

Solenoid valves VSNC



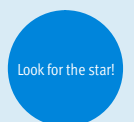
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Superb:
Easy:

Always in stock
Festo quality at an attractive price
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Up to 6×10^{12} variants per product series



Solenoid valves VSNC

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 kit. They are designed for the requirements of process automation. Mechanical springs (single-solenoid valves) ensure safe switching to the initial position in the event of a power failure.

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 cover. 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 and brass armature and IP65 coils

- - Voltage
12, 24, 48 V DC
24, 48, 120, 230 V AC

- - Operating pressure
2.5 ... 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
- 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



VSNC-F8



VSNC with IP65 solenoid

VSNC-F ... -FN VSNC-FT ... -FN



VSNC piston spool



VSNC poppet seat



VSNC with Ex-ia solenoid



VSNC with FM solenoid



VSNC with Ex-nA solenoid

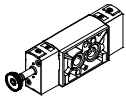


VSNC with Ex-m solenoid

Solenoid valves VSNC

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

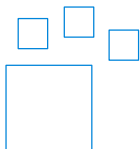
VSNC-F8



- Valve cover cap material: Plastic/metal
- Armature material: Brass
- Pilot air (incoming air of armature), unprotected

Version	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	G1/4	VDI/VDE 3845 NAMUR 1/4	1250	12
	VSNC-FC-M52-MD-N14-F8	NPT1/4			
5/2-way valve, double solenoid					
	VSNC-F-B52-D-G14-F8	G1/4	VDI/VDE 3845 NAMUR	1350	16
	VSNC-F-B52-D-N14-F8	NPT1/4			
5/3-way valve					
	VSNC-F-P53C-MD-G14-F8	G1/4	VDI/VDE 3845 NAMUR	1250	19
	VSNC-F-P53U-MD-G14-F8	G1/4		950	
	VSNC-F-P53E-MD-G14-F8	G1/4		1050	
	VSNC-F-P53C-MD-N14-F8	NPT1/4		1250	
	VSNC-F-P53-U-MD-N14-F8	NPT1/4		950	
	VSNC-F-P53-E-MD-G14-F8	NPT1/4		1050	

Ordering data – Product options



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

The configurator can be found under Products on the DVD or at
→ www.festo.com/catalogue/...

Enter the type (or part number) in the search field:

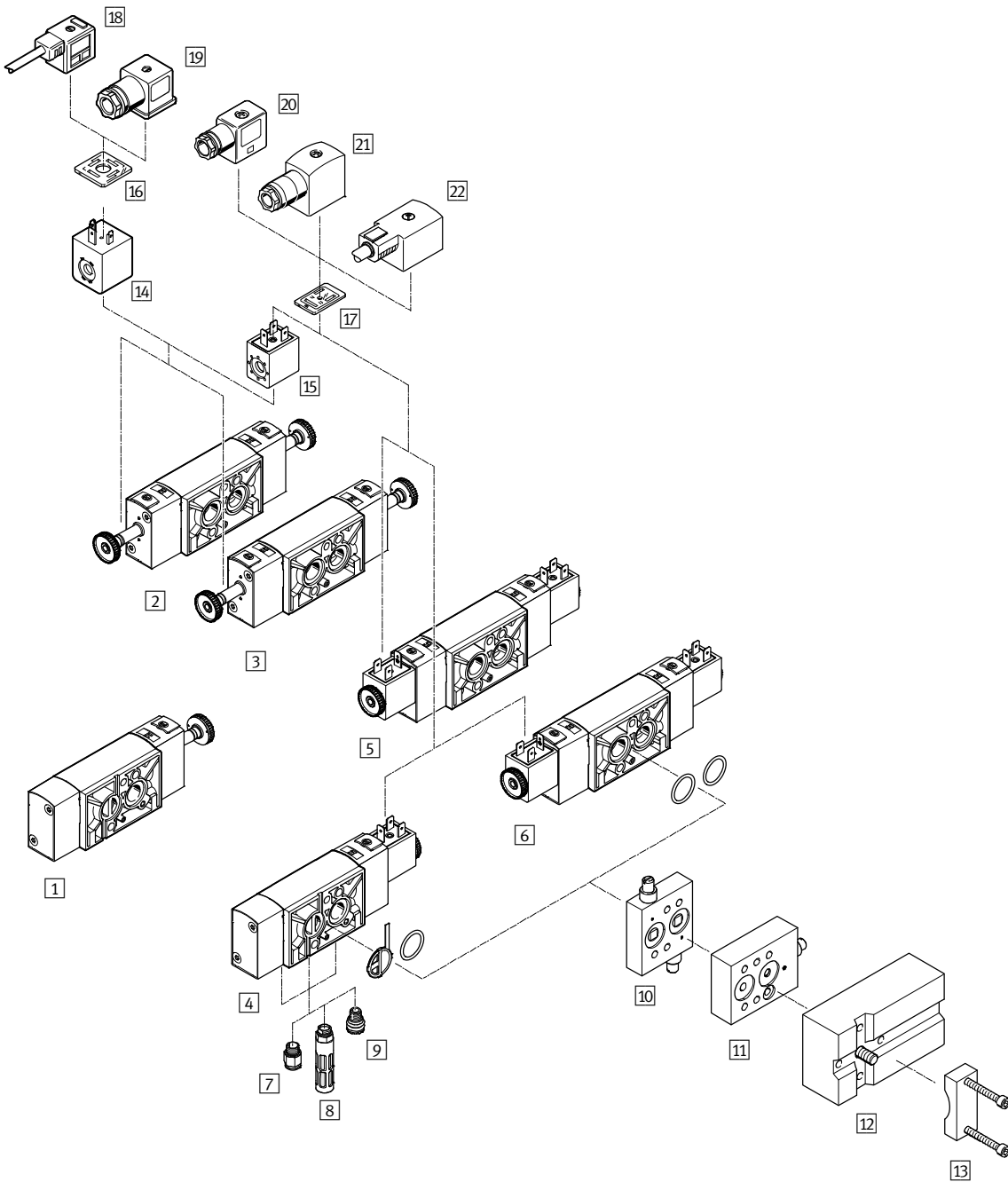
- VSNC 8026033

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-way and 3/2-way, single solenoid	■	■ Part no.	■	■	■	■	■	■	■	■	■	■	■	■
5/2-way, double solenoid	■	■ Part no.	■	■	■	■	■	■	■	■	■	■	■	■
5/3 G	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3 B	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3 E	■	■	■	■	■	■	■	■	■	■	■	■	■	■

■ = Can be combined using a modular system
Part no. = Can be ordered with part number as a fast seller

Solenoid valves VSNC

Peripherals overview VSNC-...-F8



Solenoid valves VSNC

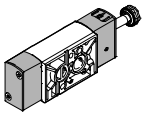
Peripherals overview VSNC-...-F8

Mounting components and accessories			
	Brief description	→ Page/Internet	
1	VSNC-...-F8 Solenoid valves	3/2-way and 5/2-way single solenoid valve with converting seal, plastic cover cap and brass armature tube, for controlling single- or double-acting actuators	12
2	VSNC-...-F8 Solenoid valves	5/2-way double solenoid valve with plastic cover cap and brass armature tube, for controlling double-acting actuators	16
3	VSNC-...-F8 Solenoid valves	5/3-way single solenoid valve, normally open, closed or exhausted, with plastic cover cap and brass armature tube, for controlling double-acting actuators	19
4	VSNC-...-F8 Solenoid valves	3/2-way and 5/2-way single solenoid valve with converting seal, plastic cover cap, brass armature tube and 24 V DC solenoid coil, for controlling single- or double-acting actuators	12
5	VSNC-...-F8 Solenoid valves	5/2-way double solenoid valve with plastic cover cap, brass armature tube and 24 V DC solenoid coil, for controlling double-acting actuators	16
6	VSNC-...-F8 Solenoid valves	5/3-way single solenoid valve, normally open, closed or exhausted, with plastic cover cap, brass armature tube and 24 V DC solenoid coil, for controlling double-acting actuators	19
7	QS Push-in fitting	For connecting tubing with standard outside diameters	46
8	U Silencer	–	46
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	44
10	VABF-S7-F1B1P2-F Flow control plate	Exhaust air flow control plate for NAMUR interface for installation between the solenoid valve and double-acting actuators	42
11	VABF-S7-F1B5P1-F Flow control plate	Exhaust air flow control plate for NAMUR interface for installation between the solenoid valve and single-acting actuators	42
12	VABF-S7-S-G14 Connection kit	Mounting plate for attaching the valve to a NAMUR rib	43
13	VAME-S7-Y Mounting bracket	Alternative option (instead of screw) of attaching the valve to a NAMUR rib with the help of a mounting bracket	43
14	VACF-A Solenoid coil	Electrical connection to DIN EN 175301-803, type A	44
15	VACF-B Solenoid coil	Electrical connection to Festo standard for MSSD-F	44
16	MC-LD Illuminating seal	Illuminating seal for displaying the switching status	46
17	MF-LD Illuminating seal	Illuminating seal for displaying the switching status	46
18	KMC Connecting cable	–	45
19	MSSD-C Plug socket	Electrical connection to DIN EN 175301-803, type A	46
20	MSSD-F Plug socket	Electrical connection to Festo standard with screw terminal connection	46
21	MSSD-F-S Plug socket	Electrical connection to Festo standard with insulation displacement connection	46
22	KMF Connecting cable	–	kmf

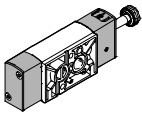
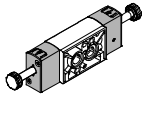
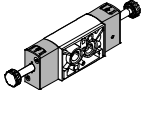
Solenoid valves VSNC

Key features and product range overview – VSNC-...-FN

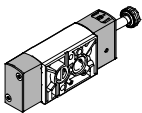
VSNC-F ... -FN



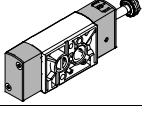
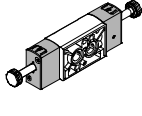
- Design of piston spool
- Valve cover cap material: Aluminium/metal
- Armature material: Stainless steel
- Pilot air (incoming air of armature tube), protected

Version	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	G1/4	VDI/VDE 3845 NAMUR	1250	23
	VSNC-FC-M52-MD-N14-FN	NPT1/4-18			
	VSNC-FC-M52-MD-G14-FN-1A1-EX4-A	G1/4			
	VSNC-FC-M52-MD-N14-FN-1A1-EX4-A	NPT1/4-18			
5/2-way valve -...-FN, double solenoid					
	VSNC-F-B52-D-G14-FN	G1/4	VDI/VDE 3845 NAMUR	1350	27
	VSNC-F-B52-D-N14-FN	NPT1/4-18			
	VSNC-F-B52-D-G14-FN-1A1-EX4-A	G1/4			
	VSNC-F-B52-D-N14-FN-1A1-EX4-A	NPT1/4-18			
5/3-way valve -...-FN					
	VSNC-F-P53C-MD-G14-FN	G1/4	VDI/VDE 3845 NAMUR	1250	31
	VSNC-F-P53U-MD-G14-FN			950	
	VSNC-F-P53E-MD-G14-FN			1050	
	VSNC-F-P53C-MD-N14-FN	NPT1/4-18		1250	
	VSNC-F-P53U-MD-N14-FN			950	
	VSNC-F-P53E-MD-N14-FN			1050	

VSNC-FT ... -FN



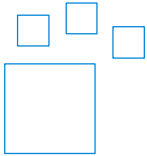
- Design of poppet seat
- Valve cover cap material: Aluminium/metal
- Armature material: Stainless steel
- Pilot air (incoming air of armature tube), protected

Version	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	G1/4	VDI/VDE 3845 NAMUR	800	35
	VSNC-FTC-M52-MD-N14-FN	NPT1/4-18			
	VSNC-FTC-M52-MD-G14-FN-1A1	G1/4			
5/2-way valve -...-FN, double solenoid					
	VSNC-FT-B52-D-G14-FN	G1/4	VDI/VDE 3845 NAMUR	1000	38
	VSNC-FT-B52-D-N14-FN	NPT1/4-18			
	VSNC-FT-B52-D-G14-FN-1A1	G1/4			

Solenoid valves VSNC

Key features and product range overview – VSNC-...-FN

Ordering data – Product options



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→ www.festo.com/catalogue/...

Enter the type (or part number) in the search field:
• VSNC 8026033

Coils	IP 65			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-way and 3/2-way, single solenoid	■	■	■	■	■	■	■	■	■	■	■	■	■
5/2-way, double solenoid	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3 G	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3 B	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3 E	■	■	■	■	■	■	■	■	■	■	■	■	■

■ = Can be combined using a modular system
Part no. = Can be ordered with part number as a fast seller

Intrinsically safe coils VACN-...-Ex4A



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

Non-sparking coils VACN-...-Ex2N



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

Encapsulated coils VACN-...-Ex4M



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

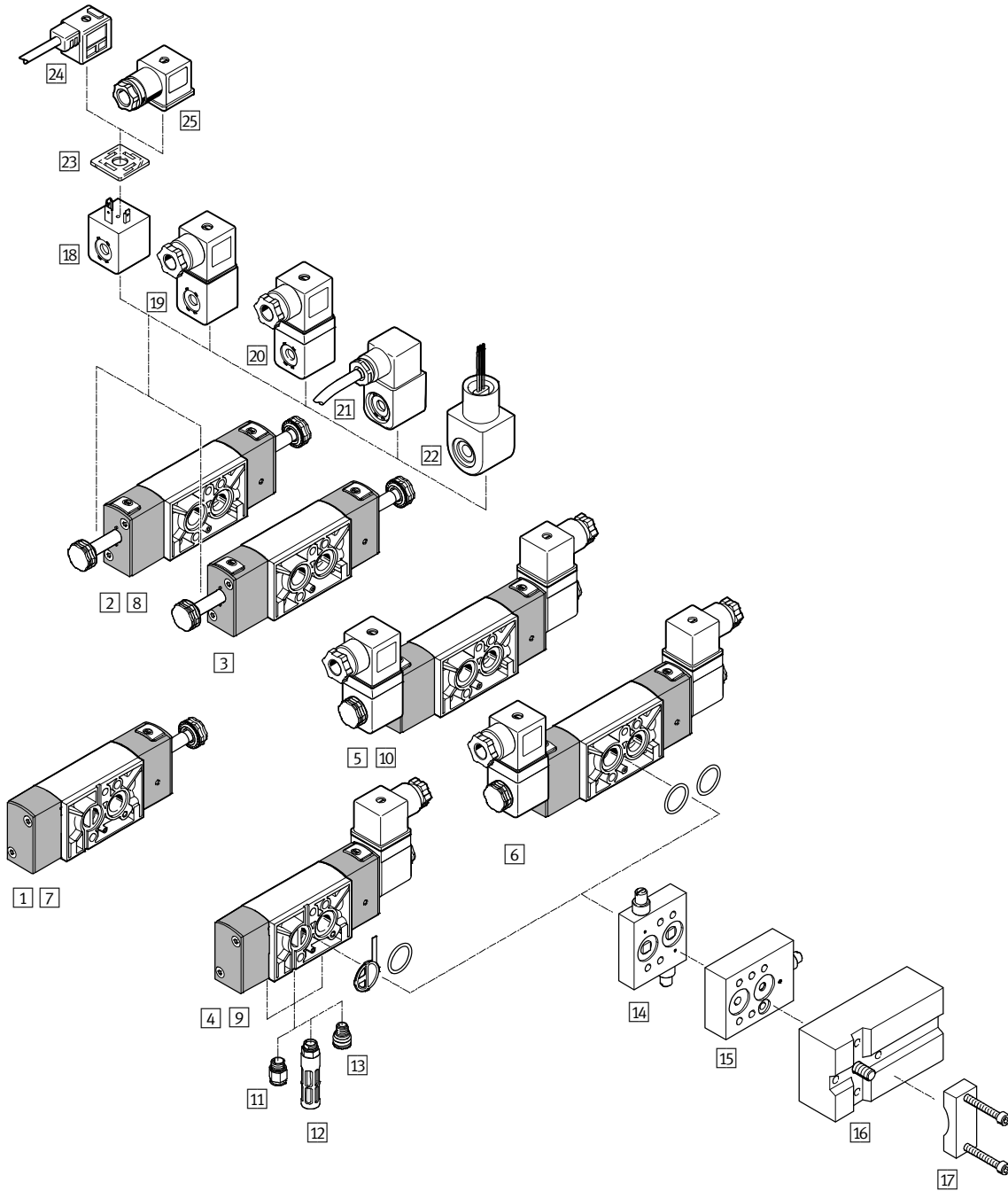
Encapsulated coils with conduit, connection VACN-...-U4M



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

Solenoid valves VSNC

Peripherals overview – VSNC-F...-FN



Solenoid valves VSNC

Peripherals overview – VSNC-F-...-FN

Mounting components and accessories			
	Brief description	→ Page/Internet	
1	VSNC-F ...-FN Piston spool	3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover cap and stainless steel armature tube	23
2		5/2-way double solenoid valve with aluminium cover cap and stainless steel armature tube	27
3		5/3-way single solenoid valve, normally open, closed or exhausted, with aluminium cover cap and stainless steel armature tube	31
4		3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover cap and stainless steel armature tube and Ex ia solenoid coil	23
5		5/2-way double solenoid valve with aluminium cover cap and stainless steel armature tube and Ex ia solenoid coil	27
6		5/3-way single solenoid valve, normally open, closed or exhausted, with aluminium cover cap and stainless steel armature tube and Ex ia solenoid coil	31
7	VSNC-FT- ...-FN Poppet seat	3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover cap and stainless steel armature tube	35
8		5/2-way double solenoid valve with aluminium cover cap and stainless steel armature tube	38
9		3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover cap and stainless steel armature tube and 24 V DC solenoid coil	35
10		5/2-way double solenoid valve with aluminium cover cap, stainless steel armature tube and 24 V DC solenoid coil	38
11	QS Push-in fitting	For connecting tubing with standard outside diameter	46
12	U Silencer	–	46
13	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	44
14	VABF-S7-F1B5P2-F Flow control plate	Exhaust air flow control plate for NAMUR interface for installation between the solenoid valve and double-acting actuators	42
15	VABF-S7-F1B5P1-F Flow control plate	Exhaust air flow control plate for NAMUR interface for installation between the solenoid valve and single-acting actuators	42
16	VABF-S7-S-G14 Connection kit	Mounting plate for attaching the valve to a NAMUR rib	43
17	VAME-S7-Y Mounting bracket	Alternative option (instead of screw) for attaching the valve to a NAMUR rib with the help of a mounting bracket	43
18	VACN-N Solenoid coil	Electrical connection to DIN EN 175301-803, type A	–
19	VACN-N- ... -Ex2-N Solenoid coil	Type of ignition protection nA = non-sparking, for use in zone 2	–
20	VACN-N- ... -Ex4-A Solenoid coil	Type of ignition protection iA = intrinsically safe, for use in zone 1	–
21	VACN-N- ... -Ex4-M Solenoid coil	Type of ignition protection m = encapsulated, for use in zone 1	–
22	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)	–
23	MC-LD Illuminating seal	Illuminating seal for displaying the switching status	46
24	KMC Connecting cable	–	kmc
25	MSSD-C Plug socket	Electrical connection to DIN EN 175301-803, type A	46

Solenoid valves VSNC

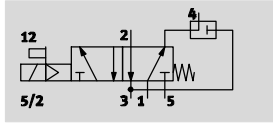
Type codes

Nominal operating voltage						
	None					
1A	24 V AC/50-60 Hz					
3A	230 V AC/50-60 Hz					
3W	230 V AC/240 V AC/50-60 Hz					
16B	120 V AC/60 Hz and 110 V AC/50-60 Hz					
1	24 V DC					
5	12 V DC					
Electrical connection						
	None					
A1	Connection pattern type A, to EN 175301					
B2	Connection pattern type B, industry standard					
C3	Cable, 3 m					
K11	Cable with insulating conduit connection					
Degree of protection for electrics						
	Standard					
S8	IP67					
EU certification						
	None					
EX2	II 3GD					
EX4	II 2GD					
Approval						
	None					
U4	Class 1 Div 1 to NEC 500					
Type of ignition protection						
	None					
A	Intrinsically safe					
M	Encapsulation					
N	Non-sparking					
Electrical accessories, valve						
	None					
G	Connector socket without LED					

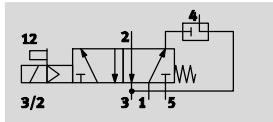
Solenoid valves VSNC




Technical data – 3/2-way or 5/2-way valve, 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 exchanging the seal plate

General technical data		VSNC-FC-M52-MD-G14-F8 VSNC-FC-M52-MD-N14-F8	VSNC-FC-M52-MD-G14-F8-1B2
Valve function		3/2-way or 5/2-way, convertible	
Width	[mm]	32	
Design		Piston spool	
Sealing principle		Soft	
Type of pilot		Electrical	
Reset method		Mechanical spring	
Type of control		Piloted	
Manual override		Detenting, non-detenting	
Type of mounting		With through-hole	
Mounting position		Any	
Max. tightening torque of valve mounting	[Nm]	3.2	
Non-overlapping		Yes	
Switching status display		-	Yes, with socket
Standard nominal flow rate	1 → 2 [l/min]	1200	
b value		0.4	
C value	[l/sbar]	5.2	
Pneumatic connection	1, 3, 5 2, 4	G1/4, NPT-1/418 Port pattern to NAMUR	
Conforms to standard		VDI/VDE 3845 NAMUR	
Product weight	[g]	333	387

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way valve, convertible, single solenoid

Operating and environmental conditions		
	VSNC-FC-M52-MD-G14-F8 VSNC-FC-M52-MD-N14-F8	VSNC-FC-M52-MD-G14-F8-1B2
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]	
Note on 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	

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Electrical data		
	VSNC-FC-M52-MD-G14-F8 VSNC-FC-M52-MD-N14-F8	VSNC-FC-M52-MD-G14-F8-1B2
Electrical connection	–	3-pin push-in connector, type B to industry standard (11 mm)
Coil characteristics, 24 V DC [W]	See solenoid coil, to be ordered separately	3.3
Permissible voltage fluctuations [%]	–	±10
Duty cycle [%]	–	100
Degree of protection	–	IP65
Switching time on [ms]	11	
Switching time off [ms]	38	

Materials	
1) Housing	Wrought aluminium alloy
2) Seals	NBR
–	RoHS compliant

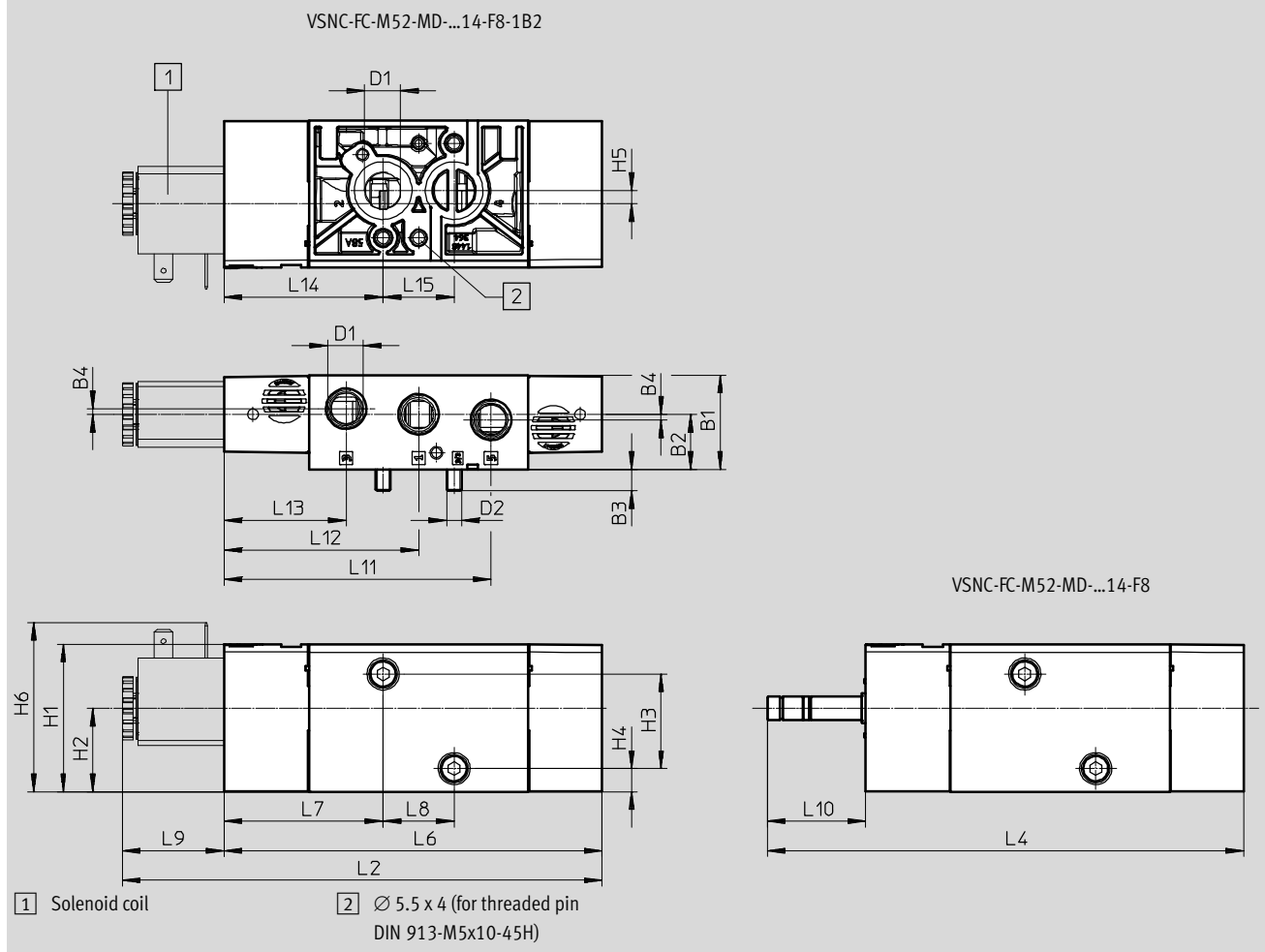
Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way valve, convertible, single solenoid



Dimensions

Download CAD data → www.festo.com



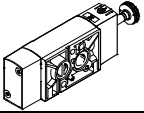
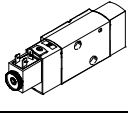
Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5	H6
VSNC-FC-M52-MD-G14-F8	31.8	18.6	7.3	1.9	G $\frac{1}{4}$	M5	49.9	28.2	32	7.8	4.4	-
VSNC-FC-M52-MD-N14-F8					NPT $\frac{1}{4}$ -18							57.2
VSNC-FC-M52-MD-G14-F8-1B2					G $\frac{1}{4}$							

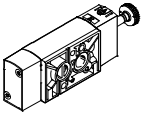
Type	L2	L4	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
VSNC-FC-M52-MD-G14-F8	162.2	161.1	127.8	53.8	24	34.4	33.3	90.3	65.8	41.3	53.8	24
VSNC-FC-M52-MD-N14-F8												
VSNC-FC-M52-MD-G14-F8-1B2												

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way valve, convertible, single solenoid

★ Core product 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		
Directional control valve without solenoid coil		
	Part No.	Type
	577262	VSNC-FC-M52-MD-N14-F8

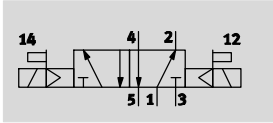
Festo core product range




- ★ Ready for dispatch from the Festo factory in 24 hours
- ☆ Ready for dispatch in 5 days maximum from stock

Solenoid valves VSNC

Technical data – 5/2-way valve, 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 size DN	[mm]	7.2	
Design		Piston spool	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		-	
Type of actuation		Piloted	
Manual override		Detenting, non-detenting	
Type of mounting		With through-hole	
Mounting position		Any	
Max. tightening torque of 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 connection	1, 3, 5 2, 4	G1/4, NPT1/4-18 Port pattern to NAMUR	
Conforms to standard		VDI/VDE 3845 (NAMUR)	
Product weight	[g]	345	455

Solenoid valves VSNC

Technical data – 5/2-way valve, 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 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	

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

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 push-in connector, to industry standard (11 mm), type B
Coil characteristics, 24 V DC [W]	See solenoid coil, to be ordered separately	
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

Solenoid valves VSNC

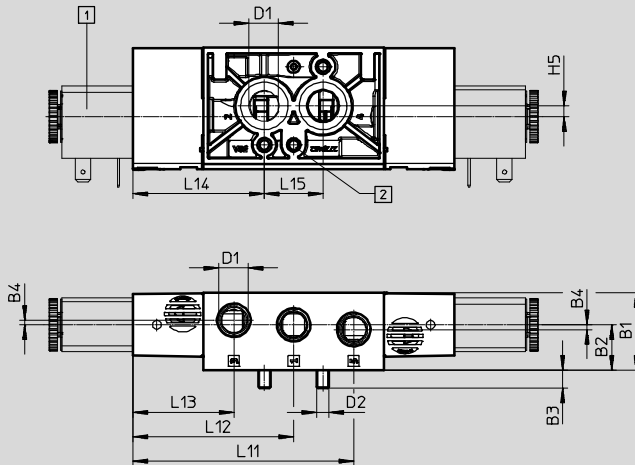
Technical data – 5/2-way valve, double solenoid



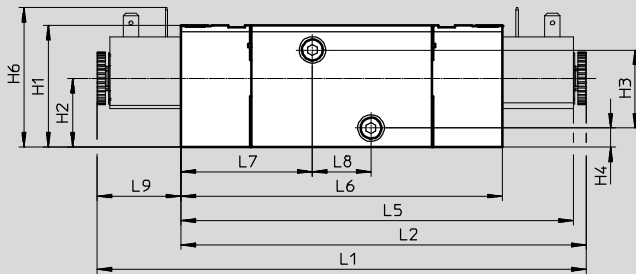
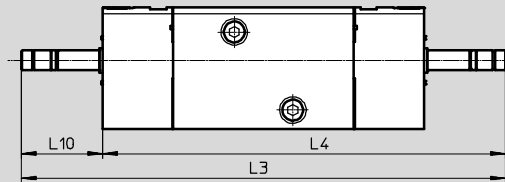
Dimensions

Download CAD data → www.festo.com

VSNC-F-B52-D-...14-F8-1B2



VSNC-F-B52-D-...14-F8



- 1 Solenoid coil
- 2 $\varnothing 5.5 \times 4$ (for threaded pin DIN 913-M5x10-45H)

Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5	H6	L1	L2
VSNC-F-B52-D-G14-F8	31.8	18.6	7.3	1.9	G $\frac{1}{4}$	M5	49.9	28.2	32	7.8	4.4	-	-	-
VSNC-F-B52-D-N14-F8					NPT $\frac{1}{4}$ -18									
VSNC-F-B52-D-G14-F8-1B2					G $\frac{1}{4}$									

Type	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			160.6				34.4						
VSNC-F-B52-D-G14-F8-1B2													

Ordering data – Valves

Directional control valve without solenoid coil

Directional control valve with solenoid coil

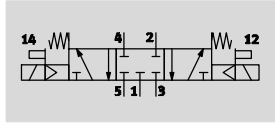
	Part No.	Type		Part No.	Type
	577258	VSNC-F-B52-D-G14-F8		577296	VSNC-F-B52-D-G14-F8-1B2
	577263	VSNC-F-B52-D-N14-F8			

Solenoid valves VSNC

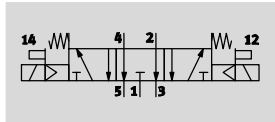
Technical data – 5/3-way valve

Function

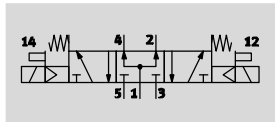
5/3-way valve, closed



5/3-way valve, exhausted

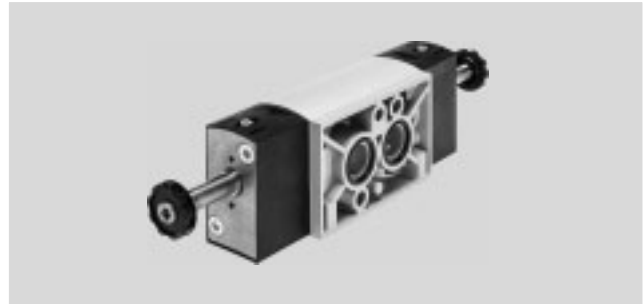


5/3-way valve, pressurised



- Operating pressure
3 ... 10 bar

- Temperature range
-20 ... +60 °C



General technical 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
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		
Type of actuation		Electrical		
Reset method		Mechanical spring		
Type of control		Piloted		
Manual override		Non-detenting, non-detenting		
Type of mounting		With through-hole		
Mounting position		Any		
Max. tightening torque of 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 connection	1, 3, 5 2, 4	G1/4, NPT1/4-18		
Conforms to standard		Port pattern to NAMUR		
Conforms to standard		VDI/VDE 3845 (NAMUR)		
Product weight	[g]	345		

Solenoid valves VSNC

Technical data – 5/3-way valve

FESTO

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 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		

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

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
Coil characteristics	See solenoid coil, to be ordered separately		
Switching time on [ms]	13	14	14
Switching time off [ms]	42	48	48
Changeover time [ms]	26	25	25

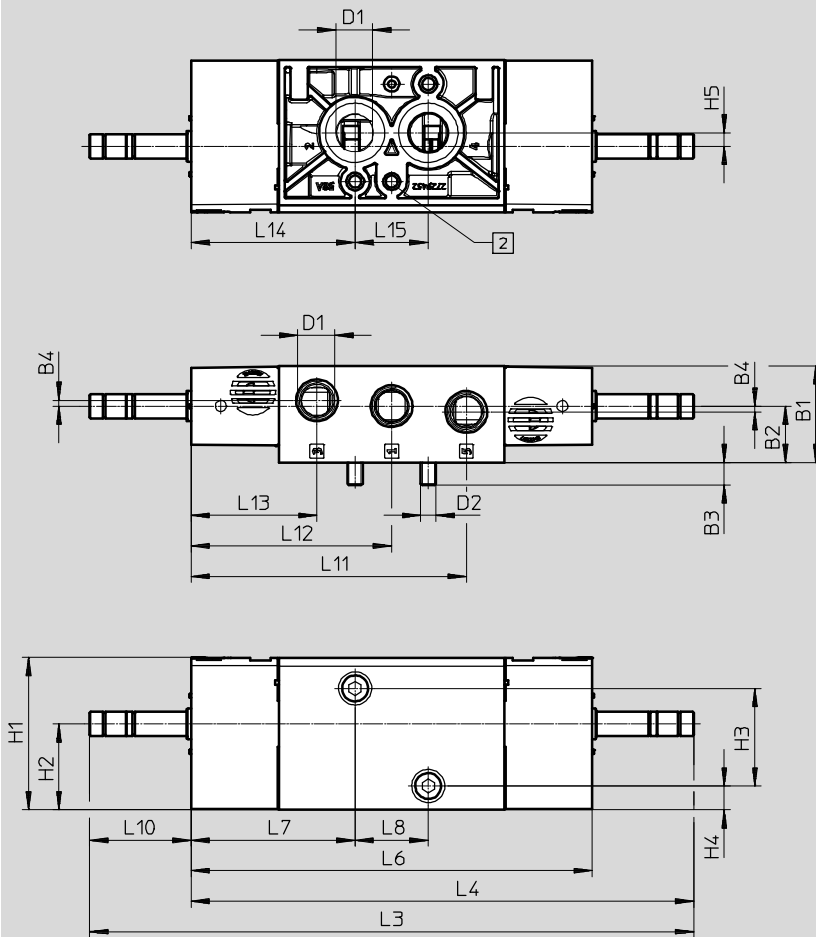
Materials	
1) Housing	Wrought aluminium alloy
2) Seals	NBR
-	RoHS compliant

Solenoid valves VSNC

Technical data – 5/3-way valve

Dimensions

Download CAD data → www.festo.com



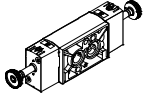
2 \varnothing 5.5 x 4 (for threaded pin
DIN 913-M5x10-45H)

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 $\frac{1}{4}$	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											

Solenoid valves VSNC

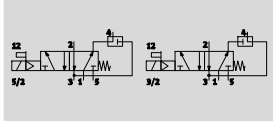
Technical data – 5/3-way valve

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

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way -...-FN, convertible, single solenoid

Function
3/2-way or 5/2-way valve,
convertible



- Operating pressure
2.5 ... 8 bar

- Temperature range
-20 ... +60 °C



General technical data		VSNC-FC-M52-MD-G14-FN	VSNC-FC-M52-MD-G14-FN-1A1-EX4-A
		VSNC-FC-M52-MD-N14-FN	VSNC-FC-M52-MD-N14-FN-1A1-EX4-A
Valve function		3/2-way or 5/2-way, convertible	
Width	[mm]	32	
Design		Piston spool	
Sealing principle		Soft	
Type of actuation		Electrical	
Reset method		Mechanical spring	
Type of control		Piloted	
Pilot air supply port		Internal	
Exhaust air function		With flow control	
Manual override		Detenting, non-detenting	
Type of mounting		With through-hole	
Connection for venting hole		Not ducted	
Mounting position		Any	
Non-overlapping		Yes	
Standard nominal flow rate	1 → 2 [l/min]	1250	
Exhaust return flow rate	4 → 3 [l/min]	110	
b value		0.4	
C value	[l/sbar]	5.2	
Pneumatic connection	1, 3, 5 2, 4	G1/4, NPT1/4-18 Port pattern to NAMUR	
Conforms to standard		VDI/VDE 3845 (NAMUR)	
Product weight	[g]	419	

Operating and environmental conditions		VSNC-FC-M52-MD-G14-FN	VSNC-FC-M52-MD-G14-FN-1A1-EX4-A
		VSNC-FC-M52-MD-N14-FN	VSNC-FC-M52-MD-N14-FN-1A1-EX4-A
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]	
Note on 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 may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way -...-FN, convertible, single solenoid

ATEX		
	VSNC-FC-M52-MD-G14-FN VSNC-FC-M52-MD-N14-FN	VSNC-FC-M52-MD-G14-FN-1A1-EX4-A VSNC-FC-M52-MD-N14-FN-1A1-EX4-A
ATEX category gas	–	II 2G
Type of ignition protection for gas	–	Ex ia IIC T6 Ga
ATEX category 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 temperature [°C]	–	-40 °C ≤ Ta ≤ +50 °C
Degree of protection	–	IP65
	–	IP67
CE marking (see declaration of conformity)	As per EU Explosion Protection Directive (ATEX)	

Electrical data		
	VSNC-FC-M52-MD-G14-FN VSNC-FC-M52-MD-N14-FN	VSNC-FC-M52-MD-G14-FN-1A1-EX4-A VSNC-FC-M52-MD-N14-FN-1A1-EX4-A
Electrical connection	–	Type A, to EN 175301-803
Coil characteristics	See solenoid coil, to be ordered separately	
Switching time on [ms]	24	
Switching time off [ms]	92	
Permissible voltage fluctuations [%]	–	± 10

Materials		
1 Housing	Wrought aluminium alloy	
2 Seals	NBR	
–	RoHS compliant	

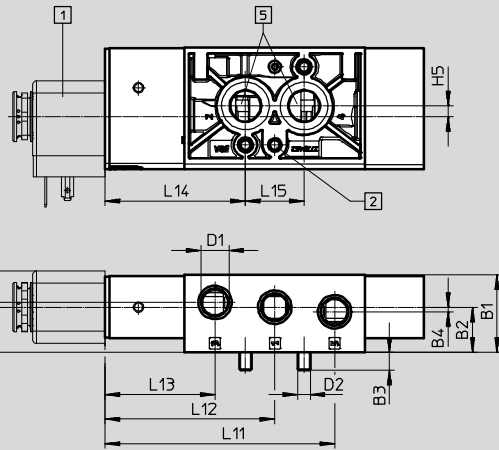
Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way -...-FN, convertible, single solenoid

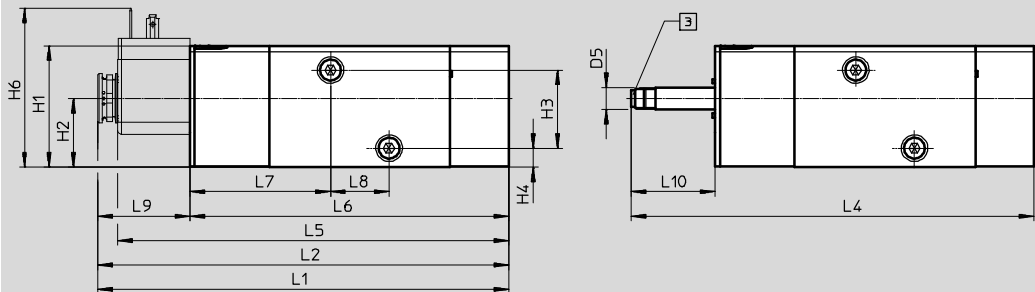
Dimensions

Download CAD data → www.festo.com

VSNC-FC-M52-MD-...14-FN-1A1-Ex4-A



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



- 1 Solenoid coil
- 2 $\varnothing 5 \times 4$ to DIN 913-M5x10-45h
- 3 Auxiliary pilot air exhaust port 82, M5
- 5 Working port 2 and 4, port pattern to NAMUR

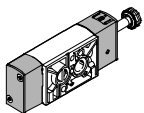
Type	B1	B2	B3	B4	B6	D1	D2	D5 ∅	H1	H2	H3	H4	H5	H6
VSNC-FC-M52-MD-G14-FN	31.8	18.6	7.3	1.9	33.4	G1/4	M5	9	49.8	28.2	32	7.8	4.4	-
VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A														65.1
VSNC-FC-M52-MD-N14-FN						-								
VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A						65.1								

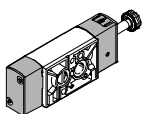
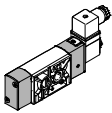
Type	L2	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
VSNC-FC-M52-MD-G14-FN	-	165	-	130.6	57.6	24	-	34.4	94.1	69.6	45.1	57.6	24
VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A	168.3		160.1				37.7						
VSNC-FC-M52-MD-N14-FN	-		-				-						
VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A	168.3		160.1				37.7						

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way -...-FN, convertible, single solenoid

★ Core product 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 Ex i solenoid coil including socket		
	577281	VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A
	577286	VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A

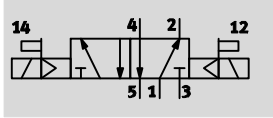
Festo core product range


- ★ Ready for dispatch from the Festo factory in 24 hours
- ☆ Ready for dispatch in 5 days maximum from stock


Solenoid valves VSNC

Technical data – 5/2-way -...-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	
Type of actuation		Electrical	
Type of control		Piloted	
Pilot air supply port		Internal	
Exhaust air function		With flow control	
Manual override		Non-detenting, detenting	
Type of mounting		With through-hole	
Connection 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 connection	1, 3, 5 2, 4	G1¼, NPT1¼-18 Port pattern to NAMUR	
Conforms to standard		VDI/VDE 3845 (NAMUR)	
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 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 may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Solenoid valves VSNC

Technical data – 5/2-way -...-FN, double solenoid

ATEX		
	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
ATEX category gas	–	II 2G
Type of ignition protection for gas	–	Ex ia IIC T6 Ga
ATEX category dust	–	II 2D
Type of ignition protection for dust	–	Ex t IIIIC T80°C Db
Explosion protection certification outside the EU	–	EPL Db (IEC-EX)
	–	EPL Ga (IEC-EX)
Explosion-proof temperature [°C]	–	–40 °C ≤ Ta ≤ +50 °C
Degree of protection	–	IP65
	–	IP67
CE marking (see declaration of conformity)	As per EU Explosion Protection Directive (ATEX)	

Electrical 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
Electrical connection	–	Type A, to EN 175301-803
Coil characteristics	See solenoid coil, to be ordered separately	
Changeover time [ms]	20	
Permissible voltage fluctuations [%]	–	± 10

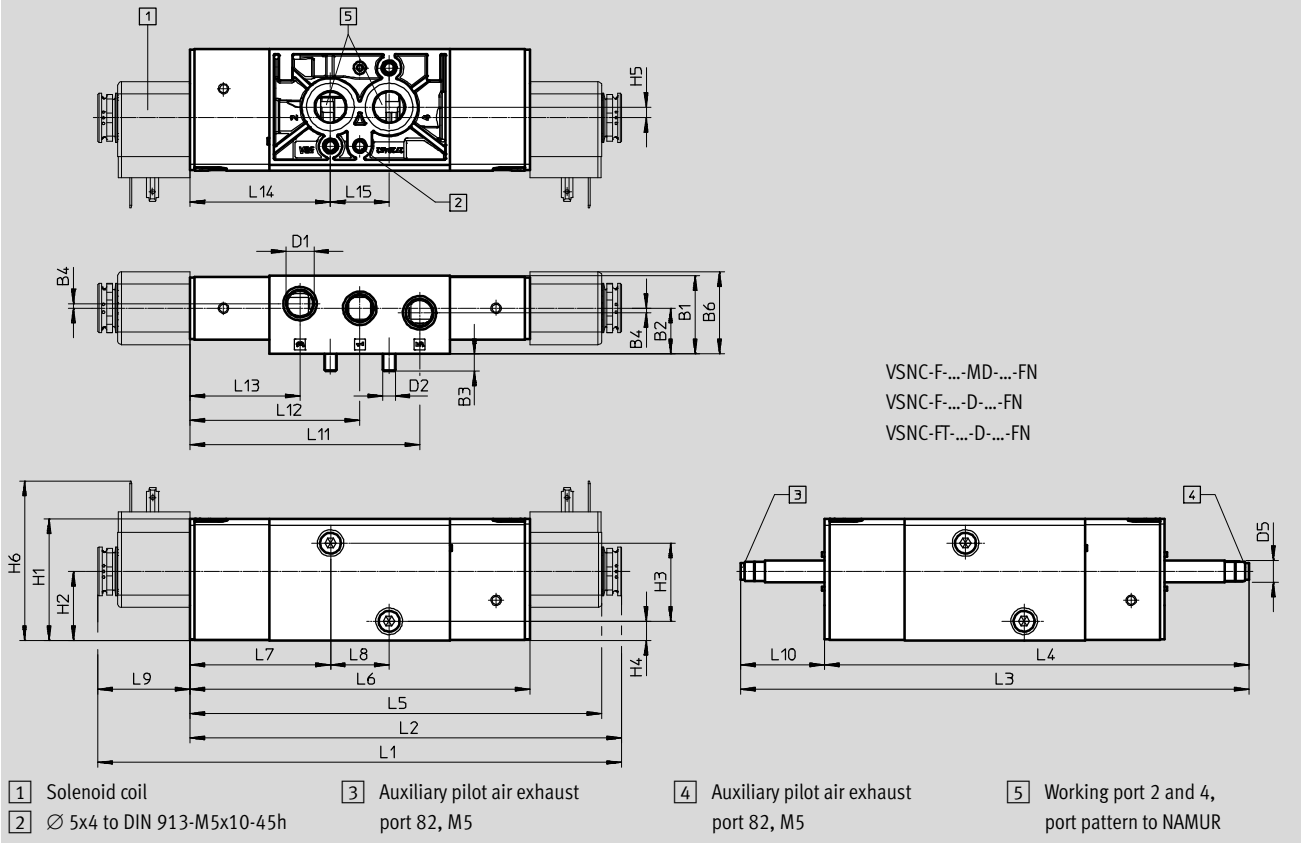
Materials		
1 Housing	Wrought aluminium alloy	
2 Seals	NBR	
–	RoHS compliant	

Solenoid valves VSNC

Technical data – 5/2-way -...-FN, double solenoid

Dimensions

Download CAD data → www.festo.com

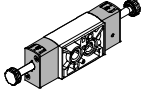
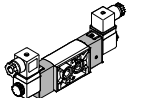


Type	B1	B2	B3	B4	B6	D1	D2	D5 - \varnothing	H1	H2	H3	H4	H5	H6	L1
VSNC-F-B52-D-G14-FN	31.8	18.6	7.3	1.9	33.4	G1/4	M5	9	49.8	28.2	32	7.8	4.4	-	-
VSNC-F-B52-D-G14-FN-1A1-Ex4-A						65.1								214.5	
VSNC-F-B52-D-N14-FN						-								-	
VSNC-F-B52-D-N14-FN-1A1-Ex4-A						65.1								214.5	

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						

Solenoid valves VSNC

Technical data – 5/2-way -...-FN, double solenoid

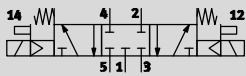
Ordering data – Valves		
Directional control valve without solenoid coil		
	Part No.	Type
	577268	VSNC-F-B52-D-G14-FN
	577273	VSNC-F-B52-D-N14-FN
Directional control valve with Ex i solenoid coil including socket		
	577282	VSNC-F-B52-D-G14-FN-1A1-Ex4-A
	577287	VSNC-F-B52-D-N14-FN-1A1-Ex4-A

Solenoid valves VSNC

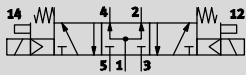
Technical data – 5/3-way -...-FN

Function

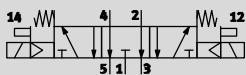
5/3-way valve, closed





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		
Type of actuation	Electrical		
Reset method	Mechanical spring		
Type of control	Piloted		
Pilot air supply port	Internal		
Exhaust air function	With flow control		
Manual override	Non-detenting, detenting		
Type of mounting	With through-hole		
Connection 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 connection	1, 3, 5 2, 4 G1/4, NPT1/4-18		
Conforms to standard	Port pattern to NAMUR VDI/VDE 3845 (NAMUR)		
Product weight [g]	461		

Solenoid valves VSNC

Technical data – 5/3-way -...-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 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 may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

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
Coil characteristics		See solenoid coil, to be ordered separately		
Switching time on	[ms]	23		
Switching time off	[ms]	103		
Changeover time	[ms]	55		

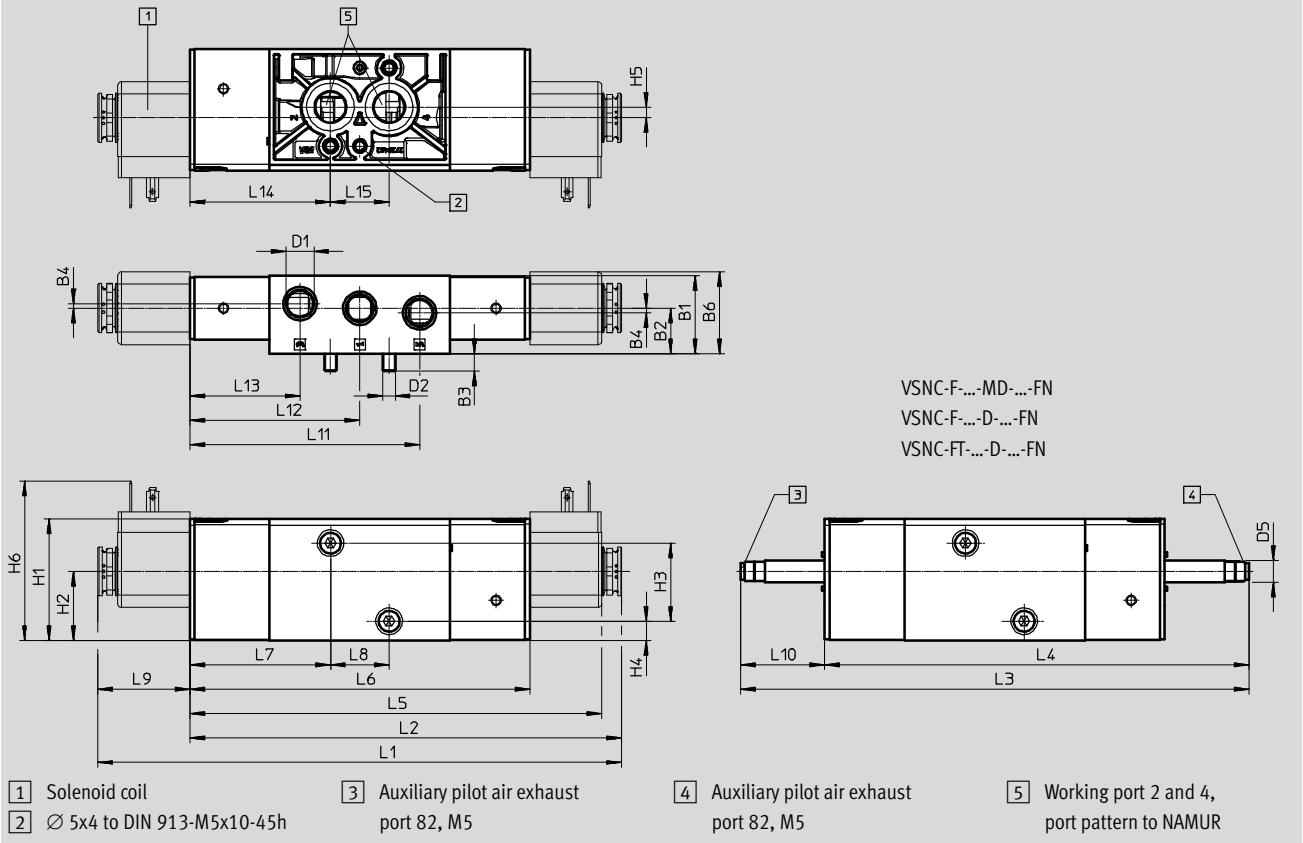
Materials		
1	Housing	Wrought aluminium alloy
2	Seals	NBR
	-	RoHS compliant

Solenoid valves VSNC

Technical data – 5/3-way -...-FN

Dimensions

Download CAD data → www.festo.com



Type	B1	B2	B3	B4	B6	D1	D2	D5 Ø	H1	H2	H3	H4	H5	H6	L1
VSNC-F-P53C-MD-G14-FN	31.8	18.6	7.3	1.9	33.4	G $\frac{1}{4}$	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															
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														

Solenoid valves VSNC

Technical data – 5/3-way -...-FN

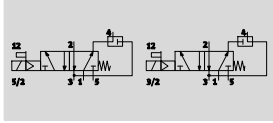
Ordering data – Valves		
Directional control valve without solenoid coil		
	Part No.	Type
	577269	VSNC-F-P53C-MD-G14-FN
	577270	VSNC-F-P53U-MD-G14-FN
	577271	VSNC-F-P53E-MD-G14-FN
Directional control valve with 24 V DC solenoid coil		
	577274	VSNC-F-P53C-MD-N14-FN
	577275	VSNC-F-P53U-MD-N14-FN
	577276	VSNC-F-P53E-MD-N14-FN


Solenoid valves VSNC


Technical data – 3/2-way or 5/2-way -...-FN poppet seat, convertible, single solenoid

Function

3/2-way or 5/2-way valve,
convertible



 - 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	
Type of actuation		Electrical	
Reset method		Mechanical spring	
Type of control		Piloted	
Pilot air supply port		Internal	
Exhaust air function		With flow control	
Manual override		Non-detenting, detenting	
Type of mounting		With through-hole	
Connection for venting hole		Not ducted	
Mounting position		Any	
Non-overlapping		No	
Direction of flow		Non-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 connection	1, 3, 5 2, 4	G $\frac{1}{4}$ Port pattern to NAMUR	
Conforms to standard		VDI/VDE 3845 (NAMUR)	
Degree of protection		-	IP65, IP67
Product weight	[g]	404	440

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way -...-FN poppet seat, convertible, single solenoid

Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on 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 may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Electrical data	VSNC-FTC-M52-MD-G14-FN VSNC-FTC-M52-MD-N14-FN		VSNC-FTC-M52-MD-G14-FN-1A1
	Electrical connection	-	
Coil characteristics, 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

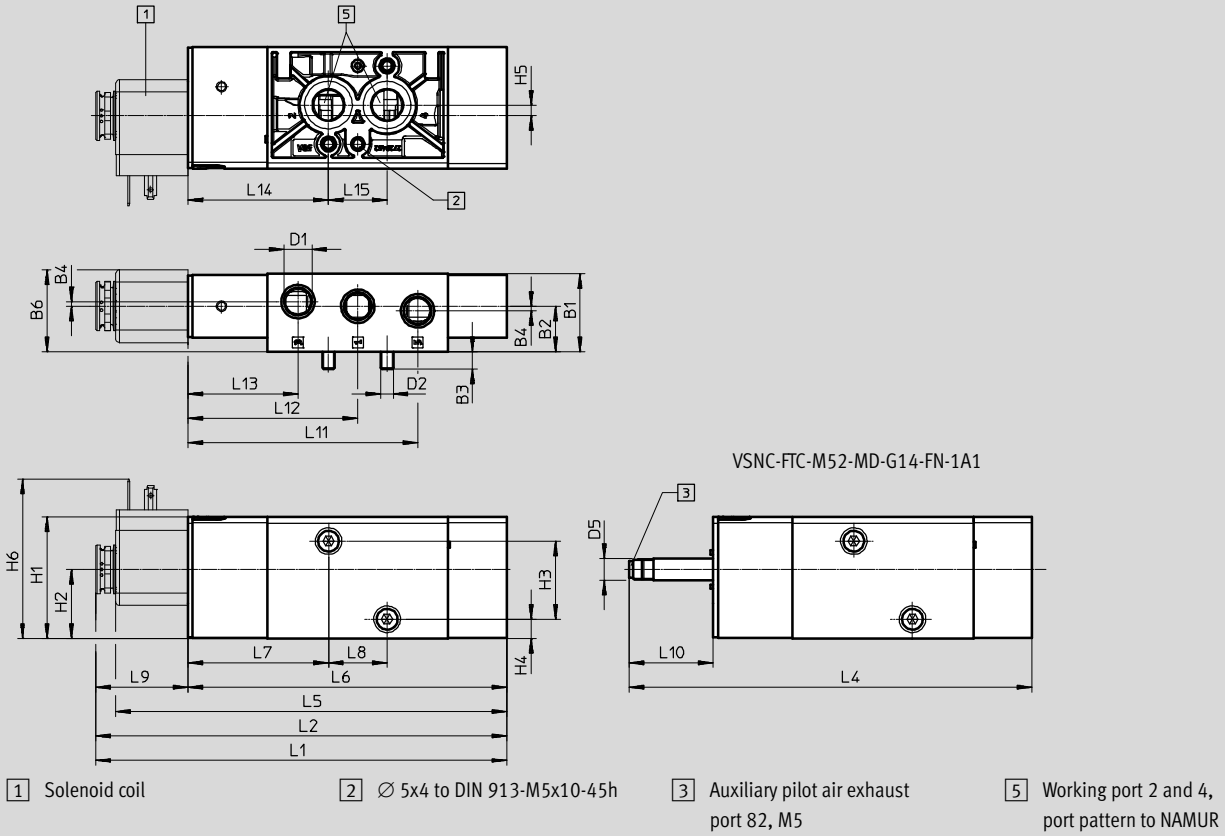
Materials	
1) Housing	Wrought aluminium alloy
2) Seals	NBR
-	RoHS compliant

Solenoid valves VSNC

Technical data – 3/2-way or 5/2-way -...-FN poppet seat, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com

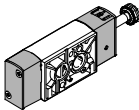


Type	B1	B2	B3	B4	B6	D1	D2	D5 ∅	H1	H2	H3	H4	H5	H6
VSNC-FTC-M52-MD-G14-FN	31.8	18.6	7.3	1.9	33.4	G1/4	M5	9	49.8	28.2	32	7.8	4.4	-
VSNC-FTC-M52-MD-G14-FN-1A1														
VSNC-FTC-M52-MD-N14-FN-1A1														

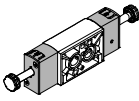
Type	L2	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
VSNC-FTC-M52-MD-G14-FN	-	165	-	130.6	57.6	24	-	34.4	94.1	69.6	45.1	57.6	24
VSNC-FTC-M52-MD-G14-FN-1A1			-				-						
VSNC-FTC-M52-MD-N14-FN-1A1			160.1				37.7						

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

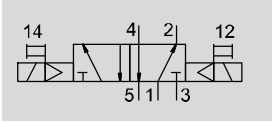
	577297	VSNC-FTC-M52-MD-G14-FN-1A1
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Solenoid valves VSNC


Technical data – 5/2-way, double solenoid

Function

3/2-way or 5/2-way valve,
convertible



 - 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	
Type of actuation		Electrical	
Reset method		Mechanical spring	
Type of control		Piloted	
Pilot air supply port		Internal	
Exhaust air function		With flow control	
Manual override		Non-detenting, detenting	
Type of mounting		With through-hole	
Connection for venting hole		Not ducted	
Mounting position		Any	
Non-overlapping		No	
Direction of flow		Non-reversible	
Standard nominal flow rate	[l/min]	1000	
b value		0.24	
C value	[l/sbar]	4.6	
Pneumatic connection	1, 3, 5 2, 4	G1/4 or NPT1/4-18	
Conforms to standard		Port pattern to NAMUR VDI/VDE 3845 (NAMUR)	
Degree of protection		-	IP65, IP67
Product weight	[g]	519	670

Solenoid valves VSNC

Technical data – 5/2-way, double solenoid

Operating and environmental conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]
Note on 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 may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Electrical data			
		VSNC-FT-B52-D-G14-FN VSNC-FT-B52-D-N14-FN	VSNC-FT-B52-D-G14-FN-1A1
Electrical connection		–	Type A to EN 175301-803
Coil characteristics, 24 V DC	[W]	See solenoid coil, to be ordered separately	0.7
Changeover time	[ms]	16	16
Permissible voltage fluctuations	[%]	–	±10

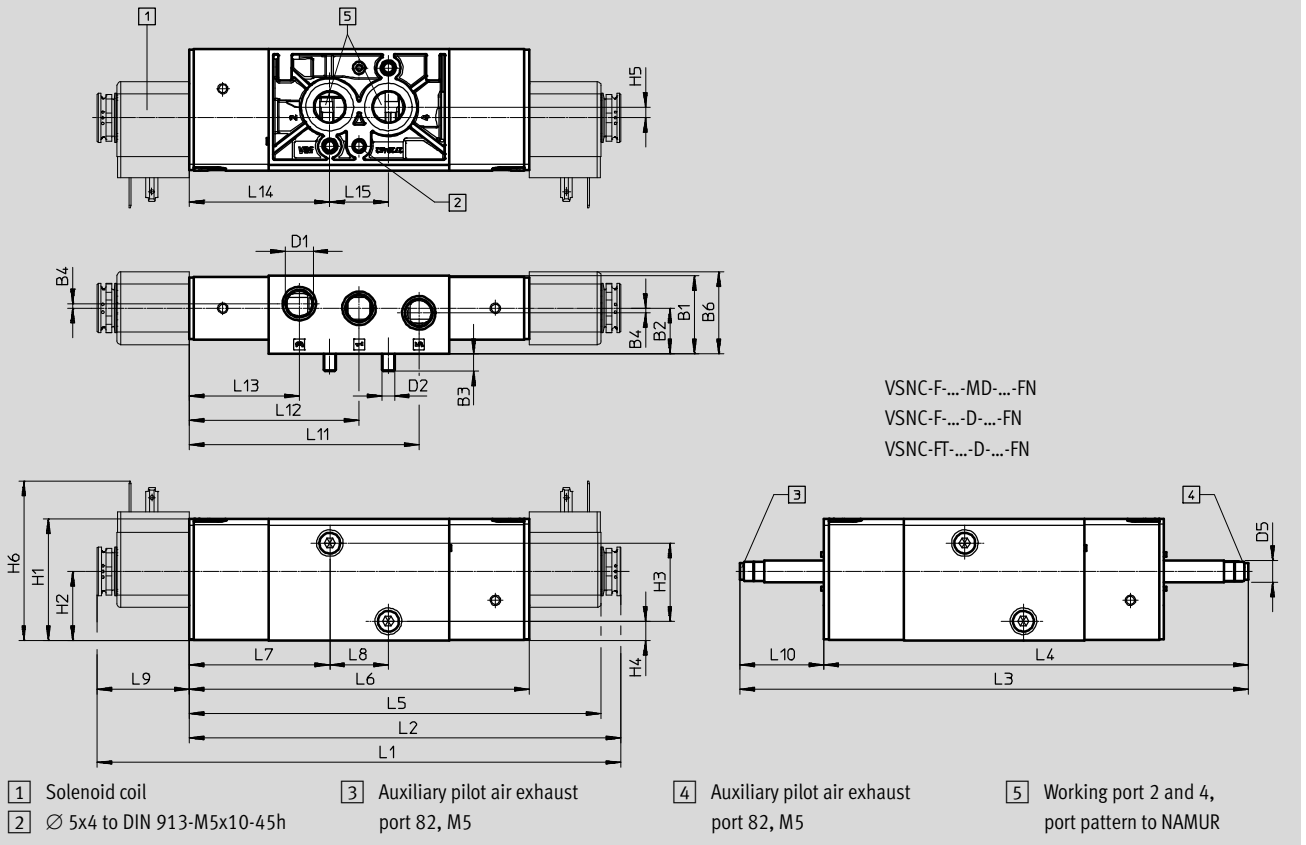
Materials		
1	Housing	Wrought aluminium alloy
2	Seals	NBR
	–	RoHS compliant

Solenoid valves VSNC

Technical data – 5/2-way, double solenoid

Dimensions

Download CAD data → www.festo.com

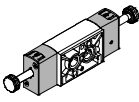
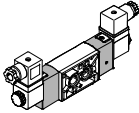


Type	B1	B2	B3	B4	B6	D1	D2	D5 ∅	H1	H2	H3	H4	H5	H6	L1
VSNC-F-P53C-MD-G14-FN	31.8	18.6	7.3	1.9	33.4	G1/4	M5	9	49.8	28.2	32	7.8	4.4	-	-
VSNC-F-P53U-MD-G14-FN															
VSNC-F-P53E-MD-G14-FN															
VSNC-F-P53C-MD-N14-FN															
VSNC-F-P53U-MD-N14-FN															
VSNC-F-P53E-MD-N14-FN															

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														

Solenoid valves VSNC

Technical data – 5/2-way, 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 Ex i solenoid coil		
	577298	VSNC-FT-B52-D-G14-FN-1A1

Solenoid valves VSNC

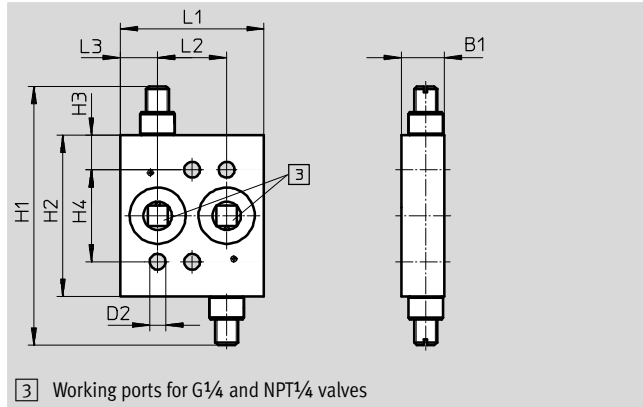
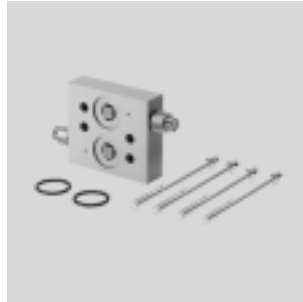
Accessories



Flow control plate

Mounting position: Any
 Type of mounting: With through-hole
 Operating pressure: 0 ... 12 bar
 Operating medium: Compressed air to ISO 8573-1:2010 [7:-:-]
 Degree of protection IP65

Materials: Manifold rail:
 Wrought aluminium alloy
 Seals: NBR
 Contains paint-wetting impairment substances, RoHS-compliant



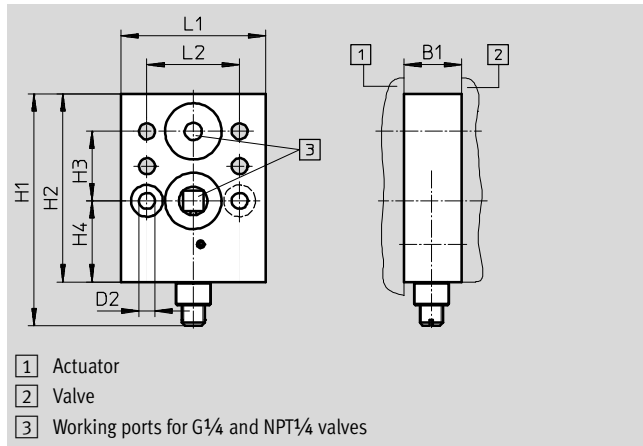
Dimensions [mm] and ordering data											
B1	D2	H1	H2	H3	H4	L1	L2	L3	CRC ¹⁾	Part No.	Type
15	5.5	90	56	12	32	50	24	13	4	563395	VABF-S7-F1B1P2-F

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Flow control plate

Mounting position: Any
 Type of mounting: With through-hole
 Operating pressure: 0 ... 12 bar
 Operating medium: Compressed air to ISO 8573-1:2010 [7:-:-]
 Degree of protection IP65

Materials: Manifold rail:
 Wrought aluminium alloy
 Seals: NBR
 Contains paint-wetting impairment substances, RoHS-compliant



Dimensions [mm] and ordering data											
B1	D2	H1	H2	H3	H4	L1	L2	CRC ¹⁾	Part No.	Type	
20	5.5	80	65	24	28	50	32	4	563401	VABF-S7-F1B5P1-F	

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Solenoid valves VSNC

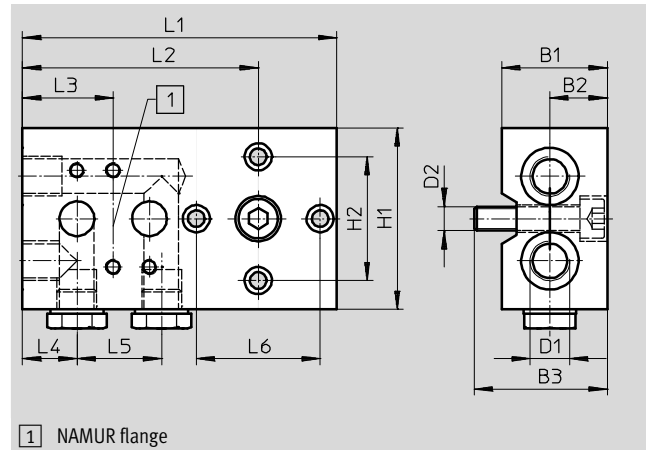
Accessories



Connection kit

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

Materials: Wrought aluminium alloy
 Seals: NBR
 Contains paint-wetting impairment substances, RoHS-compliant

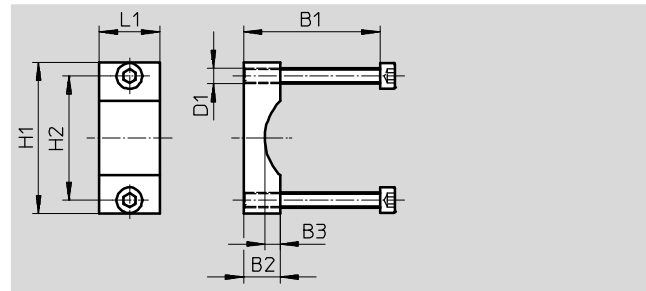
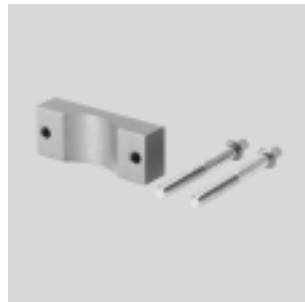


Dimensions [mm] and ordering data															Part No.	Type
B1	B2	B3	D1	D2	H1	H2	L1	L2	L3	L4	L5	L6	CRC ¹⁾			
35	19	44	G ¹ / ₄	M8	60	41	104	78	30	18	28	41	4	563396	VABS-S7-S-G14	

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Mounting bracket

Materials: Bracket:
 Wrought aluminium alloy
 Contains paint-wetting impairment substances, RoHS-compliant



Dimensions [mm] and ordering data									Part No.	Type
B1	B2	B3	D1	H1	H2	L1	CRC ¹⁾			
45/65	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. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Solenoid valves VSNC

Accessories

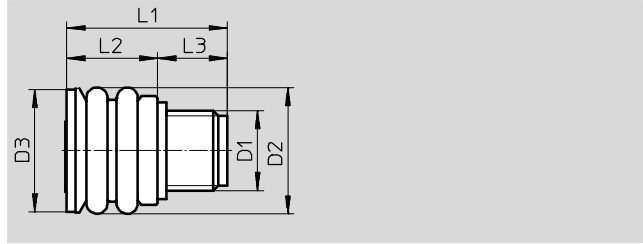
FESTO

Exhaust protection

Materials:

EPDM, PA

Contains paint-wetting impairment substances, RoHS-compliant



Dimensions [mm] and ordering data								Part No.	Type
D1	D2	D3	L1	L2	L3	CRC ¹⁾			
G1/4	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. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Ordering data – Solenoid coil			
	Coil characteristics	Part No.	Type
Electrical port pattern to industrial standard type B		Technical data → 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 rating 3.9 VA, holding power 2.6 VA	8030804	VACF-B-B2-1A
	48 V AC; 50/60 Hz, pick-up power rating 3.9 VA, holding power 2.7 VA	8030805	VACF-B-B2-7A
	110/120 V AC; 50/60 Hz, pick-up power rating 4.4 VA, holding power 3.3 VA	8030806	VACF-B-B2-16B
	230/240 V AC; 50/60 Hz, pick-up power rating 5.8 VA, holding power 4.6 VA	8030808	VACF-B-B2-3W
Electrical port 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 rating 2.5 VA, holding power 1.7 VA	8030824	VACF-A-A1-1A
	48 V AC; 50/60 Hz, pick-up power rating 2.5 VA, holding power 1.7 VA	8030825	VACF-A-A1-7A
	110/120 V AC; 50/60 Hz, pick-up power rating 2.7 VA, holding power 1.9 VA	8030826	VACF-A-A1-16B
	230/240 V AC; 50/60 Hz, pick-up power rating 3.9 VA, holding power 2.8 VA	8030828	VACF-A-A1-3W

Festo core product range


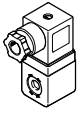
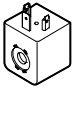
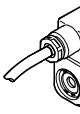
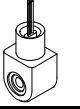
★ Ready for dispatch from the Festo factory in 24 hours

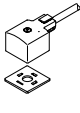
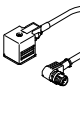
☆ Ready for dispatch in 5 days maximum from stock

Solenoid valves VSNC

Accessories

FESTO









Ordering data – Solenoid coil					
	Coil characteristics	Part No.	Type		
Type of ignition protection: intrinsically safe Ex ia Technical data → Internet: vacn					
	28V	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 rating 6.9 VA, holding power 4.1 VA	8029137	VACN-N-A1-16B-EX2-N		
	110 V AC; 60 Hz, pick-up power rating 5.4 VA, holding power 3.2 VA				
	230 V AC; 50 Hz, pick-up power rating 6.9 VA, holding power 4.1 VA 230 V AC; 60 Hz, pick-up power rating 5.4 VA, holding power 3.3 VA	8029138	VACN-N-A1-3A-EX2-N		
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 rating 5.2 VA, holding power 3.1 VA	8029134	VACN-N-A1-16B		
	110 V AC; 60 Hz, pick-up power rating 4.2 VA, holding power 2.5 VA				
	230 V AC; 50 Hz, pick-up power rating 6.2 VA, holding power 3.7 VA 230 V AC; 60 Hz, pick-up power rating 4.9 VA, holding power 2.9 VA	8029135	VACN-N-A1-3A		
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		
Type of ignition protection: encapsulated AEx m, Class 1, Div 1 to NEC 500					
	230 V AC; 50 Hz, pick-up power rating 11.5 VA, holding power 8.0 VA	8029140	VACN-N-K11-3A-0.5-U4-M		
	120 V AC; 60 Hz, pick-up power rating 10.0 VA, holding power 6.8 VA	8029145	VACN-N-K11-16B-0.5-U4-M		
	24 V DC; 4.6 W	8029146	VACN-N-K11-1-0.5-U4-M		

Ordering data						
	Description	Nominal operating voltage [V]		Cable length [m]	Part No.	Type
Connecting cable Technical data → Internet: kmc						
	For valves with D and N1 solenoid coils	24 DC	• Signal status display	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 AC	–	2.5	30932	KMC-1-230 AC-2,5
				5	30934	KMC-1-230 AC-5
				2.5	30935	KMF-1-24DC-2,5-LED
Connecting cable Technical data → Internet: nebv						
	For valves with D and N1 solenoid coils. Angled socket, connection diagram type A, EN 175301-803	230 AC/DC	–	0.6	3579466	NEBV-A1W3-K-0,6-N-LE3
				0.3	3579461	NEBV-A1W3-K-0,3-N-M12W3
		110 AC/DC	–	0.6	3579462	NEBV-A1W3-K-0,6-N-M12W3
				0.3	3679771	NEBV-A1W3-P-0,3-N-M12W3
				0.6	3679772	NEBV-A1W3-P-0,6-N-M12W3
				0.6	3679776	NEBV-A1W3-P-K-0,6-LE3
24 AC/DC	• Signal status display • Protective circuit	0.3	3679771	NEBV-A1W3-P-0,3-N-M12W3		
		0.6	3679772	NEBV-A1W3-P-0,6-N-M12W3		

Solenoid valves VSNC

Accessories

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Ordering data			
	Description	Part No.	Type
Plug socket		Technical data → Internet: mssd	
	3-pin, angled socket, square design connection pattern type B, to industrial standard 11 mm	539710	MSSD-F-M16
	3-pin, IP67 socket to IEC 60529, type B	192746	MSSD-F-S-M16
	3-pin, angled socket, square design, IP65 to DIN EN 175301-803, type A	34583	MSSD-C
Push-in fittings QS		Technical data → Internet: qs	
	G male thread with internal hex	186108	QS-G1/4-6-I
		186110	QS-G1/4-8-I
		186112	QS-G1/4-10-I
	NPT male thread with internal hex	572320	QB-1/4-1/4-I-U
		572321	QB-1/4-5/16-I-U
		572322	QB-1/4-3/8-I-U
Silencer U		Technical data → Internet: u	
	G male thread, polymer design	534223	U-1/4-20
		2316	U-1/4
	G male thread, die-cast metal design	6842	U-1/4-B
		NPT male thread, die-cast metal design	12639
Illuminating seal		Technical data → 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