

Solenoid valves VSNC

FESTO



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Just look
for the
star!

Characteristics, product range overview VSNC-...




Function

VSNC valves are pilot valves for single- and double-acting quarter turn and linear actuators with a connection 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.

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 V AC
-  - Operating pressure
2.5 ... 10 bar
-  - Temperature range
-20 ... 60°C

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

Versatile

- 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 IECEx with type of ignition protection
- Ex-ia
- Ex-mb
- For zone 2 to IECEx 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 piston spool

VSNC-FT ... -FN



VSNC disc seat



VSNC with Ex-ia solenoid



VSNC with FM solenoid



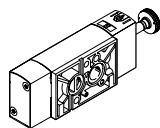
VSNC with Ex-nA solenoid



VSNC with Ex-m solenoid

Characteristics, product range overview VSNC-...-F8

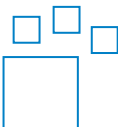
VSNC-F8



- Material of valve cap: plastic/metal
- Material of armature: brass
- Pilot air (armature tube incoming air), 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	G 1/4	VDI/VDE 3845 NAMUR 1/4	1250	11
	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	16
	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	19
	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	

Ordering data – Product options



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

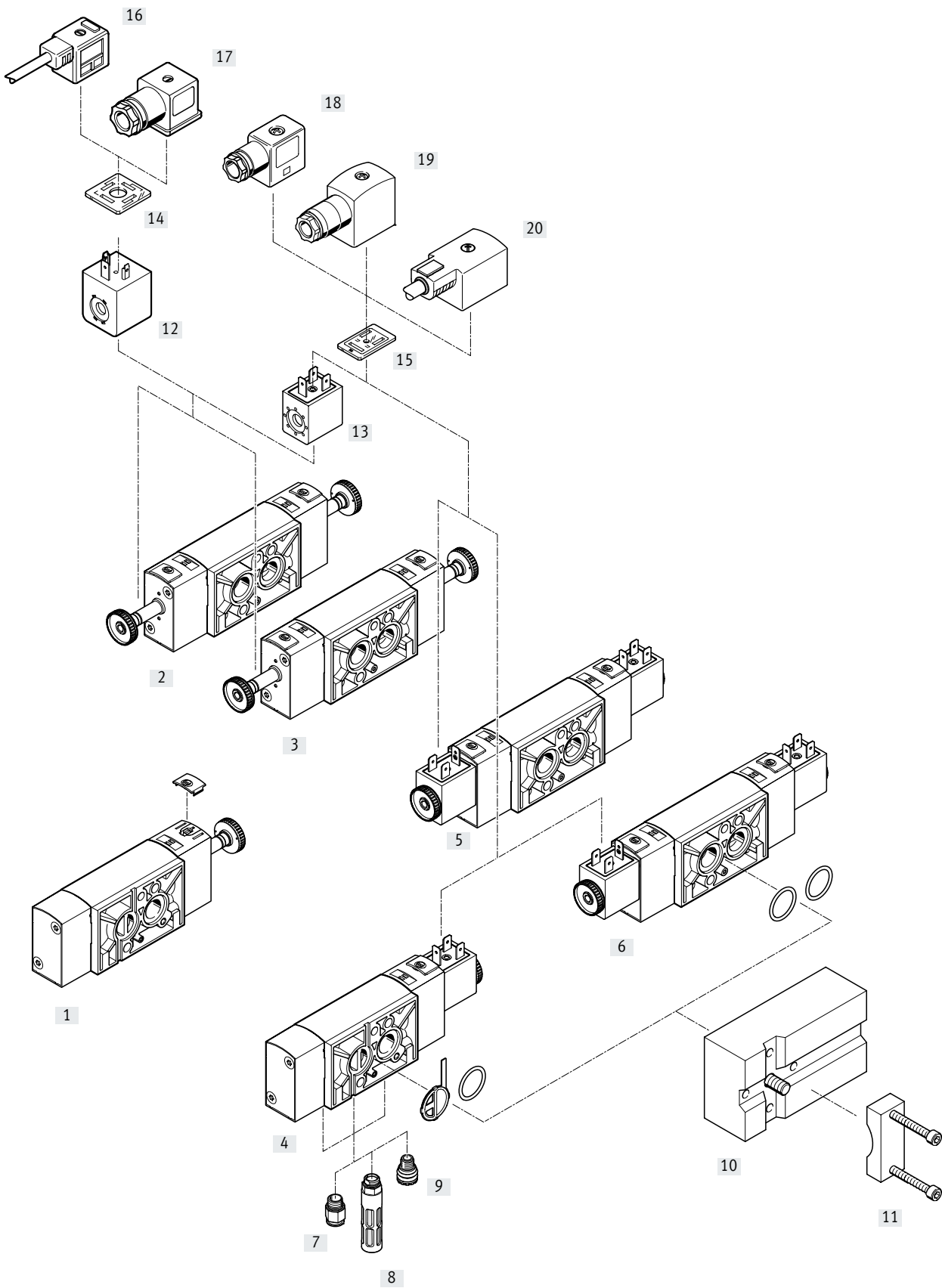
The configurator can be found under Products on the DVD or at
→ www.festo.com/catalogue/...

Part no. 8026033
Type VSNC

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	■	■ Part no.	■	■	■	■	■	■	■	■	■	■	■	■
5/2-way, double solenoid	■	■ Part no.	■	■	■	■	■	■	■	■	■	■	■	■
5/3-way, G (closed)	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3-way, B (pressurised)	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3-way, E (exhausted)	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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

Peripherals overview – VSNC...-F8

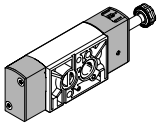


Peripherals overview – VSNC-...-F8

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 and brass armature tube for controlling single-acting or double-acting actuators	11
[2]	VSNC-...-F8 Solenoid valves	5/2-way double solenoid valve with plastic cover and brass armature tube for controlling double-acting actuators	16
[3]	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	19
[4]	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	11
[5]	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	16
[6]	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	19
[7]	QS Push-in fitting	For connecting compressed air tubing with standard O.D.	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]	VABS-S7-S-G14 Connection set	Sub-base for attaching the valve to a NAMUR rib	43
[11]	VAME-S7-Y Mounting bracket	Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket	43
[12]	VACF-A Solenoid coil	Electrical plug pattern to DIN EN 175301-803, type A	44
[13]	VACF-B Solenoid coil	Electrical plug pattern to Festo standard for MSSD-F	44
[14]	MC-LD Illuminating seal	Illuminating seal for displaying the switching status	46
[15]	MF-LD Illuminating seal	Illuminating seal for displaying the switching status	46
[16]	KMC Connecting cable	–	45
[17]	MSSD-C Plug socket	Electrical plug pattern to DIN EN 175301-803, type A	46
[18]	MSSD-F Plug socket	Electrical plug pattern to Festo standard with screw terminal connection	46
[19]	MSSD-F-S Plug socket	Electrical plug pattern to Festo standard with insulation displacement connection	46
[20]	KMF Connecting cable	–	kmf

Characteristics, product range overview VSNC-...-FN

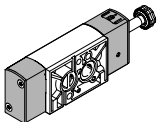
VSNC-F ... -FN



- Design: piston spool
- Material of valve cap: aluminium/metal
- Material of armature: stainless steel
- Pilot air (incoming air of armature tube), protected

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	G 1/4	VDI/VDE 3845 NAMUR	1250	23
	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	28
	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	32
	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

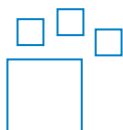


- Design: disc seat
- Material of valve cap: aluminium/metal
- Material of armature: stainless steel
- Pilot air (incoming air of armature tube), protected

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	G 1/4	VDI/VDE 3845 NAMUR	800	36
	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	39
	VSNC-FT-B52-D-N14-FN	1/4 NPT			
	VSNC-FT-B52-D-G14-FN-1A1	G 1/4			

Characteristics, product range overview VSNC-...-FN

Ordering data – Product options



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

Part no. 8026033
Type VSNC

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	■	■	■	■	■	■	■	■	■	■	■	■	■
5/2-way, double solenoid	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3-way, G (closed)	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3-way, B (pressurised)	■	■	■	■	■	■	■	■	■	■	■	■	■
5/3-way, E (exhausted)	■	■	■	■	■	■	■	■	■	■	■	■	■

■ = Can be combined using a modular system
Part no. = 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
- IECEx certification
- ATEX certification

Non-sparking coil VACN-...-Ex2N



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

Encapsulated coil VACN-...-Ex4M



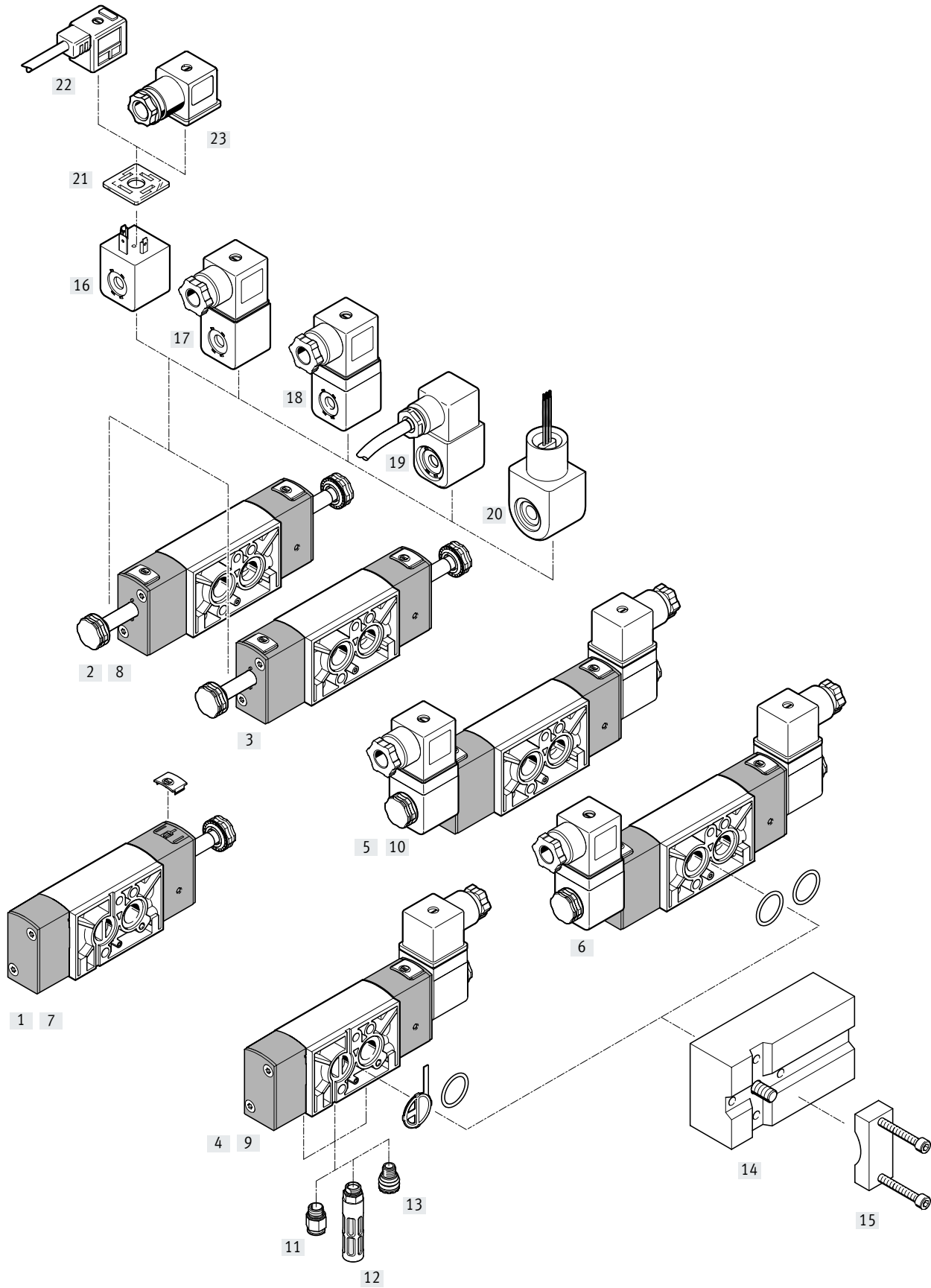
- Category II 2G II 2D
- Type of ignition protection Ex-m
- IECEx certification
- ATEX certification

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



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

Peripherals overview – VSNC-F...-FN



Peripherals overview – VSNC-F...-FN

Mounting components and accessories		Brief description	→ Page / Internet
[1]	VSNC-F ...-FN	3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover and stainless steel armature tube	23
[2]	Piston spool	5/2-way double solenoid valve with aluminium cover and stainless steel armature tube	28
[3]		5/3-way valve, normally open, closed or exhausted with aluminium cover and stainless steel armature tube	32
[4]		3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover, stainless steel armature tube and Ex-ia solenoid coil	23
[5]		5/2-way double solenoid valve with aluminium cover, stainless steel armature tube and Ex-ia solenoid coil	28
[6]		5/3-way valve, normally open, closed or exhausted with aluminium cover, stainless steel armature tube and Ex-ia solenoid coil	32
[7]		VSNC-FT ...-FN	3/2-way and 5/2-way single solenoid valve with converting seal, aluminium cover and stainless steel armature tube
[8]	Disc seat	5/2-way double solenoid valve with aluminium cover and stainless steel armature tube	39
[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	36
[10]		5/2-way double solenoid valve with aluminium cover, stainless steel armature tube and 24 V DC solenoid coil	39
[11]	QS Push-in fitting	For connecting compressed air tubing with standard O.D.	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]	VABS-S7-S-G14 Connection set	Sub-base for attaching the valve to a NAMUR rib	43
[15]	VAMES7-Y Mounting bracket	Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket	43
[16]	VACN-N Solenoid coil	Electrical plug pattern to DIN EN 175301-803, type A	–
[17]	VACN-N- ... -Ex2-N Solenoid coil	Type of ignition protection nA = non-sparking, for use in zone 2	–
[18]	VACN-N- ... -Ex4-A Solenoid coil	Type of ignition protection iA = intrinsically safe, for use in zone 1	–
[19]	VACN-N- ... -Ex4-M Solenoid coil	Type of ignition protection m = encapsulated, for use in zone 1	–
[20]	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)	–
[21]	MC-LD Illuminating seal	Illuminating seal for displaying the switching status	46
[22]	KMC Connecting cable	–	kmc
[23]	MSSD-C Plug socket	Electrical plug pattern to DIN EN 175301-803, type A	46

Type codes

001	Series	
VSNC	Solenoid valve	

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	
P53C	5/3-way valve, mid-position closed	
P53E	5/3-way valve, mid-position exhausted	
P53U	5/3-way valve, mid-position pressurised	

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	
Q6	Push-in connector 6 mm	
Q8	Push-in connector 8 mm	
G14	G1/4	
N14	1/4 NPT	
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	
	No fitting	
QN	With 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	

011	Nominal operating voltage	
	None	
1	24 V DC	
1A	24 V AC/50-60 Hz	
3A	230 V AC/50-60 Hz	
4	5 V DC	
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	
3W	230 V AC/240 V AC/50-60 Hz	

012	Electrical connection	
	None	
A1	Connection pattern type A, to EN 175 301	
B2	Connection pattern type B, industry standard	
C3	Cable, 3 m	
K11	Cable with insulating conduit connection	

013	EU certification	
	None	
EX2	II 3GD	
EX4	II 2GD	

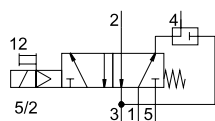
014	Type of ignition protection	
	None	
A	Intrinsically safe	
M	Encapsulation	
N	Non-sparking	

015	Electrical valve accessories	
	None	
G	Connector socket, without LED	

Data sheet – 3/2-way or 5/2-way valve, convertible, single solenoid

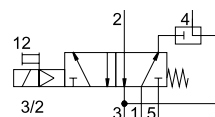
Function¹⁾

5/2-way valve





3/2-way valve

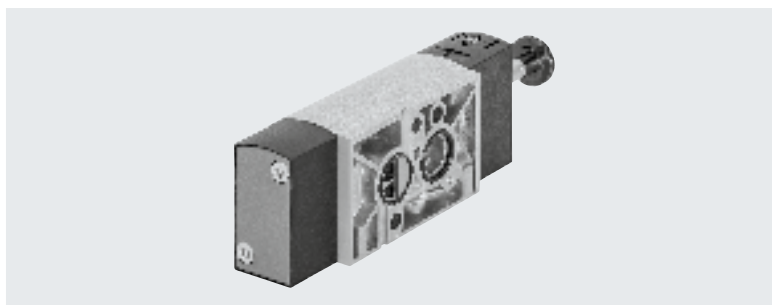
with exhaust return



-  - Voltage
24 V DC

-  - Operating pressure
2.5 ... 10 bar

-  - Temperature range
-20 ... +60°C



1) Can be changed by exchanging the sealing 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		Electric		
Reset method		Mechanical spring		
Type of control		Piloted		
Manual override		Detenting, non-detenting		
Exhaust air function		Can be throttled		
Connection 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 Connection pattern to NAMUR	G 1/4 G 1/4
Conforms to standard		VDI/VDE 3845 NAMUR		
Certificate issuing authority		DNVGLTAA000011]		
Product weight		[g]	335	335

Data sheet – 3/2-way or 5/2-way valve, 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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

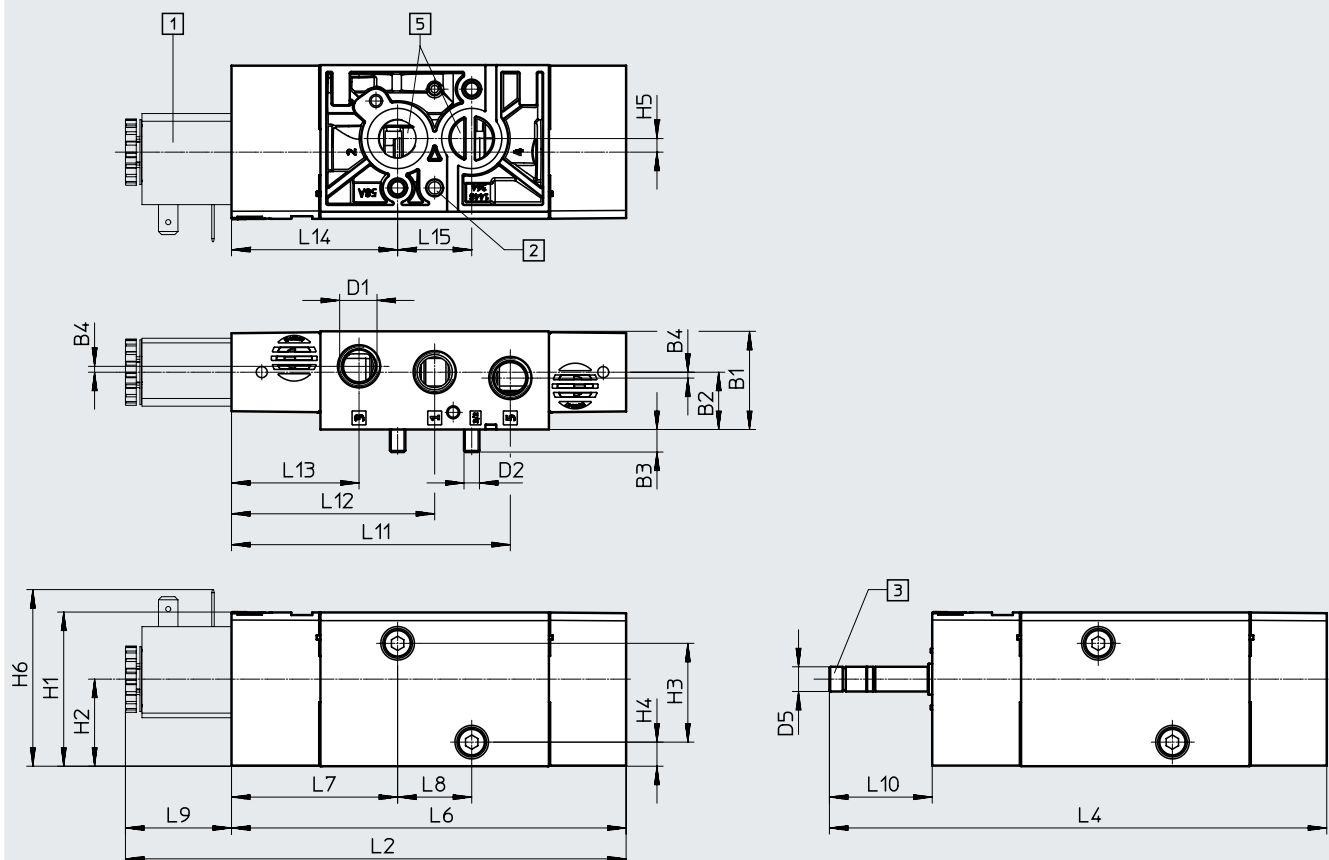
Electrical data		VSNC-FC- ... -G14-F8 VSNC-FC- ... -N14-F8	VSNC-FC- ... -G14-F8-1B2	VSNC-FC- ... -G14-F8-1A1
Electrical connection		-	3-pin plug, type B to industry standard (11 mm)	To EN 175301-803, type A
Characteristic coil data, 24 V DC	[W]	See solenoid coil, to be ordered separately	3.3	2.6
Permissible 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

Data sheet – 3/2-way or 5/2-way valve, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



VSNC-FC-M52-MD-G14-F8

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

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							

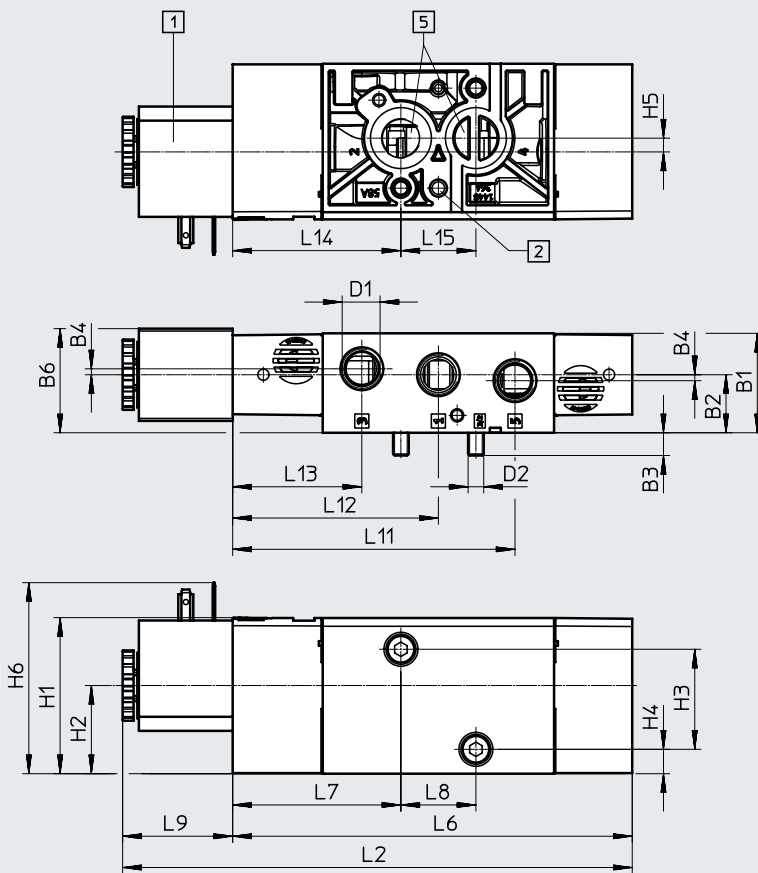
Type	L2	L4	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
VSNC-FC-M52-MD-G14-F8	162.2	161.1	127.8	53.8	24	34.4	33.3	90.3	65.8	41.3	53.8	24
VSNC-FC-M52-MD-N14-F8												
VSNC-FC-M52-MD-G14-F8-1B2												

Data sheet – 3/2-way or 5/2-way valve, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com

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



[1] Solenoid coil

[2] Diameter 5x4 to
DIN 913-M5x10-45h

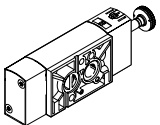
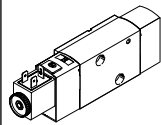
[5] Working port 2 and 4, connection
pattern to NAMUR

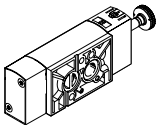
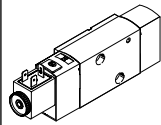
Type	B1	B2	B3	B4	B6	D1	D2	H1	H2	H3	H4	H5
VSNC-FC-M52-MD-G14-F8-1A1	31.8	18.6	7.3	1.9	33.3	G 1/4	M5	49.9	28.2	32	7.8	4.4

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

Data sheet – 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			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

Festo core product range



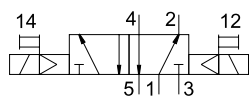
Generally ready for dispatch from the factory within 24 hours

Generally ready for dispatch from the factory within 5 days


Data sheet – 5/2-way valve, double solenoid


Function

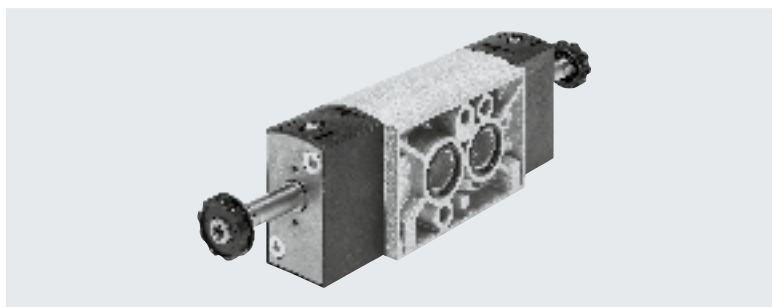
5/2-way valve



-  - 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 width DN	[mm]	7.2		
Design		Piston spool		
Sealing principle		Soft		
Actuation type		Electric		
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 connection	1, 3, 5 2, 4	G 1/4, 1/4 NPT Connection pattern to NAMUR		
Conforms to standard		VDI/VDE 3845 (NAMUR)		
Certificate issuing authority		DNVGL-TAA000011J		
Product weight	[g]	345		455

Data sheet – 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 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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

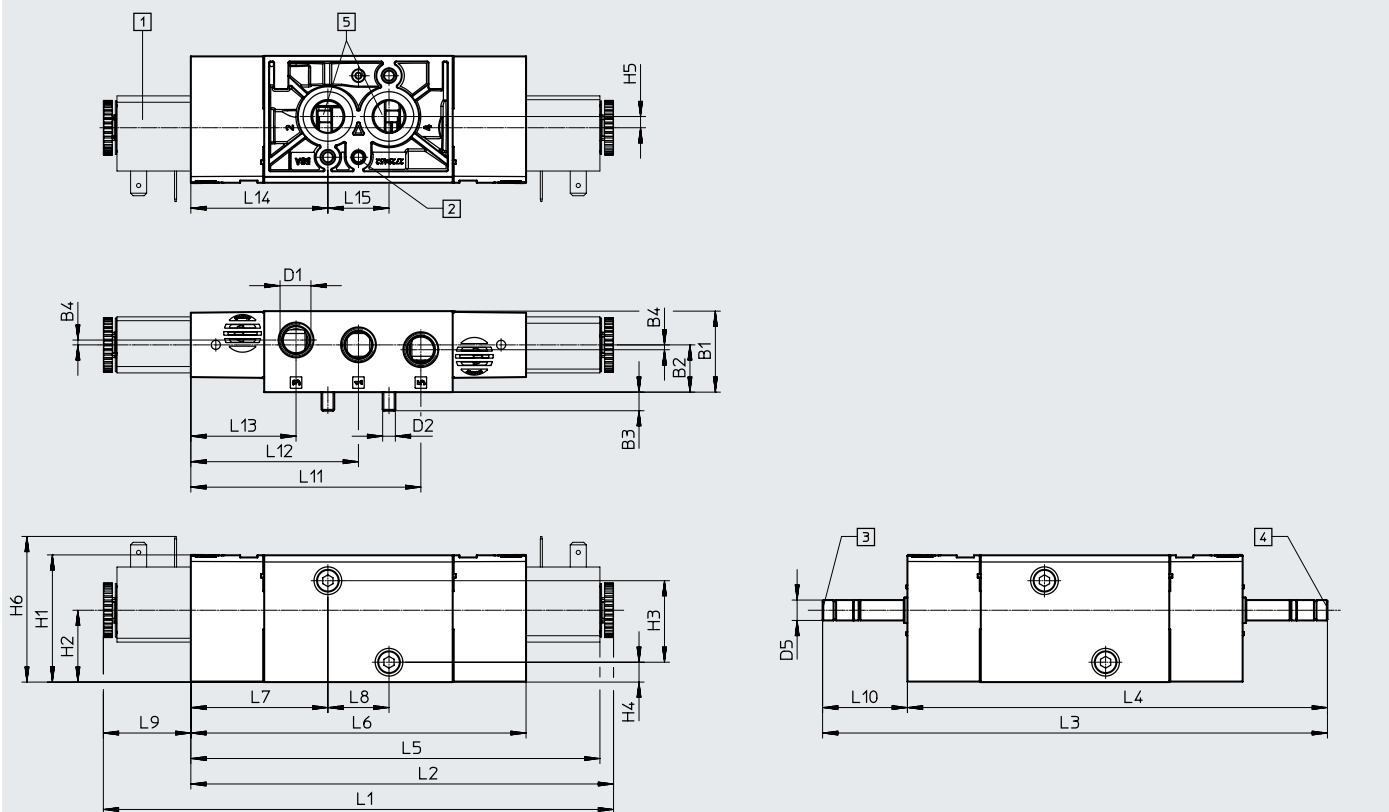
Electrical data		VSNC-F-B52-D-G14-F8 VSNC-F-B52-D-N14-F8	VSNC-F-B52-D-G14-F8-1B2
Electrical connection		–	3-pin plug, to industry standard (11 mm), type B
Characteristic coil data, 24 VDC	[W]	See solenoid coil, to be ordered separately	3.3
Permissible voltage fluctuations	[%]	–	±10
Degree of protection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

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

Data sheet – 5/2-way valve, double solenoid

Dimensions

Download CAD data → www.festo.com



- [1] Solenoid coil
- [2] Diameter 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, connection pattern to NAMUR

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				160.6				34.4						
VSNC-F-B52-D-G14-F8-1B2				166										

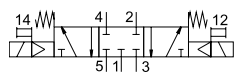
Ordering data – Valves


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			


Data sheet – 5/3-way valve

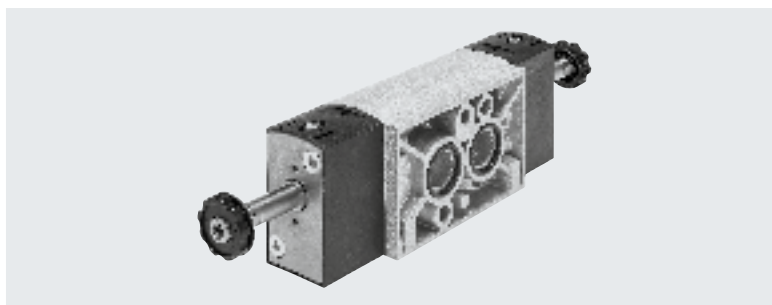
Function

5/2-way valve, closed



 Operating pressure
3 ... 10 bar

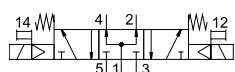
 Temperature range
-20 ... +60°C



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		Electric		
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 connection	1, 3, 5	G 1/4, 1/4 NPT		
	2, 4	Connection pattern to NAMUR		
Conforms to standard		VDI/VDE 3845 (NAMUR)		
Certificate issuing authority		DNVGL-TAA000011		
Product weight	[g]	345		

Data sheet – 5/3-way valve

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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

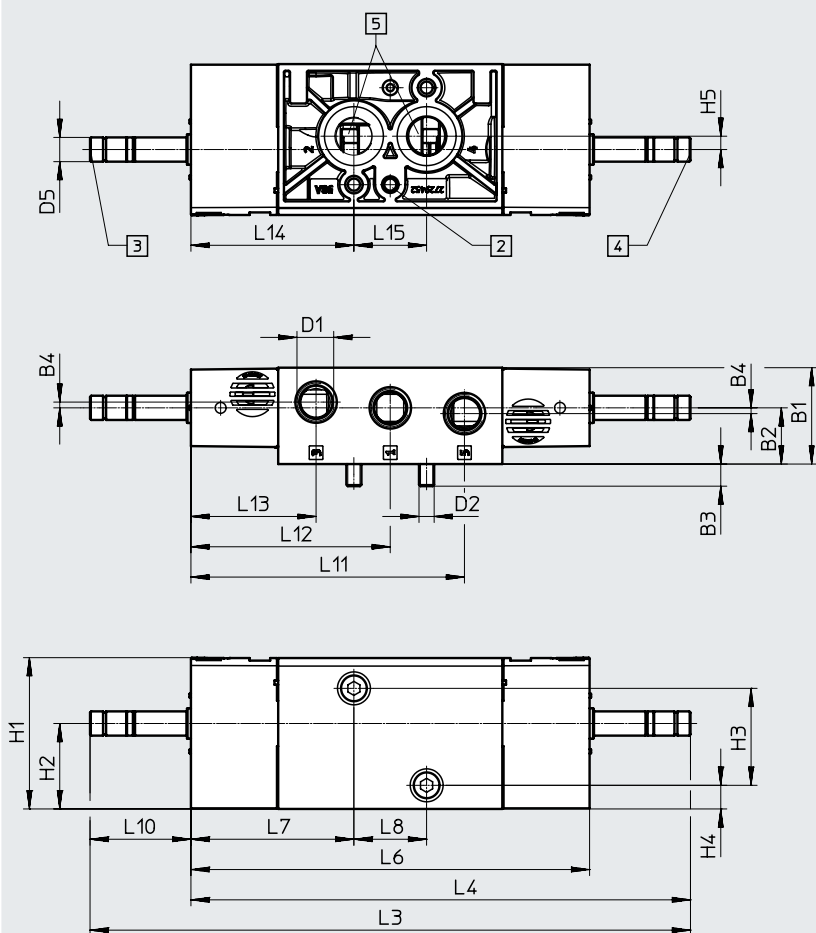
Electrical data		VSNC-F-P53C-MD-G14-F8 VSNC-F-P53C-MD-N14-F8	VSNC-F-P53E-MD-G14-F8 VSNC-F-P53E-MD-N14-F8	VSNC-F-P53U-MD-G14-F8 VSNC-F-P53U-MD-N14-F8
Characteristic coil data		See solenoid coil, to be ordered separately		
Switching time on	[ms]	13	14	14
Switching time off	[ms]	42	48	48
Switching time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

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

Data sheet – 5/3-way valve

Dimensions

Download CAD data → www.festo.com



- [2] Diameter 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, connection pattern to NAMUR

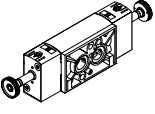
Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5
VSNC-F-P53C-MD-G14-F8	31.8	18.6	7.3	1.9	G 1/4	M5	49.9	28.2	32	7.8	4.4
VSNC-F-P53U-MD-G14-F8											
VSNC-F-P53E-MD-G14-F8											
VSNC-F-P53C-MD-N14-F8											
VSNC-F-P53U-MD-N14-F8											
VSNC-F-P53E-MD-N14-F8											

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											

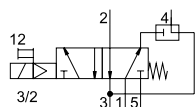
Data sheet – 5/3-way valve

Ordering data – Valves

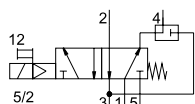

Directional control valve without solenoid coil


	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

Data sheet – 3/2-way or 5/2-way valve -...-FN, convertible, single solenoid

Function convertible
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		Electric		
Reset method		Mechanical spring		
Type of control		Piloted		
Pilot air supply		Internal		
Exhaust air function		Can be throttled		
Manual override		Detenting, non-detenting		
Type of mounting		Via 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 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	Connection pattern to NAMUR		
Conforms to standard		VDI/VDE 3845 (NAMUR)		
Certificate issuing authority		DNVGL-TAA000011J		
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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

Data sheet – 3/2-way or 5/2-way valve -...-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 (IECEX)	–
	–	EPL Ga (IECEX)	–
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)		–

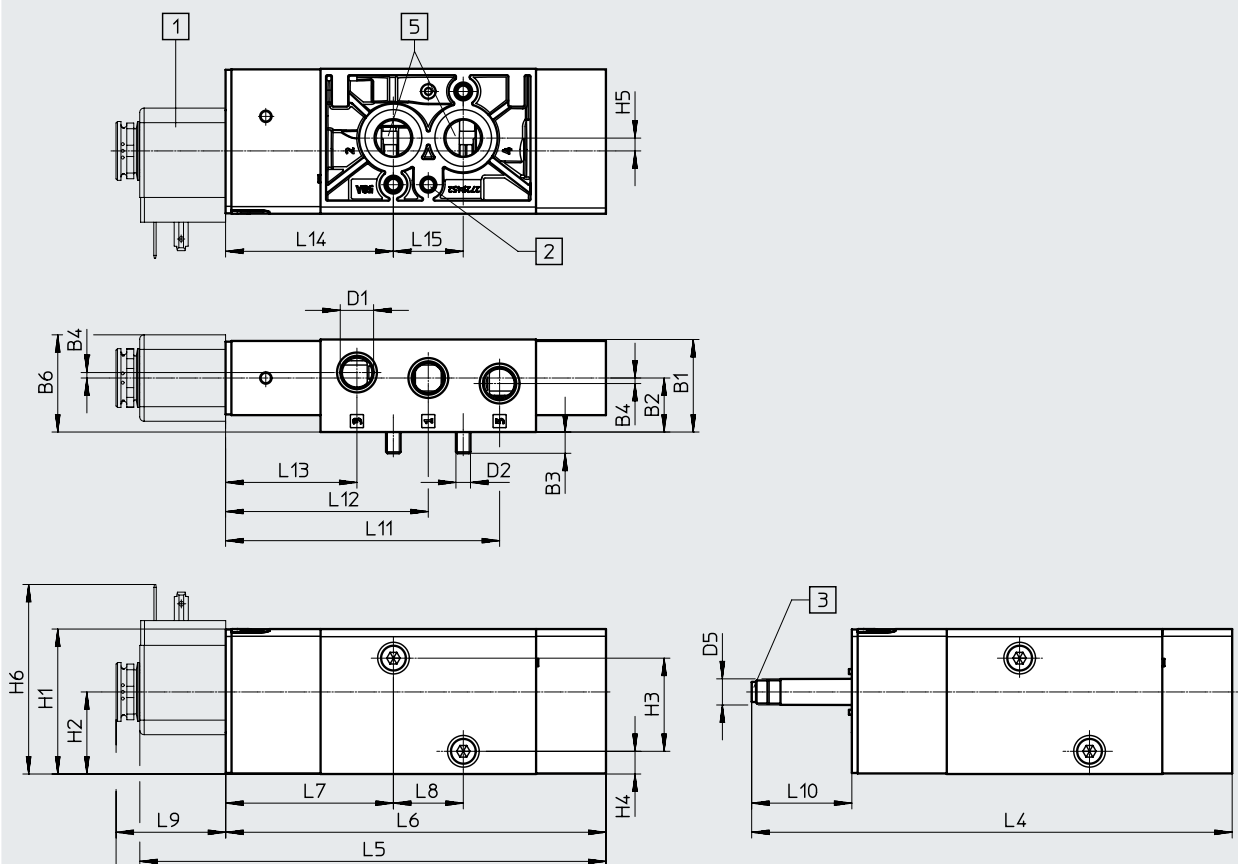
Electrical data	VSNC- ... -G14-FN	VSNC- ... -G14-FN-1A1-EX4-A	VSNC- ... -G14-FN-1A1+G
	VSNC- ... -N14-FN	VSNC- ... -N14-FN-1A1-EX4-A	VSNC- ... -G14-FN-3AA1+G
Electrical connection	–	Type A, to EN 175301-803	Type A, to EN 175301-803
Characteristic coil data, 24 V DC [W]	See solenoid coil, to be ordered 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		

Data sheet – 3/2-way or 5/2-way valve -...-FN, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



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

[1] Solenoid coil

[2] Diameter 5x4 to
DIN 913-M5x10-45h

[3] Suction of auxiliary pilot air 82,
M5

[5] Working port 2 and 4, connection
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	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								

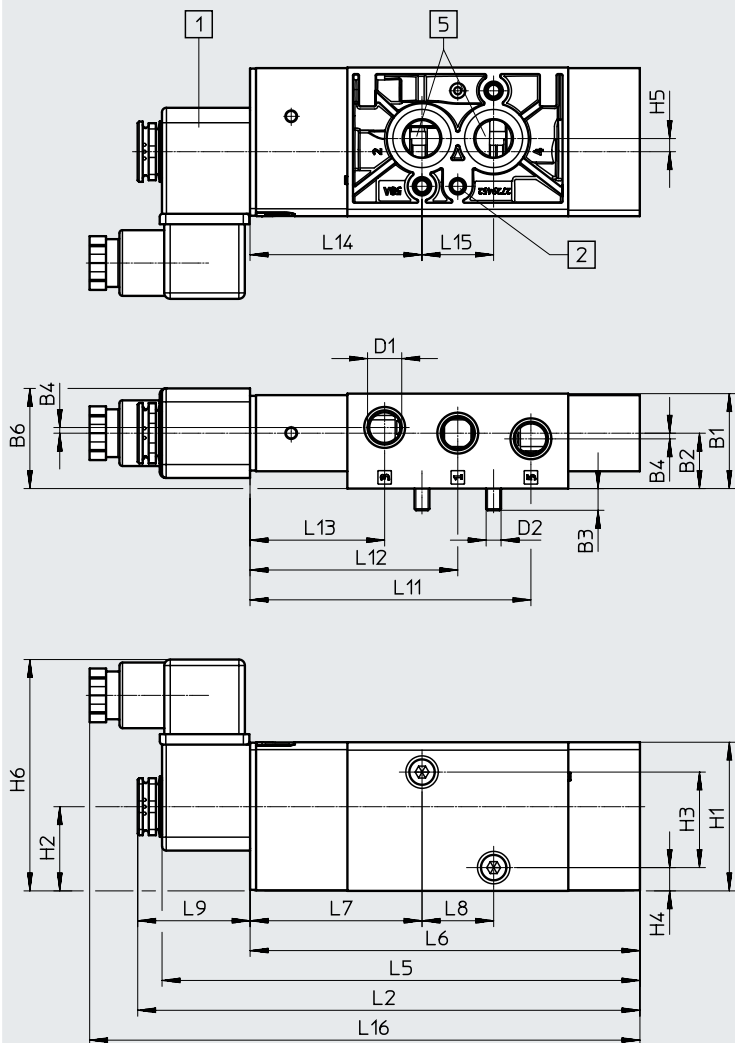
Type	L2	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
VSNC-FC-M52-MD-G14-FN	-	165	-	130.6	57.6	24	-	34.4	94.1	69.6	45.1	57.6	24
VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A	168.3		160.1				37.7						
VSNC-FC-M52-MD-N14-FN	-		-				-						
VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A	168.3		160.1				37.7						

Data sheet – 3/2-way or 5/2-way valve -...-FN, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com

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



[1] Connector socket M16

[2] Diameter 5x4 to
DIN 913-M5x10-45h

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

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

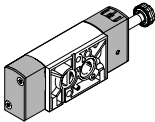
Type	L2	L5	L6	L7	L8	L9	L11	L12	L13	L14	L15	L16
VSNC-FC-M52-MD-G14-FN- ... +G	168.3	160.1	130.6	57.6	24	37.7	94.1	69.6	45.1	57.6	24	184.4

Data sheet – 3/2-way or 5/2-way valve -...-FN, convertible, single solenoid

★ Core product range

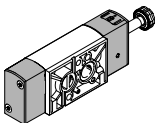
Ordering data – Valves

Directional control valve without solenoid coil

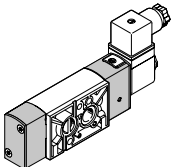
	Part no.	Type
	★ 577267	VSNC-FC-M52-MD-G14-FN

Ordering data – Valves

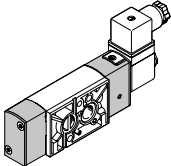
Directional control valve without solenoid coil

	Part no.	Type
	577272	VSNC-FC-M52-MD-N14-FN

Directional control valve with solenoid coil and socket

	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

	577281	VSNC-FC-M52-MD-G14-FN-1A1-Ex4-A
	577286	VSNC-FC-M52-MD-N14-FN-1A1-Ex4-A

Festo core product range



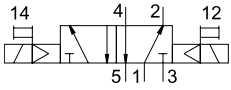
Generally ready for dispatch from the factory within 24 hours

Generally ready for dispatch from the factory within 5 days

Data sheet – 5/2-way valve ...-FN, double solenoid

Function

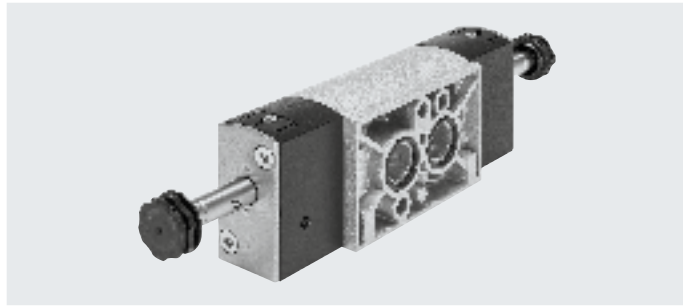
5/2-way valve, double solenoid



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	Electric	
Type of control	Piloted	
Pilot air supply	Internal	
Exhaust air function	Can be throttled	
Manual override	Non-detenting, detenting	
Type of mounting	Via 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	G 1/4, 1/4 NPT Connection pattern to NAMUR
Conforms to standard	VDI/VDE 3845 (NAMUR)	
Certificate issuing authority	DINVGL-TAA000011]	
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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

Data sheet – 5/2-way valve ...-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 IICT6 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 (IECEX)
	–	EPL Ga (IECEX)
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)	

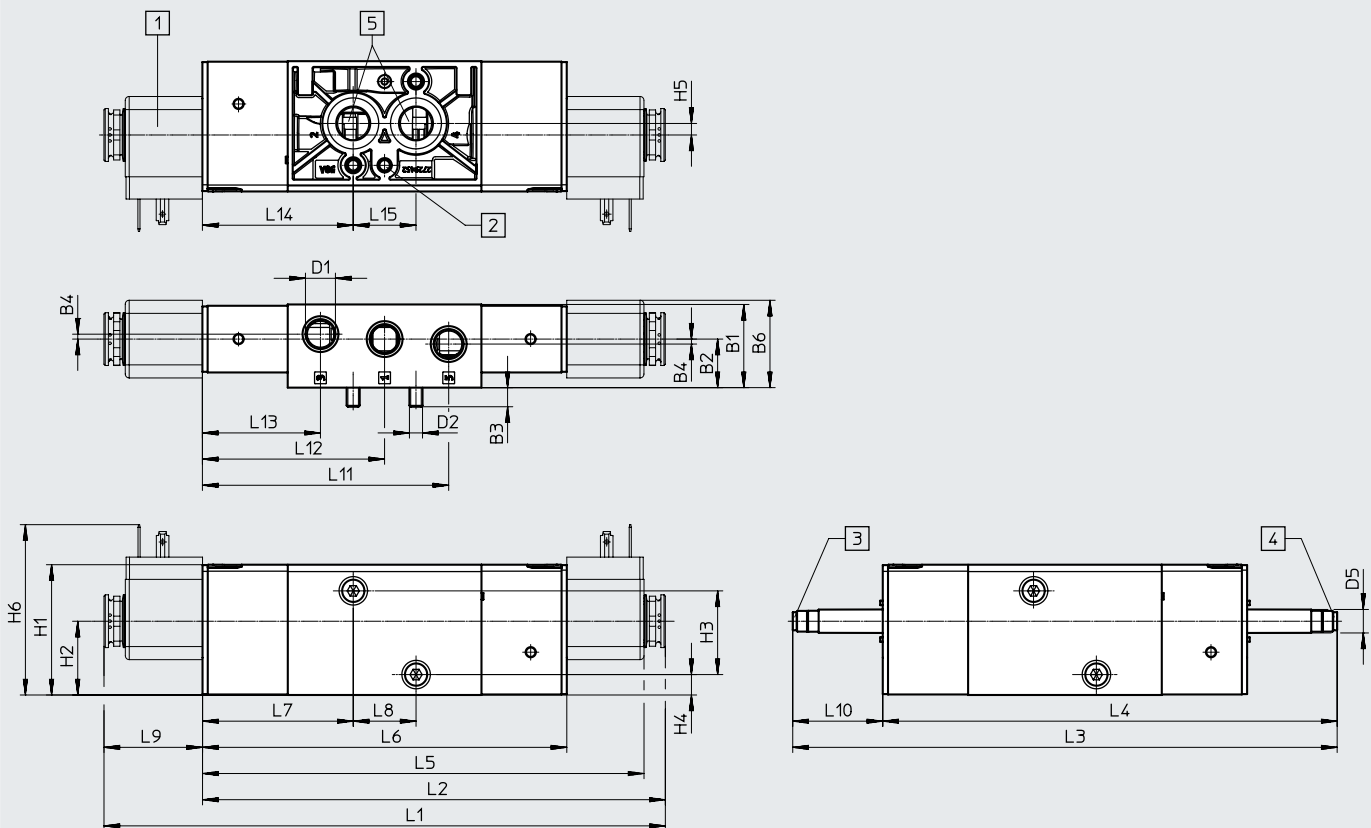
Electrical data	VSNC-F-B52-D-G14-FN	VSNC-F-B52-D-G14-FN-1A1-Ex4-A
	VSNC-F-B52-D-N14-FN	VSNC-F-B52-D-N14-FN-1A1-Ex4-A
Electrical connection	–	Type A, to EN 175301-803
Characteristic coil data	See solenoid coil, to be ordered separately	
Switching time changeover [ms]	20	
Permissible voltage fluctuations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

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

Data sheet – 5/2-way valve ...-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] Diameter 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, connection pattern to NAMUR

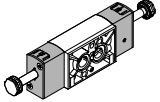
Type	B1	B2	B3	B4	B6	D1	D2	D5 ∅	H1	H2	H3	H4	H5	H6	L1
VSNC-F-B52-D-G14-FN	31.8	18.6	7.3	1.9	33.4	G 1/4	M5	9	49.8	28.2	32	7.8	4.4	-	-
VSNC-F-B52-D-G14-FN-1A1-Ex4-A						65.1								214.5	
VSNC-F-B52-D-N14-FN						-								-	
VSNC-F-B52-D-N14-FN-1A1-Ex4-A						65.1								214.5	

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						

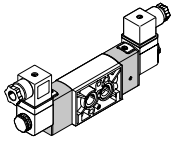
Data sheet – 5/2-way valve ...-FN, double solenoid

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

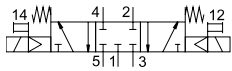
Directional control valve with Ex-i solenoid coil including socket

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

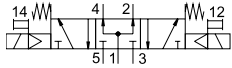
Data sheet – 5/3-way valve ...-FN

Function

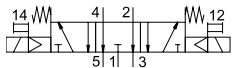
5/3-way valve, closed





5/3-way valve, exhausted

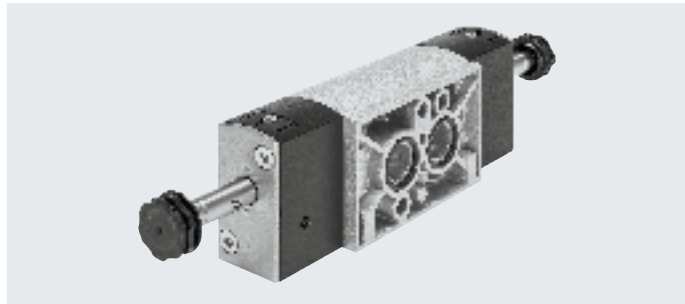


5/3-way valve, pressurised



 Operating pressure
3 ... 8 bar

 Temperature range
-20 ... +60°C



General technical data		VSNC-F-P53C-MD-G14-FN	VSNC-F-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
Valve function		5/3-way		
		Closed	Pressurised	Exhausted
Width	[mm]	32		
Design		Piston spool		
Sealing principle		Soft		
Actuation type		Electric		
Reset method		Mechanical spring		
Type of control		Piloted		
Pilot air supply		Internal		
Exhaust air function		Can be throttled		
Manual override		Non-detenting, detenting		
Type of mounting		Via 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	G 1/4, 1/4 NPT		
		Connection pattern to NAMUR		
Conforms to standard		VDI/VDE 3845 (NAMUR)		
Certificate issuing authority		DNVGL-TAA000011]		
Product weight	[g]	461		

Data sheet – 5/3-way valve ...-FN

Operating and environmental conditions		VSNC-F-P53C-MD-G14-FN	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
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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

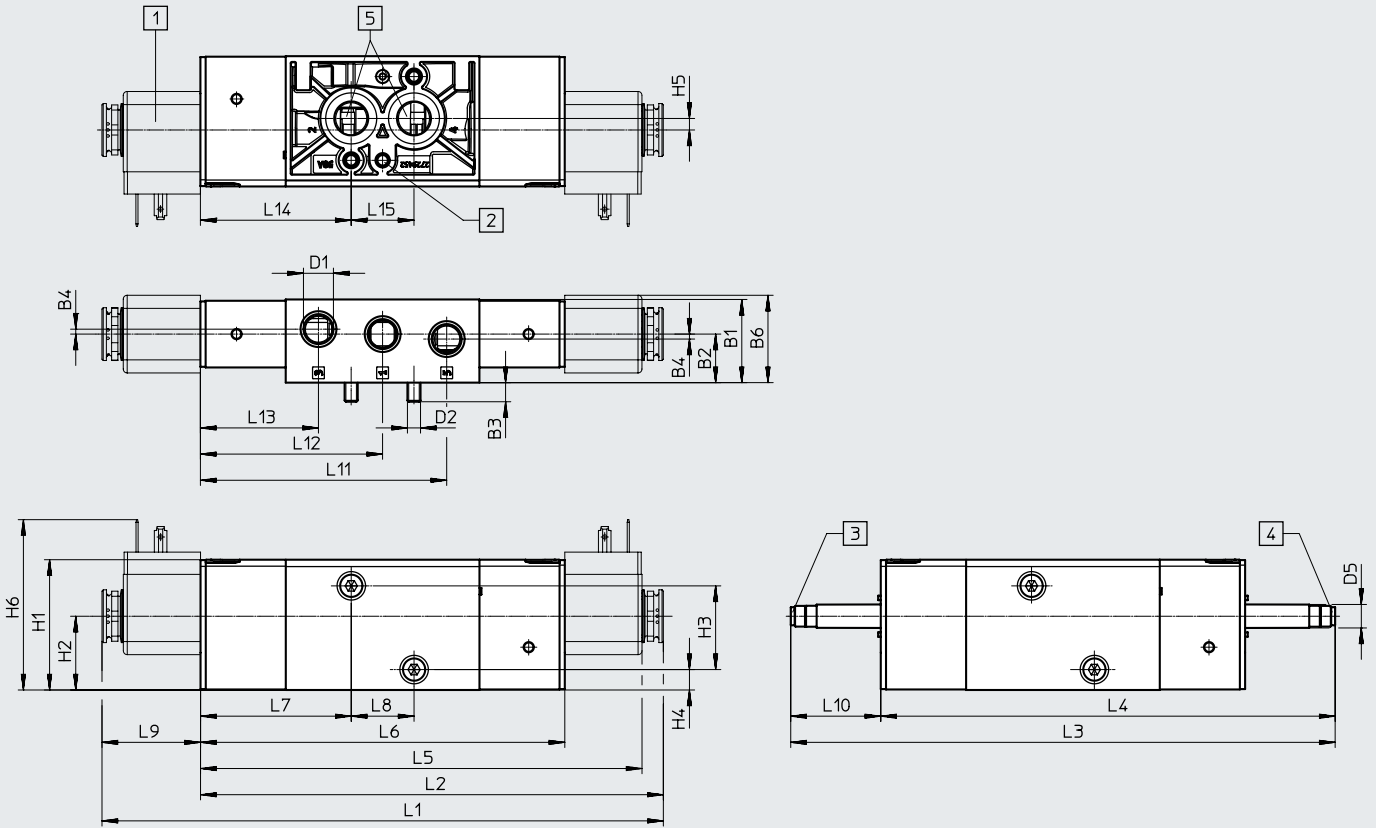
Electrical data		VSNC-F-P53C-MD-G14-FN	VSNC-F-P53U-MD-G14-FN	VSNC-F-P53E-MD-G14-FN
		VSNC-F-P53C-MD-N14-FN	VSNC-F-P53U-MD-N14-FN	VSNC-F-P53E-MD-N14-FN
Characteristic coil data		See solenoid coil, to be ordered separately		
Switching time on	[ms]	23		
Switching time off	[ms]	103		
Switching time changeover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

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

Data sheet – 5/3-way valve ...-FN

Dimensions

Download CAD data → www.festo.com



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

- [1] Solenoid coil
- [2] Diameter 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, connection pattern to NAMUR

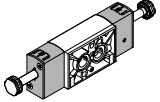
Type	B1	B2	B3	B4	B6	D1	D2	D5 ∅	H1	H2	H3	H4	H5	H6	L1
VSNC-F-P53C-MD-G14-FN	31.8	18.6	7.3	1.9	33.4	G 1/4	M5	9	49.8	28.2	32	7.8	4.4	-	-
VSNC-F-P53U-MD-G14-FN															
VSNC-F-P53E-MD-G14-FN															
VSNC-F-P53C-MD-N14-FN						1/4 NPT									
VSNC-F-P53U-MD-N14-FN															
VSNC-F-P53E-MD-N14-FN															

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														

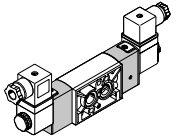
Data sheet – 5/3-way valve ...-FN

Ordering data – Valves

Directional control valve without solenoid coil

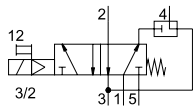
	Part no.	Type
	577269	VSNC-F-P53C-MD-G14-FN
	577270	VSNC-F-P53U-MD-G14-FN
	577271	VSNC-F-P53E-MD-G14-FN

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

Data sheet – 3/2-way or 5/2-way valve -...-FN, disc seat, convertible, single solenoid

Function convertible
3/2-way valve or

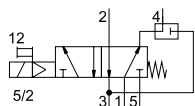


Operating pressure
2.5 ... 8 bar

Temperature range
-20 ... +60°C



5/2-way valve



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		Disc seat		
Sealing principle		Soft		
Actuation type		Electric		
Reset method		Mechanical spring		
Type of control		Piloted		
Pilot air supply		Internal		
Exhaust air function		Can be throttled		
Manual override		Non-detenting, detenting		
Type of mounting		Via through-hole		
Connection for venting hole		Not ducted		
Mounting position		Any		
Non-overlapping		No		
Flow direction		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	G1/4		
	2, 4	Connection 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	

Data sheet – 3/2-way or 5/2-way valve -...-FN, disc seat, 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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

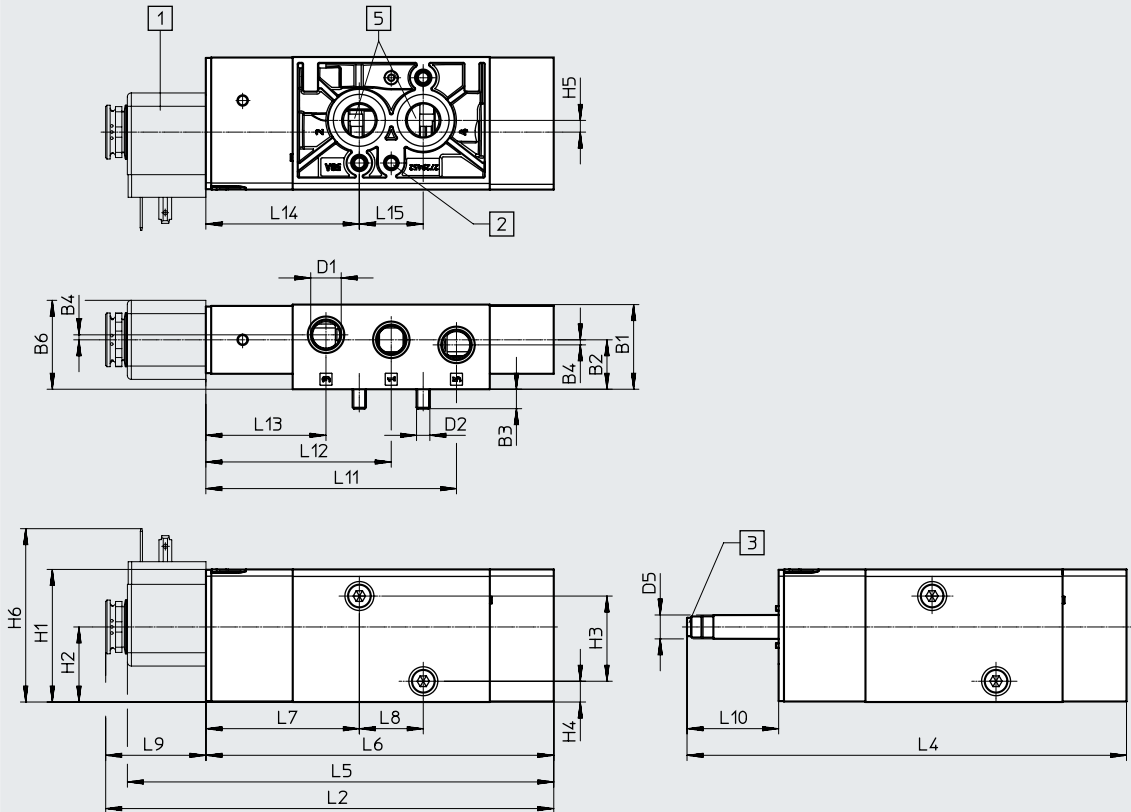
Electrical data	VSNC-FTC-M52-MD-G14-FN VSNC-FTC-M52-MD-N14-FN		VSNC-FTC-M52-MD-G14-FN-1A1
	Electrical connection	-	
Characteristic coil data, 24 V DC [W]	See solenoid coil, to be ordered separately		0.7
Switching time on [ms]	16		16
Switching time off [ms]	120		120
Permissible voltage fluctuations [%]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

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

Data sheet – 3/2-way or 5/2-way valve -...-FN, disc seat, convertible, single solenoid

Dimensions

Download CAD data → www.festo.com



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

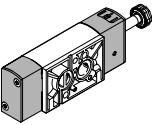
- [1] Solenoid coil
- [2] Diameter 5x4 to DIN 913-M5x10-45h
- [3] Suction of auxiliary pilot air 82, M5
- [5] Working port 2 and 4, connection pattern to NAMUR

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	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														

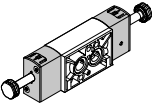
Type	L2	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
VSNC-FTC-M52-MD-G14-FN	-	165	-	130.6	57.6	24	-	34.4	94.1	69.6	45.1	57.6	24
VSNC-FTC-M52-MD-G14-FN-1A1			-										
VSNC-FTC-M52-MD-N14-FN-1A1			160.1										

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

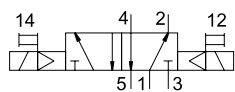
Directional control valve with 24 V DC solenoid coil


	577297	VSNC-FTC-M52-MD-G14-FN-1A1
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Data sheet – 5/2-way valve, double solenoid

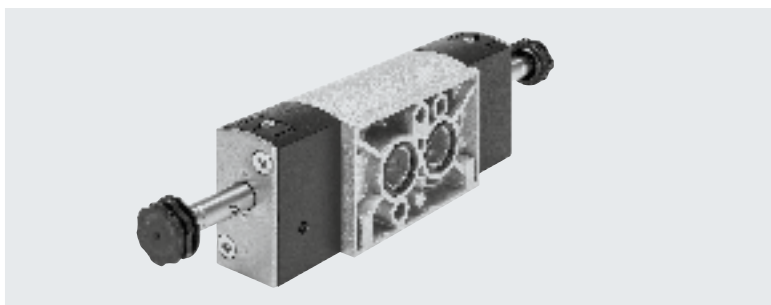
Function

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-G14-FN-1A1
		VSNC-FT-B52-D-N14-FN	
Valve function		5/2-way, double solenoid	
Width	[mm]	32	
Design		Disc seat	
Sealing principle		Soft	
Actuation type		Electric	
Reset method		Mechanical spring	
Type of control		Piloted	
Pilot air supply		Internal	
Exhaust air function		Can be throttled	
Manual override		Non-detenting, detenting	
Type of mounting		Via through-hole	
Connection for venting hole		Not ducted	
Mounting position		Any	
Non-overlapping		No	
Flow direction		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	G 1/4, 1/4 NPT Connection 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

Data sheet – 5/2-way valve, 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. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Additional information is available at www.festo.com/sp → Certificates.

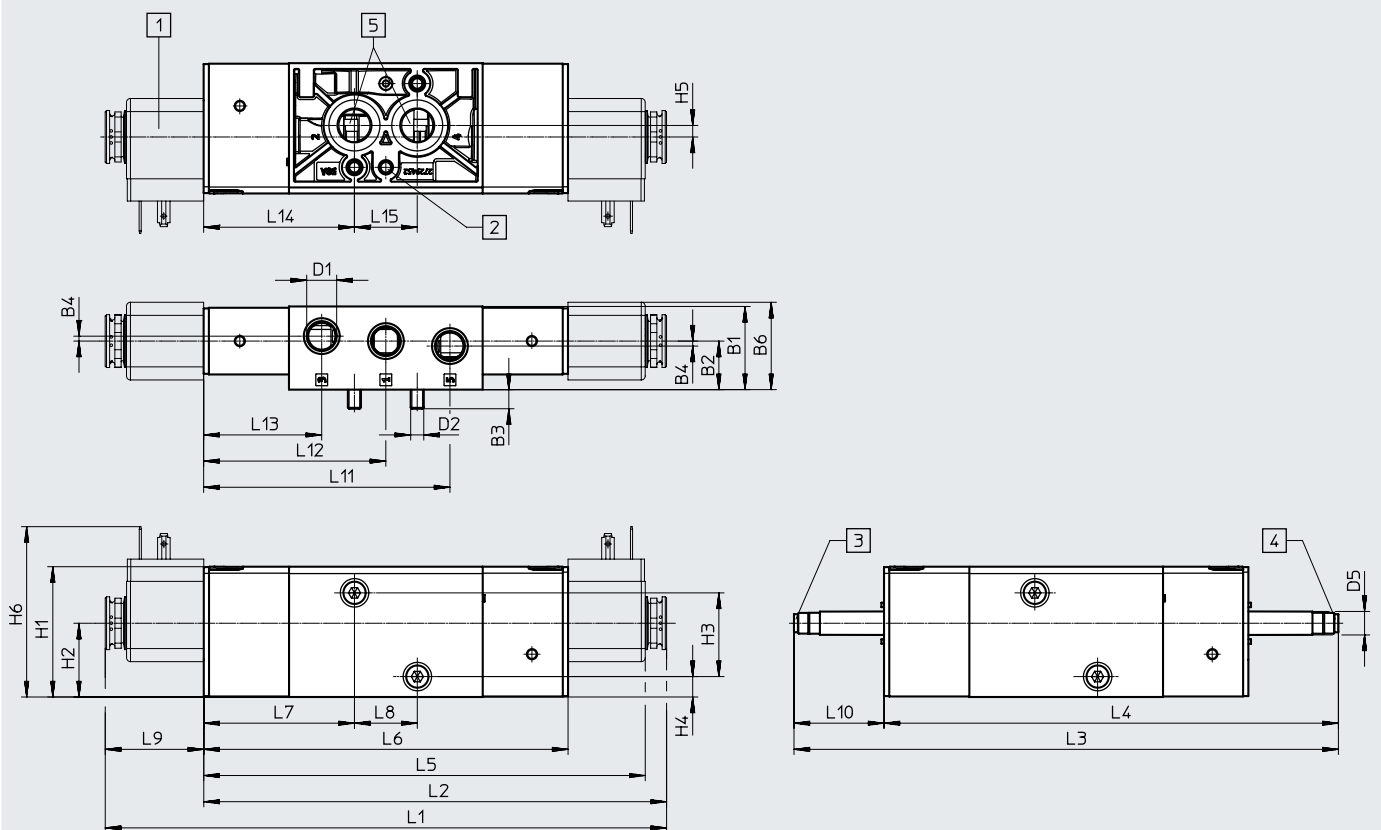
Electrical data			
		VSNC-FT-B52-D-G14-FN VSNC-FT-B52-D-N14-FN	VSNC-FT-B52-D-G14-FN-1A1
Electrical connection		–	Type A to EN 175301-803
Characteristic coil data, 24 V DC	[W]	See solenoid coil, to be ordered separately	0.7
Switching time changeover	[ms]	16	16
Permissible voltage fluctuations	[%]	–	±10

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

Data sheet – 5/2-way valve, double solenoid

Dimensions

Download CAD data → www.festo.com



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

- [1] Solenoid coil
- [2] Diameter 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, connection pattern to NAMUR

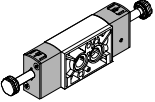
Type	B1	B2	B3	B4	B6	D1	D2	D5 ∅	H1	H2	H3	H4	H5	H6	L1
VSNC-FT-B52-D-G14-FN	31.8	18.6	7.3	1.9	33.4	G 1/4	M5	9	49.8	28.2	32	7.8	4.4	-	-
VSNC-FT-B52-D-G14-FN-1A1						1/4 NPT									
VSNC-FT-B52-D-N14-FN															

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														

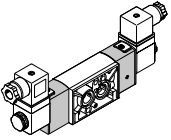
Data sheet – 5/2-way valve, double solenoid

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
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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:--:-]

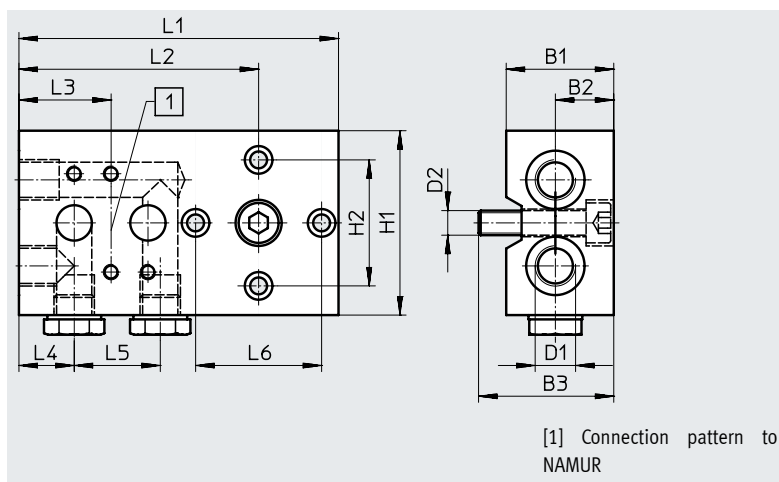
Degree of protection IP65

Material of sub-base:

Ematal-coated aluminium

Material of seals: NBR

Contains paint-wetting
impairment substances,
RoHS-compliant



Dimensions [mm] and ordering data

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

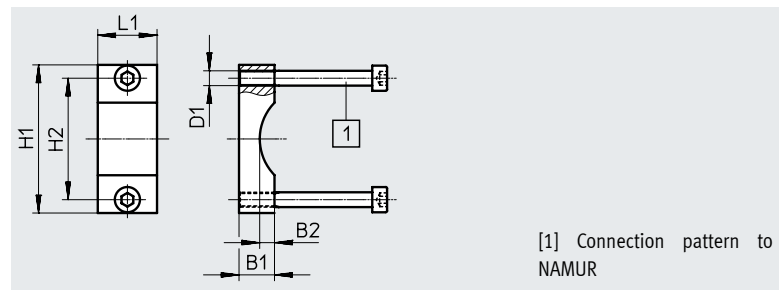
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Mounting bracket

Material of bracket: Wrought aluminium alloy

Contains paint-wetting

impairment substances,
RoHS-compliant



Dimensions [mm] and ordering data

B1	B2	B3	D1	H1	H2	L1	CRC ¹⁾	Part no.	Type
45/65	12	5	M5	50	41	20	3	563403	VAME-S7-Y

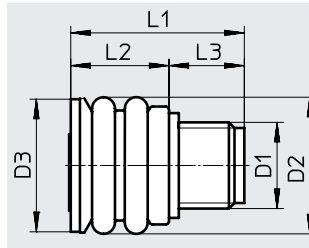
1) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. 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			
Data sheets → 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

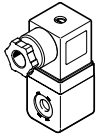
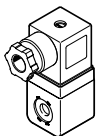
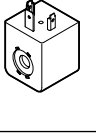
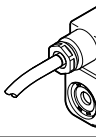
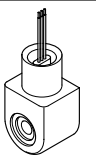
Festo core product range

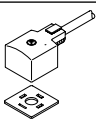
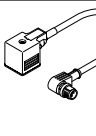


Generally ready for dispatch from the factory within 24 hours

Generally ready for dispatch from the factory within 5 days

Accessories

Ordering data – Solenoid coil		Part no.	Type
Characteristic coil data			
Type of ignition protection: intrinsically safe Ex-ia		Data sheets → Internet: vacn	
	28 V	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
	110 V AC; 60 Hz, pick-up power 5.4 VA, holding power 3.2 VA		
	230 V AC; 50 Hz, pick-up power 6.9 VA, holding power 4.1 VA	8029138	VACN-N-A1-3A-EX2-N
	230 V AC; 60 Hz, pick-up power 5.4 VA, holding power 3.3 VA		
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
	110 V AC; 60 Hz, pick-up power 4.2 VA, holding power 2.5 VA		
	230 V AC; 50 Hz, pick-up power 6.2 VA, holding power 3.7 VA	8029135	VACN-N-A1-3A
	230 V AC; 60 Hz, pick-up power 4.9 VA, holding power 2.9 VA		
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 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 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		Nominal operating voltage	Cable length	Part no.	Type		
Description		[V]	[m]				
Connecting cable				Data sheets → 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	
		230 V AC	–		2.5	30932	KMC-1-230 AC-2.5
					5	30934	KMC-1-230 AC-5
	For valves with F solenoid coils	24 DC	• Signal status display	2.5	30935	KMF-1-24DC-2.5-LED	
Connecting cable				Data sheets → 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	
				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	
		24 AC/DC	• Signal status display • Protective circuit	0.6	3679772	NEBV-A1W3-P-0.6-N-M12W3	
				0.6	3679776	NEBV-A1W3-P-K-0.6-LE3	

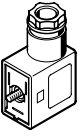
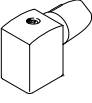






Festo core product range



Generally ready for dispatch from the factory within 24 hours

Generally ready for dispatch from the factory within 5 days

Accessories

Ordering data	Description	Part no.	Type
Plug socket Data sheets → 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 Data sheets → 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
Silencer U Data sheets → 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	U-1/4-B-NPT
Illuminating seal Data sheets → 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