G 3/4 | Terminate |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

DN 13 - 2 valve space modules

| | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Any combination of mentioned space modules up to 12 valves per system possible

DN 10 - 3 valve space modules

| | | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

DN 13 - 3 valve space modules

| | | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

DN 10 - 4 valve space modules

| | | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Port modules

| | | | | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Plug-on connection 13 mm | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| External thread G 3/4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| External thread G 3/4 with check valve | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Internal threaded port G 3/8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(with configuration left)

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Customer data

Name of company: _____

Department: _____

Street / No.: _____

City: _____

Postal code: _____

Country: _____

Name of contact person:

Name: _____ First name: _____

Telephone number: _____

Telefax number: _____

Signature: _____

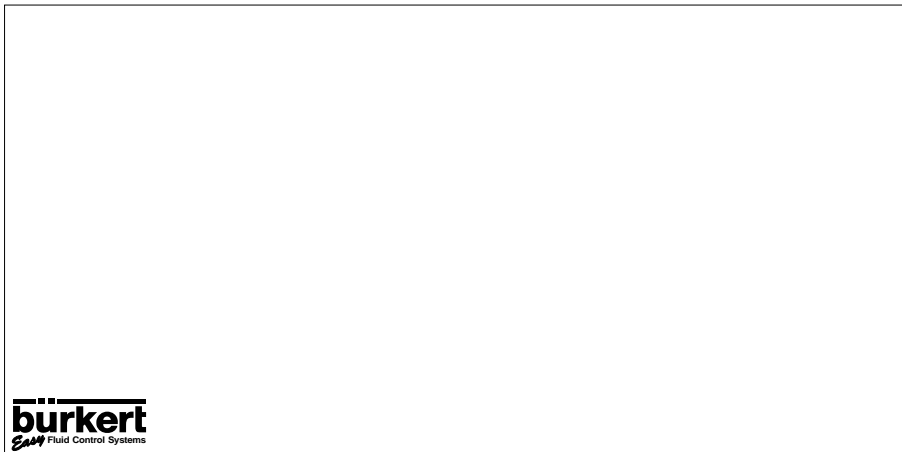


***Easy* to order**

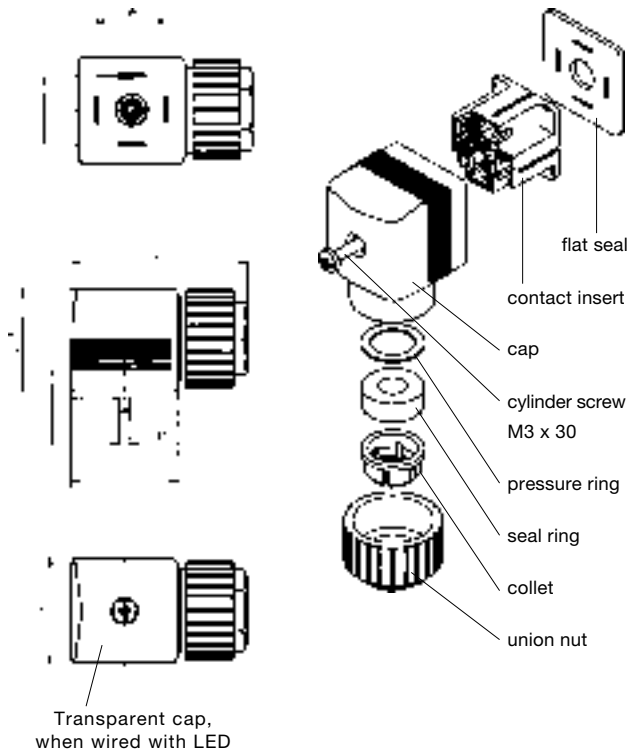
Thank you very much for filling in our fax order form.

Please send part 1 and 2 of this order to your specific
Burkert company by fax.

If you have any questions concerning this matter,
please do not hesitate to contact us.



Dimensions accessories [mm]



Ordering chart accessories

| Device / Accessory | Features | Item-No. |
|--|--|-----------|
| Cable plugs ¹⁾ type 2508 | Standard cable plug, 0 – 250 V AC/DC (standard-delivery) ¹⁾ | 008 376 N |
| | with LED, 12 – 24 V AC/DC | 008 360 S |
| | with LED, 100 – 120 V AC/DC | 008 361 P |
| | with LED and varistor, 12 – 24 V AC/DC | 008 367 M |
| | with LED and varistor, 100 – 120 V AC/DC | 008 368 W |
| | with LED and varistor, 200 – 240 V AC/DC | 008 369 X |
| | (optional wirings and connection specifications see data sheet type 2508) | |

¹⁾The standard cable plug (0 – 250 V AC/DC), Item-No. 008 376 N is part of the standard delivery.
Ordering of optional cable plugs with separate ordering number.

A wide selection of further cable plugs is available.
(see special data sheet type 2508)

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