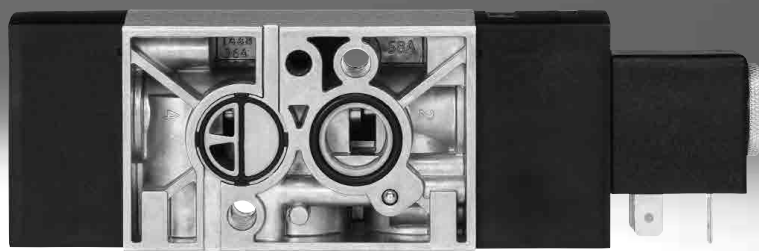


Solenoid valves VSNC



Festo Core Range
Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery.

Worldwide: Quickest delivery – wherever, whenever
Simply good: Expected high Festo quality
Fast: Easy and fast to select

The Core Range offers you the best value for your automation tasks.



Key features, product range overview VSNC-...

Function

VSNC valves are pilot valves for single- and double-acting quarter turn and linear actuators with a port pattern in accordance with VDI/VDE 3845, such as DAPS, DFPB, DLP. They can also be mounted on actuators without a NAMUR interface, e.g. diaphragm actuators, thanks to appropriate accessories such as a connection set.




They are designed for the requirements of process automation. A mechanical spring (single solenoid valves) ensures safe switching to the initial position in the event of a power failure. Working ports 2, 4 on valves VSNC-F ...-P2 are designed in accordance with VDI/VDE 3845 NAMUR.

Innovative

- Conversion from 3/2-way to 5/2-way valve simply by turning the seal
- Enables single- or double-acting actuators to be controlled with one valve
- The valve can be ordered either with non-detenting/detenting or non-detenting manual override or without manual override. It is converted using a special cap. The part number is therefore identical. The manual override option can be changed at any time

Cost- and application-optimised

- Cost-optimised variant with plastic cover, brass armature tube and IP65 coils

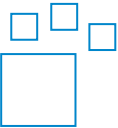
-  - Voltage
12, 24, 48 V DC
24, 48, 120, 230 VAC
-  - Operating pressure
1.5 ... 10 bar
-  - Temperature range
-20 ... 60°C

Flexible

- Application-optimised variant with aluminium cover, stainless steel armature tube for IP65 and Ex coils, and protective cap for armature tube exhaust
- One armature tube system for all Ex solenoid systems
- Pilot air for VSNC-F ...-P2 CNOMO connection to ISO 15218
- For zone 1 to IEC Ex with type of ignition protection
- Ex-ia
- Ex-mb
- For zone 2 to IEC Ex with type of ignition protection
- Ex-nA
- For Class I, Div. I to NEC 505
- AEx-m



Ordering data – Product options



Configurable product
This product and all its product options can be ordered using the configurator.

The configurator can be found at
→ www.festo.com/catalogue/...
Enter the part number or the type.

| Part no. | Type |
|----------|------|
| 8026033 | VSNC |

Key features, product range overview VSNC-...

VSNC-F8



VSNC with IP65 solenoid

VSNC-F... -FN



VSNC piston spool



VSNC with Ex-ia solenoid



VSNC with Ex-nA solenoid

VSNC-FT ... -FN



VSNC poppet seat

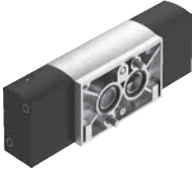


VSNC with FM solenoid



VSNC with Ex-m solenoid

VSNC-F...-P2



VSNC-F...-F19, VSNC-F...-F19A



VSNC poppet seat



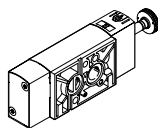
VSNC...-F19 with Ex-me solenoid



VSNC...-F19A with Ex-ia solenoid

Key features, product range overview VSNC-...-F8

VSNC-F8



- Material of valve cap: Plastic/metal
- Material of armature: Brass
- Pilot air (armature tube incoming air), unprotected

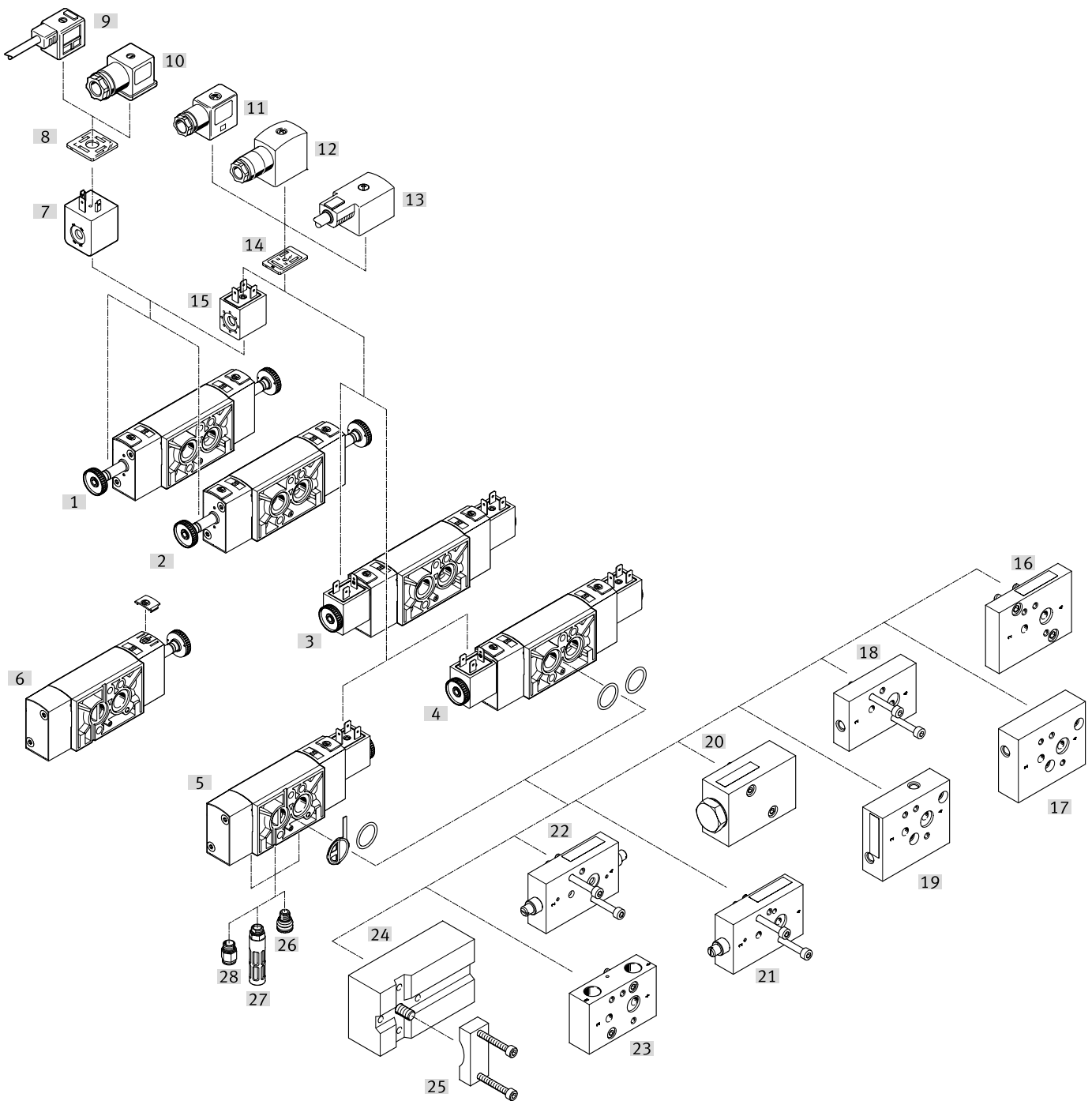
| Design | Type | Pneumatic connection 1, 3, 5 | Pneumatic connection 2, 4, based on standard | Standard nominal flow rate [l/min] | → Page |
|---|-----------------------|---------------------------------|---|--|--------|
| 5/2-way or 3/2-way valve, convertible, single solenoid | | | | | |
| | VSNC-FC-M52-MD-G14-F8 | G 1/4 | VDI/VDE 3845 NAMUR 1/4 | 1250 | 21 |
| | VSNC-FC-M52-MD-N14-F8 | 1/4 NPT | | | |
| 5/2-way valve, double solenoid | | | | | |
| | VSNC-F-B52-D-G14-F8 | G 1/4 | VDI/VDE 3845 NAMUR | 1350 | 26 |
| | VSNC-F-B52-D-N14-F8 | 1/4 NPT | | | |
| 5/3-way valve | | | | | |
| | VSNC-F-P53C-MD-G14-F8 | G 1/4 | VDI/VDE 3845 NAMUR | 1250 | 29 |
| | VSNC-F-P53U-MD-G14-F8 | G 1/4 | | 950 | |
| | VSNC-F-P53E-MD-G14-F8 | G 1/4 | | 1050 | |
| | VSNC-F-P53C-MD-N14-F8 | 1/4 NPT | | 1250 | |
| | VSNC-F-P53U-MD-N14-F8 | 1/4 NPT | | 950 | |
| | VSNC-F-P53E-MD-N14-F8 | 1/4 NPT | | 1050 | |

| Coils | IP65 industrial type B | | | | | | IP65 type A | | | | | | | |
|--------------------------------------|------------------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|------------|------------|-------------|-------------|
| | 12 V DC | 24 V DC | 48 V DC | 24 V AC | 48 V AC | 120 V AC | 230 V AC | 12 V DC | 24 V DC | 48 V DC | 24 V AC | 48 V AC | 120 V AC | 230 V AC |
| 5/2- and 3/2-way, single solenoid | ■ | ■ PNO | ■ | ■ | ■ | ■ | ■ | ■ | ■ PNO | ■ | ■ | ■ | ■ | ■ |
| 5/2-way, double solenoid | ■ | ■ PNO | ■ | ■ | ■ | ■ | ■ | ■ | ■ PNO | ■ | ■ | ■ | ■ | ■ |
| 5/3-way, C | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 5/3-way, P | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 5/3-way, E | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

■ = Can be combined as part of a modular system

PNO = Can be ordered with part number as a fast seller

Peripherals overview – VSNC...-F8

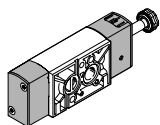


Peripherals overview – VSNC-...-F8

| Mounting attachments and accessories | | Brief description | → Page / Internet |
|--------------------------------------|--|---|-------------------|
| [1] | VSNC-...-F8 Solenoid valves | 5/2-way double solenoid valve with plastic cover and brass armature tube for controlling double-acting actuators | 26 |
| [2] | VSNC-...-F8 Solenoid valves | 5/3-way valve, normally open, closed or exhausted with plastic cover and brass armature tube for controlling double-acting actuators | 29 |
| [3] | VSNC-...-F8 Solenoid valves | 5/2-way double solenoid valve with plastic cover, brass armature tube and 24 V DC solenoid coil for controlling double-acting actuators | 26 |
| [4] | VSNC-...-F8 Solenoid valves | 5/3-way valve, normally open, closed or exhausted with plastic cover, brass armature tube and 24 V DC solenoid coil for controlling double-acting actuators | 29 |
| [5] | VSNC-...-F8 Solenoid valves | 3/2-way and 5/2-way single solenoid valve with converting seal, plastic cover, brass armature tube and 24 V DC solenoid coil for controlling single-acting or double-acting actuators | 21 |
| [6] | VSNC-...-F8 Solenoid valves | 3/2-way and 5/2-way single solenoid valve with converting seal, plastic cover and brass armature tube for controlling single-acting or double-acting actuators | 21 |
| [7] | VACFA Solenoid coil | Electrical plug pattern to DIN EN 175301-803, type A | 87 |
| [8] | MC-LD Illuminating seal | Illuminating seal for indicating the switching status | 91 |
| [9] | KMC Connecting cable | – | 90 |
| [10] | MSSD-C Plug socket | Electrical plug pattern to DIN EN 175301-803, type A | 90 |
| [11] | MSSD-F Plug socket | Electrical plug pattern to Festo standard with screw terminal connection | 90 |
| [12] | MSSD-F-S Plug socket | Electrical plug pattern to Festo standard with insulation displacement connection | 90 |
| [13] | KMF Connecting cable | – | kmf |
| [14] | MF-LD Illuminating seal | Illuminating seal for indicating the switching status | 91 |
| [15] | VACF-B Solenoid coil | Electrical plug pattern to Festo standard for MSSD-F | 87 |
| [16] | VABA-B14-FL12-FL14 Mounting plate | Mounting plate with NAMUR connection 1/2 and 1/4 | 85 |
| [17] | VABS-B14-270-FF14 Mounting plate | NAMUR connection can be turned 270° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 84 |
| [18] | VABS-B14-180-FF14 Mounting plate | NAMUR connection can be turned 180° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 83 |
| [19] | VABS-B14-90-FF14 Mounting plate | NAMUR connection can be turned 90° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 82 |
| [20] | VABF-B14-M3-...14 Exhaust plate | Exhausting a quarter turn actuator with NAMUR connection via a valve terminal or a normal inline valve G1/4 or 1/4 NPT | 81 |
| [21] | VABF-B14-F1B1P1-FF14 Throttle plate (single-acting) | Flow control for single-acting quarter turn actuators | 80 |
| [22] | VABF-B14-F1B1P2-FF14 Throttle plate (double-acting) | Flow control for double-acting quarter turn actuators | 80 |
| [23] | VABS-B14-T-F ... 14 Connector plate | With the sub-base the NAMUR valve can be used as an inline valve with G1/4" and NPT 1/4" thread. | 79 |
| [24] | VABS-S7-S-G14 Connection set | Sub-base for attaching the valve to a NAMUR rib | 79 |
| [25] | VAME-S7-Y Mounting bracket | Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket | 86 |
| [26] | VABD-D3-SN-G14 Exhaust protection | Exhaust protection to IP65. The spring chamber of the actuator is protected against the ingress of aggressive ambient air and water by the one-way flow control system | 87 |
| [27] | U Silencers | – | 90 |
| [28] | QS Push-in fitting | For connecting compressed air tubing with standard O.D. | 90 |

Key features, product range overview VSNC-...-FN

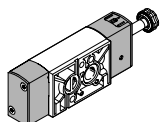
VSNC-F ... -FN



- Design: Piston spool
- Material of valve cap: Aluminium/metal
- Material of armature: Stainless steel
- Pilot air (incoming air of armature tube), protected

| Design | Type | Pneumatic connection 1, 3, 5 | Pneumatic connection 2, 4, based on standard | Standard nominal flow rate [l/min] | → Page |
|--|---------------------------------|------------------------------|--|------------------------------------|--------|
| 3/2-way or 5/2-way valve ...-FN, convertible, single solenoid | | | | | |
| | VSNC-FC-M52-MD-G14-FN | G 1/4 | VDI/VDE 3845 NAMUR | 1250 | 33 |
| | VSNC-FC-M52-MD-N14-FN | 1/4 NPT | | | |
| | VSNC-FC-M52-MD-G14-FN-1A1-EX4-A | G 1/4 | | | |
| | VSNC-FC-M52-MD-N14-FN-1A1-EX4-A | 1/4 NPT | | | |
| | VSNC-FC-M52-MD-G14-GN-1A1+G | G 1/4 | | | |
| | VSNC-FC-M52-MD-G14-FN-3AA1+G | G 1/4 | | | |
| 5/2-way valve ...-FN, double solenoid | | | | | |
| | VSNC-F-B52-D-G14-FN | G 1/4 | VDI/VDE 3845 NAMUR | 1350 | 38 |
| | VSNC-F-B52-D-N14-FN | 1/4 NPT | | | |
| | VSNC-F-B52-D-G14-FN-1A1-EX4-A | G 1/4 | | | |
| | VSNC-F-B52-D-N14-FN-1A1-EX4-A | 1/4 NPT | | | |
| 5/3-way valve ...-FN | | | | | |
| | VSNC-F-P53C-MD-G14-FN | G 1/4 | VDI/VDE 3845 NAMUR | 1250 | 42 |
| | VSNC-F-P53U-MD-G14-FN | | | 950 | |
| | VSNC-F-P53E-MD-G14-FN | | | 1050 | |
| | VSNC-F-P53C-MD-N14-FN | 1/4 NPT | | 1250 | |
| | VSNC-F-P53U-MD-N14-FN | | | 950 | |
| | VSNC-F-P53E-MD-N14-FN | | | 1050 | |

VSNC-FT ... -FN



- Design: Poppet seat
- Material of valve cap: Aluminium/metal
- Material of armature: Stainless steel
- Pilot air (incoming air of armature tube), protected

| Design | Type | Pneumatic connection 1, 3, 5 | Pneumatic connection 2, 4, based on standard | Standard nominal flow rate [l/min] | → Page |
|--|----------------------------|------------------------------|--|------------------------------------|--------|
| 3/2-way or 5/2-way valve ...-FN, convertible, single solenoid | | | | | |
| | VSNC-FTC-M52-MD-G14-FN | G 1/4 | VDI/VDE 3845 NAMUR | 800 | 46 |
| | VSNC-FTC-M52-MD-N14-FN | 1/4 NPT | | | |
| | VSNC-FTC-M52-MD-G14-FN-1A1 | G 1/4 | | | |
| 5/2-way valve ...-FN, double solenoid | | | | | |
| | VSNC-FT-B52-D-G14-FN | G 1/4 | VDI/VDE 3845 NAMUR | 1000 | 49 |
| | VSNC-FT-B52-D-N14-FN | 1/4 NPT | | | |
| | VSNC-FT-B52-D-G14-FN-1A1 | G 1/4 | | | |

Key features, product range overview VSNC-...-FN

| Coils | IP65 | | | Ex-nA | | | Ex-ia | Ex-mb | | | AEx-m | | |
|--------------------------------------|------------|-------------|-------------|------------|-------------|-------------|-------------------|------------|-------------|-------------|------------|-------------|-------------|
| | 24 V DC | 120 V AC | 230 V AC | 24 V DC | 120 V AC | 230 V AC | 24 ... 32 V DC | 24 V DC | 120 V AC | 230 V AC | 24 V DC | 120 V AC | 230 V AC |
| 5/2- and 3/2-way, single solenoid | ■ PNO | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 5/2-way, double solenoid | ■ PNO | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 5/3-way, C | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 5/3-way, P | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 5/3-way, E | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

■ = Can be combined as part of a modular system

PNO = Can be ordered with part number as a fast seller

Intrinsically safe coil VACN-...-Ex4A



- Category II 2G II 2D
- Type of ignition protection Ex-ia
- IEC Ex certification
- ATEX certification

Non-sparking coil VACN-...-Ex2N



- Category II 3G II 3D
- Type of ignition protection nA
- ATEX certification

Encapsulated coil VACN-...-Ex4M



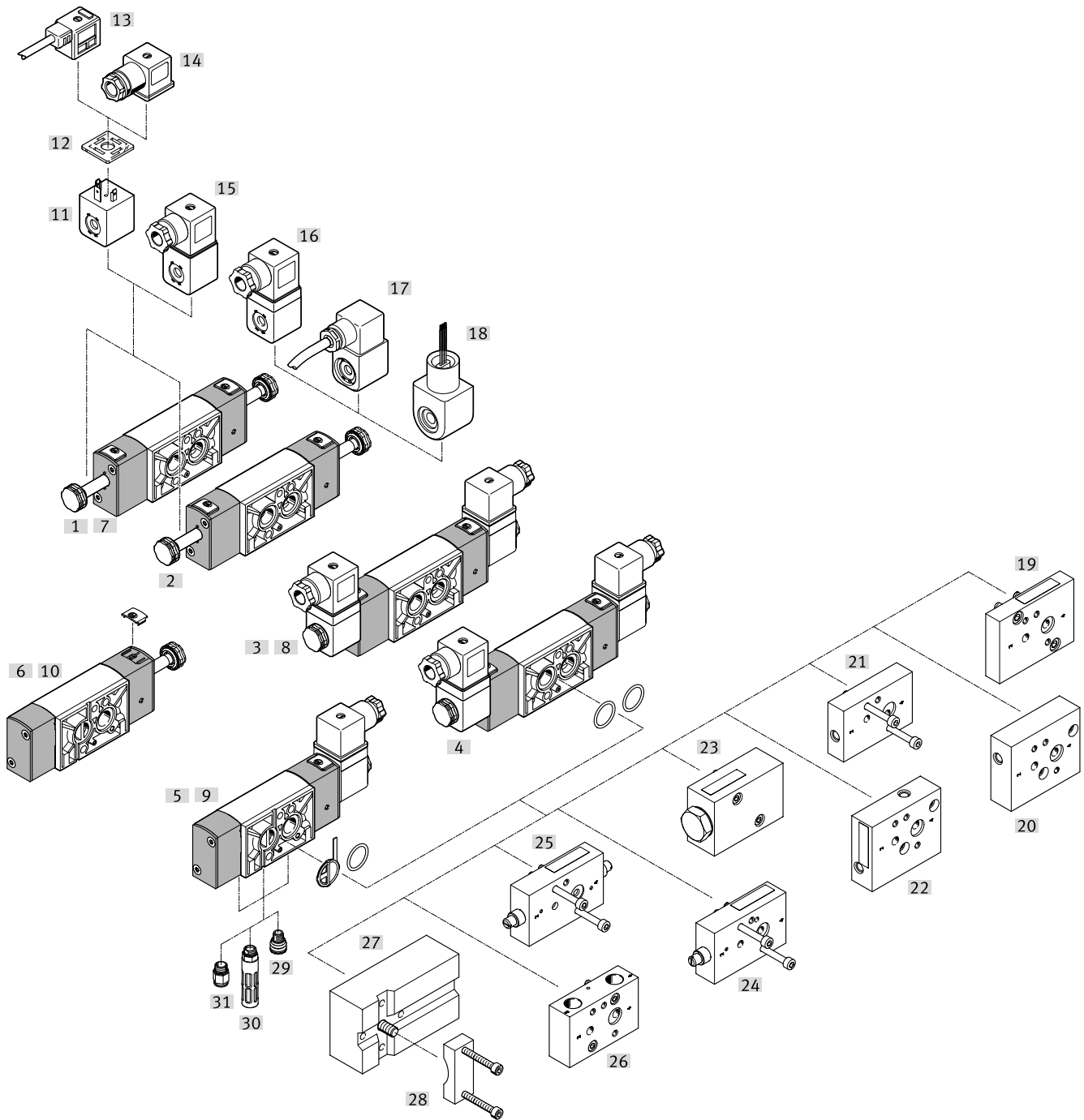
- Category II 2G II 2D
- Type of ignition protection Ex-m
- IEC Ex certification
- ATEX certification

Encapsulated coil with conduit, connection VACN-...-U4M



- Class I; Div. I
- Type of ignition protection AEx-...-m
- FM approval

Peripherals overview – VSNC...-FN

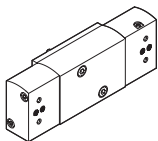


Peripherals overview – VSNC-F...-FN

| Mounting attachments and accessories | | Brief description | → Page / Internet |
|--------------------------------------|---|--|-------------------|
| [1] | VSNC-F ...-FN | 5/2-way double solenoid valve with aluminium cover and stainless steel armature tube | 38 |
| [2] | Piston spool | 5/3-way valve, normally open, closed or exhausted with aluminium cover and stainless steel armature tube | 42 |
| [3] | | 5/2-way double solenoid valve with aluminium cover, stainless steel armature tube and Ex-ia solenoid coil | 38 |
| [4] | | 5/3-way valve, normally open, closed or exhausted with aluminium cover, stainless steel armature tube and Ex-ia solenoid coil | 42 |
| [5] | | 3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover, stainless steel armature tube and Ex-ia solenoid coil | 33 |
| [6] | | 3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover and stainless steel armature tube | 33 |
| [7] | VSNC-FT- ... -FN | 5/2-way double solenoid valve with aluminium cover and stainless steel armature tube | 49 |
| [8] | Poppet seat | 5/2-way double solenoid valve with aluminium cover, stainless steel armature tube and 24 V DC solenoid coil | 49 |
| [9] | | 3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover, stainless steel armature tube and 24 V DC solenoid coil | 46 |
| [10] | | 3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover and stainless steel armature tube | 46 |
| [11] | VACN-N Solenoid coil | Electrical plug pattern to DIN EN 175301-803, type A | – |
| [12] | MC-LD Illuminating seal | Illuminating seal for indicating the switching status | 91 |
| [13] | KMC Connecting cable | – | kmc |
| [14] | MSSD-C Plug socket | Electrical plug pattern to DIN EN 175301-803, type A | 90 |
| [15] | VACN-N- ... -Ex2-N Solenoid coil | Type of ignition protection nA = non-sparking, for use in zone 2 | – |
| [16] | VACN-N- ... -Ex4-A Solenoid coil | Type of ignition protection iA = intrinsically safe, for use in zone 1 | – |
| [17] | VACN-N- ... -Ex4-M Solenoid coil | Type of ignition protection m = encapsulated, for use in zone 1 | – |
| [18] | VACN-N- ... -U4-M Solenoid coil | Type of ignition protection m = encapsulated, for use in Class I, Div. I (American FM approval to NEC 500) | – |
| [19] | VABA-B14-FL12-FL14 Mounting plate | Mounting plate with NAMUR connection 1/2 and 1/4 | 85 |
| [20] | VABS-B14-270-FF14 Mounting plate | NAMUR connection can be turned 270°. It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator. | 84 |
| [21] | VABS-B14-180-FF14 Mounting plate | NAMUR connection can be turned 180°. It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator. | 83 |
| [22] | VABS-B14-90-FF14 Mounting plate | NAMUR connection can be turned 90°. It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator. | 82 |
| [23] | VABF-B14-M3-...14 Exhaust plate | Exhausting a quarter turn actuator with NAMUR connection via a valve terminal or a normal inline valve G1/4 or 1/4 NPT. | 81 |
| [24] | VABF-B14-F1B1P1-FF14 Throttle plate (single-acting) | Flow control for single-acting quarter turn actuators. | 80 |
| [25] | VABF-B14-F1B1P2-FF14 Throttle plate (double-acting) | Flow control for double-acting quarter turn actuators. | 80 |
| [26] | VABS-B14-T-F ... 14 Connector plate | With the sub-base the NAMUR valve can be used as an inline valve with G1/4" and NPT 1/4" thread. | 79 |
| [27] | VABS-S7-S-G14 Connection set | Sub-base for attaching the valve to a NAMUR rib | 79 |
| [28] | VAME-S7-Y Mounting bracket | Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket | 86 |
| [29] | VABD-D3-SN-G14 Exhaust protection | Exhaust protection to IP65. The spring chamber of the actuator is protected against the ingress of aggressive ambient air and water by the one-way flow control system | 87 |
| [30] | U Silencers | – | 90 |
| [31] | QS Push-in fitting | For connecting compressed air tubing with standard O.D. | 90 |

Key features, product range overview VSNC-...-P2

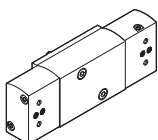
VSNC-F ... -P2



- Design: Piston spool
- Material of valve cap: Aluminium/metal
- Material of armature: Stainless steel
- Pilot air (via NAMUR connection, pilot control), protected

| Design | Type | Pneumatic connection 1, 3, 5 | Pneumatic connection 2, 4, based on standard | Standard nominal flow rate [l/min] | → Page |
|-----------------------------|----------------------|------------------------------|--|------------------------------------|--------|
| 5/3-way valve ...-P2 | | | | | |
| | VSNC-F-P53C-M-G14-P2 | G 1/4 | VDI/VDE 3845 NAMUR | 1250 | 63 |
| | VSNC-F-P53U-M-G14-P2 | | | 950 | |
| | VSNC-F-P53E-M-G14-P2 | 1/4 NPT | | 1050 | |
| | VSNC-F-P53C-M-N14-P2 | | | 1250 | |
| | VSNC-F-P53U-M-N14-P2 | | | 950 | |
| | VSNC-F-P53E-M-N14-P2 | | | 1050 | |

VSNC-FT ... -P2



- Design: Poppet seat
- Material of valve cap: Aluminium/metal
- Material of armature: Stainless steel
- Pilot air (via NAMUR connection, pilot control), protected

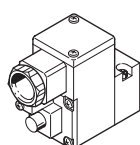
| Design | Type | Pneumatic connection 1, 3, 5 | Pneumatic connection 2, 4, based on standard | Standard nominal flow rate [l/min] | → Page |
|--|-----------------------|------------------------------|--|------------------------------------|--------|
| 3/2-way or 5/2-way valve ...-FN, convertible, single solenoid | | | | | |
| | VSNC-FTC-M52-M-G14-P2 | G 1/4 | VDI/VDE 3845 NAMUR | 800 | 53 |
| | VSNC-FTC-M52-M-N14-P2 | 1/4 NPT | | | |
| 5/2-way valve ...-FN, double solenoid | | | | | |
| | VSNC-FT-B52-G14-P2 | G 1/4 | VDI/VDE 3845 NAMUR | 1000 | 57 |
| | VSNC-FT-B52-N14-P2 | 1/4 NPT | | | |

Pilot valve MGXDH-...-EX



- Category II 2G II 2D
- Type of ignition protection Ex d
- IEC Ex certification
- ATEX certification

With pilot valve MGXIAH-...-EX, intrinsically safe



- Category II 1G II 1D
- Type of ignition protection Ex ia
- IEC Ex certification
- ATEX certification

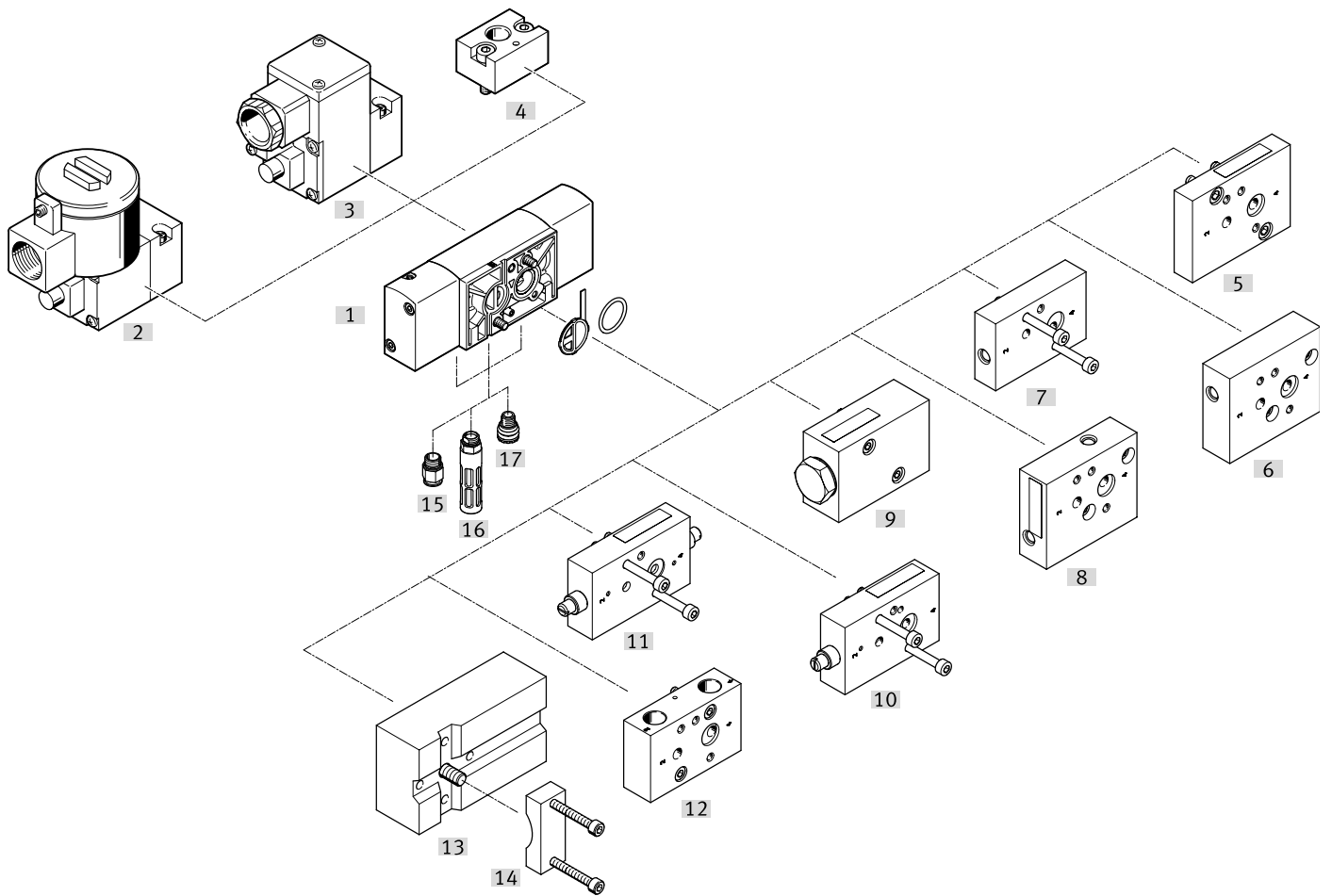
Key features, product range overview VSNC-...-P2

| Pilot valve | MGXDH-3/2-1.2-110AC-EX 535616 | MGXDH-3/2-1.2-230AC-EX 535617 | MGXDH-3/2-1.2-24DC-EX 535615 | MGXIAH-3/2-0.8-24DC-EX 535614 |
|---|--|----------------------------------|---------------------------------|----------------------------------|
| Valve function | 3/2-way, closed, single solenoid | | | |
| Symbol | | | | |
| Design | On/off valve | | | |
| Actuation type | Electrical | | | |
| Type of mounting | CNOMO | | | |
| Manual override | Detenting | | | |
| Reset method | Mechanical spring | | | |
| Direction of flow | Not reversible | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | [bar] | -0.9 ... 8 | | |
| | [MPa] | -0.09 ... 0.8 | | |
| | [psi] | -13.05 ... 116 | | |
| Ambient temperature | [°C] | -20 ... 80 | | |
| Duty cycle | [%] | 100 | | |
| Permissible frequency fluctuations | [%] | ± 10 | | |
| Insulation class | H | | | |
| CE marking (see declaration of conformity) | To EU Explosion Protection Directive (ATEX) | | | |
| | To EU Low Voltage Directive | | | - |
| Max. input power Pi | - | | | -40°C ~+50°C T6 = 2.98W |
| | - | | | -40°C ~+65°C T135°C = 2.98W |
| | - | | | -40°C ~+65°C T5 = 2.98W |
| | - | | | -40°C ~+65°C T6 = 1W |
| Max. input voltage Ui | [V] | - | | |
| Max. input current Ii | [A] | - | | |
| Effective internal inductance Li | | - | | |
| Effective internal capacitance Ci | | - | | |
| ATEX category for gas | II 2G | | | II 1G |
| Type of ignition protection for gas | ATEX: Ex db IIC T4 Gb | | ATEX: Ex db IIC T5 Gb | |
| | CCC-Ex: Ex d IIC T3/T4 Gb | | ATEX: Ex ia IIC T6...T5 Ga | |
| ATEX category for dust | II 2D | | II 1D | |
| | ATEX: Ex tb IIIC T135°C Db | | ATEX: Ex tb IIIC T100°C Db | |
| Type of ignition protection for dust | CCC-Ex: Ex tD A21 IP66 85°C/T200°C | | ATEX: Ex ia IIB T135°C Da | |
| | ATEX: -65°C ≤ Ta ≤ +40°C | | CCC-Ex: Ex iaD 20 T135°C | |
| Explosion-proof ambient temperature | CCC-Ex: -20°C ≤ Ta ≤ +40°C | | ATEX: -40°C ≤ Ta ≤ +65°C | |
| | ATEX: -65°C ≤ Ta ≤ +55°C | | CCC-Ex: -40°C ≤ Ta ≤ 50°C/65°C | |
| Explosion protection certification outside the EU | EPL Db (IEC Ex) | | | EPL Da (IEC-Ex) |
| | EPL Db (CN) | | | EPL Da (CN) |
| | EPL Gb (CN) | | | EPL Ga (CN) |
| Explosion protection certification outside the EU | EPL Gb (IECEx) | | | EPL Ga (IEC Ex) |
| | ATEX: CML 15 ATEX 1119X | | | ATEX: CML 17 ATEX 2046X |
| | CCC-Ex: 2020322307001701 | | | CCC-Ex: 2020322307001726 |
| Certificate issuing authority | IEC: IECEx CML 17.0147X | | | IEC: IECEx CML 17.0030X |
| Degree of protection | IP66 | | | IP65 |
| Characteristic coil data | 110 V AC: 50/60 Hz, | | 230 V AC: 50/60 Hz, | 24 V DC: 3 W |
| | Pick-up power 7.7 VA, | | 10 VA, | - |
| | Holding power 3.8 VA | | 6 VA | - |
| Note on materials | RoHS-compliant | | | |
| | Contains paint-wetting impairment substances | | | |
| Corrosion resistance class CRC ¹⁾ | 2 | | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Peripherals overview VSNC-...-P2



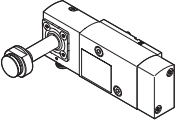
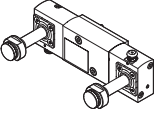
Peripherals overview VSNC-...-P2

| Mounting attachments and accessories | | Brief description | → Page / Internet |
|--------------------------------------|--|--|-------------------|
| [1] | VSNC-...-P2 Solenoid valves | 3/2-way or 5/2-way valve -...-F19/F19A, convertible | 53 |
| [2] | MGXDH-... Pilot valves | with CNOMO port pattern, to ISO 15218 | 88 |
| [3] | MGXIAH-... Pilot valves | with CNOMO port pattern, to ISO 15218 | 88 |
| [4] | VABD-B14-P1-G18 Connector | with CNOMO port pattern, to ISO 15218 | 88 |
| [5] | VABA-B14-FL12-FL14 Mounting plate | Mounting plate with NAMUR connection 1/2 and 1/4 | 85 |
| [6] | VABS-B14-270-FF14 Mounting plate | NAMUR connection can be turned 270° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 84 |
| [7] | VABS-B14-180-FF14 Mounting plate | NAMUR connection can be turned 180° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 83 |
| [8] | VABS-B14-90-FF14 Mounting plate | NAMUR connection can be turned 90° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 82 |
| [9] | VABF-B14-M3-...14 Exhaust plate | Exhausting a quarter turn actuator with NAMUR connection via a valve terminal or a normal inline valve G1/4 or 1/4 NPT | 81 |
| [10] | VABF-B14-F1B1P1-FF14 Throttle plate (single-acting) | Flow control for single-acting quarter turn actuators | 80 |
| [11] | VABF-B14-F1B1P2-FF14 Throttle plate (double-acting) | Flow control for double-acting quarter turn actuators | 80 |
| [12] | VABS-B14-T-F ... 14 Connector plate | Using the sub-base, it is possible to use the NAMUR valve as an inline valve with G1/4" and NPT1/4" thread. | 79 |
| [13] | VABS-S7-S-G14 Connection set | Sub-base for attaching the valve to a NAMUR rib | 79 |
| [14] | VAME-S7-Y Mounting bracket | Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket | 86 |
| [15] | QS Push-in fitting | For connecting compressed air tubing with standard O.D. | 90 |
| [16] | U Silencers | - | 90 |
| [17] | VABD-D3-SN-G14 Exhaust protection | Exhaust protection to IP65. The spring chamber of the actuator is protected against the ingress of aggressive ambient air and water by the one-way flow control system | 87 |

Key features, product range overview VSNC-...-F19/F19A

VSNC-FT ... -F19

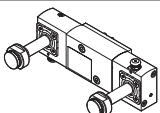
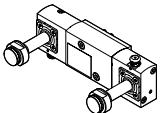
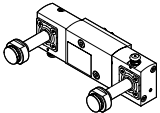
- Design: Poppet seat

| Design | Type | Pneumatic connection 1, 3, 5 | Pneumatic ports 2, 4 | Standard nominal flow rate [l/min] | → Page | |
|---|--------------------------|---------------------------------|----------------------|--|--------|----|
| 3/2-way or 5/2-way valve ...-F19, convertible | | | | | | |
|  | VSNC-FTC-M52-MH-G14-F19 | - | G1/4 | VDI/VDE 3845 NAMUR | 800 | 65 |
| | VSNC-FTC-M52-MH-N14-F19 | | 1/4 NPT | | | |
| | VSNC-FTC-M52-M-G14-F19 | | G1/4 | | | |
| | VSNC-FTC-M52-M-N14-F19 | | 1/4 NPT | | | |
| | VSNC-FTC-M52-MH-G14-F19A | Intrinsically safe | G1/4 | | | |
| | VSNC-FTC-M52-MH-N14-F19A | | 1/4 NPT | | | |
| | VSNC-FTC-M52-M-G14-F19A | | G1/4 | | | |
| | VSNC-FTC-M52-M-N14-F19A | | 1/4 NPT | | | |
| 5/2-way valve ...-F19, double solenoid | | | | | | |
|  | VSNC-FT-B52-H-G14-F19 | - | G1/4 | VDI/VDE 3845 NAMUR | 1000 | 69 |
| | VSNC-FT-B52-H-N14-F19 | | 1/4 NPT | | | |
| | VSNC-FT-B52-G14-F19 | | G1/4 | | | |
| | VSNC-FT-B52-N14-F19 | | 1/4 NPT | | | |
| | VSNC-FT-B52-H-G14-F19A | Intrinsically safe | G1/4 | | | |
| | VSNC-FT-B52-H-N14-F19A | | 1/4 NPT | | | |
| | VSNC-FT-B52-G14-F19A | | G1/4 | | | |
| | VSNC-FT-B52-N14-F19A | | 1/4 NPT | | | |

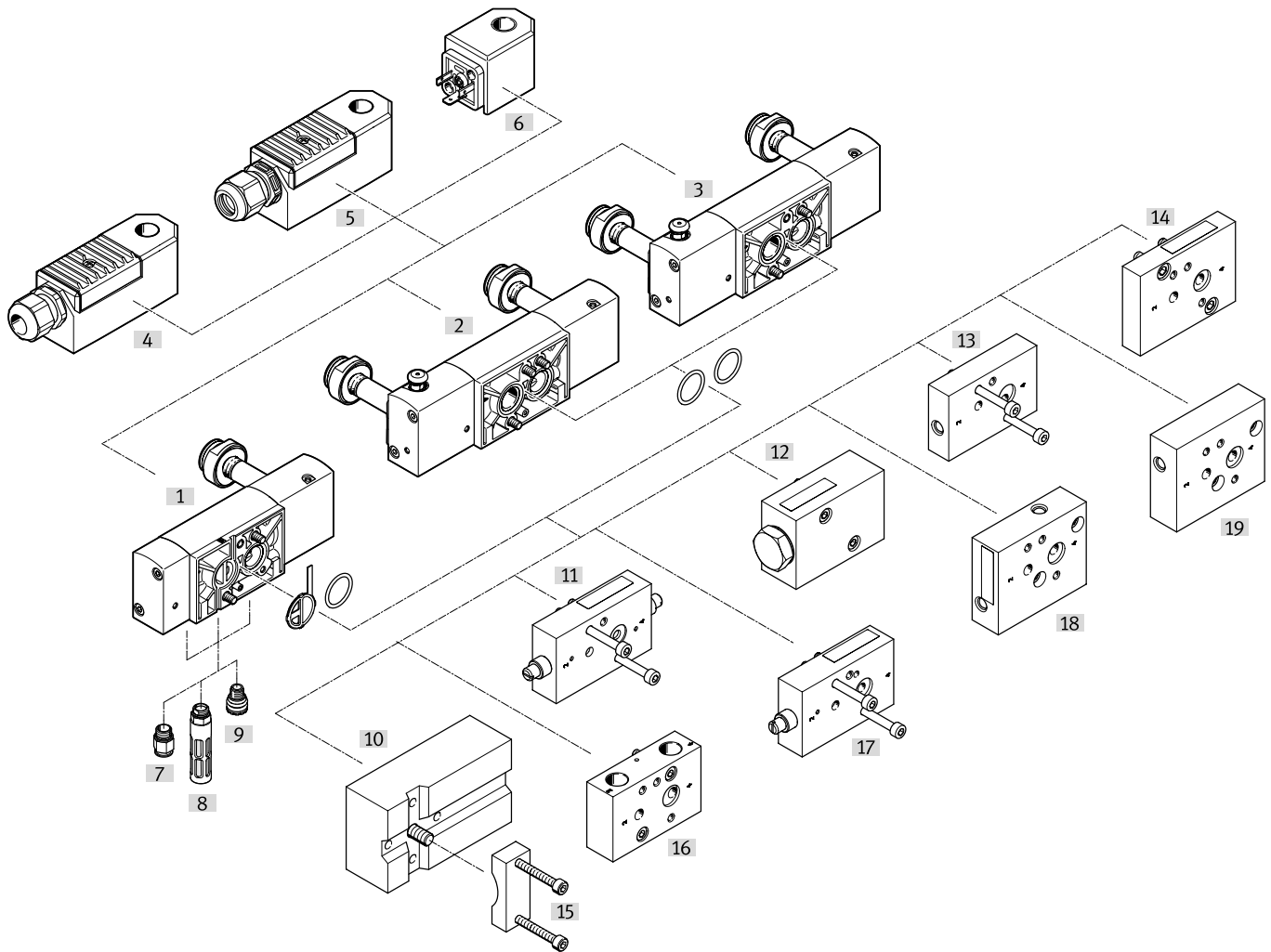
Key features, product range overview VSNC-...-F19/F19A

VSNC-F ... -F19

- Design: Piston spool

| Design | Type | Pneumatic connection | Pneumatic ports 2, 4 | Standard nominal flow rate [l/min] | → Page |
|---|-------------------------|----------------------|----------------------|------------------------------------|--------|
| 5/3-way valveF19, closed | | | | | |
|  | VSNC-F-P53C-MH-G14-F19 | – | G1/4 | VDI/VDE 3845 NAMUR | 1250 |
| | VSNC-F-P53C-MH-N14-F19 | | 1/4 NPT | | |
| | VSNC-F-P53C-M-G14-F19 | | G1/4 | | |
| | VSNC-F-P53C-M-N14-F19 | | 1/4 NPT | | |
| | VSNC-F-P53C-MH-G14-F19A | Intrinsically safe | G1/4 | | |
| | VSNC-F-P53C-MH-N14-F19A | | 1/4 NPT | | |
| | VSNC-F-P53C-M-G14-F19A | | G1/4 | | |
| VSNC-F-P53C-M-N14-F19A | | 1/4 NPT | | | 74 |
| 5/3-way valveF19, pressurised | | | | | |
|  | VSNC-F-P53U-MH-G14-F19 | – | G1/4 | VDI/VDE 3845 NAMUR | 950 |
| | VSNC-F-P53U-MH-N14-F19 | | 1/4 NPT | | |
| | VSNC-F-P53U-M-G14-F19 | | G1/4 | | |
| | VSNC-F-P53U-M-N14-F19 | | 1/4 NPT | | |
| | VSNC-F-P53U-MH-G14-F19A | Intrinsically safe | G1/4 | | |
| | VSNC-F-P53U-MH-N14-F19A | | 1/4 NPT | | |
| | VSNC-F-P53U-M-G14-F19A | | G1/4 | | |
| VSNC-F-P53U-M-N14-F19A | | 1/4 NPT | | | 74 |
| 5/3-way valveF19, exhausted | | | | | |
|  | VSNC-F-P53E-MH-G14-F19 | – | G1/4 | VDI/VDE 3845 NAMUR | 1050 |
| | VSNC-F-P53E-MH-N14-F19 | | 1/4 NPT | | |
| | VSNC-F-P53E-M-G14-F19 | | G1/4 | | |
| | VSNC-F-P53E-M-N14-F19 | | 1/4 NPT | | |
| | VSNC-F-P53E-MH-G14-F19A | Intrinsically safe | G1/4 | | |
| | VSNC-F-P53E-MH-N14-F19A | | 1/4 NPT | | |
| | VSNC-F-P53E-M-G14-F19A | | G1/4 | | |
| VSNC-F-P53E-M-N14-F19A | | 1/4 NPT | | | 74 |

Peripherals overview VSNC-...-F19/F19A



Peripherals overview VSNC-...-F19/F19A

| Mounting attachments and accessories | | Brief description | → Page / Internet |
|--------------------------------------|--|--|-------------------|
| [1] | VSNC-...-F19/F19A Solenoid valves | 3/2-way or 5/2-way valve -...-F19/F19A, convertible | 65 |
| [2] | VSNC-...-F19/F19A Solenoid valves | 5/2-way valve -...-F19/F19A, double solenoid | 69 |
| [3] | VSNC-...-F19/F19A Solenoid valves | 5/3-way valve -...-F19/F19A, closed, pressurised, exhausted | 74 |
| [4] | VACC-... Solenoid coil | Encapsulated solenoid coil with enhanced safety, Ex-me | 88 |
| [5] | VACC-... Solenoid coil | Type of ignition protection: intrinsically safe Ex-ia | 88 |
| [6] | VACN-... Solenoid coil | Degree of protection IP65 with socket | 88 |
| [7] | QS Push-in fitting | For connecting compressed air tubing with standard O.D. | 90 |
| [8] | U Silencers | – | 90 |
| [9] | VABD-D3-SN-G14 Exhaust protection | Exhaust protection to IP65. The spring chamber of the actuator is protected against the ingress of aggressive ambient air and water by the one-way flow control system | 87 |
| [10] | VABS-S7-S-G14 Connection set | Sub-base for attaching the valve to a NAMUR rib | 79 |
| [11] | VABF-B14-F1B1P2-FF14 Throttle plate (double-acting) | Flow control for double-acting quarter turn actuators | 80 |
| [12] | VABF-B14-M3-...14 Exhaust plate | Exhausting a quarter turn actuator with NAMUR connection via a valve terminal or a normal inline valve G1/4 or 1/4 NPT | 81 |
| [13] | VABS-B14-180-FF14 Mounting plate | NAMUR connection can be turned 180° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 83 |
| [14] | VABA-B14-FL12-FL14 Mounting plate | Mounting plate with NAMUR connection 1/2 and 1/4 | 85 |
| [15] | VAME-S7-Y Mounting bracket | Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket | 86 |
| [16] | VABS-B14-T-F ... 14 Connector plate | Using the sub-base, it is possible to use the NAMUR valve as an inline valve with G1/4" and NPT1/4" thread. | 79 |
| [17] | VABF-B14-F1B1P1-FF14 Throttle plate (single-acting) | Flow control for single-acting quarter turn actuators | 80 |
| [18] | VABS-B14-90-FF14 Mounting plate | NAMUR connection can be turned 90° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 82 |
| [19] | VABS-B14-270-FF14 Mounting plate | NAMUR connection can be turned 270° It is also possible to mount a 1/4" NAMUR valve on a 1/2" actuator | 84 |

Type codes

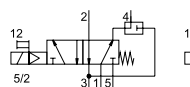
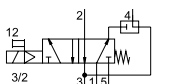
| 001 | Series |
|------|---|
| VSNC | Solenoid valve VSNC |
| 002 | Directional control valve type |
| F | Flanged valve |
| 003 | Design principle |
| | Piston spool |
| T | Poppet valve |
| 004 | Additional function |
| | None |
| C | Convertible valve function |
| 005 | Valve function |
| B52 | 5/2-way valve, double solenoid/bistable |
| M52 | 5/2-way valve, single solenoid/monostable |
| P53U | 5/3-way valve, mid-position pressurised |
| P53E | 5/3-way valve, mid-position exhausted |
| P53C | 5/3-way valve, mid-position closed |
| 006 | Reset method for monostable/single solenoid valves |
| | None |
| M | Mechanical spring |
| 007 | Manual override |
| | None |
| D | Non-detenting, detenting |
| H | Non-detenting |
| S | Covered |
| 008 | Pneumatic connection |
| G14 | G1/4 |
| N14 | 1/4 NPT |
| Q6 | Push-in connector 6 mm |
| Q8 | Push-in connector 8 mm |
| Q10 | Push-in connector 10 mm |
| T14 | Push-in connector 1/4" |
| T38 | Push-in connector 3/8" |
| T516 | Push-in connector 5/16" |
| 009 | Exhaust |
| QN | With fitting |
| | No fitting |
| U1 | Silencer with metallic housing |
| U3 | Silencer with polymer housing |
| 010 | Valve pilot control interface |
| F8 | With armature tube 8 mm, long |
| FN | With armature tube 9 mm |
| F19 | Electric with armature tube for solenoid coil, 13 mm |
| F19A | Electric with armature tube for solenoid coil 13 mm, intrinsically safe |
| P2 | Interface for pilot valve size 30 mm to ISO 15218 (CNOMO) |
| 011 | Power consumption |
| | None |
| 11 | 1.1 W |
| 18 | 1.8 W |

| 012 | Nominal operating voltage |
|-----|--|
| | None |
| 1 | 24 V DC |
| 1A | 24 V AC/50-60 Hz |
| 1U | 24 V DC and AC |
| 2U | 110 V DC and AC |
| 3A | 230 V AC/50-60 Hz |
| 3U | 230 V DC and AC |
| 3W | 230 V AC/240 V AC/50-60 Hz |
| 5 | 12 V DC |
| 7 | 48 V DC |
| 7A | 48 V AC/50-60 Hz |
| 16B | 120 V AC/60 Hz and 110V AC/50-60 Hz |
| 27U | 60 V DC and AC |
| 013 | Electrical connection |
| | None |
| A1 | Plug pattern type A, to EN 175301-803 |
| B2 | Connection pattern type B, industry standard |
| C3 | Cable, 3 m |
| K4 | Cable connector metric |
| K11 | Cable with insulating conduit connection |
| 014 | Degree of protection, electrical system |
| | Standard |
| S8 | IP67 |
| S11 | IP66 |
| 015 | Circuitry |
| | None |
| F | Fuse |
| 016 | EU certification |
| | None |
| EX2 | II 3GD |
| EX4 | II 2GD |
| 017 | Certification |
| | None |
| U4 | Class1 Div1 to NEC 500 |
| 018 | Type of ignition protection |
| | None |
| A | Intrinsically safe |
| D | Flameproof encapsulation |
| M | Encapsulation |
| ME | Encapsulation, enhanced security |
| N | Non-sparking |
| 019 | Electrical valve accessories |
| | None |
| G | Connector socket, without LED |
| 020 | Version |
| | Expanded properties |


Datasheet – 3/2-way or 5/2-way valve ...-F8, convertible, single solenoid


Function¹⁾

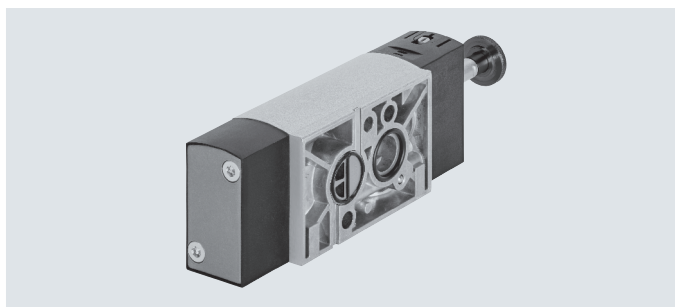
5/2-way valve

3/2-way valve
with exhaust return

 Voltage
24 V DC

 Operating pressure
2.5 ... 10 bar

 Temperature range
-20 ... +60°C



1) Can be changed by switching the seal plate

| General technical data | | VSNC-FC ... -G14-F8 | VSNC-FC ... -G14-F8-1B2 | VSNC-FC ... -G14-F8-1A1 |
|---|------------------------------|---------------------------------|-------------------------|-------------------------|
| | | VSNC-FC ... -N14-F8 | | |
| Valve function | | 3/2-way or 5/2-way, convertible | | |
| Width | [mm] | 32 | | |
| Design | | Piston spool | | |
| Sealing principle | | Soft | | |
| Actuation type | | Electrical | | |
| Reset method | | Mechanical spring | | |
| Type of control | | Piloted | | |
| Manual override | | Detenting, non-detenting | | |
| Exhaust function | | Can be throttled | | |
| Port for venting hole | | Not ducted | | |
| Pilot air supply | | Internal | | |
| Type of mounting | | Via through-hole | | |
| Mounting position | | Any | | |
| Max. tightening torque for valve mounting | [Nm] | 3.5 | | - |
| Non-overlapping | | Yes | | |
| Standard nominal flow rate | 1 > 2 [l/min] | 1250 | | |
| | Exhaust return 4 > 3 [l/min] | 110 | | |
| b value | | 0.4 | | |
| C value | [l/sbar] | 5.2 | | |
| Pneumatic connection | 1, 3, 5 2, 4 | G 1/4, 1/4 NPT | G 1/4 | G 1/4 |
| Conforms to standard | | VDI/VDE 3845 NAMUR | | |
| Certificate issuing authority | | DNVGL-TAA000011] | | |
| Product weight | [g] | 335 | 390 | 335 |

Datasheet – 3/2-way or 5/2-way valve ...-F8, convertible, single solenoid

| Operating and environmental conditions | | VSNC-FC- ... -G14-F8 VSNC-FC- ... -N14-F8 | VSNC-FC- ... -G14-F8-1B2 | VSNC-FC- ... -G14-F8-1A1 |
|--|-------|--|--------------------------|---------------------------|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 2.5 ... 10 | | |
| Ambient temperature | [°C] | -20 ... +60 | | |
| Temperature of medium | [°C] | -20 ... +60 | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | |
| Certification | | - | | c UL us - Recognized (OL) |
| Maritime classification ²⁾ | | See certificate | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

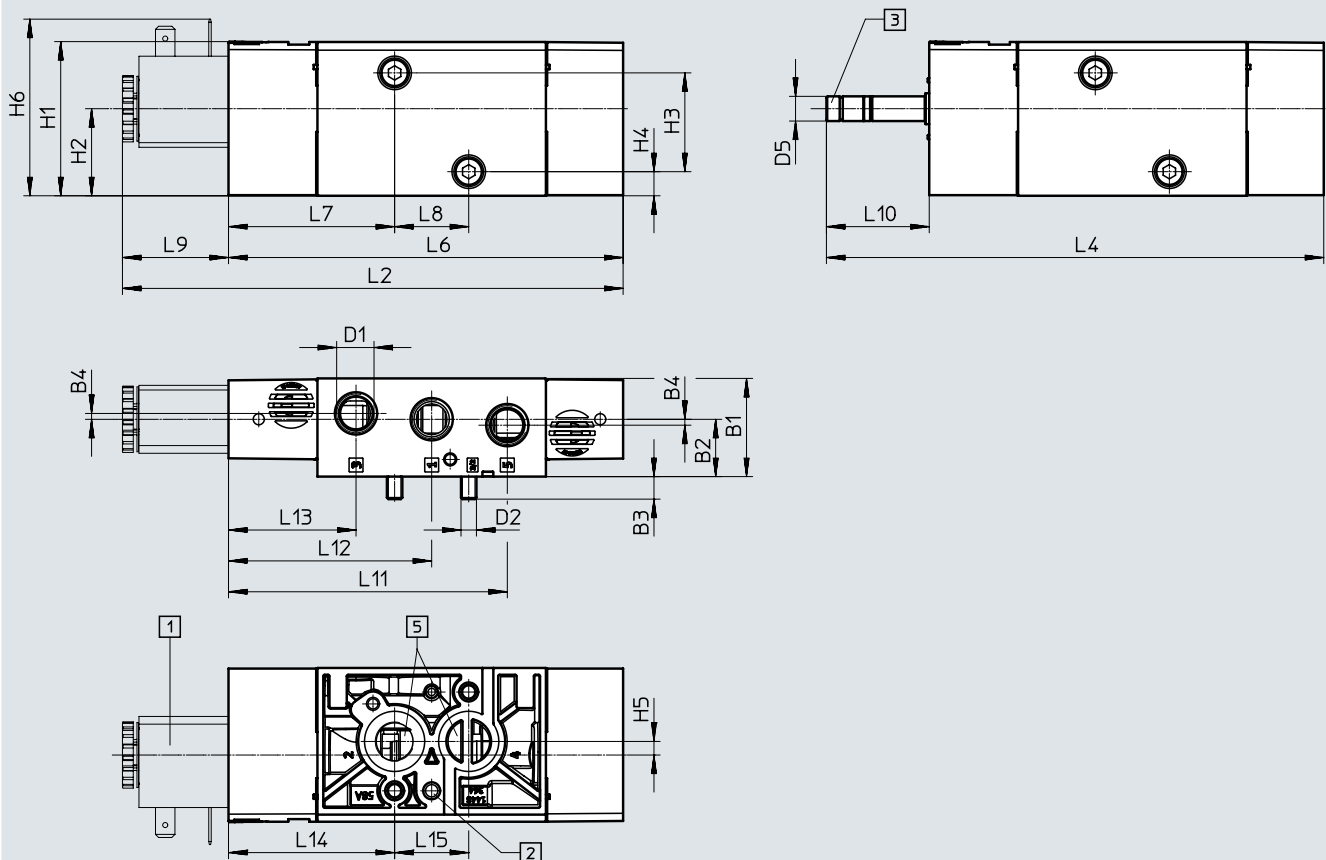
| Electrical data | | VSNC-FC- ... -G14-F8 VSNC-FC- ... -N14-F8 | VSNC-FC- ... -G14-F8-1B2 | VSNC-FC- ... -G14-F8-1A1 |
|-----------------------------------|------|--|---|--|
| Electrical connection | | - | 3-pin plug, type B to industry standard (11 mm) | To EN 175301-803, type A |
| Characteristic coil data, 24 V DC | [W] | See solenoid coil, to be ordered separately | 3.3 | 2.6 |
| Permissible voltage fluctuations | [%] | - | ±10 | ±10 |
| Duty cycle | [%] | - | 100 | 100 |
| Degree of protection | | - | IP65, IP67 | IP65, IP67 to IEC 60529 with plug socket |
| Switching time on | [ms] | 11 | 11 | 11 |
| Switching time off | [ms] | 38 | 48 | 48 |

| Materials | | |
|-----------|---------|----------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| [3] | Screws | High-alloy stainless steel |
| | - | RoHS-compliant |

Datasheet – 3/2-way or 5/2-way valve ...-F8, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



VSNC-FC-M52-MD-G14-F8

- [1] Solenoid coil
- [2] $\varnothing 5.5 \times 4$ (for threaded pin DIN 913-M5x10-45H)
- [3] Suction of auxiliary pilot air 82, M5
- [5] Working port 2 and 4, NAMUR port pattern

| Type | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 |
|---------------------------|------|------|-----|-----|---------|----|------|------|----|-----|-----|------|
| VSNC-FC-M52-MD-G14-F8 | 31.8 | 18.6 | 7.3 | 1.9 | G 1/4 | M5 | 49.9 | 28.2 | 32 | 7.8 | 4.4 | - |
| VSNC-FC-M52-MD-N14-F8 | | | | | 1/4 NPT | | | | | | | 57.2 |
| VSNC-FC-M52-MD-G14-F8-1B2 | | | | | G 1/4 | | | | | | | |

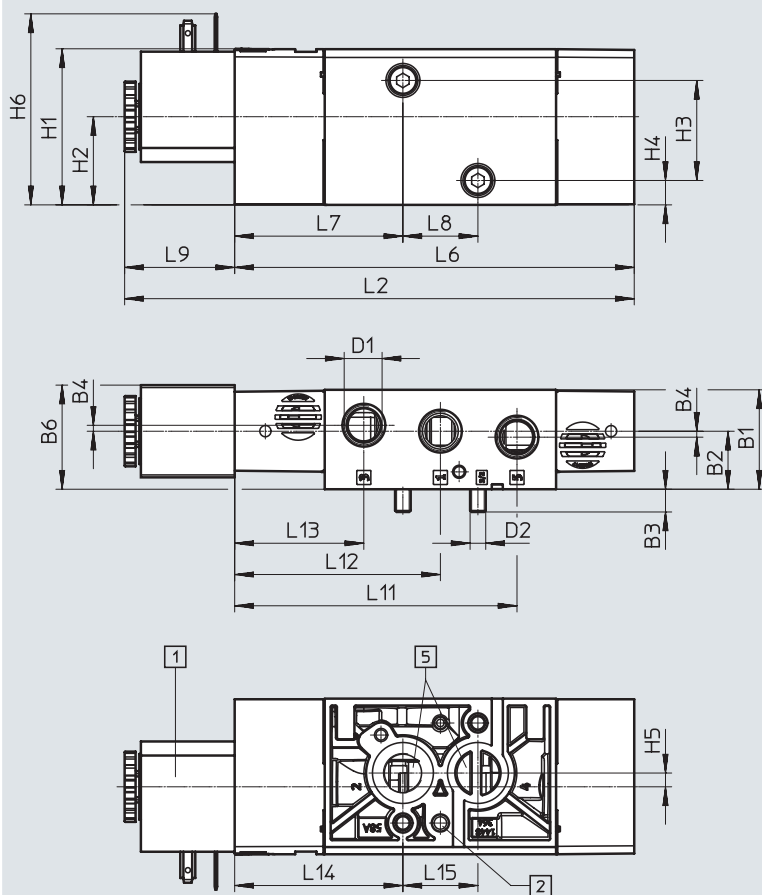
| Type | L2 | L4 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|---------------------------|-------|-------|-------|------|----|------|------|------|------|------|------|-----|
| VSNC-FC-M52-MD-G14-F8 | 162.2 | 161.1 | 127.8 | 53.8 | 24 | 34.4 | 33.3 | 90.3 | 65.8 | 41.3 | 53.8 | 24 |
| VSNC-FC-M52-MD-N14-F8 | | | | | | | | | | | | |
| VSNC-FC-M52-MD-G14-F8-1B2 | | | | | | | | | | | | |

Datasheet – 3/2-way or 5/2-way valve ...-F8, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com

VSNC-FC-M52-MD-G14-F8-1A1



[1] Solenoid coil

[2] $\varnothing 5 \times 4$ to
DIN 913-M5x10-45h

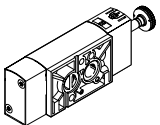
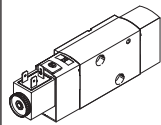
[5] Working port 2 and 4, NAMUR port
pattern

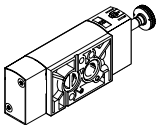
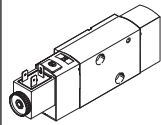
| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | H1 | H2 | H3 | H4 | H5 |
|---------------------------|------|------|-----|-----|------|-------|----|------|------|----|-----|-----|
| VSNC-FC-M52-MD-G14-F8-1A1 | 31.8 | 18.6 | 7.3 | 1.9 | 33.3 | G 1/4 | M5 | 49.9 | 28.2 | 32 | 7.8 | 4.4 |

| Type | H6 | L2 | L6 | L7 | L8 | L9 | L11 | L12 | L13 | L14 | L15 |
|---------------------------|------|-----|-------|------|----|------|------|------|------|------|-----|
| VSNC-FC-M52-MD-G14-F8-1A1 | 61.1 | 163 | 127.8 | 53.8 | 24 | 35.2 | 90.3 | 65.8 | 41.3 | 53.8 | 24 |

Datasheet – 3/2-way or 5/2-way valve ...-F8, convertible, single solenoid

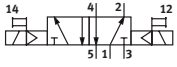
★ Core Range

| Ordering data – Valves | | | Ordering data – Valves | | |
|---|----------|-----------------------|---|----------|---------------------------|
| Directional control valve without solenoid coil | | | Directional control valve with 24 V DC solenoid coil, without socket | | |
| | Part no. | Type | | Part no. | Type |
|  | ★ 577257 | VSNC-FC-M52-MD-G14-F8 |  | ★ 577295 | VSNC-FC-M52-MD-G14-F8-1B2 |

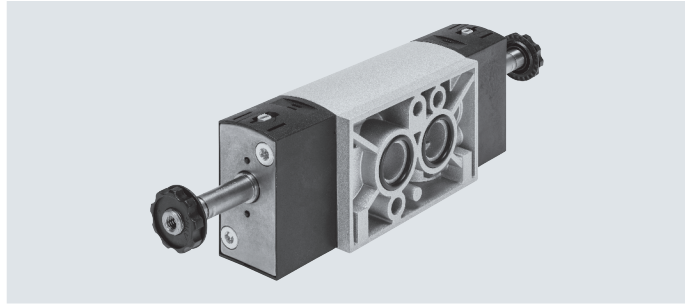
| Ordering data – Valves | | | Ordering data – Valves | | |
|---|----------|-----------------------|---|----------|---------------------------|
| Directional control valve without solenoid coil | | | Directional control valve with 24 V DC solenoid coil, without socket | | |
| | Part no. | Type | | Part no. | Type |
|  | 577262 | VSNC-FC-M52-MD-N14-F8 |  | 8074945 | VSNC-FC-M52-MD-G14-F8-1A1 |

Datasheet – 5/2-way valve ...-F8, double solenoid

Function
5/2-way valve



- - Voltage
24 V DC
- - Operating pressure
1.5 ... 10 bar
- - Temperature range
-20 ... +60°C



General technical data

| | | |
|---------------------|---------------------|-------------------------|
| VSNC-F-B52-D-G14-F8 | VSNC-F-B52-D-N14-F8 | VSNC-F-B52-D-G14-F8-1B2 |
|---------------------|---------------------|-------------------------|

| | | |
|---|--------------------------|-----------------------|
| Valve function | 5/2-way, double solenoid | |
| Width | [mm] | 32 |
| Nominal width DN | [mm] | 7.2 |
| Design | Piston spool | |
| Sealing principle | Soft | |
| Actuation type | Electrical | |
| Reset method | - | |
| Type of control | Piloted | |
| Manual override | Detenting, non-detenting | |
| Type of mounting | Via through-hole | |
| Mounting position | Any | |
| Max. tightening torque for valve mounting | [Nm] | 3.2 |
| Non-overlapping | Yes | |
| Standard nominal flow rate | 1 > 2 | [l/min] 1200 |
| b value | 0.4 | |
| C value | [l/sbar] | 5.6 |
| Pneumatic port | 1, 3, 5 | G 1/4, 1/4 NPT |
| | 2, 4 | Port pattern to NAMUR |
| Conforms to standard | VDI/VDE 3845 (NAMUR) | |
| Certificate issuing authority | DNVGL-TAA000011J | |
| Product weight | [g] | 345 |
| | | 455 |

Datasheet – 5/2-way valve ...-F8, double solenoid

| Operating and environmental conditions | | VSNC-F-B52-D-G14-F8 VSNC-F-B52-D-N14-F8 | VSNC-F-B52-D-G14-F8-1B2 |
|--|-------|--|-------------------------|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | |
| Operating pressure | [bar] | 1.5 ... 10 | |
| Ambient temperature | [°C] | -20 ... +60 | |
| Temperature of medium | [°C] | -20 ... +60 | |
| Corrosion resistance class CRC ¹⁾ | | 2 | |
| Maritime classification ²⁾ | | See certificate | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

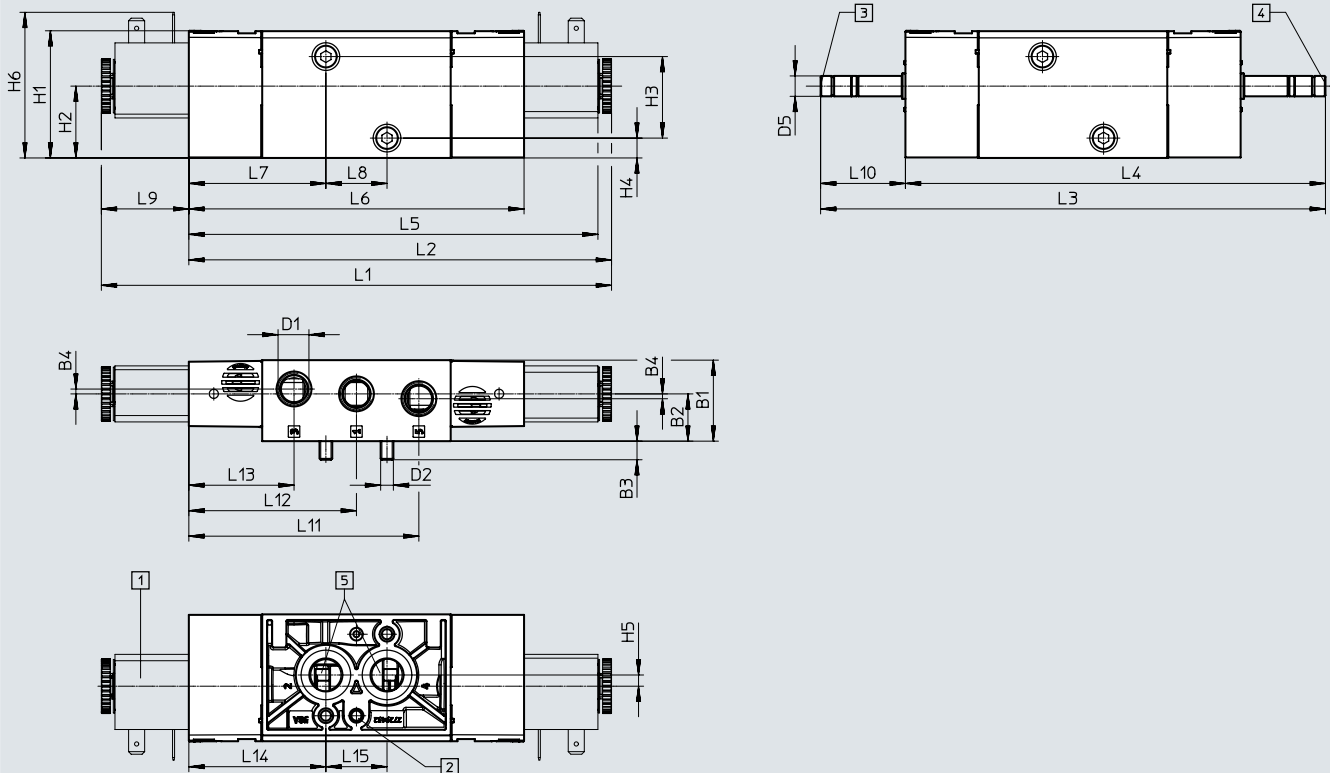
| Electrical data | | VSNC-F-B52-D-G14-F8 VSNC-F-B52-D-N14-F8 | VSNC-F-B52-D-G14-F8-1B2 |
|-----------------------------------|------|---|--|
| Electrical connection | | – | 3-pin plug, to industry standard (11 mm), type B |
| Characteristic coil data, 24 V DC | [W] | See solenoid coil, to be ordered separately | 3.3 |
| Permissible voltage fluctuations | [%] | – | ±10 |
| Degree of protection | | – | IP65, IP67 |
| Switching time on | [ms] | 11 | |

| Materials | | |
|-------------|--|-------------------------|
| [1] Housing | | Wrought aluminium alloy |
| [2] Seals | | NBR |
| – | | RoHS-compliant |

Datasheet – 5/2-way valve ...-F8, double solenoid

Dimensions

Download CAD data → www.festo.com

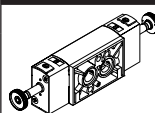
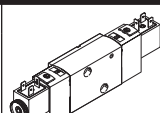


- [1] Solenoid coil
- [2] \varnothing 5.5x4 (for threaded pin DIN 913-M5x10-45H)
- [3] Suction of auxiliary pilot air 82, M5
- [4] Suction of auxiliary pilot air 84, M5
- [5] Working port 2 and 4, NAMUR port pattern

| Type | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | L1 |
|-------------------------|------|------|-----|-----|---------|----|------|------|----|-----|-----|----|----|
| VSNC-F-B52-D-G14-F8 | 31.8 | 18.6 | 7.3 | 1.9 | G 1/4 | M5 | 49.9 | 28.2 | 32 | 7.8 | 4.4 | - | - |
| VSNC-F-B52-D-N14-F8 | | | | | 1/4 NPT | | | | | | | | |
| VSNC-F-B52-D-G14-F8-1B2 | | | | | G 1/4 | | | | | | | | |

| Type | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|-------------------------|----|-------|-------|-------|-------|------|----|------|------|------|------|------|------|-----|
| VSNC-F-B52-D-G14-F8 | - | 198.2 | 164.9 | - | 131.6 | 53.8 | 24 | - | 33.3 | 90.3 | 65.8 | 41.3 | 53.8 | 24 |
| VSNC-F-B52-D-N14-F8 | | | | 166 | | | | 34.4 | | | | | | |
| VSNC-F-B52-D-G14-F8-1B2 | | | | 160.6 | | | | | | | | | | |

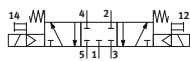
Ordering data – Valves


| Directional control valve without solenoid coil | | | Directional control valve with solenoid coil | | |
|--|----------|---------------------|---|----------|-------------------------|
| | Part no. | Type | | Part no. | Type |
|  | 577258 | VSNC-F-B52-D-G14-F8 |  | 577296 | VSNC-F-B52-D-G14-F8-1B2 |
| | 577263 | VSNC-F-B52-D-N14-F8 | | | |

Datasheet – 5/3-way valve ...-F8

Function

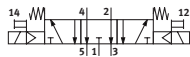
5/3-way valve, closed



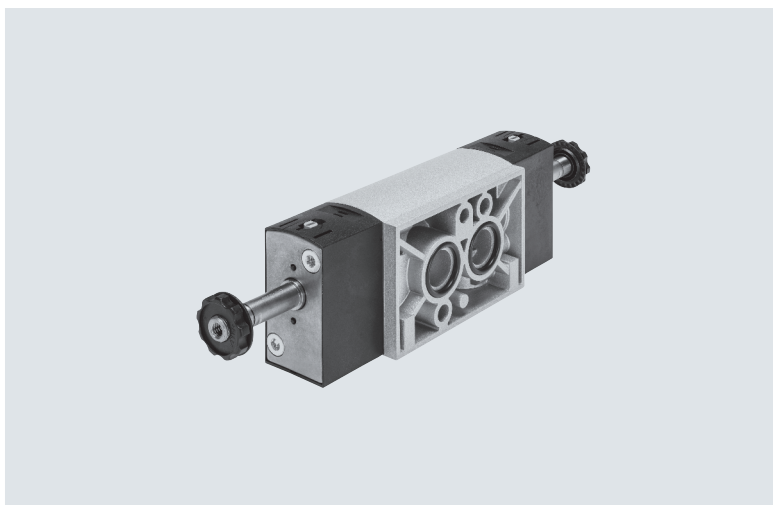
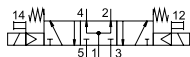
 Operating pressure
3 ... 10 bar

 Temperature range
-20 ... +60°C

5/3-way valve, exhausted



5/3-way valve, pressurised



| General technical data | | VSNC-F-P53C-MD-G14-F8 | VSNC-F-P53E-MD-G14-F8 | VSNC-F-P53U-MD-G14-F8 |
|---|---------------|------------------------------|-----------------------|-----------------------|
| | | VSNC-F-P53C-MD-N14-F8 | VSNC-F-P53E-MD-N14-F8 | VSNC-F-P53U-MD-N14-F8 |
| Valve function | | 5/3-way, closed | 5/3-way, exhausted | 5/3-way, pressurised |
| Width | [mm] | 32 | | |
| Nominal width | [mm] | 7.2 | 6 | 6 |
| Design | | Piston spool | | |
| Sealing principle | | Soft | | |
| Actuation type | | Electrical | | |
| Reset method | | Mechanical spring | | |
| Type of control | | Piloted | | |
| Manual override | | Non-detenting, non-detenting | | |
| Type of mounting | | Via through-hole | | |
| Mounting position | | Any | | |
| Max. tightening torque for valve mounting | [Nm] | 3.5 | | |
| Non-overlapping | | Yes | | |
| Standard nominal flow rate | 1 > 2 [l/min] | 1200 | 800 | 800 |
| b value | | 0.4 | 0.4 | 0.5 |
| C value | [l/sbar] | 5.2 | 4.4 | 2.1 |
| Pneumatic port | 1, 3, 5 | G 1/4, 1/4 NPT | | |
| | 2, 4 | Port pattern to NAMUR | | |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) | | |
| Certificate issuing authority | | DNVGL-TAA000011J | | |
| Product weight | [g] | 345 | | |

Datasheet – 5/3-way valve ...-F8

| Operating and environmental conditions | | VSNC-F-P53C-MD-G14-F8 VSNC-F-P53C-MD-N14-F8 | VSNC-F-P53E-MD-G14-F8 VSNC-F-P53E-MD-N14-F8 | VSNC-F-P53U-MD-G14-F8 VSNC-F-P53U-MD-N14-F8 |
|--|-------|--|--|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 3 ... 10 | | |
| Ambient temperature | [°C] | -20 ... +60 | | |
| Temperature of medium | [°C] | -20 ... +60 | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | |
| Maritime classification ²⁾ | | See certificate | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

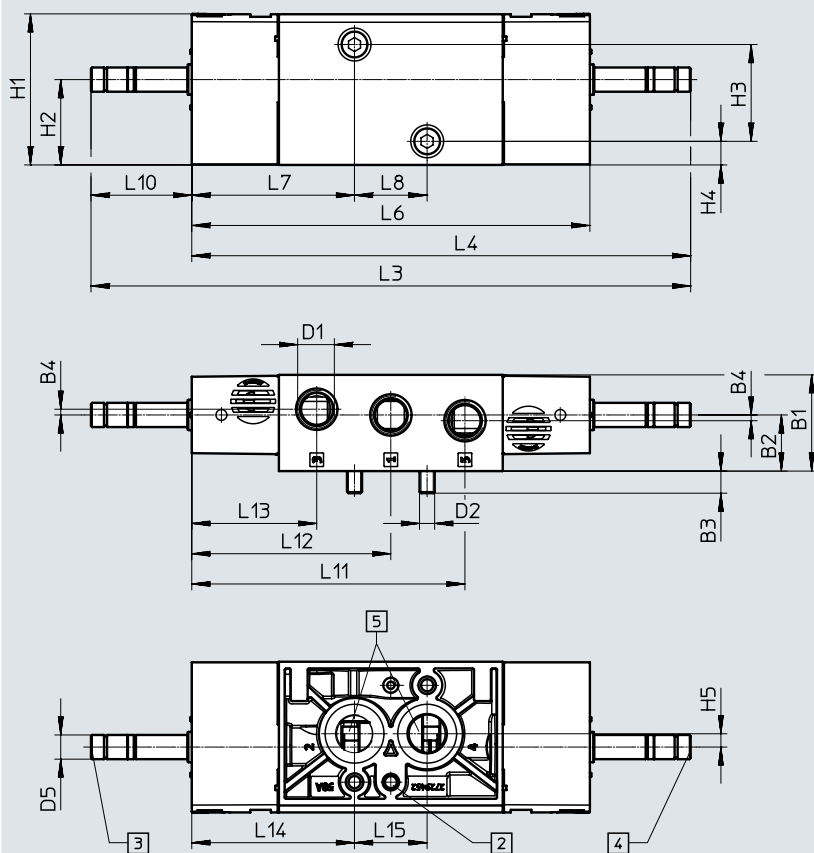
| Electrical data | | VSNC-F-P53C-MD-G14-F8 VSNC-F-P53C-MD-N14-F8 | VSNC-F-P53E-MD-G14-F8 VSNC-F-P53E-MD-N14-F8 | VSNC-F-P53U-MD-G14-F8 VSNC-F-P53U-MD-N14-F8 |
|---------------------------|------|--|--|--|
| Characteristic coil data | | See solenoid coil, to be ordered separately | | |
| Switching time on | [ms] | 13 | 14 | 14 |
| Switching time off | [ms] | 42 | 48 | 48 |
| Switching time changeover | [ms] | 26 | 25 | 25 |

| Materials | | |
|-------------|--|-------------------------|
| [1] Housing | | Wrought aluminium alloy |
| [2] Seals | | NBR |
| - | | RoHS-compliant |

Datasheet – 5/3-way valve ...-F8

Dimensions

Download CAD data → www.festo.com



- [2] \varnothing 5.5x4 (for threaded pin DIN 913-M5x10-45H)
- [3] Suction of auxiliary pilot air 82, M5
- [4] Suction of auxiliary pilot air 84, M5
- [5] Working port 2 and 4, NAMUR port pattern

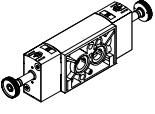
| Type | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 |
|-----------------------|------|------|-----|-----|-------|----|------|------|----|-----|-----|
| VSNC-F-P53C-MD-G14-F8 | 31.8 | 18.6 | 7.3 | 1.9 | G 1/4 | M5 | 49.9 | 28.2 | 32 | 7.8 | 4.4 |
| VSNC-F-P53U-MD-G14-F8 | | | | | | | | | | | |
| VSNC-F-P53E-MD-G14-F8 | | | | | | | | | | | |
| VSNC-F-P53C-MD-N14-F8 | | | | | | | | | | | |
| VSNC-F-P53U-MD-N14-F8 | | | | | | | | | | | |
| VSNC-F-P53E-MD-N14-F8 | | | | | | | | | | | |

| Type | L3 | L4 | L6 | L7 | L8 | L10 | L11 | L12 | L13 | L14 | L15 |
|-----------------------|-------|-------|-------|------|----|------|------|------|------|------|-----|
| VSNC-F-P53C-MD-G14-F8 | 198.2 | 164.9 | 131.6 | 53.8 | 24 | 33.3 | 90.3 | 65.8 | 41.3 | 53.8 | 24 |
| VSNC-F-P53U-MD-G14-F8 | | | | | | | | | | | |
| VSNC-F-P53E-MD-G14-F8 | | | | | | | | | | | |
| VSNC-F-P53C-MD-N14-F8 | | | | | | | | | | | |
| VSNC-F-P53U-MD-N14-F8 | | | | | | | | | | | |
| VSNC-F-P53E-MD-N14-F8 | | | | | | | | | | | |

Datasheet – 5/3-way valve ...-F8

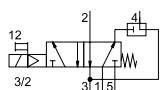
Ordering data – Valves

Directional control valve without solenoid coil

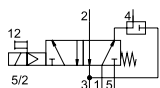
| | Part no. | Type |
|--|----------|-----------------------|
|  | 577259 | VSNC-F-P53C-MD-G14-F8 |
| | 577260 | VSNC-F-P53U-MD-G14-F8 |
| | 577261 | VSNC-F-P53E-MD-G14-F8 |
| | 577264 | VSNC-F-P53C-MD-N14-F8 |
| | 577265 | VSNC-F-P53U-MD-N14-F8 |
| | 577266 | VSNC-F-P53E-MD-N14-F8 |


Datasheet – 3/2-way or 5/2-way valve VSNC-F...FN, convertible, single solenoid

Convertible function
3/2-way valve or

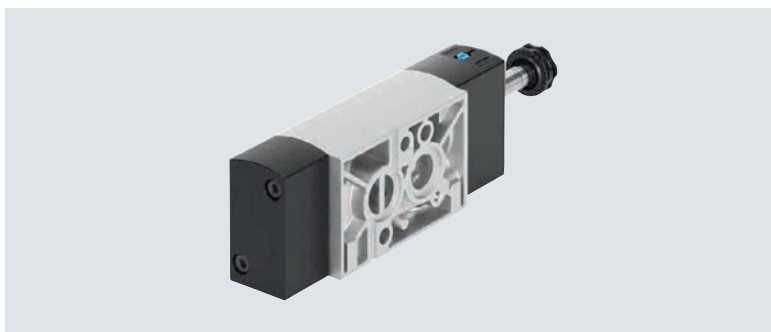


5/2-way valve



 Operating pressure
2.5 ... 8 bar

 Temperature range
-20 ... +60°C



| General technical data | | VSNC- ... -G14-FN | VSNC- ... -G14-FN-1A1-EX4-A | VSNC- ... -G14-FN-1A1+G |
|-------------------------------|----------------------|---------------------------------|-----------------------------|--------------------------|
| | | VSNC- ... -MD-N14-FN | VSNC- ... -N14-FN-1A1-EX4-A | VSNC- ... -G14-FN-3AA1+G |
| Valve function | | 3/2-way or 5/2-way, convertible | | |
| Width | [mm] | 32 | | |
| Design | | Piston spool | | |
| Sealing principle | | Soft | | |
| Actuation type | | Electrical | | |
| Reset method | | Mechanical spring | | |
| Type of control | | Piloted | | |
| Pilot air supply | | Internal | | |
| Exhaust function | | Can be throttled | | |
| Manual override | | Detenting, non-detenting | | |
| Type of mounting | | Via through-hole | | |
| Port for venting hole | | Not ducted | | |
| Mounting position | | Any | | |
| Non-overlapping | | Yes | | |
| Standard nominal flow rate | 1 > 2 | [l/min] | 1250 | |
| | Exhaust return 4 > 3 | [l/min] | 110 | |
| b value | | 0.4 | | |
| C value | [l/sbar] | 5.2 | | |
| Pneumatic connection | 1, 3, 5 | G 1/4, 1/4 NPT | | G 1/4 |
| | 2, 4 | Port pattern to NAMUR | | |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) | | |
| Certificate issuing authority | | DNVGL-TAA00011] | | |
| Product weight | [g] | 415 | | |

| Operating and environmental conditions | | VSNC- ... -G14-FN | VSNC- ... -G14-FN-1A1-EX4-A | VSNC- ... -G14-FN-1A1+G |
|--|-------|--|-----------------------------|--------------------------|
| | | VSNC- ... -N14-FN | VSNC- ... -N14-FN-1A1-EX4-A | VSNC- ... -G14-FN-3AA1+G |
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 2.5 ... 8 | | |
| Ambient temperature | [°C] | -20 ... +60 | | |
| Temperature of medium | [°C] | -20 ... +60 | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | |
| Maritime classification ²⁾ | | See certificate | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

Datasheet – 3/2-way or 5/2-way valve VSNC-F...-FN, convertible, single solenoid

| ATEX | VSNC- ... -G14-FN | VSNC- ... -G14-FN-1A1-EX4-A | VSNC- ... -G14-FN-1A1+G |
|---|---|-----------------------------|--------------------------------|
| | VSNC- ... -N14-FN | VSNC- ... -N14-FN-1A1-EX4-A | VSNC- ... -G14-FN-3AA1+G |
| ATEX category for gas | – | II 2G | – |
| Type of ignition protection for gas | – | Ex ia IIC T6 Ga | – |
| ATEX category for dust | – | II 2D | – |
| Type of ignition protection for dust | – | Ex t IIIC T80°C Db | – |
| Explosion protection certification outside the EU | – | EPL Db (IEC Ex) | – |
| | – | EPL Ga (IEC Ex) | – |
| Explosion-proof ambient temperature [°C] | – | -40°C ≤ Ta ≤ +50°C | – |
| Degree of protection | – | IP65 | IP65 |
| | – | IP67 | IP67 |
| | – | – | To IEC 60529, with plug socket |
| CE marking (see declaration of conformity) | To EU Explosion Protection Directive (ATEX) | | – |

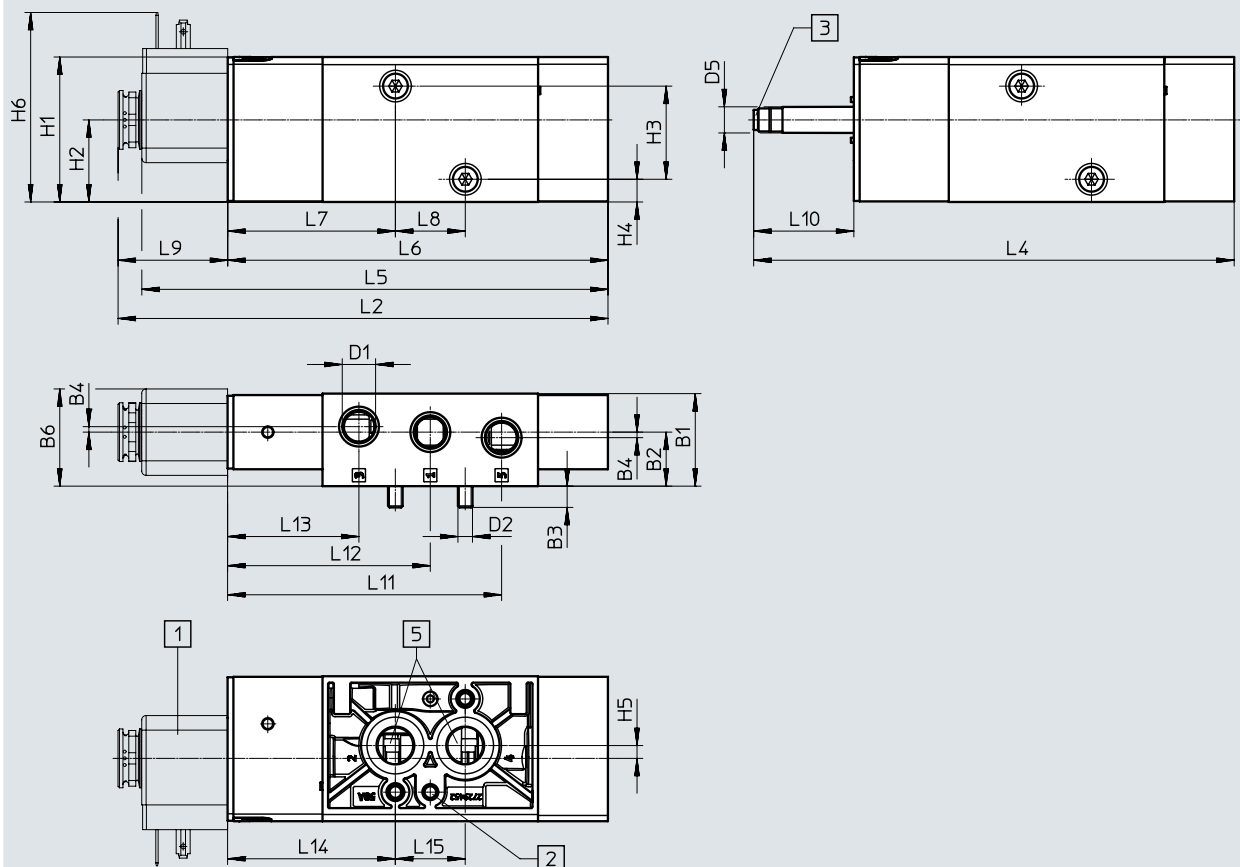
| Electrical data | VSNC- ... -G14-FN | VSNC- ... -G14-FN-1A1-EX4-A | VSNC- ... -G14-FN-1A1+G |
|--|---|-----------------------------|--------------------------|
| | VSNC- ... -N14-FN | VSNC- ... -N14-FN-1A1-EX4-A | VSNC- ... -G14-FN-3AA1+G |
| Electrical connection | – | Type A, to EN 175301-803 | Type A, to EN 175301-803 |
| Characteristic coil data, 24 V DC [W] | See solenoid coil, to be ordered separately | – | 0.7 |
| Characteristic coil data, 230 V AC, 50/60 Hz | | | |
| Pick-up power [VA] | – | – | 6.2 |
| Holding power [VA] | – | – | 3.7 |
| Duty cycle [%] | 100 | | |
| Switching time on [ms] | 32 | 35 | 35 |
| Switching time off [ms] | 92 | | |
| Permissible voltage fluctuations [%] | – | ± 10 | ± 10 |

| Materials | VSNC- ... -G14-FN | VSNC- ... -G14-FN-1A1-EX4-A | VSNC- ... -G14-FN-1A1+G |
|-------------|----------------------------|-----------------------------|--------------------------|
| | VSNC- ... -N14-FN | VSNC- ... -N14-FN-1A1-EX4-A | VSNC- ... -G14-FN-3AA1+G |
| [1] Housing | Wrought aluminium alloy | | |
| [2] Seals | NBR | | |
| [3] Screws | High-alloy stainless steel | | |
| – | RoHS-compliant | | |

Datasheet – 3/2-way or 5/2-way valve VSNC-F...FN, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



VSNC-FC-M52-MD... 14-FN

[1] Solenoid coil

[2] $\varnothing 5 \times 4$ to
DIN 913-M5x10-45h

[3] Suction of auxiliary pilot air 82,
M5

[5] Working port 2 and 4, NAMUR port
pattern

| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | D5 ∅ | H1 | H2 | H3 | H4 | H5 | H6 |
|---------------------------------|------|------|-----|-----|------|-------|----|---------|------|------|----|-----|-----|----|
| VSNC-FC-M52-MD-G14-FN | 31.8 | 18.6 | 7.3 | 1.9 | 33.4 | G 1/4 | M5 | 9 | 49.8 | 28.2 | 32 | 7.8 | 4.4 | - |
| VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A | | | | | | 65.1 | | | | | | | | |
| VSNC-FC-M52-MD-N14-FN | | | | | | - | | | | | | | | |
| VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A | | | | | | 65.1 | | | | | | | | |

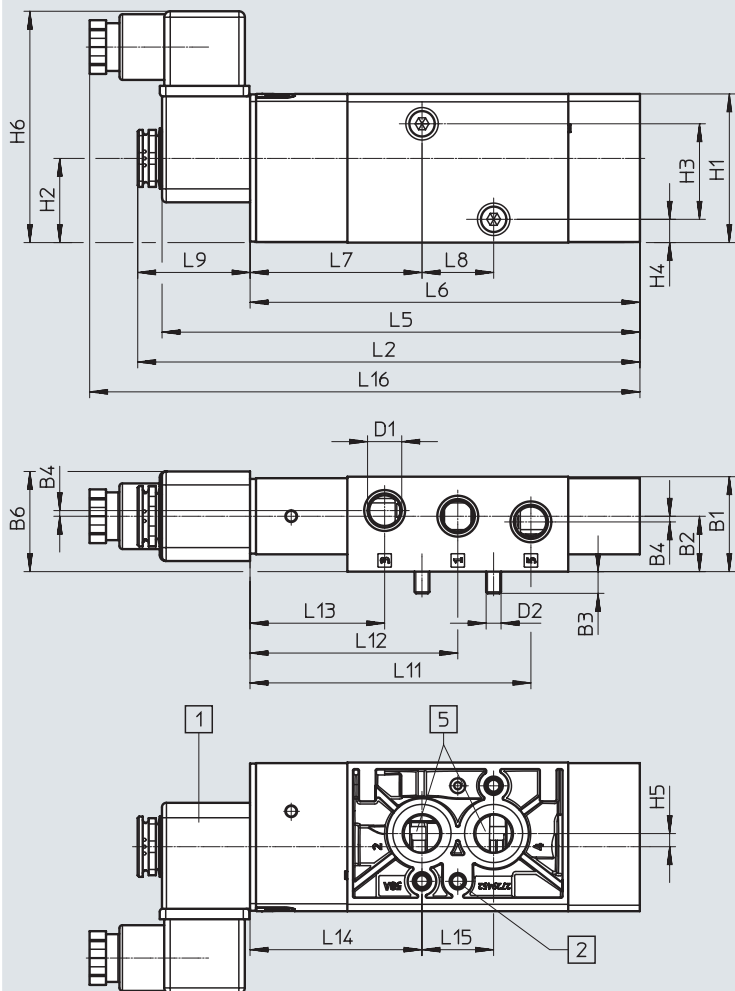
| Type | L2 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|---------------------------------|-------|-----|-------|-------|------|----|------|------|------|------|------|------|-----|
| VSNC-FC-M52-MD-G14-FN | - | 165 | - | 130.6 | 57.6 | 24 | - | 34.4 | 94.1 | 69.6 | 45.1 | 57.6 | 24 |
| VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A | 168.3 | | 160.1 | | | | 37.7 | | | | | | |
| VSNC-FC-M52-MD-N14-FN | - | | - | | | | - | | | | | | |
| VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A | 168.3 | | 160.1 | | | | 37.7 | | | | | | |

Datasheet – 3/2-way or 5/2-way valve VSNC-F...FN, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com

VSNC... -G14-FN- ... +G



[1] Connector socket M16

[2] $\varnothing 5 \times 4$ to
DIN 913-M5x10-45h

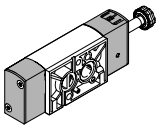
[5] Working port 2 and 4, NAMUR port
pattern

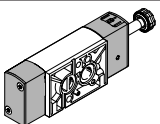
| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 |
|-------------------------------|------|------|-----|-----|------|-------|----|------|------|----|-----|-----|------|
| VSNC-FC-M52-MD-G14-FN- ... +G | 31.8 | 18.6 | 7.3 | 1.9 | 33.3 | G 1/4 | M5 | 49.8 | 28.2 | 32 | 7.8 | 4.4 | 77.5 |

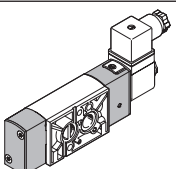
| Type | L2 | L5 | L6 | L7 | L8 | L9 | L11 | L12 | L13 | L14 | L15 | L16 |
|-------------------------------|-------|-------|-------|------|----|------|------|------|------|------|-----|-------|
| VSNC-FC-M52-MD-G14-FN- ... +G | 168.3 | 160.1 | 130.6 | 57.6 | 24 | 37.7 | 94.1 | 69.6 | 45.1 | 57.6 | 24 | 184.4 |

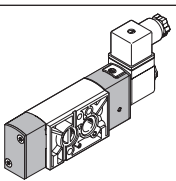
Datasheet – 3/2-way or 5/2-way valve VSNC-F...FN, convertible, single solenoid

★ Core Range

| Ordering data – Valves | | |
|---|----------|-----------------------|
| Directional control valve without solenoid coil | | |
| | Part no. | Type |
|  | ★ 577267 | VSNC-FC-M52-MD-G14-FN |

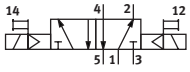
| Ordering data – Valves | | |
|---|----------|-----------------------|
| Directional control valve without solenoid coil | | |
| | Part no. | Type |
|  | 577272 | VSNC-FC-M52-MD-N14-FN |

| Directional control valve with solenoid coil and socket | | |
|--|----------|------------------------------|
| | Part no. | Type |
|  | 8078398 | VSNC-FC-M52-MD-G14-FN-1A1+G |
| | 8078399 | VSNC-FC-M52-MD-G14-FN-3AA1+G |

| Directional control valve with Ex-i solenoid coil including socket | | |
|---|----------|---------------------------------|
| | Part no. | Type |
|  | 577281 | VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A |
| | 577286 | VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A |

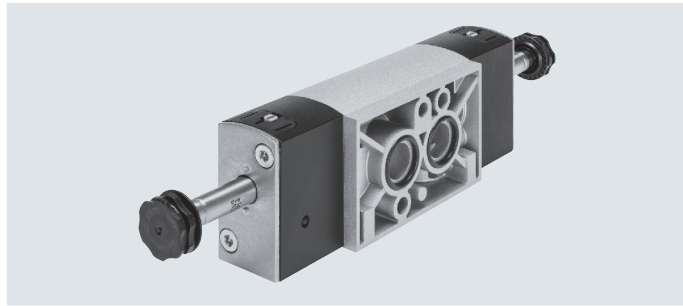
Datasheet – 5/2-way valve VSNC-F...-FN, double solenoid

Function
5/2-way valve, double solenoid



Operating pressure
1.5 ... 8 bar

Temperature range
-20 ... +60°C



General technical data

| | VSNC-F-B52-D-G14-FN VSNC-F-B52-D-N14-FN | VSNC-F-B52-D-G14-FN-1A1-EX4-A VSNC-F-B52-D-N14-FN-1A1-EX4-A |
|------------------------------------|--|--|
| Valve function | 5/2-way, double solenoid | |
| Width [mm] | 32 | |
| Design | Piston spool | |
| Sealing principle | Soft | |
| Actuation type | Electrical | |
| Type of control | Piloted | |
| Pilot air supply | Internal | |
| Exhaust function | Can be throttled | |
| Manual override | Non-detenting, detenting | |
| Type of mounting | Via through-hole | |
| Port for venting hole | Not ducted | |
| Mounting position | Any | |
| Non-overlapping | Yes | |
| Standard nominal flow rate [l/min] | 1350 | |
| b value | 0.4 | |
| C value [l/sbar] | 5.6 | |
| Pneumatic port | 1, 3, 5 2, 4 | G 1/4, 1/4 NPT Port pattern to NAMUR |
| Conforms to standard | VDI/VDE 3845 (NAMUR) | |
| Certificate issuing authority | DNVGL-TAA000011J | |
| Product weight [g] | 461 | |

Operating and environmental conditions

| | VSNC-F-B52-D-G14-FN VSNC-F-B52-D-N14-FN | VSNC-F-B52-D-G14-FN-1A1-EX4-A VSNC-F-B52-D-N14-FN-1A1-EX4-A |
|--|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | |
| Operating pressure [bar] | 1.5 ... 8 | |
| Ambient temperature [°C] | -20 ... +60 | |
| Temperature of medium [°C] | -20 ... +60 | |
| Corrosion resistance class CRC ¹⁾ | 2 | |
| Maritime classification ²⁾ | See certificate | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

Datasheet – 5/2-way valve VSNC-F...-FN, double solenoid

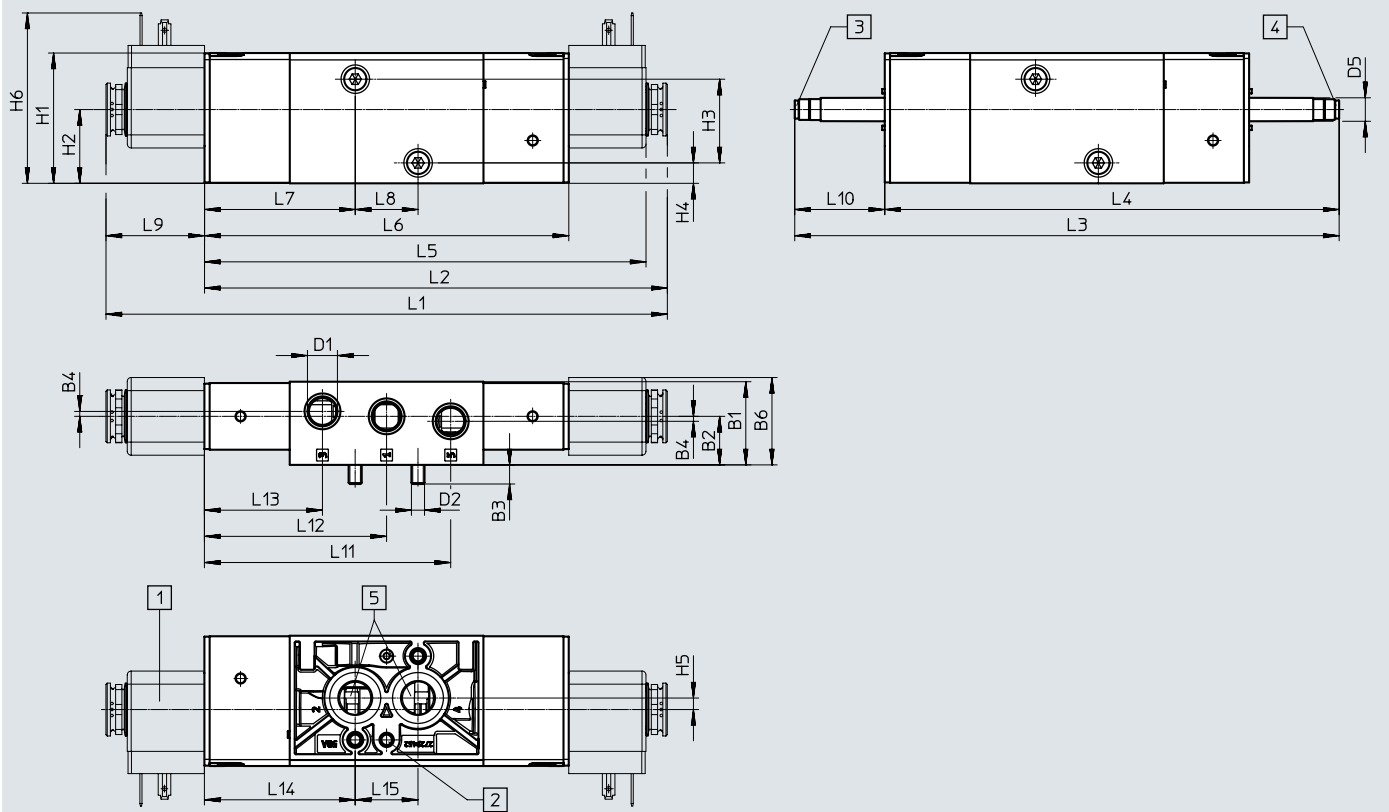
| ATEX | VSNC-F-B52-D-G14-FN | VSNC-F-B52-D-G14-FN-1A1-Ex4-A |
|---|---|-------------------------------|
| | VSNC-F-B52-D-N14-FN | VSNC-F-B52-D-N14-FN-1A1-Ex4-A |
| ATEX category for gas | – | II 2G |
| Type of ignition protection for gas | – | Ex ia IIC T6 Ga |
| ATEX category for dust | – | II 2D |
| Type of ignition protection for dust | – | Ex t IIIC T80°C Db |
| Explosion protection certification outside the EU | – | EPL Db (IEC Ex) |
| | – | EPL Ga (IEC Ex) |
| Explosion-proof ambient temperature [°C] | – | –40°C ≤ Ta ≤ +50°C |
| Degree of protection | – | IP65 |
| | – | IP67 |
| CE marking (see declaration of conformity) | To EU Explosion Protection Directive (ATEX) | |

| Electrical data | VSNC-F-B52-D-G14-FN | VSNC-F-B52-D-G14-FN-1A1-Ex4-A |
|--------------------------------------|---|-------------------------------|
| | VSNC-F-B52-D-N14-FN | VSNC-F-B52-D-N14-FN-1A1-Ex4-A |
| Electrical connection | – | Type A, to EN 175301-803 |
| Characteristic coil data | See solenoid coil, to be ordered separately | |
| Switching time changeover [ms] | 20 | |
| Permissible voltage fluctuations [%] | – | ± 10 |

| Materials | | |
|-----------|---------|-------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| – | – | RoHS-compliant |

Datasheet – 5/2-way valve VSNC-F...-FN, double solenoid

Dimensions Download CAD data → www.festo.com



VSNC-F...-MD...-FN
 VSNC-F...-D...-FN
 VSNC-FT...-D...-FN

- [1] Solenoid coil
- [2] \varnothing 5x4 to DIN 913-M5x10-45h
- [3] Suction of auxiliary pilot air 82, M5
- [4] Suction of auxiliary pilot air 82, M5
- [5] Working port 2 and 4, NAMUR port pattern

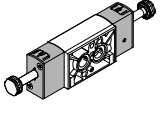
| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | D5 ∅ | H1 | H2 | H3 | H4 | H5 | H6 | L1 |
|-------------------------------|------|------|-----|-----|------|-------|----|---------|------|------|----|-----|-----|-------|----|
| VSNC-F-B52-D-G14-FN | 31.8 | 18.6 | 7.3 | 1.9 | 33.4 | G 1/4 | M5 | 9 | 49.8 | 28.2 | 32 | 7.8 | 4.4 | - | - |
| VSNC-F-B52-D-G14-FN-1A1-Ex4-A | | | | | | 65.1 | | | | | | | | 214.5 | |
| VSNC-F-B52-D-N14-FN | | | | | | - | | | | | | | | - | |
| VSNC-F-B52-D-N14-FN-1A1-Ex4-A | | | | | | 65.1 | | | | | | | | 214.5 | |

| Type | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|-------------------------------|-------|-----|-------|-------|-------|------|----|------|------|------|------|------|------|-----|
| VSNC-F-B52-D-G14-FN | - | 208 | 173.6 | - | 139.2 | 57.6 | 24 | - | 34.4 | 94.1 | 69.6 | 45.1 | 57.6 | 24 |
| VSNC-F-B52-D-G14-FN-1A1-Ex4-A | 176.9 | | | 168.7 | | | | 37.7 | | | | | | |
| VSNC-F-B52-D-N14-FN | - | | | - | | | | - | | | | | | |
| VSNC-F-B52-D-N14-FN-1A1-Ex4-A | 176.9 | | | 168.7 | | | | 37.7 | | | | | | |

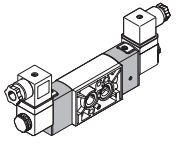
Datasheet – 5/2-way valve VSNC-F...-FN, double solenoid

Ordering data – Valves

Directional control valve without solenoid coil

| | Part no. | Type |
|---|----------|---------------------|
|  | 577268 | VSNC-F-B52-D-G14-FN |
| | 577273 | VSNC-F-B52-D-N14-FN |

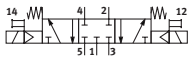
Directional control valve with Ex-i solenoid coil including socket

| | | |
|---|--------|-------------------------------|
|  | 577282 | VSNC-F-B52-D-G14-FN-1A1-Ex4-A |
| | 577287 | VSNC-F-B52-D-N14-FN-1A1-Ex4-A |

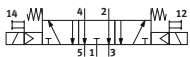
Datasheet – 5/3-way valve VSNC-F...-FN

Function

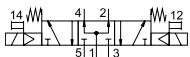
5/3-way valve, closed




5/3-way valve, exhausted

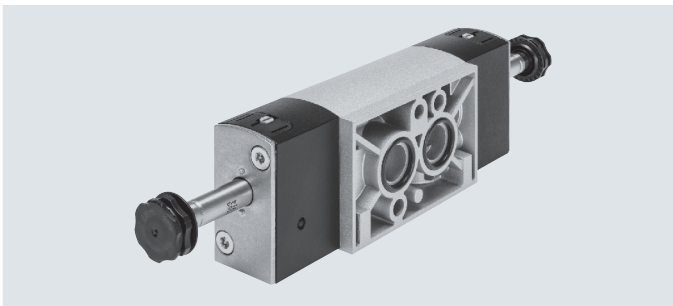


5/3-way valve, pressurised



 Operating pressure
3 ... 8 bar

 Temperature range
-20 ... +60°C



General technical data

| | VSNC-F-P53C-MD-G14-FN VSNC-F-P53C-MD-N14-FN | VSNC-F-P53U-MD-G14-FN VSNC-F-P53U-MD-N14-FN | VSNC-F-P53E-MD-G14-FN VSNC-F-P53E-MD-N14-FN |
|------------------------------------|--|--|--|
| Valve function | 5/3 | | |
| | Closed | Pressurised | Exhausted |
| Width [mm] | 32 | | |
| Design | Piston spool | | |
| Sealing principle | Soft | | |
| Actuation type | Electrical | | |
| Reset method | Mechanical spring | | |
| Type of control | Piloted | | |
| Pilot air supply | Internal | | |
| Exhaust function | Can be throttled | | |
| Manual override | Non-detenting, detenting | | |
| Type of mounting | Via through-hole | | |
| Port for venting hole | Not ducted | | |
| Mounting position | Any | | |
| Non-overlapping | Yes | | |
| Standard nominal flow rate [l/min] | 1250 | 950 | 1050 |
| b value | 0.4 | 0.5 | 0.4 |
| C value [l/sbar] | 5.2 | 2.1 | 4.4 |
| Pneumatic port | G 1/4, 1/4 NPT | | |
| | Port pattern to NAMUR | | |
| Conforms to standard | VDI/VDE 3845 (NAMUR) | | |
| Certificate issuing authority | DNVGL-TAA000011] | | |
| Product weight [g] | 461 | | |

Datasheet – 5/3-way valve VSNC-F...-FN

| Operating and environmental conditions | | VSNC-F-P53C-MD-G14-FN VSNC-F-P53C-MD-N14-FN | VSNC-F-P53U-MD-G14-FN VSNC-F-P53U-MD-N14-FN | VSNC-F-P53E-MD-G14-FN VSNC-F-P53E-MD-N14-FN |
|--|-------|--|--|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 3 ... 8 | | |
| Ambient temperature | [°C] | -20 ... +60 | | |
| Temperature of medium | [°C] | -20 ... +60 | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | |
| Maritime classification ²⁾ | | See certificate | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

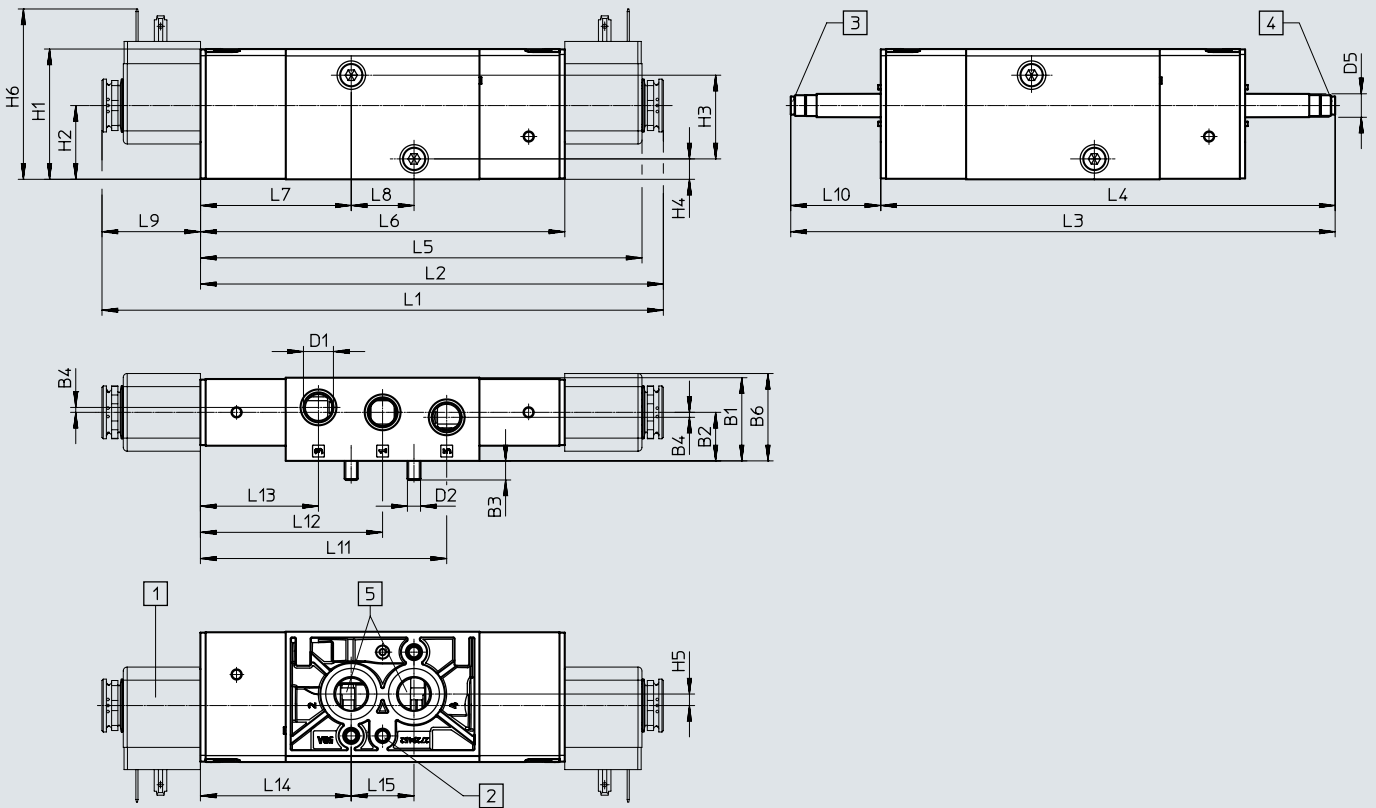
| Electrical data | | VSNC-F-P53C-MD-G14-FN VSNC-F-P53C-MD-N14-FN | VSNC-F-P53U-MD-G14-FN VSNC-F-P53U-MD-N14-FN | VSNC-F-P53E-MD-G14-FN VSNC-F-P53E-MD-N14-FN |
|---------------------------|------|--|--|--|
| Characteristic coil data | | See solenoid coil, to be ordered separately | | |
| Switching time on | [ms] | 23 | | |
| Switching time off | [ms] | 103 | | |
| Switching time changeover | [ms] | 55 | | |

| Materials | | |
|-------------|--|-------------------------|
| [1] Housing | | Wrought aluminium alloy |
| [2] Seals | | NBR |
| - | | RoHS-compliant |

Datasheet – 5/3-way valve VSNC-F...-FN

Dimensions

Download CAD data → www.festo.com



VSNC-F...-MD...-FN
 VSNC-F...-D...-FN
 VSNC-FT...-D...-FN

- [1] Solenoid coil
- [2] \varnothing 5x4 to DIN 913-M5x10-45h
- [3] Suction of auxiliary pilot air 82, M5
- [4] Suction of auxiliary pilot air 82, M5
- [5] Working port 2 and 4, NAMUR port pattern

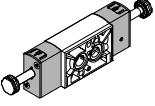
| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | D5 \varnothing | H1 | H2 | H3 | H4 | H5 | H6 | L1 |
|-----------------------|------|------|-----|-----|------|---------|----|---------------------|------|------|----|-----|-----|----|----|
| VSNC-F-P53C-MD-G14-FN | 31.8 | 18.6 | 7.3 | 1.9 | 33.4 | G 1/4 | M5 | 9 | 49.8 | 28.2 | 32 | 7.8 | 4.4 | - | - |
| VSNC-F-P53U-MD-G14-FN | | | | | | | | | | | | | | | |
| VSNC-F-P53E-MD-G14-FN | | | | | | | | | | | | | | | |
| VSNC-F-P53C-MD-N14-FN | | | | | | 1/4 NPT | | | | | | | | | |
| VSNC-F-P53U-MD-N14-FN | | | | | | | | | | | | | | | |
| VSNC-F-P53E-MD-N14-FN | | | | | | | | | | | | | | | |

| Type | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|-----------------------|----|-----|-------|----|-------|------|----|----|------|------|------|------|------|-----|
| VSNC-F-P53C-MD-G14-FN | - | 208 | 173.6 | - | 139.2 | 57.6 | 24 | - | 34.4 | 94.1 | 69.6 | 45.1 | 57.6 | 24 |
| VSNC-F-P53U-MD-G14-FN | | | | | | | | | | | | | | |
| VSNC-F-P53E-MD-G14-FN | | | | | | | | | | | | | | |
| VSNC-F-P53C-MD-N14-FN | | | | | | | | | | | | | | |
| VSNC-F-P53U-MD-N14-FN | | | | | | | | | | | | | | |
| VSNC-F-P53E-MD-N14-FN | | | | | | | | | | | | | | |

Datasheet – 5/3-way valve VSNC-F...-FN

Ordering data – Valves

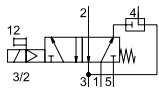
Directional control valve without solenoid coil

| | Part no. | Type |
|---|----------|-----------------------|
|  | 577269 | VSNC-F-P53C-MD-G14-FN |
| | 577270 | VSNC-F-P53U-MD-G14-FN |
| | 577271 | VSNC-F-P53E-MD-G14-FN |
| | 577274 | VSNC-F-P53C-MD-N14-FN |
| | 577275 | VSNC-F-P53U-MD-N14-FN |
| | 577276 | VSNC-F-P53E-MD-N14-FN |

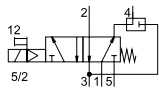
Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-FN, convertible, single solenoid

Convertible function

3/2-way valve or

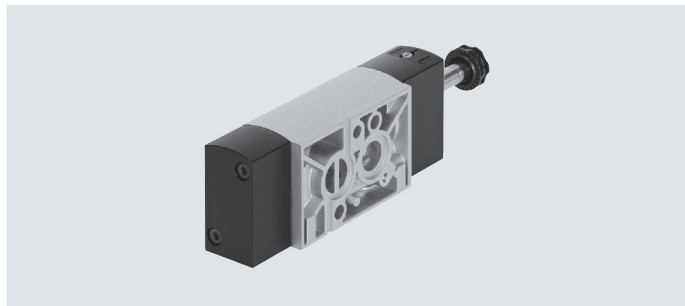


5/2-way valve



Operating pressure
2.5 ... 8 bar

Temperature range
-20 ... +60°C



General technical data

| | | VSNC-FTC-M52-MD-G14-FN VSNC-FTC-M52-MD-N14-FN | VSNC-FTC-M52-MD-G14-FN-1A1 |
|-------------------------------|------------------------------|--|----------------------------|
| Valve function | | 3/2-way or 5/2-way, convertible | |
| Width | [mm] | 32 | |
| Design | | Poppet seat | |
| Sealing principle | | Soft | |
| Actuation type | | Electrical | |
| Reset method | | Mechanical spring | |
| Type of control | | Piloted | |
| Pilot air supply | | Internal | |
| Exhaust function | | Can be throttled | |
| Manual override | | Non-detenting, detenting | |
| Type of mounting | | Via through-hole | |
| Port for venting hole | | Not ducted | |
| Mounting position | | Any | |
| Non-overlapping | | No | |
| Direction of flow | | Not reversible | |
| Standard nominal flow rate | 1 > 2 [l/min] | 800 | |
| | Exhaust return 4 > 3 [l/min] | 800 | |
| b value | | 0.15 | |
| C value | [l/sbar] | 3.96 | |
| Pneumatic port | 1, 3, 5 | G1/4 | |
| | 2, 4 | Port pattern to NAMUR | |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) | |
| Certificate issuing authority | | DNVGL-TAA000011J | |
| Degree of protection | | - | IP65, IP67 |
| Product weight | [g] | 404 | 440 |

Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-FN, convertible, single solenoid

| Operating and environmental conditions | | |
|--|-------|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure | [bar] | 2.5 ... 8 |
| Ambient temperature | [°C] | -20 ... +60 |
| Temperature of medium | [°C] | -20 ... +60 |
| Corrosion resistance class CRC ¹⁾ | | 2 |
| Maritime classification ²⁾ | | See certificate |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

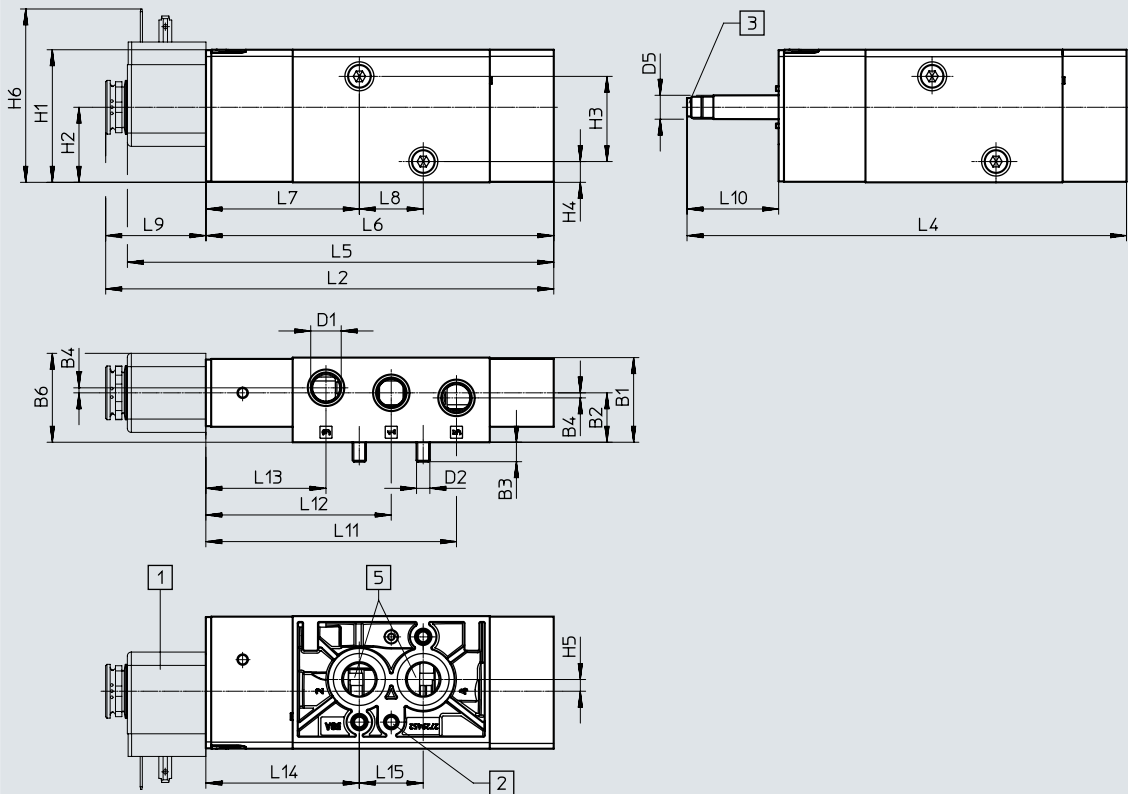
| Electrical data | VSNC-FTC-M52-MD-G14-FN VSNC-FTC-M52-MD-N14-FN | | VSNC-FTC-M52-MD-G14-FN-1A1 |
|-----------------------------------|--|---|----------------------------|
| | Electrical connection | - | |
| Characteristic coil data, 24 V DC | [W] | See solenoid coil, to be ordered separately | 0.7 |
| Switching time on | [ms] | 16 | 16 |
| Switching time off | [ms] | 120 | 120 |
| Permissible voltage fluctuations | [%] | - | ±10 |

| Materials | | |
|-----------|---------|-------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| - | - | RoHS-compliant |

Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-FN, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



VSNC-FTC-M52-MD... 14-FN-1A1

- [1] Solenoid coil
- [2] \varnothing 5x4 to DIN 913-M5x10-45h
- [3] Suction of auxiliary pilot air 82, M5
- [5] Working port 2 and 4, NAMUR port pattern

| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | D5 \varnothing | H1 | H2 | H3 | H4 | H5 | H6 |
|----------------------------|------|------|-----|-----|------|---------|----|---------------------|------|------|----|-----|-----|----|
| VSNC-FTC-M52-MD-G14-FN | 31.8 | 18.6 | 7.3 | 1.9 | 33.4 | G 1/4 | M5 | 9 | 49.8 | 28.2 | 32 | 7.8 | 4.4 | - |
| VSNC-FTC-M52-MD-G14-FN-1A1 | | | | | | 1/4 NPT | | | | | | | | |
| VSNC-FTC-M52-MD-N14-FN-1A1 | | | | | | | | | | | | | | |

| Type | L2 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|----------------------------|----|-----|-------|-------|------|----|----|------|------|------|------|------|-----|
| VSNC-FTC-M52-MD-G14-FN | - | 165 | - | 130.6 | 57.6 | 24 | - | 34.4 | 94.1 | 69.6 | 45.1 | 57.6 | 24 |
| VSNC-FTC-M52-MD-G14-FN-1A1 | | | - | | | | | | | | | | |
| VSNC-FTC-M52-MD-N14-FN-1A1 | | | 160.1 | | | | | | | | | | |

Ordering data – Valves

Directional control valve without solenoid coil

| | Part no. | Type |
|--|----------|------------------------|
| | 577277 | VSNC-FTC-M52-MD-G14-FN |
| | 577279 | VSNC-FTC-M52-MD-N14-FN |

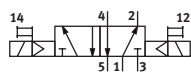
Directional control valve with 24 V DC solenoid coil


| | | |
|--|--------|----------------------------|
| | 577297 | VSNC-FTC-M52-MD-G14-FN-1A1 |
|--|--------|----------------------------|

Datasheet – 5/2-way valve VSNC-FT...-FN, double solenoid

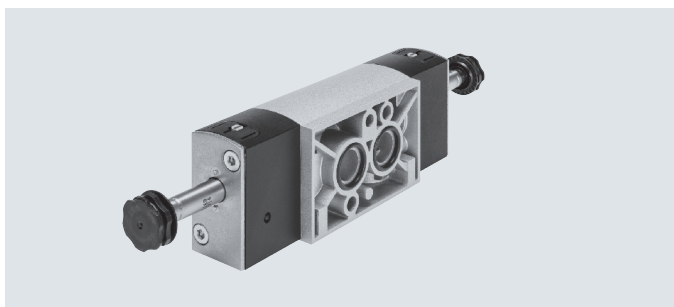
Function

5/2-way valve, double solenoid



 Operating pressure
1.5 ... 8 bar

 Temperature range
-20 ... +60°C



| General technical data | | VSNC-FT-B52-D-G14-FN | VSNC-FT-B52-D-N14-FN | VSNC-FT-B52-D-G14-FN-1A1 |
|-------------------------------|----------|--------------------------|----------------------|--------------------------|
| | | | | |
| Valve function | | 5/2-way, double solenoid | | |
| Width | [mm] | 32 | | |
| Design | | Poppet seat | | |
| Sealing principle | | Soft | | |
| Actuation type | | Electrical | | |
| Reset method | | Mechanical spring | | |
| Type of control | | Piloted | | |
| Pilot air supply | | Internal | | |
| Exhaust function | | Can be throttled | | |
| Manual override | | Non-detenting, detenting | | |
| Type of mounting | | Via through-hole | | |
| Port for venting hole | | Not ducted | | |
| Mounting position | | Any | | |
| Non-overlapping | | No | | |
| Direction of flow | | Not reversible | | |
| Standard nominal flow rate | [l/min] | 1000 | | |
| b value | | 0.24 | | |
| C value | [l/sbar] | 4.6 | | |
| Pneumatic port | 1, 3, 5 | G 1/4, 1/4 NPT | | |
| | 2, 4 | Port pattern to NAMUR | | |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) | | |
| Certificate issuing authority | | DNVGL-TAA000011J | | |
| Degree of protection | | - | | IP65, IP67 |
| Product weight | [g] | 519 | | 670 |

Datasheet – 5/2-way valve VSNC-FT...-FN, double solenoid

| Operating and environmental conditions | | |
|--|-------|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure | [bar] | 1.5 ... 8 |
| Ambient temperature | [°C] | -20 ... +60 |
| Temperature of medium | [°C] | -20 ... +60 |
| Corrosion resistance class CRC ¹⁾ | | 2 |
| Maritime classification ²⁾ | | See certificate |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information: www.festo.com/sp → Certificates.

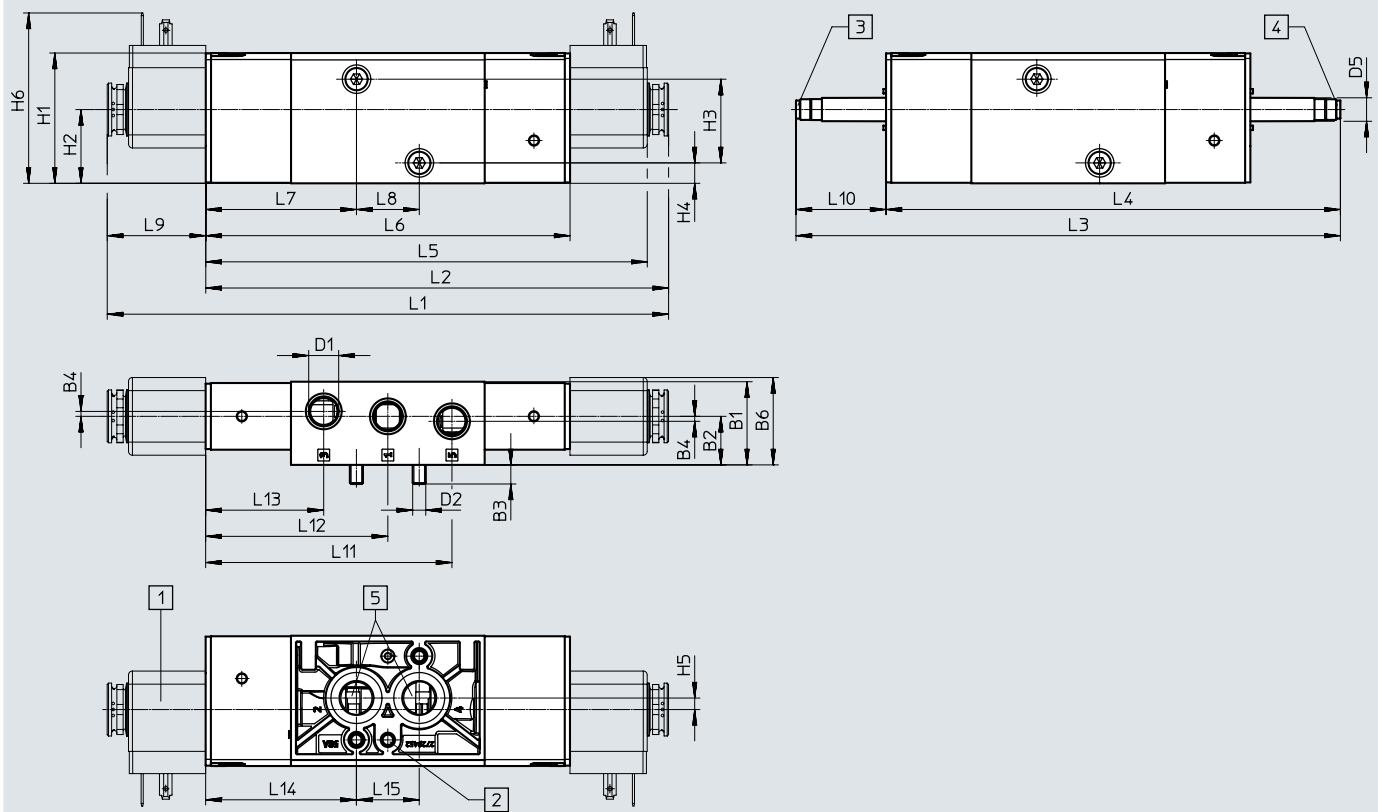
| Electrical data | VSNC-FT-B52-D-G14-FN VSNC-FT-B52-D-N14-FN | | VSNC-FT-B52-D-G14-FN-1A1 |
|-----------------------------------|--|---|--------------------------|
| | Electrical connection | – | |
| Characteristic coil data, 24 V DC | [W] | See solenoid coil, to be ordered separately | 0.7 |
| Switching time changeover | [ms] | 16 | 16 |
| Permissible voltage fluctuations | [%] | – | ±10 |

| Materials | | |
|-----------|---------|-------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| | – | RoHS-compliant |

Datasheet – 5/2-way valve VSNC-FT...-FN, double solenoid

Dimensions

Download CAD data → www.festo.com



VSNC-FT-B52-D-... 14-FN

- [1] Solenoid coil
- [2] \varnothing 5x4 to DIN 913-M5x10-45h
- [3] Suction of auxiliary pilot air 82, M5
- [4] Suction of auxiliary pilot air 82, M5
- [5] Working port 2 and 4, NAMUR port pattern

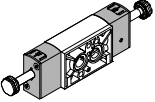
| Type | B1 | B2 | B3 | B4 | B6 | D1 | D2 | D5 \varnothing | H1 | H2 | H3 | H4 | H5 | H6 | L1 |
|--------------------------|------|------|-----|-----|------|---------|----|---------------------|------|------|----|-----|-----|----|----|
| VSNC-FT-B52-D-G14-FN | 31.8 | 18.6 | 7.3 | 1.9 | 33.4 | G 1/4 | M5 | 9 | 49.8 | 28.2 | 32 | 7.8 | 4.4 | - | - |
| VSNC-FT-B52-D-G14-FN-1A1 | | | | | | 1/4 NPT | | | | | | | | | |
| VSNC-FT-B52-D-N14-FN | | | | | | | | | | | | | | | |

| Type | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 |
|--------------------------|----|-----|-------|----|-------|------|----|----|------|------|------|------|------|-----|
| VSNC-FT-B52-D-G14-FN | - | 208 | 173.6 | - | 139.2 | 57.6 | 24 | - | 34.4 | 94.1 | 69.6 | 45.1 | 57.6 | 24 |
| VSNC-FT-B52-D-G14-FN-1A1 | | | | | | | | | | | | | | |
| VSNC-FT-B52-D-N14-FN | | | | | | | | | | | | | | |

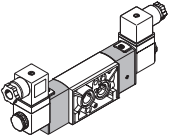
Datasheet – 5/2-way valve VSNC-FT...-FN, double solenoid

Ordering data – Valves

Directional control valve without solenoid coil

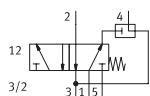
| | Part no. | Type |
|--|----------|----------------------|
|  | 577278 | VSNC-FT-B52-D-G14-FN |
| | 577280 | VSNC-FT-B52-D-N14-FN |

Directional control valve with solenoid coil

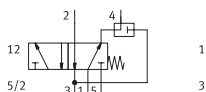
| | | |
|--|--------|--------------------------|
|  | 577298 | VSNC-FT-B52-D-G14-FN-1A1 |
|--|--------|--------------------------|


Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-P2, convertible, single solenoid

Convertible function
3/2-way valve or

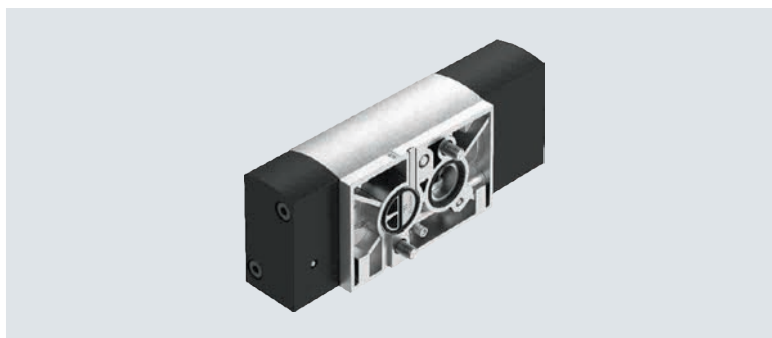


5/2-way valve



 Operating pressure
2.5 ... 8 bar

 Temperature range
-20 ... +60°C



| General technical data | | VSNC-FTC-M52-M-G14-P2 VSNC-FTC-M52-M-N14-P2 |
|----------------------------|------------------------------|--|
| Valve function | | 3/2-way or 5/2-way, convertible |
| Width | [mm] | 32 |
| Design | | Poppet seat |
| Sealing principle | | Soft |
| Actuation type | | Electrical |
| Reset method | | Mechanical spring |
| Type of control | | Piloted |
| Pilot air supply | | Internal |
| Exhaust function | | Can be throttled |
| Manual override | | None |
| Type of mounting | | Via through-hole |
| Port for venting hole | | Not ducted |
| Mounting position | | Any |
| Overlap | | Negative overlap |
| Direction of flow | | Not reversible |
| Standard nominal flow rate | 1 > 2 [l/min] | 800 |
| | Exhaust return 4 > 3 [l/min] | 110 |
| b value | | – |
| C value | [l/sbar] | – |
| Pneumatic connection | 1, 3, 5 2, 4 | G 1/4, 1/4 NPT Port pattern to NAMUR |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) |
| Product weight | [g] | 382 |

| Operating and environmental conditions | | VSNC-FTC-M52-M-G14-P2 VSNC-FTC-M52-M-N14-P2 |
|--|-------|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure | [bar] | 2.5 ... 8 |
| Ambient temperature | [°C] | –20 ... +60 |
| Temperature of medium | [°C] | –20 ... +60 |
| Corrosion resistance class CRC ¹⁾ | | 2 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-P2, convertible, single solenoid

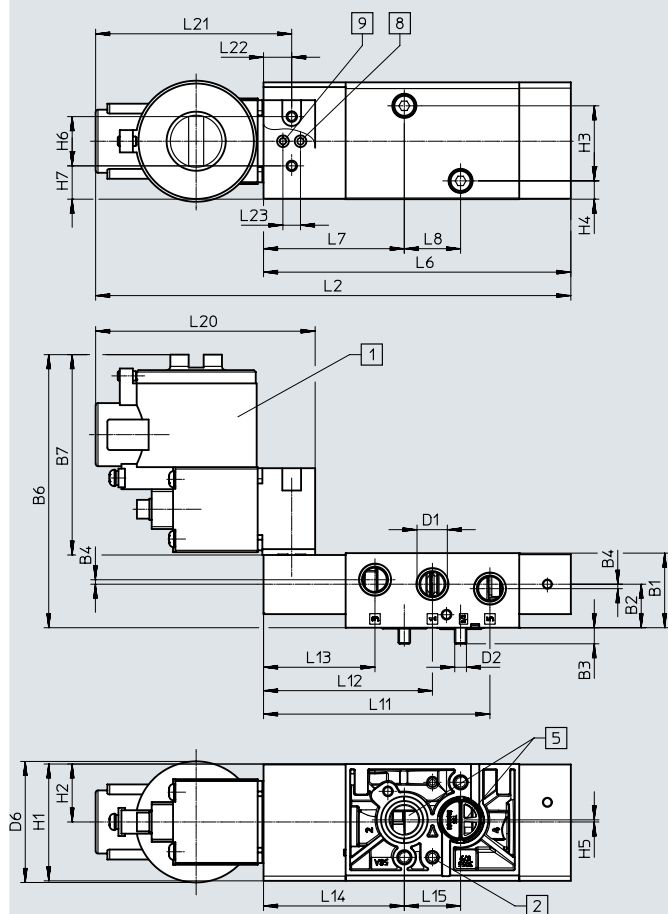
| | | |
|---------------------------|------|--|
| Electrical data | | VSNC-FTC-M52-M-G14-P2 VSNC-FTC-M52-M-N14-P2 |
| Characteristic coil data | | See solenoid coil, to be ordered separately |
| Duty cycle | [%] | 100 |
| Switching time on | [ms] | 4 |
| Switching time off | [ms] | 6 |
| Switching time changeover | [ms] | – |

| | | |
|------------------|---------|--|
| Materials | | VSNC-FTC-M52-M-G14-P2 VSNC-FTC-M52-M-N14-P2 |
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| [3] | Screws | High-alloy stainless steel |
| | – | RoHS-compliant |

Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-P2, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



- [1] Solenoid coil
- [2] $\varnothing 5.5$ (for threaded pin to DIN 946-M5x10-45H)
- [5] Working port 2 and 4, NAMUR port pattern
- [8] Pilot air from the valve (CNOMO connection to ISO 15218)
- [9] Pilot air into the valve (CNOMO connection to ISO 15218)

| Type | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 |
|-----------------------|------|-------|------|-----|---------|----|------|------|----|-----|-----|----|------|
| VSNC-FTC-M52-M-G14-P2 | 31.8 | ~18.6 | ~6.9 | 1.9 | G 1/4 | M5 | 49.8 | 24.7 | 32 | 7.8 | 0.9 | 21 | 14.2 |
| VSNC-FTC-M52-M-N14-P2 | | | | | 1/4 NPT | | | | | | | | |

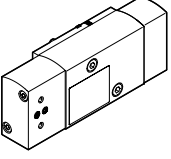
| Type | L6 | L7 | L8 | L11 | L12 | L13 | L14 | L15 | L22 | L23 |
|-----------------------|-----|----|----|------|-----|------|-----|-----|-----|-----|
| VSNC-FTC-M52-M-G14-P2 | 131 | 60 | 24 | 96.5 | 72 | 47.5 | 60 | 24 | 22 | 7.5 |
| VSNC-FTC-M52-M-N14-P2 | | | | | | | | | | |

| Type | B6 | B7 | D6 \varnothing | L2 | L20 | L21 |
|---------------------|-------|------|---------------------|-------|------|------|
| CNOMO solenoid coil | | | | | | |
| MGXIAH... | 101.3 | 70.3 | – | 199 | 93 | 80 |
| MGXDH... | 116.4 | 85.4 | 51.6 | 202.6 | 93.6 | 83.6 |

Datasheet – 3/2-way or 5/2-way valve VSNC-FT...-P2, convertible, single solenoid

Ordering data – Valves

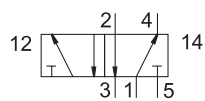
Directional control valve without solenoid coil


| | Part no. | Type |
|--|----------|-----------------------|
|  | 8114688 | VSNC-FTC-M52-M-G14-P2 |
| | 8114698 | VSNC-FTC-M52-M-N14-P2 |


Datasheet – 5/2-way valve VSNC-FT...-P2, double solenoid

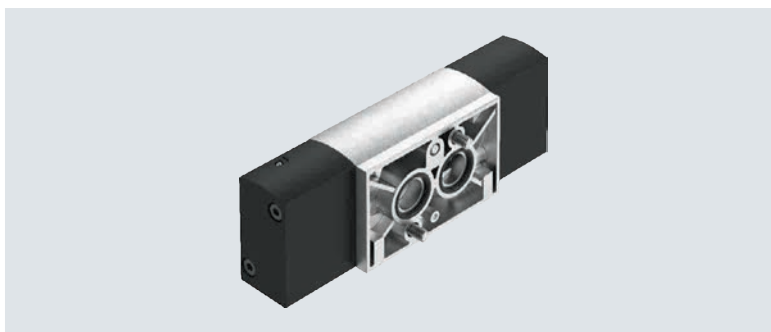
Function

5/2-way valve, double solenoid



 Operating pressure
1.5 ... 8 bar

 Temperature range
-20 ... +60°C



General technical data

| | | VSNC-FT-B52-G14-P2 VSNC-FT-B52-N14-P2 |
|----------------------------|-----------------|--|
| Valve function | | 5/2-way, double solenoid |
| Width | [mm] | 32 |
| Design | | Poppet seat |
| Sealing principle | | Soft |
| Actuation type | | Electrical |
| Type of control | | Piloted |
| Pilot air supply | | Internal |
| Exhaust function | | Can be throttled |
| Manual override | | None |
| Type of mounting | | Via through-hole |
| Port for venting hole | | Not ducted |
| Mounting position | | Any |
| Overlap | | Negative overlap |
| Direction of flow | | Not reversible |
| Standard nominal flow rate | [l/min] | 1000 |
| b value | | – |
| C value | [l/sbar] | – |
| Pneumatic port | 1, 3, 5 2, 4 | G 1/4, 1/4 NPT Port pattern to NAMUR |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) |
| Product weight | [g] | 422 |

Operating and environmental conditions

| | | VSNC-FT-B52-G14-P2 VSNC-FT-B52-N14-P2 |
|--|-------|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure | [bar] | 1.5 ... 8 |
| Ambient temperature | [°C] | -20 ... +60 |
| Temperature of medium | [°C] | -20 ... +60 |
| Corrosion resistance class CRC ¹⁾ | | 2 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Datasheet – 5/2-way valve VSNC-FT...-P2, double solenoid

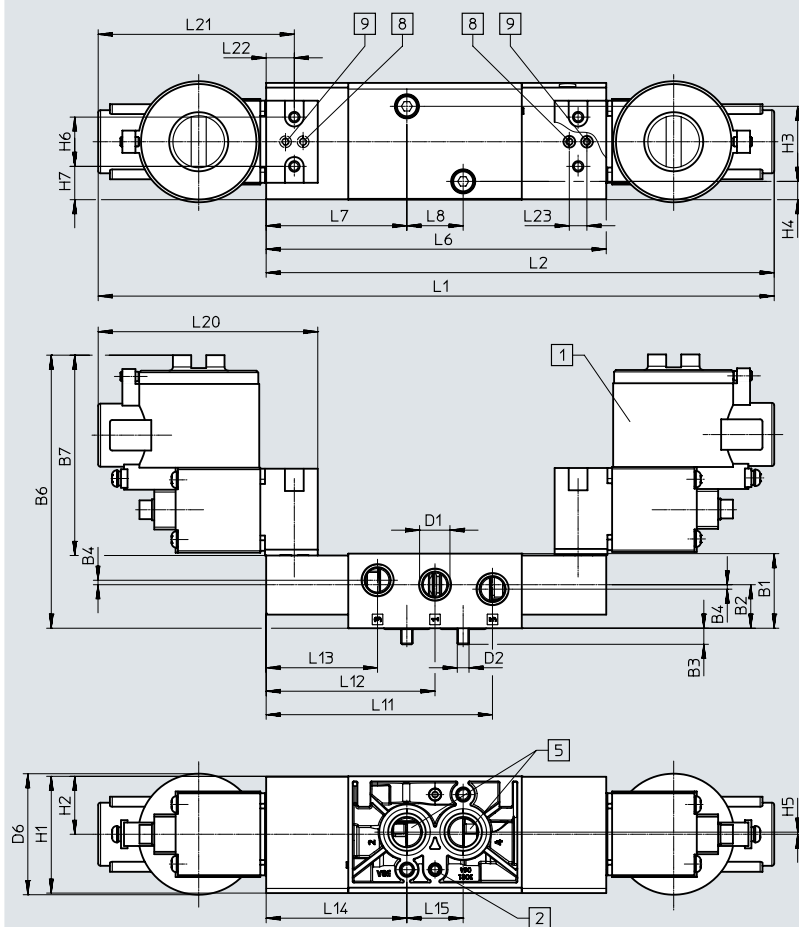
| Electrical data | | |
|----------------------------------|------|---|
| | | VSNC-FT-B52-G14-P2 VSNC-FT-B52-N14-P2 |
| Electrical connection | | – |
| Characteristic coil data | | See solenoid coil, to be ordered separately |
| Switching time changeover | [ms] | 2 |
| Permissible voltage fluctuations | [%] | – |

| Materials | | |
|-----------|---------|-------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| [3] | Screws | Galvanised steel |
| | – | RoHS-compliant |

Datasheet – 5/2-way valve VSNC-FT...-P2, double solenoid

Dimensions

Download CAD data → www.festo.com



- [1] Solenoid coil
- [2] \varnothing 5.5 (for threaded pin to DIN 946-M5x10-45H)
- [5] Working port 2 and 4, NAMUR port pattern
- [8] Pilot air from the valve (CNOMO connection to ISO 15218)
- [9] Pilot air into the valve (CNOMO connection to ISO 15218)

| Type | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 |
|--------------------|------|-------|------|-----|---------|----|------|------|----|-----|-----|----|------|
| VSNC-FT-B52-G14-P2 | 31.8 | ~18.6 | ~6.9 | 1.9 | G 1/4 | M5 | 49.8 | 24.7 | 32 | 7.8 | 0.9 | 21 | 14.2 |
| VSNC-FT-B52-N14-P2 | | | | | 1/4 NPT | | | | | | | | |

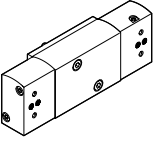
| Type | L6 | L7 | L8 | L11 | L12 | L13 | L14 | L15 | L22 | L23 |
|--------------------|-----|----|----|------|-----|------|-----|-----|-----|-----|
| VSNC-FT-B52-G14-P2 | 145 | 60 | 24 | 96.5 | 72 | 47.5 | 60 | 24 | 22 | 7.5 |
| VSNC-FT-B52-N14-P2 | | | | | | | | | | |

| Type | B6 | B7 | D6 | L1 | L2 | L20 | L21 |
|---------------------|-------|------|---------------|-------|-------|------|------|
| CNOMO solenoid coil | | | \varnothing | | | | |
| MGXIAH... | 101.3 | 70.3 | – | 281 | 213 | 93 | 80 |
| MGXDH... | 116.4 | 85.4 | 51.6 | 288.2 | 216.6 | 93.6 | 83.6 |

Datasheet – 5/2-way valve VSNC-FT...-P2, double solenoid

Ordering data – Valves

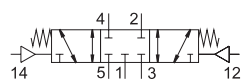
Directional control valve without solenoid coil


| | Part no. | Type |
|--|----------|--------------------|
|  | 8114687 | VSNC-FT-B52-G14-P2 |
| | 8114699 | VSNC-FT-B52-N14-P2 |

Datasheet – 5/3-way valve VSNC-F...-P2

Function

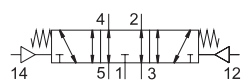
5/3-way valve, closed



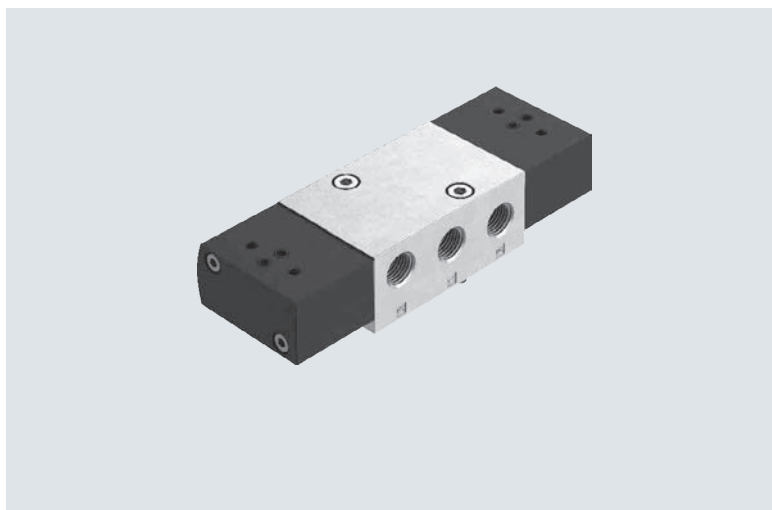
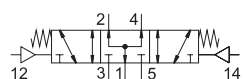
 - Operating pressure
3 ... 8 bar

 - Temperature range
-20 ... +60°C

5/3-way valve, exhausted



5/3-way valve, pressurised



| General technical data | | VSNC-F-P53C-M-G14-P2 | VSNC-F-P53E-M-G14-P2 | VSNC-F-P53U-M-G14-P2 |
|---|---------------|-----------------------|----------------------|----------------------|
| | | VSNC-F-P53C-M-N14-P2 | VSNC-F-P53E-M-N14-P2 | VSNC-F-P53U-M-N14-P2 |
| Valve function | | 5/3-way, closed | 5/3-way, exhausted | 5/3-way, pressurised |
| Width | [mm] | 32 | | |
| Nominal width | [mm] | 7.2 | 6 | 6 |
| Design | | Piston spool | | |
| Sealing principle | | Soft | | |
| Actuation type | | Electrical | | |
| Reset method | | Mechanical spring | | |
| Type of control | | Piloted | | |
| Manual override | | None | | |
| Exhaust function | | Can be throttled | | |
| Port for venting hole | | Not ducted | | |
| Pilot air supply | | Internal | | |
| Type of mounting | | Via through-hole | | |
| Mounting position | | Any | | |
| Max. tightening torque for valve mounting | [Nm] | 3.5 | | |
| Non-overlapping | | Yes | | |
| Overlap | | Positive overlap | | |
| Direction of flow | | Not reversible | | |
| Standard nominal flow rate | 1 > 2 [l/min] | 1200 | 1050 | 950 |
| b value | | 0.4 | 0.4 | 0.5 |
| C value | [l/sbar] | 5.2 | 4.4 | 2.1 |
| Pneumatic port | 1, 3, 5 | G 1/4, 1/4 NPT | | |
| | 2, 4 | Port pattern to NAMUR | | |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) | | |
| Certificate issuing authority | | DNVGL-TAA000011J | | |
| Product weight | [g] | 428 | | |

Datasheet – 5/3-way valve VSNC-F...-P2

| Operating and environmental conditions | | VSNC-F-P53C-M-G14-P2 VSNC-F-P53C-M-N14-P2 | VSNC-F-P53E-M-G14-P2 VSNC-F-P53E-M-N14-P2 | VSNC-F-P53U-M-G14-P2 VSNC-F-P53U-M-N14-P2 |
|--|-------|--|--|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 3 ... 8 | | |
| Ambient temperature | [°C] | -20 ... +60 | | |
| Temperature of medium | [°C] | -20 ... +60 | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

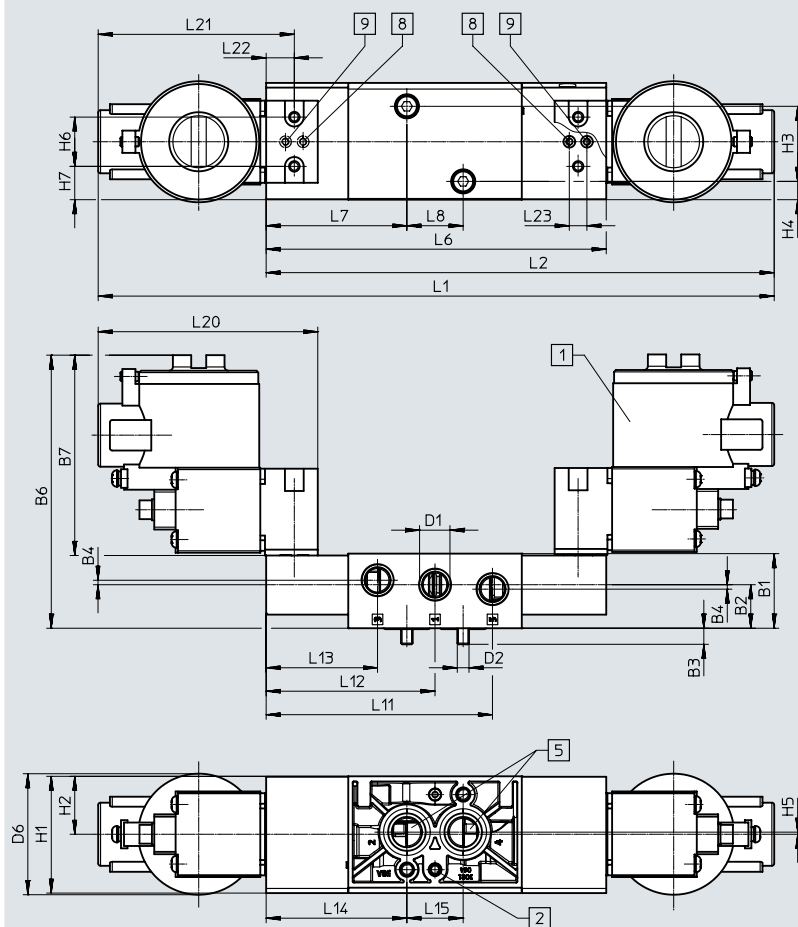
| Electrical data | | VSNC-F-P53C-M-G14-P2 VSNC-F-P53C-M-N14-P2 | VSNC-F-P53E-M-G14-P2 VSNC-F-P53E-M-N14-P2 | VSNC-F-P53U-M-G14-P2 VSNC-F-P53U-M-N14-P2 |
|---------------------------|------|--|--|--|
| Characteristic coil data | | See solenoid coil, to be ordered separately | | |
| Duty cycle | [%] | 100 | | |
| Switching time on | [ms] | 5 | 6 | 6 |
| Switching time off | [ms] | 20 | 9 | 15 |
| Switching time changeover | [ms] | 9 | 16 | 7 |

| Materials | | |
|-----------|---------|----------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| [3] | Screws | High-alloy stainless steel |
| | – | RoHS-compliant |

Datasheet – 5/3-way valve VSNC-F...-P2

Dimensions

Download CAD data → www.festo.com



- [1] Solenoid coil
- [2] \varnothing 5.5 (for threaded pin to DIN 946-M5x10-45H)
- [5] Working port 2 and 4, NAMUR port pattern
- [8] Pilot air from the valve (CNOMO connection to ISO 15218)
- [9] Pilot air into the valve (CNOMO connection to ISO 15218)

| Type | B1 | B2 | B3 | B4 | D1 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 |
|----------------------|---------|-------|------|-----|-------|----|------|------|----|-----|-----|----|------|
| VSNC-F-P53C-M-G14-P2 | 31.8 | ~18.6 | ~6.9 | 1.9 | G 1/4 | M5 | 49.8 | 24.7 | 32 | 7.8 | 0.9 | 21 | 14.2 |
| VSNC-F-P53U-M-G14-P2 | | | | | | | | | | | | | |
| VSNC-F-P53E-M-G14-P2 | | | | | | | | | | | | | |
| VSNC-F-P53C-M-N14-P2 | | | | | | | | | | | | | |
| VSNC-F-P53U-M-N14-P2 | | | | | | | | | | | | | |
| VSNC-F-P53E-M-N14-P2 | 1/4 NPT | | | | | | | | | | | | |

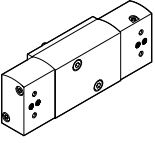
| Type | L6 | L7 | L8 | L11 | L12 | L13 | L14 | L15 | L22 | L23 |
|----------------------|-----|----|----|------|-----|------|-----|-----|-----|-----|
| VSNC-F-P53C-M-G14-P2 | 145 | 60 | 24 | 96.5 | 72 | 47.5 | 60 | 24 | 22 | 7.5 |
| VSNC-F-P53U-M-G14-P2 | | | | | | | | | | |
| VSNC-F-P53E-M-G14-P2 | | | | | | | | | | |
| VSNC-F-P53C-M-N14-P2 | | | | | | | | | | |
| VSNC-F-P53U-M-N14-P2 | | | | | | | | | | |
| VSNC-F-P53E-M-N14-P2 | | | | | | | | | | |

| Type | B6 | B7 | D6 | L1 | L2 | L20 | L21 |
|---------------------|-------|------|---------------|-------|-------|------|------|
| CNOMO solenoid coil | | | \varnothing | | | | |
| MGXIAH... | 101.3 | 70.3 | - | 281 | 213 | 93 | 80 |
| MGXDH... | 116.4 | 85.4 | 51.6 | 288.2 | 216.6 | 93.6 | 83.6 |

Datasheet – 5/3-way valve VSNC-F...-P2

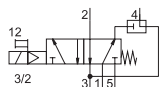
Ordering data – Valves

Directional control valve without solenoid coil

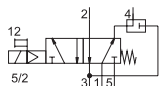
| | Part no. | Type |
|--|----------|----------------------|
|  | 8114686 | VSNC-F-P53C-M-G14-P2 |
| | 8114685 | VSNC-F-P53U-M-G14-P2 |
| | 8114684 | VSNC-F-P53E-M-G14-P2 |
| | | |
| | 8114700 | VSNC-F-P53C-M-N14-P2 |
| | 8114701 | VSNC-F-P53U-M-N14-P2 |
| | 8114702 | VSNC-F-P53E-M-N14-P2 |


Datasheet – 3/2-way or 5/2-way valve VSNC-FTC-...-F19/F19A, convertible

Convertible function
3/2-way valve or



5/2-way valve



 Operating pressure
2.5 ... 8 bar

 Temperature range
-20 ... +60°C



| General technical data | | MH-G14-F19 MH-N14-F19 | MH-G14-F19A MH-N14-F19A | M-G14-F19 M-N14-F19 | M-G14-F19A, M-N14-F19A |
|----------------------------|------------------------------|---------------------------------|----------------------------|------------------------|---------------------------|
| Valve function | | 5/2-way or 3/2-way, convertible | | | |
| Width | [mm] | 32 | | | |
| Design | | Poppet seat | | | |
| Sealing principle | | Soft | | | |
| Actuation type | | Electrical | | | |
| Reset method | | Mechanical spring | | | |
| Type of control | | Piloted | | | |
| Pilot air supply | | Internal | | | |
| Exhaust function | | Can be throttled | | | |
| Manual override | | Non-detenting | | | None |
| Type of mounting | | Via through-hole | | | |
| Port for venting hole | | Not ducted | | | |
| Direction of flow | | Not reversible | | | |
| Overlap | | Negative overlap | | | |
| Mounting position | | Any | | | |
| Standard nominal flow rate | 1 > 2 [l/min] | 800 | | | |
| | Exhaust return 4 > 3 [l/min] | 110 | | | |
| Pneumatic connection | 1, 3, 5 | G1/4 | | | |
| | 2, 4 | Port pattern to NAMUR | | | |
| Conforms to standard | | VDI/VDE 3845 (NAMUR) | | | |
| Product weight | [g] | 480 | | | 478 |

| Operating and environmental conditions | | MH-G14-F19 MH-N14-F19 | MH-G14-F19A MH-N14-F19A | M-G14-F19 M-N14-F19 | M-G14-F19A, M-N14-F19A |
|--|-------|--|----------------------------|------------------------|---------------------------|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | [bar] | 2.5 ... 8 | | | |
| Ambient temperature | [°C] | -20 ... 60 | | | |
| Temperature of medium | [°C] | -20 ... 60 | | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

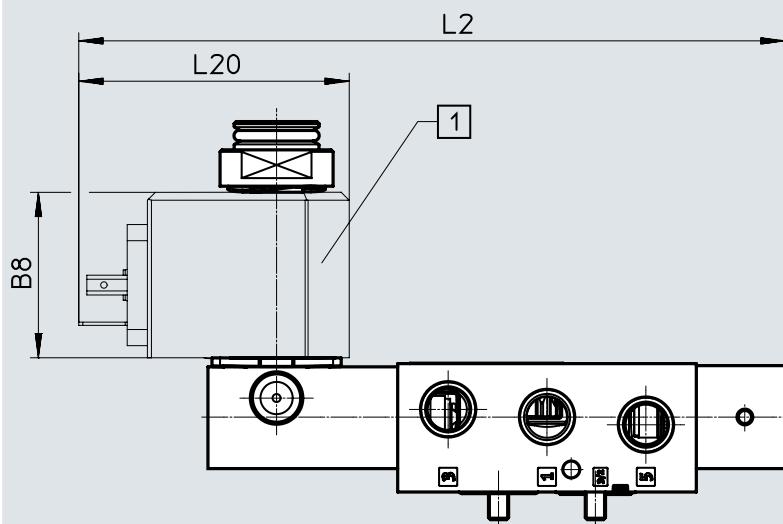
Datasheet – 3/2-way or 5/2-way valve VSNC-FTC-...-F19/F19A, convertible

| Electrical data | | MH-G14-F19 MH-N14-F19 | MH-G14-F19A MH-N14-F19A | M-G14-F19 M-N14-F19 | M-G14-F19A M-N14-F19A |
|--------------------------|---|--------------------------|----------------------------|------------------------|--------------------------|
| Switching time on | [ms] | 25 | 435 | 25 | 435 |
| Switching time off | [ms] | 65 | 380 | 65 | 380 |
| Duty cycle | [%] | 100 | | | |
| Characteristic coil data | See solenoid coil, to be ordered separately | | | | |

| Materials | | MH-G14-F19 MH-N14-F19 | MH-G14-F19A MH-N14-F19A | M-G14-F19 M-N14-F19 | M-G14-F19A M-N14-F19A |
|-----------|-------------------|--------------------------|----------------------------|------------------------|--------------------------|
| [1] | Housing | Wrought aluminium alloy | | | |
| [2] | Seals | NBR | | | |
| [3] | Screws | Wrought aluminium alloy | | | |
| [4] | Note on materials | RoHS-compliant | | | |

Dimensions

Download CAD data → www.festo.com



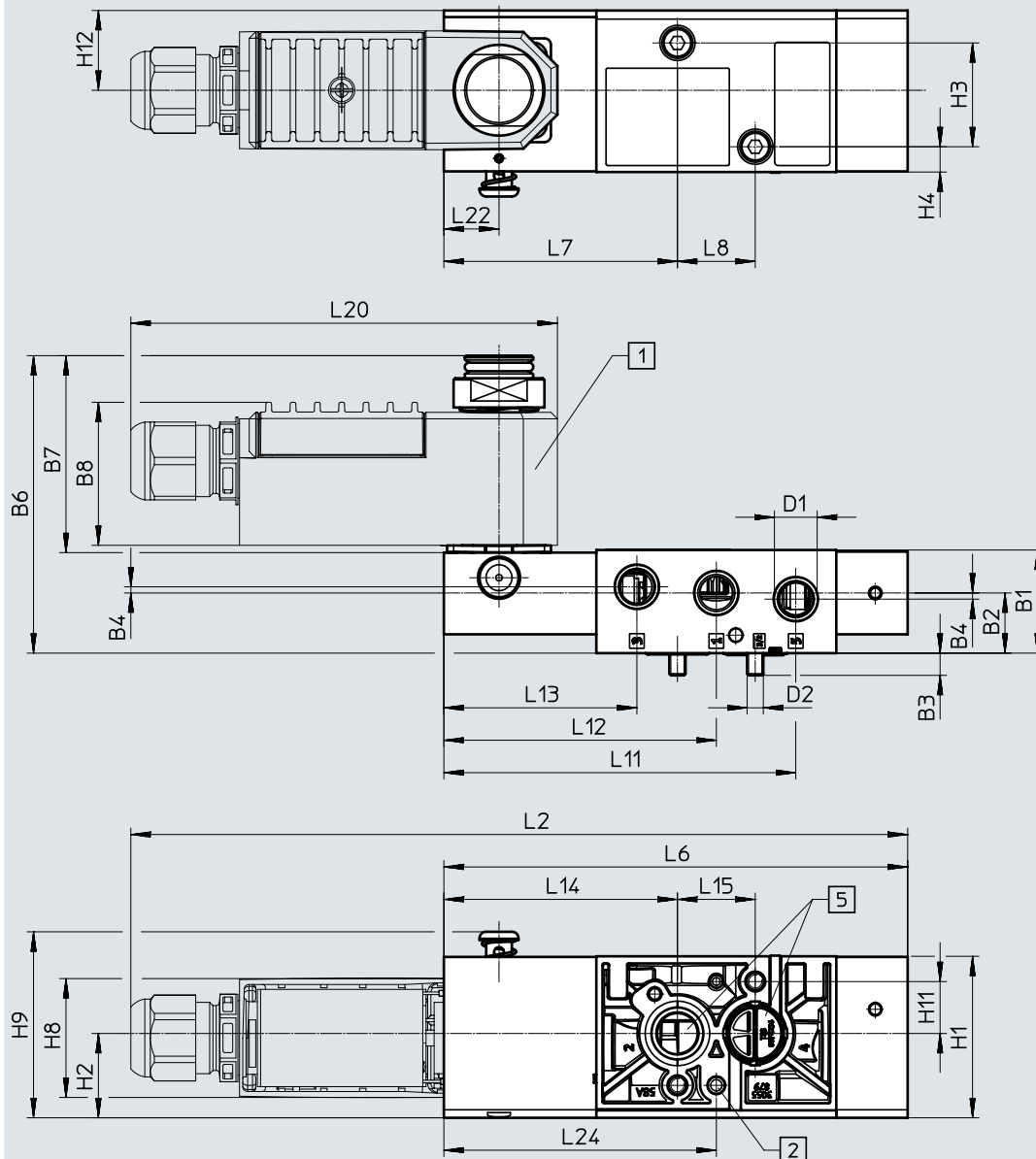
[1] Solenoid coil
VACC-S13-18-A1-...

| Type | B8 | L1 | L20 |
|-------------------------|------|-----|-----|
| VSNC-FTC-M52-MH-G14-F19 | 44.1 | 234 | 126 |
| VSNC-FTC-M52-MH-N14-F19 | | | |
| VSNC-FTC-M52-M-G14-F19 | | | |
| VSNC-FTC-M52-M-N14-F19 | | | |

Datasheet – 3/2-way or 5/2-way valve VSNC-FTC-...-F19/F19A, convertible

Dimensions

Download CAD data → www.festo.com



[1] Solenoid coil
VACC-S13-11-K4-1-...A

[2] $\varnothing 5.5$ for threaded pins
DIN 946-m5X10-45h

[3] Working ports 2 and 4:
NAMUR port pattern

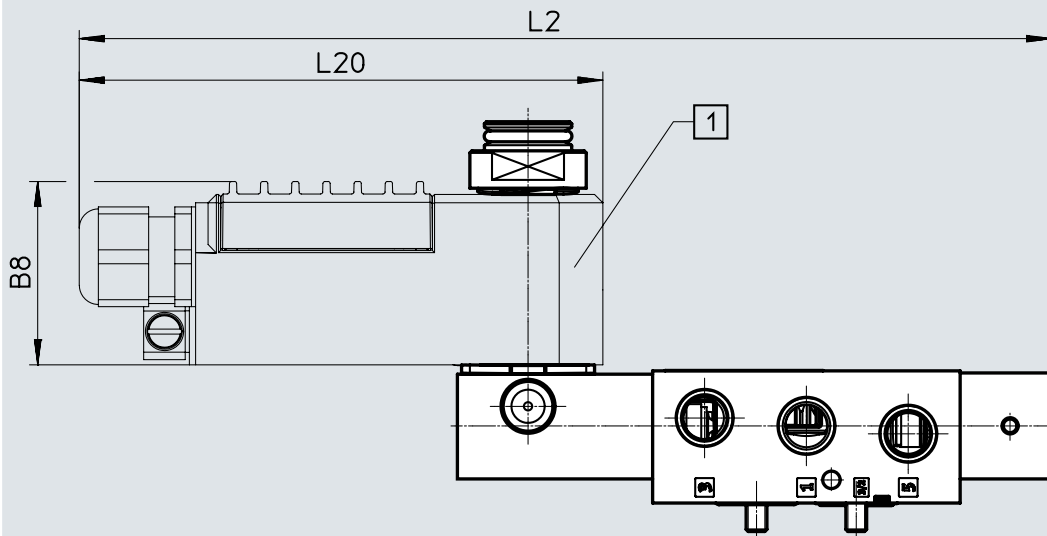
| Type | B1 | B2 | B3 | B4 | B6 | B7 | B8 | D1 | D2 | H1 | H2 | H3 | H4 | H8 | H9 |
|--------------------------|------|------|-----|-----|------|------|------|--------|----|------|----|----|-----|------|------|
| VSNC-FTC-M52-MH-G14-F19A | 31.8 | 18.6 | 6.9 | 1.9 | 91.8 | 60.8 | 44.1 | G1/4 | M5 | 49.8 | 26 | 32 | 7.8 | 36.8 | 57.4 |
| VSNC-FTC-M52-MH-N14-F19A | | | | | | | | NPT1/4 | | | | | | | |
| VSNC-FTC-M52-M-G14-F19A | | | | | | | | G1/4 | | | | | | | |
| VSNC-FTC-M52-M-N14-F19A | | | | | | | | NPT1/4 | | | | | | | |

| Type | H11 | H12 | L2 | L6 | L7 | L8 | L11 | L12 | L13 | L14 | L15 | L20 | L22 | L24 |
|--------------------------|-----|------|-------|-----|----|----|-------|-----|------|-----|-----|-------|-----|-----|
| VSNC-FTC-M52-MH-G14-F19A | 16 | 24.6 | 239.5 | 143 | 72 | 24 | 108.5 | 84 | 59.5 | 72 | 24 | 131.5 | 17 | 84 |
| VSNC-FTC-M52-MH-N14-F19A | | | | | | | | | | | | | | |
| VSNC-FTC-M52-M-G14-F19A | | | | | | | | | | | | | | |
| VSNC-FTC-M52-M-N14-F19A | | | | | | | | | | | | | | |

Datasheet – 3/2-way or 5/2-way valve VSNC-FTC-...-F19/F19A, convertible

Dimensions

Download CAD data → www.festo.com

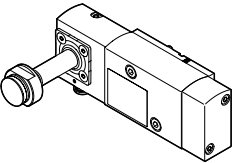


[1] Solenoid coil
VACC-S13-18-K4-...-...ME

| Type | B8 | L1 | L20 |
|-------------------------|------|-----|-----|
| VSNC-FTC-M52-MH-G14-F19 | 41.2 | 175 | 67 |
| VSNC-FTC-M52-MH-N14-F19 | | | |
| VSNC-FTC-M52-M-G14-F19 | | | |
| VSNC-FTC-M52-M-N14-F19 | | | |

Ordering data – Valves

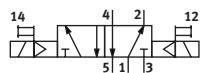
Directional control valve without solenoid coil


|  | | Manual override | Part no. | Type |
|--|---------|--------------------|--------------------------|---------|
| | | Intrinsically safe | Non-detenting | 8116369 |
| Non-detenting | 8116375 | | VSNC-FTC-M52-MH-N14-F19 | |
| None | 8116378 | | VSNC-FTC-M52-M-G14-F19 | |
| None | 8116379 | | VSNC-FTC-M52-M-N14-F19 | |
| Non-detenting | 8116376 | | VSNC-FTC-M52-MH-G14-F19A | |
| Non-detenting | 8116377 | | VSNC-FTC-M52-MH-N14-F19A | |
| None | 8116380 | | VSNC-FTC-M52-M-G14-F19A | |
| None | 8116381 | | VSNC-FTC-M52-M-N14-F19A | |

Datasheet – 5/2-way valve VSNC-FT...-F19/F19A, double solenoid

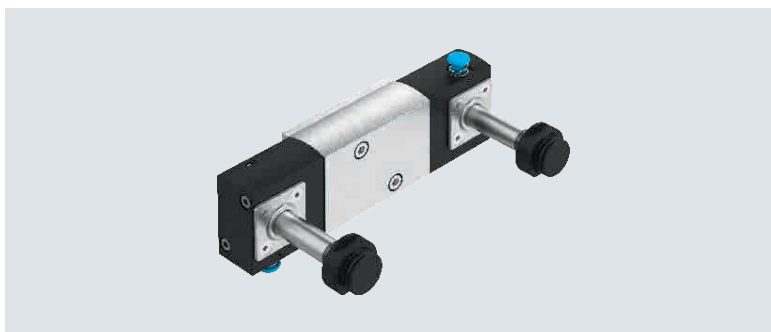
Function

5/2-way valve, double solenoid



 Operating pressure
1.5 ... 8 bar

 Temperature range
-20 ... +60°C



General technical data

| | H-G14-F19 H-G14-F19A | H-N14-F19 H-N14-F19A | G14-F19 G14-F19A | N14-F19 N14-F19A |
|------------------------------------|---|-------------------------|---------------------|---------------------|
| Valve function | 5/2-way, double solenoid | | | |
| Width [mm] | 32 | | | |
| Design | Poppet seat | | | |
| Sealing principle | Soft | | | |
| Actuation type | Electrical | | | |
| Type of control | Piloted | | | |
| Pilot air supply | Internal | | | |
| Exhaust function | Can be throttled | | | |
| Manual override | Non-detenting | | | None |
| Type of mounting | Via through-hole | | | |
| Port for venting hole | Not ducted | | | |
| Mounting position | Any | | | |
| Overlap | Negative overlap | | | |
| Direction of flow | Not reversible | | | |
| Standard nominal flow rate [l/min] | 1000 | | | |
| Pneumatic port | 1, 3, 5 2, 4 | G1/4 | 1/4 NPT | G1/4 1/4 NPT |
| Conforms to standard | Port pattern to NAMUR VDI/VDE 3845 (NAMUR) | | | |
| Product weight [g] | 613 | | | |

Operating and environmental conditions

| | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure [bar] | 1.5 ... 8 |
| Ambient temperature [°C] | -20 ... +60 |
| Temperature of medium [°C] | -20 ... +60 |
| Corrosion resistance class CRC ¹⁾ | 2 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Datasheet – 5/2-way valve VSNC-FT-...-F19/F19A, double solenoid

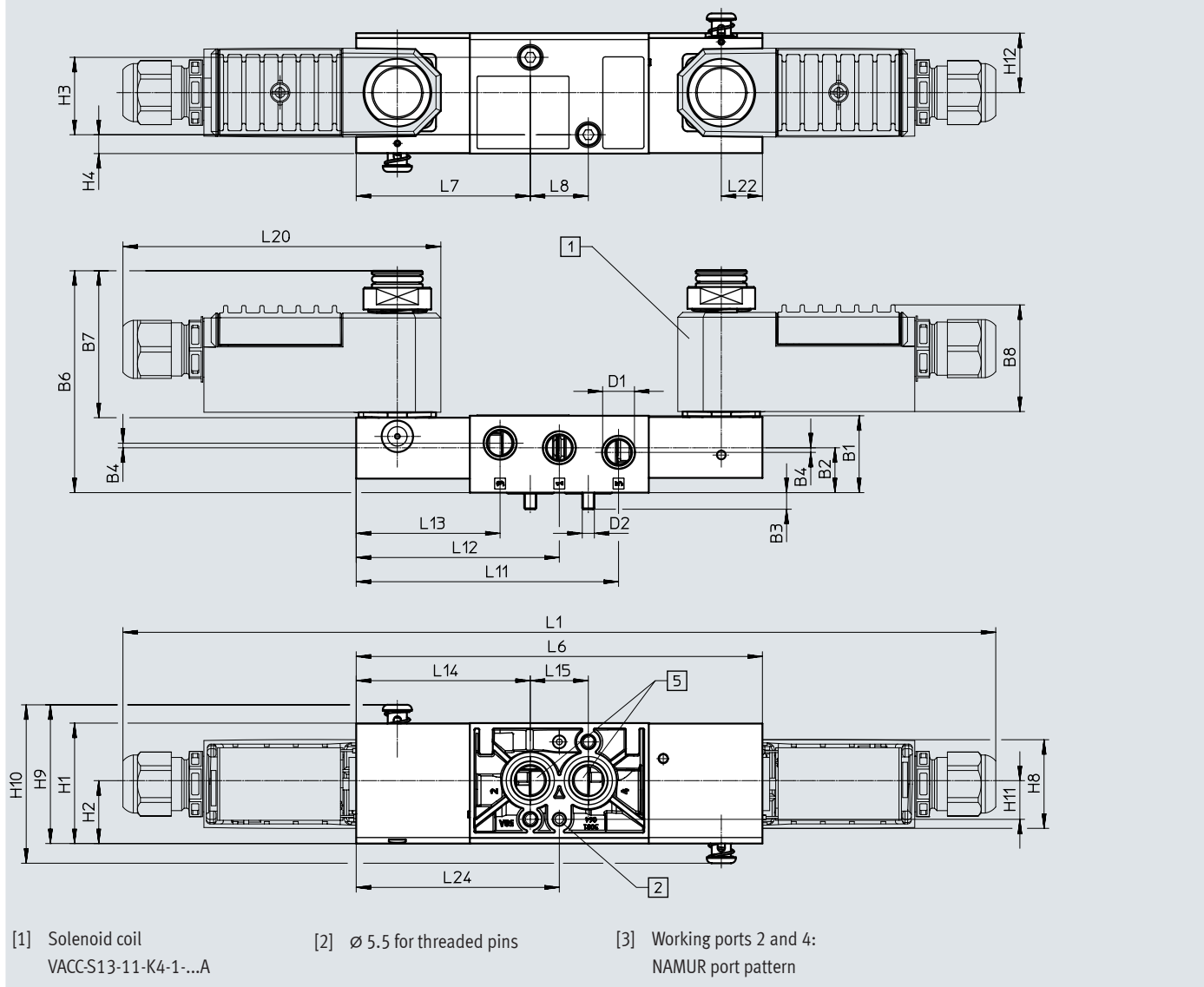
| Electrical data | | H-G14-F19 | H-G14-F19A | G14-F19 | G14-F19A |
|---------------------------|------|---|------------|---------|----------|
| | | H-N14-F19 | H-N14-F19A | N14-F19 | N14-F19A |
| Characteristic coil data | | See solenoid coil, to be ordered separately | | | |
| Switching time changeover | [ms] | 20 | 435 | 20 | 435 |
| Duty cycle | [%] | 100 | | | |

| Materials | | |
|-------------------|---------|----------------------------|
| [1] | Housing | Wrought aluminium alloy |
| [2] | Seals | NBR |
| [3] | Screws | High-alloy stainless steel |
| Note on materials | | RoHS-compliant |

Datasheet – 5/2-way valve VSNC-FT-...-F19/F19A, double solenoid

Dimensions

Download CAD data → www.festo.com



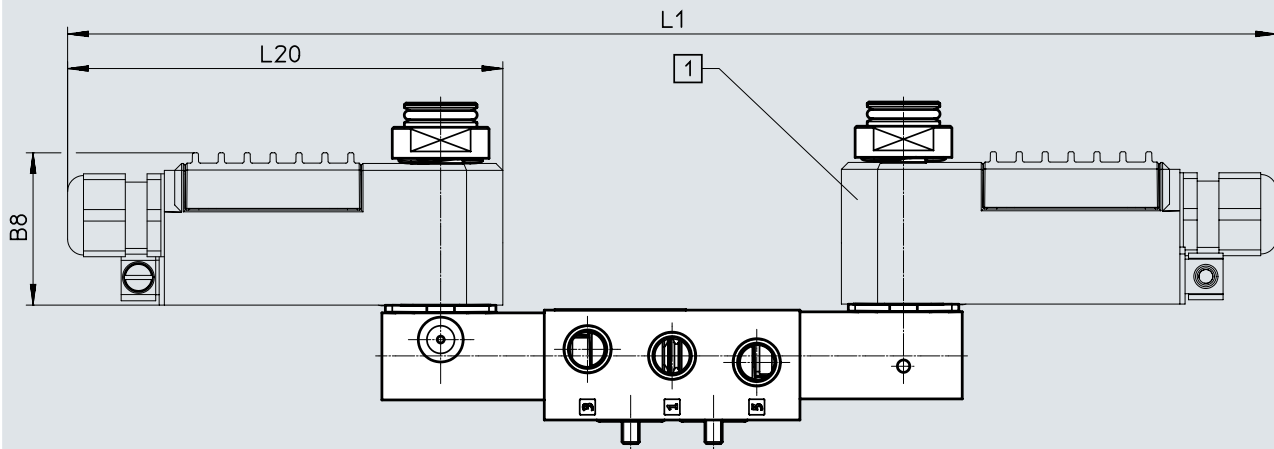
| Type | B1 | B2 | B3 | B4 | B6 | B7 | B8 | D1 | D2 | H1 | H2 | H3 | H4 | H8 | H9 |
|------------------------|------|------|-----|-----|------|------|------|--------|----|------|----|----|-----|------|------|
| VSNC-FT-B52-H-G14-F19A | 31.8 | 18.6 | 6.9 | 1.9 | 91.8 | 60.8 | 44.1 | G1/4 | M5 | 49.8 | 26 | 32 | 7.8 | 36.8 | 57.4 |
| VSNC-FT-B52-H-N14-F19A | | | | | | | | NPT1/4 | | | | | | | |

| Type | H10 | H11 | H12 | L1 | L6 | L7 | L8 | L11 | L12 | L13 | L14 | L15 | L20 | L22 | L24 |
|------------------------|------|-----|------|-----|-----|----|----|-------|-----|------|-----|-----|-------|-----|-----|
| VSNC-FT-B52-H-G14-F19A | 65.5 | 16 | 24.6 | 361 | 168 | 72 | 24 | 108.5 | 84 | 59.5 | 72 | 24 | 131.5 | 17 | 84 |
| VSNC-FT-B52-H-N14-F19A | | | | | | | | | | | | | | | |

Datasheet – 5/2-way valve VSNC-FT-...-F19/F19A, double solenoid

Dimensions

Download CAD data → www.festo.com



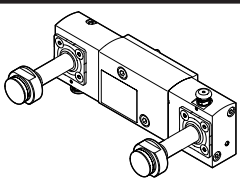
[1] Solenoid coil
VACC-S13-18-K4-...-...ME

| Type | B8 | L1 | L20 |
|--------------------------|------|-----|-----|
| VSNC-FT-B52-H-G14-F19... | 44.1 | 350 | 126 |
| VSNC-FT-B52-H-N14-F19... | | | |

Datasheet – 5/2-way valve VSNC-FT-...-F19/F19A, double solenoid

Ordering data – Valves

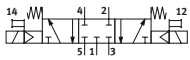
Directional control valve without solenoid coil

| | | Manual override | Part no. | Type |
|---|--------------------|-----------------|----------|------------------------|
|  | – | Non-detenting | 8116370 | VSNC-FT-B52-H-G14-F19 |
| | | Non-detenting | 8116382 | VSNC-FT-B52-H-N14-F19 |
| | | None | 8116385 | VSNC-FT-B52-G14-F19 |
| | | None | 8116386 | VSNC-FT-B52-N14-F19 |
| | Intrinsically safe | Non-detenting | 8116383 | VSNC-FT-B52-H-G14-F19A |
| | | Non-detenting | 8116384 | VSNC-FT-B52-H-N14-F19A |
| | | None | 8116387 | VSNC-FT-B52-G14-F19A |
| | | None | 8116388 | VSNC-FT-B52-N14-F19A |

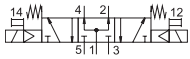
Datasheet – 5/3-way valve VSNC-F...-F19/F19A

Function

5/3-way valve, closed




5/3-way valve, exhausted

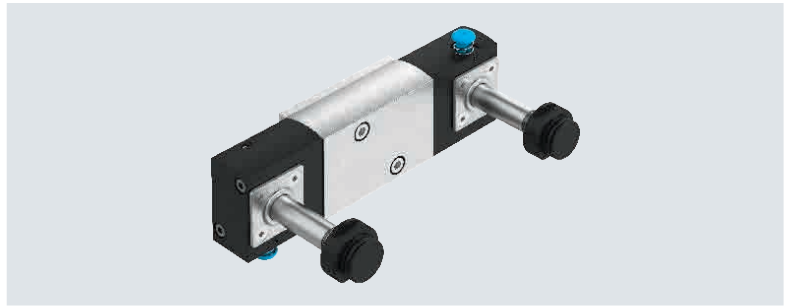


5/3-way valve, pressurised



 Operating pressure
3 ... 8 bar

 Temperature range
-20 ... +60°C



| General technical data | | P53C | | P53U | P53E |
|----------------------------|-----------------|---|-----|-------------|-----------|
| | | Closed | | Pressurised | Exhausted |
| Valve function | | 5/3 | | | |
| Width | [mm] | 32 | | | |
| Design | | Piston spool | | | |
| Sealing principle | | Soft | | | |
| Actuation type | | Electrical | | | |
| Reset method | | Mechanical spring | | | |
| Type of control | | Piloted | | | |
| Pilot air supply | | Internal | | | |
| Direction of flow | | Not reversible | | | |
| Exhaust function | | Can be throttled | | | |
| Manual override | | Non-detenting | | | |
| Type of mounting | | Via through-hole | | | |
| Port for venting hole | | Not ducted | | | |
| Mounting position | | Any | | | |
| Overlap | | Positive overlap | | | |
| Non-overlapping | | Yes | | | |
| Standard nominal flow rate | [l/min] | 1250 | 950 | 1050 | |
| b value | | 0.4 | 0.5 | 0.4 | |
| C value | [l/sbar] | 5.2 | 2.1 | 4.4 | |
| Pneumatic port | 1, 3, 5 2, 4 | G 1/4, 1/4 NPT | | | |
| Conforms to standard | | Port pattern to NAMUR VDI/VDE 3845 (NAMUR) | | | |
| Product weight | [g] | 619 | | | |

Datasheet – 5/3-way valve VSNC-F-...-F19/F19A

| Operating and environmental conditions | | P53C | P53U | P53E |
|--|-------|--|------|------|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | [bar] | 3 ... 8 | | |
| Ambient temperature | [°C] | -20 ... +60 | | |
| Temperature of medium | [°C] | -20 ... +60 | | |
| Corrosion resistance class CRC ¹⁾ | | 2 | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

| Electrical data | | P53C-MH-G14-F19, P53C-MH-N14-F19 P53C-M-G14-F19, P53C-M-N14-F19 | P53U | P53E-MH-G14-F19A, P53E-MH-N14-F19A P53E-M-G14-F19A, P53E-M-N14-F19A |
|---------------------------|------|--|------|--|
| 5/3-way valve, closed | | | | |
| Characteristic coil data | | See solenoid coil, to be ordered separately | | |
| Switching time on | [ms] | 24 | | 435 |
| Switching time off | [ms] | 85 | | 380 |
| Switching time changeover | [ms] | 60 | | 435 |
| Duty cycle | [%] | 100 | | |

| Electrical data | | P53U-MH-G14-F19, P53U-MH-N14-F19 P53U-M-G14-F19, P53U-M-N14-F19 | P53U | P53E-MH-G14-F19A, P53E-MH-N14-F19A P53E-M-G14-F19A, P53E-M-N14-F19A |
|----------------------------|------|--|------|--|
| 5/3-way valve, pressurised | | | | |
| Characteristic coil data | | See solenoid coil, to be ordered separately | | |
| Switching time on | [ms] | 24 | | 440 |
| Switching time off | [ms] | 85 | | 390 |
| Switching time changeover | [ms] | 60 | | 435 |
| Duty cycle | [%] | 100 | | |

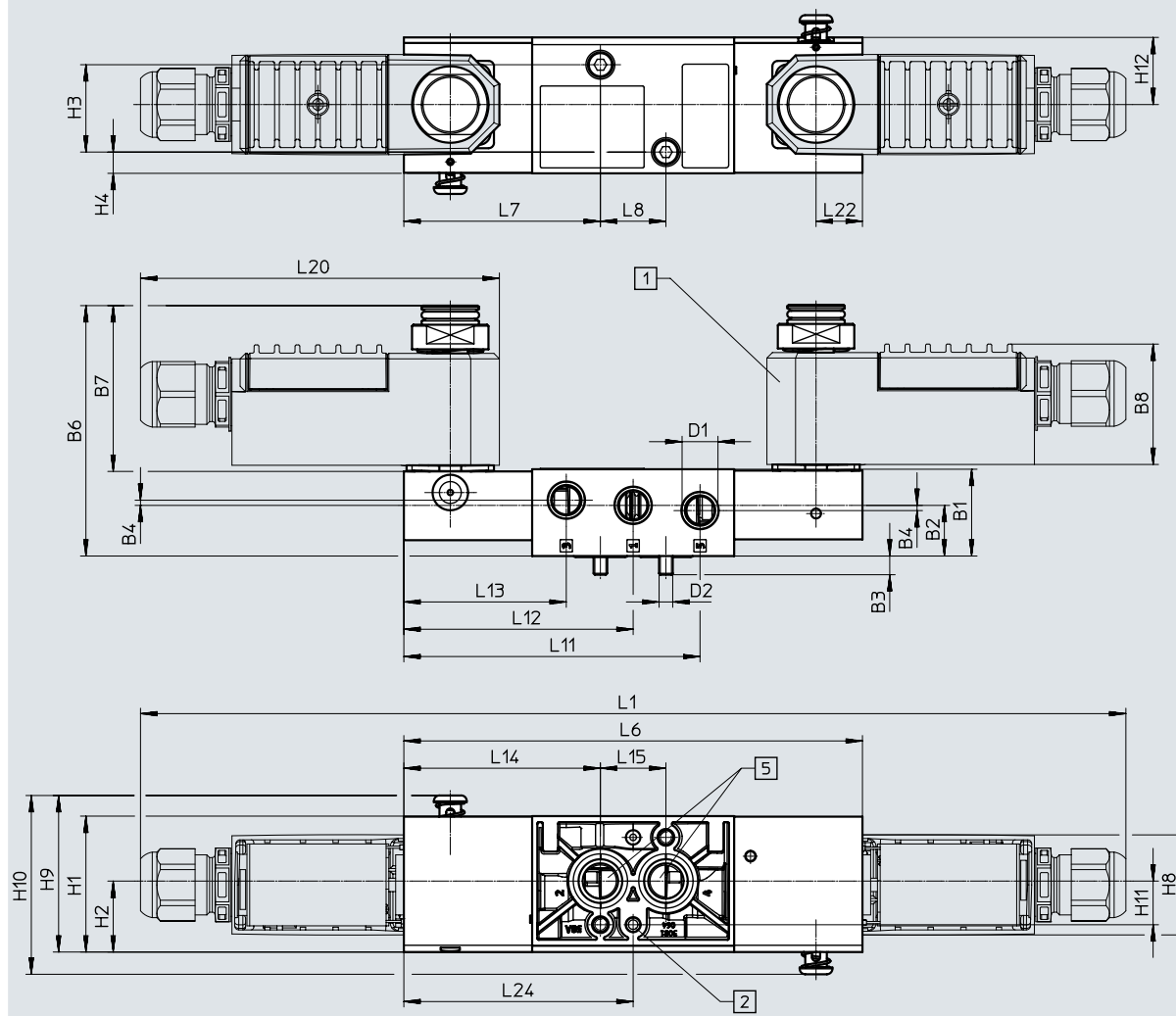
| Electrical data | | P53E-MH-G14-F19, P53E-MH-N14-F19 P53E-M-G14-F19, P53E-M-N14-F19 | P53E | P53E-MH-G14-F19A, P53E-MH-N14-F19A P53E-M-G14-F19A, P53E-M-N14-F19A |
|---------------------------|------|--|------|--|
| 5/3-way valve, exhausted | | | | |
| Characteristic coil data | | See solenoid coil, to be ordered separately | | |
| Switching time on | [ms] | 24 | | 400 |
| Switching time off | [ms] | 85 | | 440 |
| Switching time changeover | [ms] | 60 | | 400 |
| Duty cycle | [%] | 100 | | |

| Materials | | |
|-------------|--|-------------------------|
| [1] Housing | | Wrought aluminium alloy |
| [2] Seals | | NBR |
| [3] Screws | | Galvanised steel |
| – | | RoHS-compliant |

Datasheet – 5/3-way valve VSNC-F...-F19/F19A

Dimensions

Download CAD data → www.festo.com



- [1] Solenoid coil
VACC-S13-11-K4-1-...A
- [2] Ø 5.5 for threaded pins
- [3] Working ports 2 and 4:
NAMUR port pattern

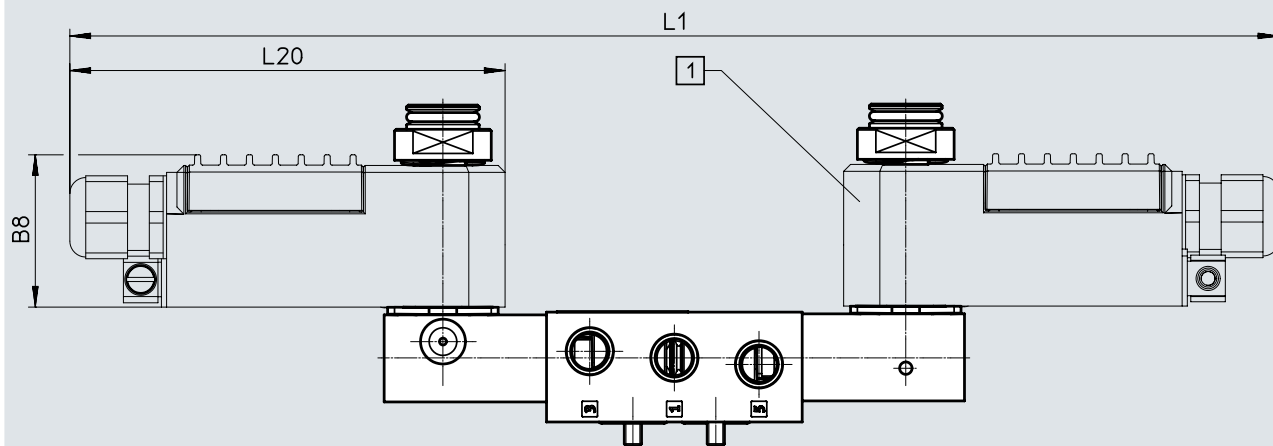
| Type | B1 | B2 | B3 | B4 | B6 | B7 | B8 | D1 | D2 | H1 | H2 | H3 | H4 | H8 | H9 |
|----------------------------|------|------|-----|-----|------|------|------|--------|----|------|----|----|-----|------|------|
| VSNC-FT-P53...-MH-G14-F19A | 31.8 | 18.6 | 6.9 | 1.9 | 91.8 | 60.8 | 44.1 | G1/4 | M5 | 49.8 | 26 | 32 | 7.8 | 36.8 | 57.4 |
| VSNC-FT-P53...-MH-N14-F19A | | | | | | | | NPT1/4 | | | | | | | |

| Type | H10 | H11 | H12 | L1 | L6 | L7 | L8 | L11 | L12 | L13 | L14 | L15 | L20 | L22 | L24 |
|----------------------------|------|-----|------|-----|-----|----|----|-------|-----|------|-----|-----|-------|-----|-----|
| VSNC-FT-P53...-MH-G14-F19A | 65.5 | 16 | 24.6 | 361 | 168 | 72 | 24 | 108.5 | 84 | 59.5 | 72 | 24 | 131.5 | 17 | 84 |
| VSNC-FT-P53...-MH-N14-F19A | | | | | | | | | | | | | | | |

Datasheet – 5/3-way valve VSNC-F-...-F19/F19A

Dimensions

Download CAD data → www.festo.com



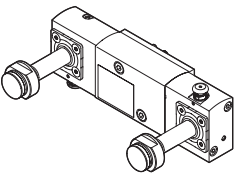
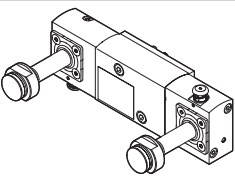
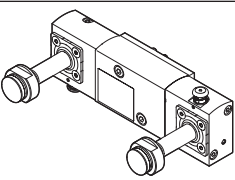
[1] Solenoid coil
VACC-S13-18-K4-...-...ME

| Type | B8 | L1 | L20 |
|--------------------------|------|-----|-----|
| VSNC-FT-B52-H-G14-F19... | 44.1 | 350 | 126 |
| VSNC-FT-B52-H-N14-F19... | | | |

Datasheet – 5/3-way valve VSNC-F-...-F19/F19A

Ordering data – Valves

Directional control valve without solenoid coil

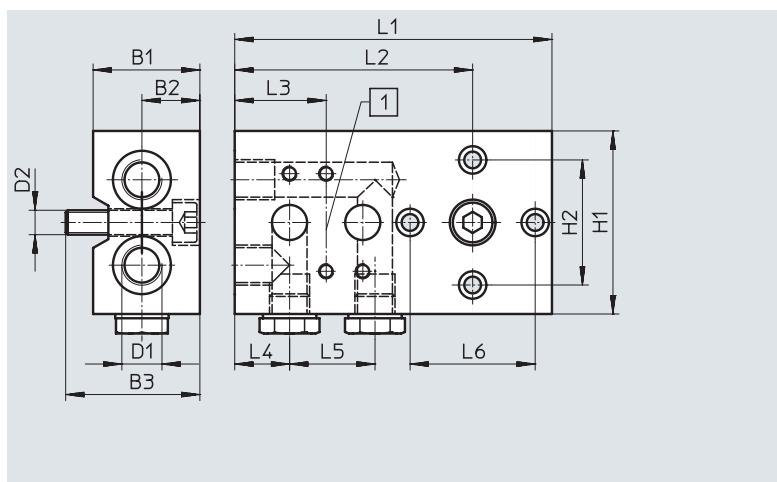
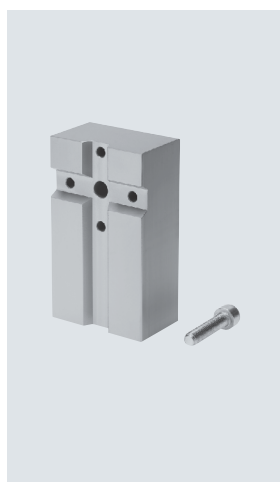
| | | Manual override | Part no. | Type |
|---|--------------------|-----------------|----------|-------------------------|
| 5/3-way valve, closed | | | | |
|  | – | Non-detenting | 8116371 | VSNC-F-P53C-MH-G14-F19 |
| | | Non-detenting | 8116389 | VSNC-F-P53C-MH-N14-F19 |
| | | None | 8116400 | VSNC-F-P53C-M-G14-F19 |
| | | None | 8116401 | VSNC-F-P53C-M-N14-F19 |
| | Intrinsically safe | Non-detenting | 8116390 | VSNC-F-P53C-MH-G14-F19A |
| | | Non-detenting | 8116391 | VSNC-F-P53C-MH-N14-F19A |
| | | None | 8116402 | VSNC-F-P53C-M-G14-F19A |
| | | None | 8116403 | VSNC-F-P53C-M-N14-F19A |
| 5/3-way valve, pressurised | | | | |
|  | – | Non-detenting | 8116392 | VSNC-F-P53U-MH-G14-F19 |
| | | Non-detenting | 8116393 | VSNC-F-P53U-MH-N14-F19 |
| | | None | 8116404 | VSNC-F-P53U-M-G14-F19 |
| | | None | 8116405 | VSNC-F-P53U-M-N14-F19 |
| | Intrinsically safe | Non-detenting | 8116394 | VSNC-F-P53U-MH-G14-F19A |
| | | Non-detenting | 8116395 | VSNC-F-P53U-MH-N14-F19A |
| | | None | 8116406 | VSNC-F-P53U-M-G14-F19A |
| | | None | 8116407 | VSNC-F-P53U-M-N14-F19A |
| 5/3-way valve, exhausted | | | | |
|  | – | Non-detenting | 8116396 | VSNC-F-P53E-MH-G14-F19 |
| | | Non-detenting | 8116397 | VSNC-F-P53E-MH-N14-F19 |
| | | None | 8116408 | VSNC-F-P53E-M-G14-F19 |
| | | None | 8116409 | VSNC-F-P53E-M-N14-F19 |
| | Intrinsically safe | Non-detenting | 8116398 | VSNC-F-P53E-MH-G14-F19A |
| | | Non-detenting | 8116399 | VSNC-F-P53E-MH-N14-F19A |
| | | None | 8116410 | VSNC-F-P53E-M-G14-F19A |
| | | None | 8116411 | VSNC-F-P53E-M-N14-F19A |

Accessories

Sub-base

Mounting position: Any
 Type of mounting: Via through-hole
 Operating pressure: 0 ... 10 bar
 Operating medium: compressed air to ISO 8573-1:2010 [7:-:-]
 Degree of protection IP65

Material of sub-base:
 Ematal-coated aluminium
 Material of seals: NBR
 Contains paint-wetting impairment substances,
 RoHS-compliant



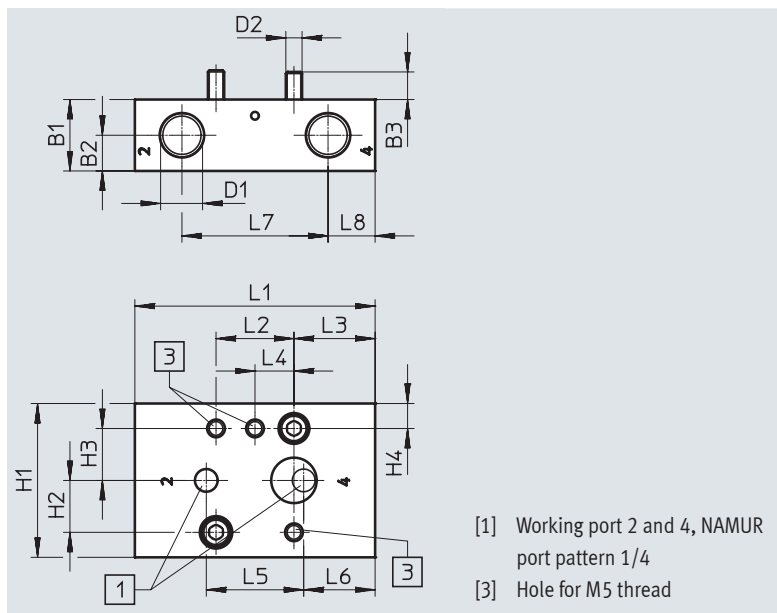
| Dimensions [mm] and ordering data | | | | | | | | | | | | | | | Part no. | Type |
|-----------------------------------|----|----|------|----|----|----|-----|----|----|----|----|----|-------------------|----------|---------------|------|
| B1 | B2 | B3 | D1 | D2 | H1 | H2 | L1 | L2 | L3 | L4 | L5 | L6 | CRC ¹⁾ | Part no. | Type | |
| 35 | 19 | 44 | G1/4 | M8 | 60 | 41 | 104 | 78 | 30 | 18 | 28 | 41 | 4 | 563396 | VABS-S7-S-G14 | |

1) Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.

Connecting plate

Mounting position: Any
 Type of mounting: Via through-hole
 Port 2, 4: On top
 Operating pressure: 0 ... 10 bar
 Operating medium: compressed air to ISO 8573-1:2010 [7:-:-]
 Temperature (ambient/medium/storage): -20 ... +60°C
 Weight: 192 g

Plate material: Wrought aluminium alloy
 Note on materials:
 Contains paint-wetting impairment substances (not tested);
 RoHS-compliant



- [1] Working port 2 and 4, NAMUR port pattern 1/4
- [3] Hole for M5 thread

| Dimensions [mm] and ordering data | | | | | | | | | | | | | | | | | Part no. | Type | |
|-----------------------------------|----|-----|---------|----|------|----|----|-----|----|----|----|----|----|----|----|------|-------------------|----------|-----------------|
| B1 | B2 | B3 | D1 | D2 | H1 | H2 | H3 | H4 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | CRC ¹⁾ | Part no. | Type |
| 22 | 11 | 8.5 | G1/4 | M5 | 47.4 | 16 | 16 | 7.7 | 74 | 24 | 25 | 12 | 30 | 22 | 45 | 14.5 | 2 | 8098884 | VABS-B14-T-FG14 |
| | | | 1/4 NPT | | | | | | | | | | | | | | | 8099628 | VABS-B14-T-FN14 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Throttle plate

Mounting position: Any

Type of mounting: Via through-hole

Operating pressure: 0 ... 10 bar

Operating medium: compressed air to ISO 8573-1:2010 [7:-:-]

Temperature (ambient/medium/storage): -20 ... +60°C

Weight:

VABF ... P1: 215.5 g

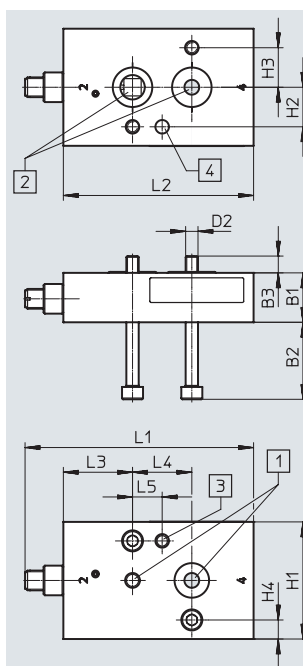
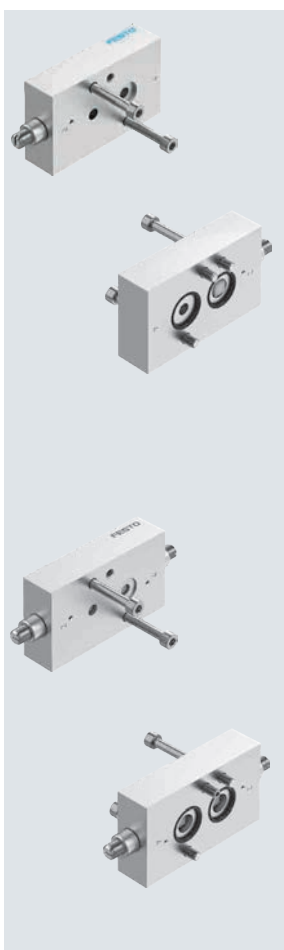
VABF ... P2: 229 g

Plate material:

Wrought aluminium alloy

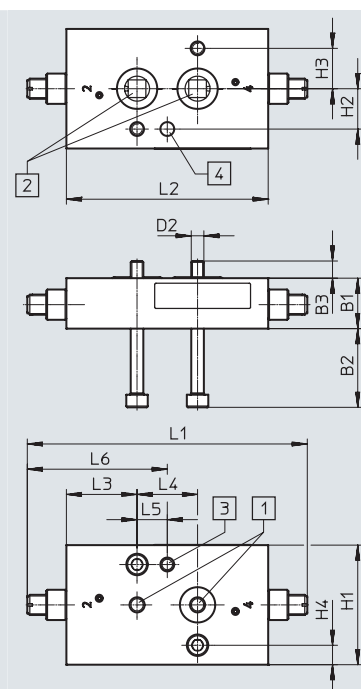
Note on materials:

Contains paint-wetting impairment substances (not tested); RoHS-compliant



Single-acting VABF...P1

- [1] NAMUR port pattern 1/4
- [2] NAMUR port pattern 1/4



Double-acting VABF...P2

- [3] Hole for M5 thread
- [4] Hole, \varnothing 5.5 mm (for threaded pin to DIN 913-M5x10-45H)

Dimensions [mm] and ordering data

| B1 | B2 | B3 | D2 | H1 | H2 | H3 | H4 | L1 | | L2 | L3 | L4 | L5 | L6 | | CRC ¹⁾ | Part no. | Type |
|----|------|-----|----|------|----|----|-----|------|------|----|----|----|----|------|------|-------------------|----------|----------------------|
| | | | | | | | | min. | max. | | | | | min. | max. | | | |
| 20 | 31.2 | 6.8 | M5 | 47.4 | 16 | 16 | 7.7 | 86.5 | 92.5 | 77 | 28 | 24 | 12 | - | - | 2 | 8098885 | VABF-B14-F1B1P1-FF14 |
| | | | | | | | | 99 | 110 | | | | | 80 | 49.5 | | | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Exhaust plate

Mounting position: Any

Type of mounting: Via through-hole

Operating pressure: 0 ... 10 bar

Operating medium:

compressed air to ISO 8573-1:2010 [7:0:0]

Temperature (ambient/medium/storage): -20 ... +60°C

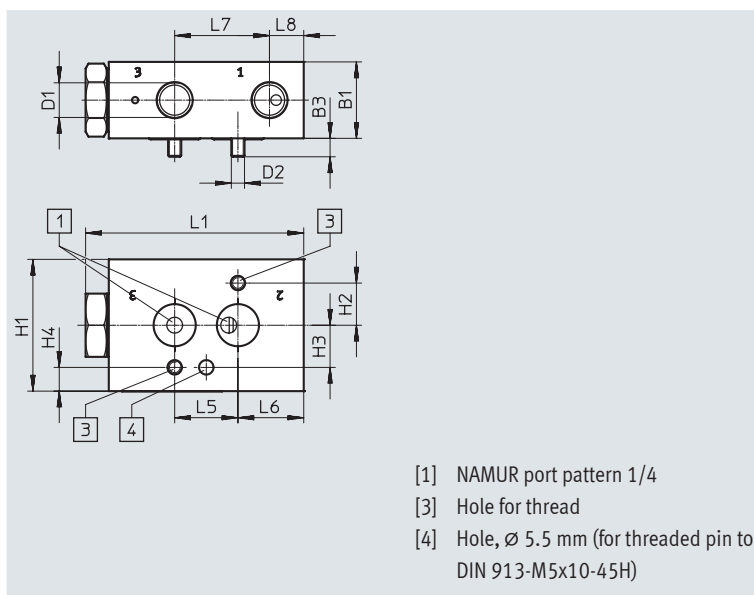
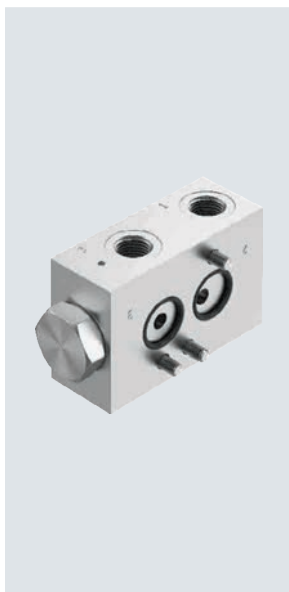
Weight: 280.5 g

Plate material:

Wrought aluminium alloy

Note on materials:

Contains paint-wetting impairment substances (not tested); RoHS-compliant



[1] NAMUR port pattern 1/4

[3] Hole for thread

[4] Hole, \varnothing 5.5 mm (for threaded pin to DIN 913-M5x10-45H)

Dimensions [mm] and ordering data

| B1 | B3 | D1 | D2 | H1 | H2 | H3 | H4 | L1 | L5 | L6 | L7 | L8 | CRC ¹⁾ | Part no. | Type |
|----|----|---------|----|----|----|----|----|------|----|----|----|----|-------------------|----------|-----------------|
| 29 | 7 | G1/4 | M5 | 50 | 16 | 16 | 9 | 82.8 | 24 | 25 | 36 | 13 | 2 | 8099350 | VABF-B14-M3-G14 |
| | | 1/4 NPT | | | | | | | | | | | | 8099627 | VABF-B14-M3-N14 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Mounting plate

Mounting position: Any

Type of mounting: Via through-hole

Operating pressure: 0 ... 10 bar

Operating medium:

compressed air to

ISO 8573-1:2010 [7:0:0]

Temperature (ambient/medium/storage): -20 ... +60°C

Weight: 255.5 g

Plate material:

Wrought aluminium alloy

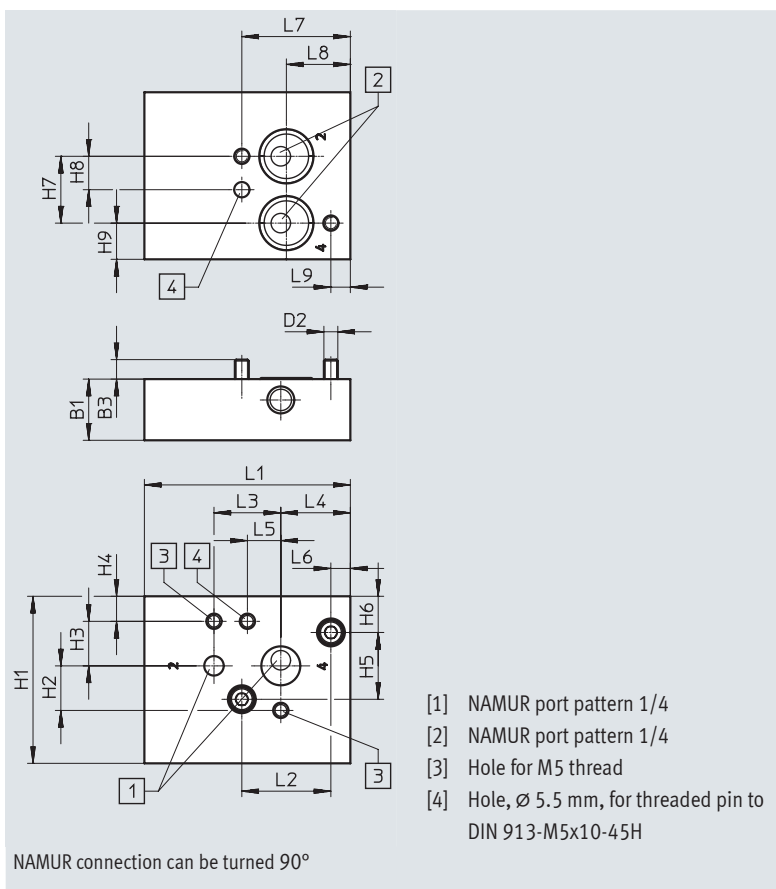
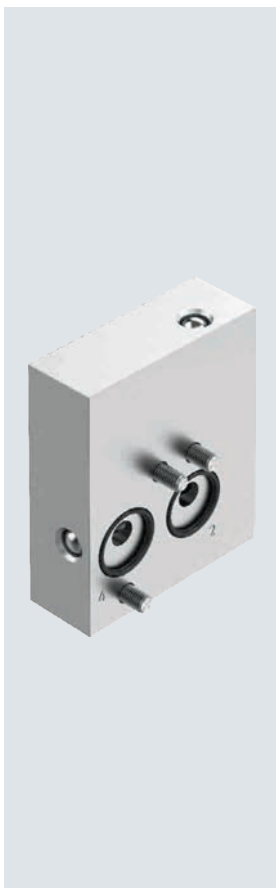
Note on materials:

Contains paint-wetting impairment substances (not tested);
RoHS-compliant

Purpose: The mounting plate enables the NAMUR connection to be turned 90° in tight installation spaces.

Additional benefit:

The mounting plate can be used to mount a 1/4" NAMUR valve on a 1/2" actuator.



NAMUR connection can be turned 90°

- [1] NAMUR port pattern 1/4
- [2] NAMUR port pattern 1/4
- [3] Hole for M5 thread
- [4] Hole, \varnothing 5.5 mm, for threaded pin to DIN 913-M5x10-45H

Dimensions [mm] and ordering data

| B1 | B3 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | Part no. | Type |
|----|----|----|----|----|----|----|----|----|----|----|----------|------------------|
| 22 | 7 | M5 | 60 | 16 | 16 | 9 | 24 | 13 | 24 | 12 | 8098888 | VABS-B14-90-FF14 |

| H9 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | CRC ¹⁾ | Part no. | Type |
|----|----|----|----|----|----|----|----|----|----|-------------------|----------|------------------|
| 13 | 74 | 32 | 24 | 25 | 12 | 7 | 39 | 23 | 7 | 2 | 8098888 | VABS-B14-90-FF14 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Mounting plate

Mounting position: Any

Type of mounting: Via through-hole

Operating pressure: 0 ... 10 bar

Operating medium:

compressed air to
ISO 8573-1:2010 [7:0:0]

Temperature (ambient/medium/
storage): -20 ... +60°C

Weight: 255.5 g

Plate material:

Wrought aluminium alloy

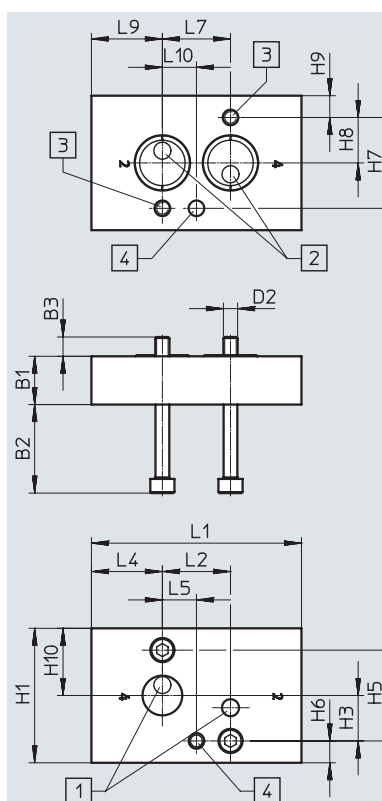
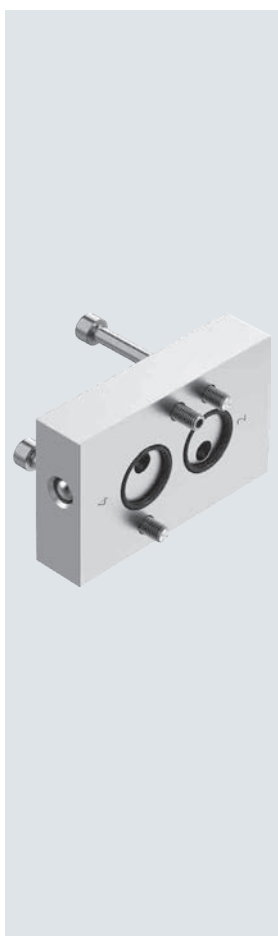
Note on materials:

Contains paint-wetting impairment
substances (not tested);
RoHS-compliant

Purpose: The mounting plate enables
the NAMUR connection to
be turned 180° in tight installa-
tion spaces.

Additional benefit:

The mounting plate can be used
to mount a 1/4" NAMUR valve on
a 1/2" actuator.



- [1] NAMUR port pattern 1/4
- [2] NAMUR port pattern 1/4
- [3] Hole for M5 thread
- [4] Hole, \varnothing 5.5 mm, for threaded pin to
DIN 913-M5x10-45H

NAMUR connection can be turned 180°

Dimensions [mm] and ordering data

| B1 | B2 | B3 | D2 | H1 | H3 | H5 | H6 | H7 | H8 | H9 | H10 | L1 | L2 | L4 | L5 | L7 | L9 | L10 | CRC ¹⁾ | Part no. | Type |
|----|------|-----|----|------|----|----|-----|----|----|-----|------|----|----|----|----|----|----|-----|-------------------|----------|-------------------|
| 17 | 31.2 | 6.8 | M5 | 47.4 | 16 | 32 | 7.7 | 32 | 16 | 7.7 | 23.7 | 74 | 24 | 25 | 12 | 24 | 25 | 12 | 2 | 8099347 | VABS-B14-180-FF14 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Mounting plate

Mounting position: Any
 Type of mounting: Via through-hole
 Operating pressure: 0 ... 10 bar
 Operating medium: compressed air to ISO 8573-1:2010 [7:0:0]
 Temperature (ambient/medium/storage): -20 ... +60°C
 Weight: 255.5 g

Plate material:

Wrought aluminium alloy

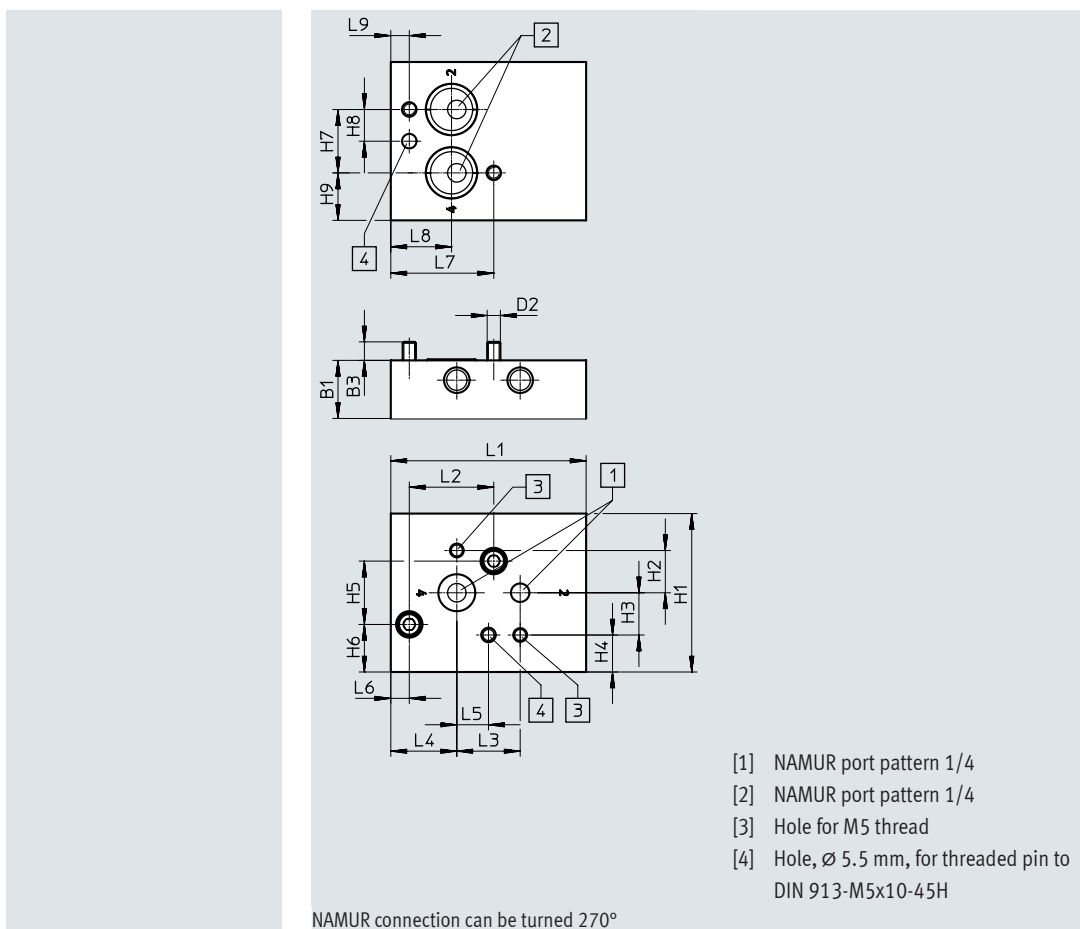
Note on materials:

Contains paint-wetting impairment substances (not tested);
 RoHS-compliant

Purpose: The mounting plate enables the NAMUR connection to be turned 270° in tight installation spaces.

Additional benefit:

The mounting plate can be used to mount a 1/4" NAMUR valve on a 1/2" actuator.



Dimensions [mm] and ordering data

| B1 | B3 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | Part no. | Type |
|----|----|----|----|----|----|----|----|----|----|----|----------|-------------------|
| 22 | 7 | M5 | 60 | 16 | 16 | 14 | 24 | 18 | 24 | 12 | 8098891 | VABS-B14-270-FF14 |

| H9 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | CRC ¹⁾ | Part no. | Type |
|----|----|----|----|----|----|----|----|----|----|-------------------|----------|-------------------|
| 18 | 74 | 32 | 24 | 25 | 12 | 7 | 39 | 23 | 7 | 2 | 8098891 | VABS-B14-270-FF14 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Mounting plate

Mounting position: Any
 Type of mounting: Via through-hole
 Operating pressure: 0 ... 10 bar
 Operating medium: compressed air to ISO 8573-1:2010 [7:0:0]
 Temperature (ambient/medium/storage): -20 ... +60°C
 Weight: 188 g

Plate material:

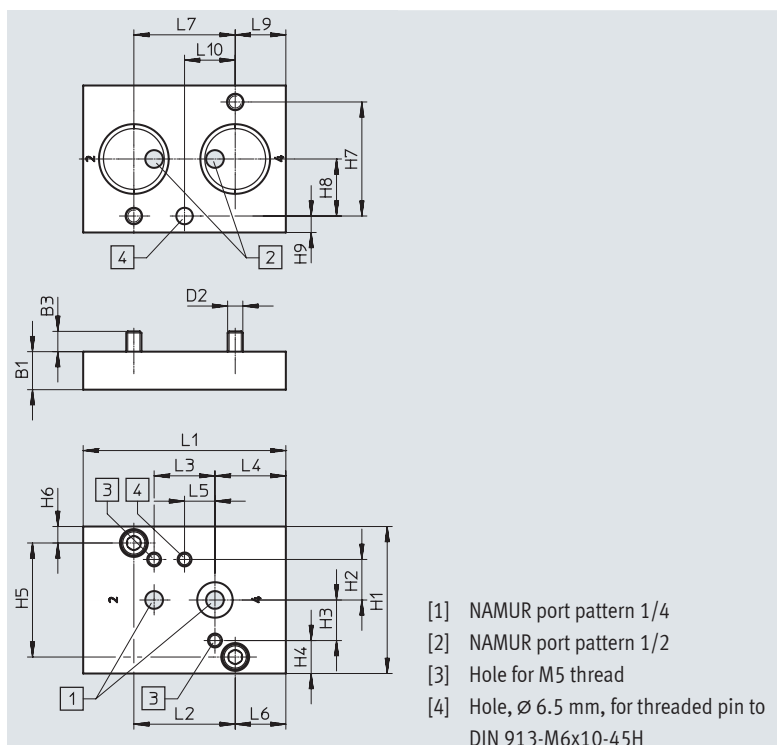
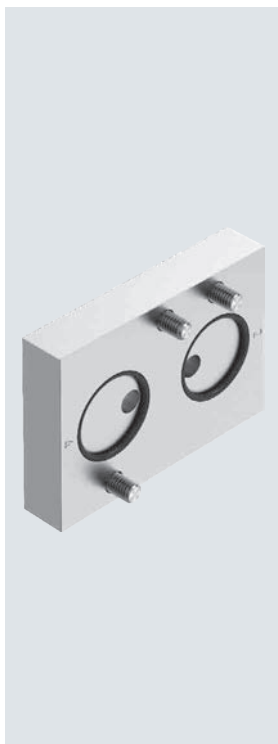
Wrought aluminium alloy

Note on materials:

Contains paint-wetting impairment substances (not tested);
 RoHS-compliant

Purpose:

Mounting plate with NAMUR connection 1/2 and 1/4



Dimensions [mm] and ordering data

| B1 | B3 | D2 | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | Part no. | Type |
|----|----|----|----|----|----|----|----|-----|----|------|----------------|---------------------------|
| 15 | 8 | M6 | 58 | 16 | 16 | 13 | 45 | 6.5 | 45 | 22.5 | 8098889 | VABA-B14-FL12-FL14 |

| H9 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L9 | L10 | CRC ¹⁾ | Part no. | Type |
|-----|----|----|----|----|----|----|----|----|-----|-------------------|----------------|---------------------------|
| 6.5 | 80 | 40 | 24 | 28 | 12 | 20 | 40 | 20 | 20 | 2 | 8098889 | VABA-B14-FL12-FL14 |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

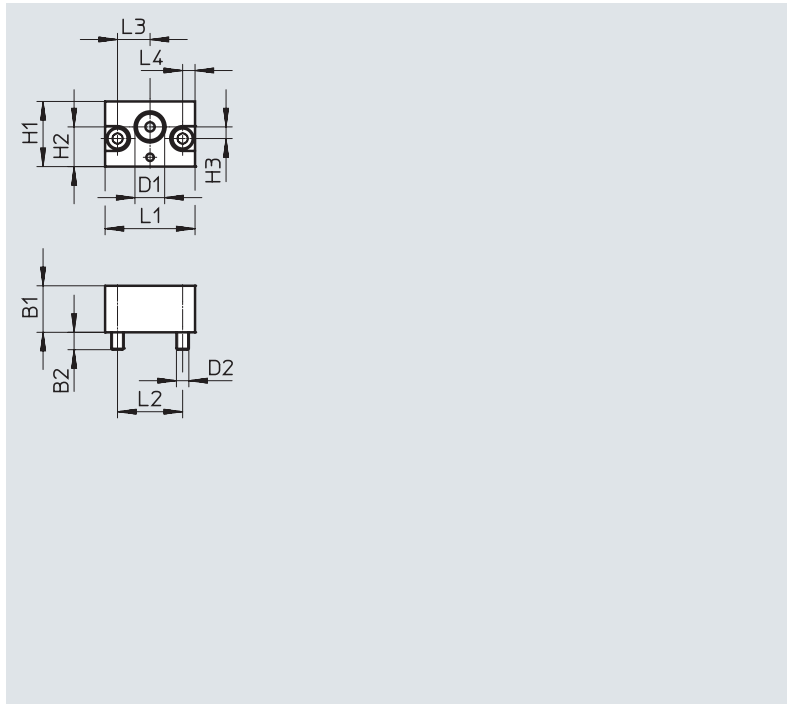
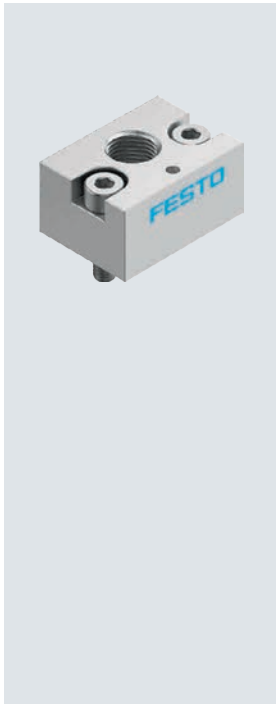
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Connector

Mounting position: Any
 Type of mounting: Via through-hole
 Operating pressure: 1.5 ... 10 bar
 Operating medium: compressed air to ISO 8573-1:2010 [7:0:0]
 Temperature (ambient/medium/storage): -20 ... +60°C
 Weight: 26 g

Plate material: Wrought aluminium alloy
 Note on materials: Contains paint-wetting impairment substances (not tested); RoHS-compliant
 Purpose: Connector for pneumatic control system (CNOMO connection).

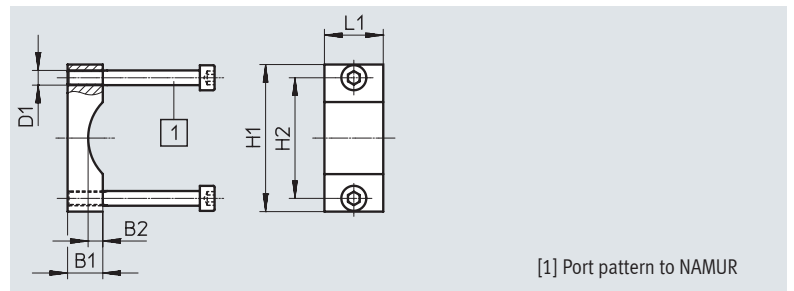


| Dimensions [mm] and ordering data | | | | | | | | | | | | | Part no. | Type |
|-----------------------------------|-----|---------|----|----|------|------|----|----|------|----|-------------------|---------|-----------------|------|
| B1 | B2 | D1 | D2 | H1 | H2 | H3 | L1 | L2 | L3 | L4 | CRC ¹⁾ | | | |
| 15 | 5.6 | G1/8 | M4 | 21 | 12.8 | ~3.8 | 29 | 21 | 10.5 | 4 | 2 | 8099850 | VABD-B14-P1-G18 | |
| | | 1/8 NPT | | | | | | | | | | 8099629 | VABD-B14-P1-N18 | |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
 Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Mounting bracket

Material of bracket: Wrought aluminium alloy
 Contains paint-wetting impairment substances, RoHS-compliant



[1] Port pattern to NAMUR

| Dimensions [mm] and ordering data | | | | | | | | | | Part no. | Type |
|-----------------------------------|----|----|----|----|----|----|-------------------|--------|-----------|----------|------|
| B1 | B2 | B3 | D1 | H1 | H2 | L1 | CRC ¹⁾ | | | | |
| 4 5/65 | 12 | 5 | M5 | 50 | 41 | 20 | 3 | 563403 | VAME-S7-Y | | |

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Accessories

Exhaust protection

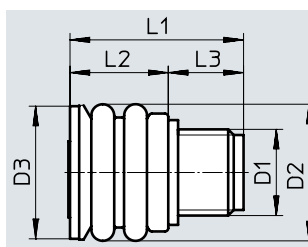
Material:

EPDM, PA

Contains paint-wetting

impairment substances,

RoHS-compliant



Dimensions [mm] and ordering data

| D1 | D2 | D3 | L1 | L2 | L3 | CRC ¹⁾ | Part no. | Type |
|---------------|----|------|------|----|------|-------------------|----------|----------------|
| G1/4, 1/4 NPT | 21 | 20.5 | 26.5 | 15 | 11.5 | 3 | 563400 | VABD-D3-SN-G14 |


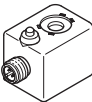
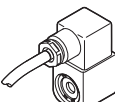
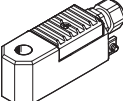
1) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

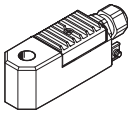
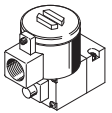
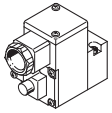

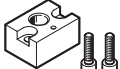
Ordering data – Solenoid coil

| Characteristic coil data | | Part no. | Type |
|--|--|-----------|---------------------|
| Electrical plug pattern to industry standard, type B | | | |
| Datasheets → Internet: vacf | | | |
| | 12 V DC; 3.4 W | 8030801 | VACF-B-B2-5 |
| | 24 V DC; 3.3 W | 8030802 | VACF-B-B2-1 |
| | 48 V DC; 3.4 W | 8030803 | VACF-B-B2-7 |
| | 24 V AC; 50/60 Hz, pick-up power 3.9 VA, holding power 2.6 VA | 8030804 | VACF-B-B2-1A |
| | 48 V AC; 50/60 Hz, pick-up power 3.9 VA, holding power 2.7 VA | 8030805 | VACF-B-B2-7A |
| | 110/120 V AC; 50/60 Hz, pick-up power 4.4 VA, holding power 3.3 VA | 8030806 | VACF-B-B2-16B |
| | 230/240 V AC; 50/60 Hz, pick-up power 5.8 VA, holding power 4.6 VA | 8030808 | VACF-B-B2-3W |
| Electrical plug pattern to DIN EN 175301-803, type A | | | |
| | 12 V DC; 2.8 W | 8030821 | VACF-A-A1-5 |
| | 24 V DC; 2.6 W | ★ 8030822 | VACF-A-A1-1 |
| | 48 V DC; 2.8 W | 8030823 | VACF-A-A1-7 |
| | 24 V AC; 50/60 Hz, pick-up power 2.5 VA, holding power 1.7 VA | 8030824 | VACF-A-A1-1A |
| | 48 V AC; 50/60 Hz, pick-up power 2.5 VA, holding power 1.7 VA | 8030825 | VACF-A-A1-7A |
| | 110/120 V AC; 50/60 Hz, pick-up power 2.7 VA, holding power 1.9 VA | 8030826 | VACF-A-A1-16B |
| | 230/240 V AC; 50/60 Hz, pick-up power 3.9 VA, holding power 2.8 VA | 8030828 | VACF-A-A1-3W |
| For armature system F19, connection pattern type A, to EN 175 301, 230 V DC and AC. | | | |
| | 24 V DC, 1.8 W | 562889 | VACC-S13-18-A1-1 |
| | 24 V DC, 1.8 W | 562890 | VACC-S13-18-A1-1U |
| | 24 V AC, 40/65 Hz, power 1.8 VA | | |
| | 110 V DC, 1.8 W | 562891 | VACC-S13-18-A1-2U |
| | 110 V AC, 40/65 Hz, power 1.8 VA | | |
| | 230 V DC, 1.8 W | 562892 | VACC-S13-18-A1-3U |
| 230 V AC, 40/65 Hz, power 1.8 VA | | | |
| Type of ignition protection: intrinsically safe Ex-ia | | | |
| Datasheets → Internet: vacn | | | |
| | 24 V DC, minimum switching current 27 mA | 8029139 | VACN-N-A1-1-EX-4-A |
| Type of ignition protection: non-sparking Ex-nA | | | |
| | 24 V DC; 2.1 W | 8029136 | VACN-N-A1-1-EX2-N |
| | 110 V AC; 50 Hz, pick-up power 6.9 VA, holding power 4.1 VA | 8029137 | VACN-N-A1-16B-EX2-N |
| | 230 V AC; 50 Hz, pick-up power 6.9 VA, holding power 4.1 VA | 8029138 | VACN-N-A1-3A-EX2-N |

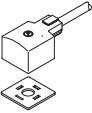
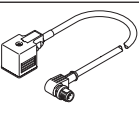

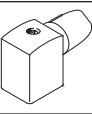



Accessories

| Ordering data – Solenoid coil | | Part no. | Type |
|--|---|-----------------------------|--------------------------|
| | Characteristic coil data | | |
| Degree of protection IP65 with socket | | | |
|  | 24 V DC; 0.7 W | ★ 8029144 | VACN-N-A1-1 |
| | 110 V AC; 50 Hz, pick-up power 5.2 VA, holding power 3.1 VA | 8029134 | VACN-N-A1-16B |
| | 230 V AC; 50 Hz, pick-up power 6.2 VA, holding power 3.7 VA | 8029135 | VACN-N-A1-3A |
| Degree of protection IP65 with connecting cable M12 | | | |
|  | 24 V DC; power 2.7 W, connection: M12x1, A-coded to EN 61076-2-101; 2-pin (ISO 20401) | 8104526 | VACN-N-R3-1 |
| | 24 V DC; power 2.7 W, connection: M12x1, A-coded to EN 61076-2-101; 4-pin (DESINA) | 8104527 | VACN-N-R4-1 |
| Type of ignition protection: encapsulated Ex-me | | | |
|  | 230 V AC; 50/60 Hz, power 2.1 VA | 8029141 | VACN-N-K1-3A-EX4-M |
| | 110 V AC; 50/60 Hz, power 2.4 VA | 8029142 | VACN-N-K1-16B-EX4-M |
| | 24 V DC; 2.6 W | 8029143 | VACN-N-K1-1-EX4-M |
| Encapsulated solenoid coil with enhanced safety, Ex-me | | Datasheets → Internet: vacc | |
|  | 24 V DC, 1.8 W | 8109396 | VACC-S13-18-K4-1U-EX4ME |
| | 24 V AC, 40/65 Hz, power 1.8 VA | | |
| | 110 V DC, 1.8 W | 8109397 | VACC-S13-18-K4-2U-EX4ME |
| | 110 V AC, 40/65 Hz, power 1.8 VA | | |
| | 230 V DC, 1.8 W | 8109398 | VACC-S13-18-K4-3U-EX4ME |
| | 230 V AC, 40/65 Hz, power 1.8 VA | | |
| | 24 V DC, 1.8 W | 8109399 | VACC-S13-18-K4-1UF-EX4ME |
| | 24 V AC, 40/65 Hz, power 1.8 VA | | |
| | 60 V DC, 1.8 W | 8109400 | VACC-S13-18-K4-27U-EX4ME |
| | 60 V AC, 40/65 Hz, power 1.8 VA | | |
| | 24 V AC/DC, NEPSI | 8118329 | VACC-S13-18-K4-1U-NE4ME |
| | 24 V AC/DC, NEPSI | 8118332 | VACC-S13-18-K4-1UF-NE4ME |
| | 60 V AC/DC, NEPSI | 8118333 | VACC-S13-18-K4-27U-NE4ME |
| | 110 V AC/DC, NEPSI | 8118330 | VACC-S13-18-K4-2U-NE4ME |
| | 230 V AC/DC, NEPSI | 8118331 | VACC-S13-18-K4-3U-NE4ME |
| | 24 V AC/DC, INMETRO | 8118324 | VACC-S13-18-K4-1U-NM4ME |
| 24 V AC/DC, INMETRO | 8118327 | VACC-S13-18-K4-1UF-NM4ME | |
| 60 V AC/DC, INMETRO | 8118328 | VACC-S13-18-K4-27U-NM4ME | |
| 110 V AC/DC, INMETRO | 8118325 | VACC-S13-18-K4-2U-NM4ME | |
| 230 V AC/DC, INMETRO | 8118326 | VACC-S13-18-K4-3U-NM4ME | |




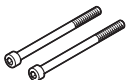
Accessories

| Ordering data – Solenoid coil | | | |
|--|--|----------|------------------------|
| | Characteristic coil data | Part no. | Type |
| Type of ignition protection: intrinsically safe Ex-ia | | | |
|  | 14-32 V DC, 0.22 - 1.1 W, to EU Explosion Protection Directive (ATEX) | 8109401 | VACC-S13-11-K4-1-EX4A |
| | 14-32 V DC, 0.22 - 1.1 W, NEPSI | 8114135 | VACC-S13-11-K4-1-NE4A |
| | 14-32 V DC, 0.22 - 1.1 W, INMETRO | 8114078 | VACC-S13-11-K4-1-NM4A |
| Pilot valves with CNOMO port pattern, to ISO 15218 | | | |
|  | 24 V DC; 3.0 W, type of ignition protection: pressure-tight encapsulation Ex d | 535615 | MGXDH-3/2-1.2-24DC-EX |
| | 110 V AC; 50/60 Hz, pick-up power 7.7 VA, holding power 3.8 VA, type of ignition protection: pressure-tight encapsulation Ex d | 535616 | MGXDH-3/2-1.2-110AC-EX |
| | 230 V AC; 50/60 Hz, pick-up power 10 VA, holding power 6 VA, type of ignition protection: pressure-tight encapsulation Ex d | 535617 | MGXDH-3/2-1.2-230AC-EX |
|  | 24 V DC; 1.5 W, type of ignition protection: intrinsically safe Ex-ia | 535614 | MGXIAH-3/2-0.8-24DC-EX |
| Cable connector | | | |
|  | For solenoid coil or pilot valve with connecting thread M20x1.5 / D. 7-13 mm, colour: black | 568279 | NETC-M-M20-KA |
| | | 446895 | NETC-P-M20 |
| | | 4197362 | NETC-P-M20-EX4 |
| Connector | | | |
|  | For valves | 8099850 | VABD-B14-P1-G18 |

Accessories

| Ordering data | | | | | | |
|---|--|----------------------------------|----------------------------|---------------------|-------------------------|-------------------------|
| | Description | Nominal operating voltage [V] | | Cable length [m] | Part no. | Type |
| Connecting cable Datasheets → Internet: kmc | | | | | | |
|  | For valves with D and N1 solenoid coils | 24 DC | • Signal status indication | 2.5 | 30931 | KMC-1-24 DC-2.5-LED |
| | | | | 5 | 30933 | KMC-1-24 DC-5-LED |
| | For valves with F solenoid coils | 230 V AC | – | 2.5 | 30932 | KMC-1-230 AC-2.5 |
| | | | | 5 | 30934 | KMC-1-230 AC-5 |
| | | 24 DC | • Signal status indication | 2.5 | 30935 | KMF-1-24DC-2.5-LED |
| Connecting cable Datasheets → Internet: nebv | | | | | | |
|  | For valves with D and N1 solenoid coils. Angled socket, plug pattern type A, EN 175301-803 | 230 AC/DC | – | 0.6 | 3579466 | NEBV-A1W3-K-0.6-N-LE3 |
| | | 110 AC/DC | – | 0.3 | 3579461 | NEBV-A1W3-K-0.3-N-M12W3 |
| | | | | 0.6 | 3579462 | NEBV-A1W3-K-0.6-N-M12W3 |
| | 24 AC/DC | • Signal status indication | 0.3 | 3679771 | NEBV-A1W3-P-0.3-N-M12W3 | |
| | | • Protective circuit | 0.6 | 3679772 | NEBV-A1W3-P-0.6-N-M12W3 | |
| | | | 0.6 | 3679776 | NEBV-A1W3-P-K-0.6-LE3 | |
| Ordering data | | | | | | |
| | Description | | | | Part no. | Type |
| Plug socket Datasheets → Internet: mssd | | | | | | |
|  | 3-pin, angled socket, square design, plug pattern type B to industry standard 11 mm | | | | 539710 | MSSD-F-M16 |
| | 3-pin, angled socket, square design, plug pattern type A to DIN EN 175301-803 | | | | 539709 | MSSD-C-M16 |
|  | 3-pin, IP67 socket to IEC 60529, type B | | | | 192746 | MSSD-F-S-M16 |
| | 4-pin, IP67 socket to IEC 60529, type A | | | | 192748 | MSSD-C-S-M16 |
|  | 3-pin, angled socket, square design, IP65 to DIN EN 175301-803, type A | | | | 34583 | MSSD-C |
| Push-in fittings QS Datasheets → Internet: qs | | | | | | |
|  | G male thread with internal hexagon | | | | 186108 | QS-G1/4-6-I |
| | | | | | 186110 | QS-G1/4-8-I |
| | | | | | 186112 | QS-G1/4-10-I |
| | NPT male thread with internal hexagon | | | | 572320 | QB-1/4-1/4-I-U |
| | | | | | 572321 | QB-1/4-5/16-I-U |
| | | | | | 572322 | QB-1/4-3/8-I-U |
| Silencers U Datasheets → Internet: u | | | | | | |
|  | G male thread, polymer design | | | | 534223 | U-1/4-20 |
| | | | | | 2316 | U-1/4 |
| | G male thread, die-cast design | | | | 6842 | U-1/4-B |
| | | NPT male thread, die-cast design | | | | 12639 |

Accessories

| Ordering data | Description | Part no. | Type |
|--|--|----------|-----------------|
| Illuminating seal Datasheets → Internet: mc-ld | | | |
|  | For F solenoid coils | 19143 | MF-LD-12-24 DC |
| | | 19144 | MF-LD-230 AC |
|  | For valves with D and N1 solenoid coils | 19145 | MC-LD-12-24 DC |
| | | 19146 | MC-LD-230 AC |
| Cover cap | | | |
|  | For valves | 8028240 | VAMC-B10-20-CH2 |
| Screw set | | | |
|  | Can be used for connectors and also for the mounting plate that can be turned 180° Weight per screw: 12 g, material: High-alloy steel, size: M5 | 8105115 | VAME-B14-S-M5 |

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1 Festo Inc.
5300 Explorer Drive
Mississauga, ON L4W 5G4
Canada

Festo Customer Interaction Center
Tel: 1 877 463 3786
Fax: 1 877 393 3786
Email: customer.service.ca@festo.com



2 Festo Pneumatic
Av. Ceylán 3,
Col. Tequesquináhuac
54020 Tlalneantla,
Estado de México

Multinational Contact Center
01 800 337 8669
ventas.mexico@festo.com



3 Festo Corporation
1377 Motor Parkway
Suite 310
Islandia, NY 11749

Festo Customer Interaction Center
1 800 993 3786
1 800 963 3786
customer.service.us@festo.com



4 Regional Service Center
7777 Columbia Road
Mason, OH 45040

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