

# Standard valves to ISO 15218

Product range overview

Function	Electrical connection	Voltage	Manual override	→ Page/Internet		
Pilot valve to ISO 15218	Plug Square plug, type C, to EN 175301-803	-	12 V DC	Non-detenting	2	
				Non-detenting/detenting	2	
			24 V DC	Non-detenting	2	
				Non-detenting/detenting	2	
			24 V AC	Non-detenting	2	
				Non-detenting/detenting	2	
		With protective earth conductor	110 V AC	Non-detenting	4	
				Non-detenting/detenting	4	
			230 V AC	Non-detenting	4	
				Non-detenting/detenting	4	
		Round plug M12, to IEC 61076-2-101	-	24 V DC	Non-detenting	6
					Non-detenting/detenting	6
		Square plug, type A, to EN 175301-803	-	24 V DC/42 V AC	Non-detenting	8
					Non-detenting/detenting	8
110 V AC	Non-detenting			8		
	230 V AC			Non-detenting	8	

# Standard valves to ISO 15218

Technical data – Valve with square plug, type C

**Piloted standard valve with square plug**

VSCS-B-M32-MD-WA-1C1

VSCS-B-M32-MH-WA-1C1

VSCS-B-M32-...-1AC1

VSCS-B-M32-...-5C1

- Valve actuator for electrically actuating basic valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection: to EN 175301-803, type C



General technical data	
Electrical connection	Square plug, type C (without protective earth conductor), to EN 175301-803
Valve function	3/2-way valve, closed, single solenoid
Sealing principle	Soft
Actuation type	Electric
Reset method	Mechanical spring
Type of control	Direct
Direction of flow	Non-reversible
Non-overlapping	No
Width [mm]	15
Mounting position	Any
Mounting	On basic valve body or sub-base via screws (2x M3)
Standard nominal flow rate [l/min]	18
Duty cycle [%]	100
Operating pressure [bar]	0 ... 10
Protection class to EN 60529	IP65 (in combination with plug socket)
Conforms to standard	ISO 15218

Coil characteristics				
Type		VSCS-...-5C1	VSCS-...-1C1	VSCS-...-1AC1
Operating voltage	[V AC]	–	–	24
	[V DC]	12	24	–
	[Hz]	–	–	50/60
Power	[W]	1.8	1.8	–
Pick-up power	[VA]	–	–	3.1
Holding power	[VA]	–	–	2.3
Switching time on/off	[ms]	6/6	6/6	6/6
Perm. voltage fluctuations	[%]	–15/+10	–15/+10	–15/+10

Materials	
Seals	NBR
Note on materials	RoHS-compliant

Safety data				
Operating voltage		12 V DC	24 V DC	24 V AC
Note on forced checking procedure		Switching frequency min. 1/week		
Max. positive test pulse with 0 signal	[µs]	–	2100	–
Max. negative test pulse with 1 signal	[µs]	–	800	–
Resistance to shocks		Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27		
Vibration resistance		Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6		

# Standard valves to ISO 15218

Technical data – Valve with square plug, type C

Operating and environmental conditions			
Type	VSCS-...-5C1	VSCS-...-1C1	VSCS-...-1AC1
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Note on operating/pilot medium	Lubricated operation possible (required during subsequent operation)		
Ambient temperature	[°C]	-10 ... +50	
Temperature of medium	[°C]	-10 ... +50	
Corrosion resistance class CRC <sup>1)</sup>	2		
Certification	-	c UL us - Recognized (OL)	-

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.

Valve functions	
Circuit symbol	Description
	3/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Mechanical spring return</li> </ul>

### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

- 1 Connection dimensions and device plug to EN 175301-803, type C
- 2 Manual override
- 3 Pneumatic port pattern to ISO 15218

Type	B1	H1	H2	H3	L1
VSCS-...C1	15.2	23.2	10.5	18.2	41.9

Ordering data					
Pilot valve to ISO 15218		Operating voltage	Manual override	Part No.	Type
	Square plug, type C, to EN 175301-803	12 V DC	Non-detenting	546257	VSCS-B-M32-MH-WA-5C1
			Non-detenting/detenting	571062	VSCS-B-M32-MD-WA-5C1
		24 V DC	Non-detenting	546256	VSCS-B-M32-MH-WA-1C1
			Non-detenting/detenting	571061	VSCS-B-M32-MD-WA-1C1
		24 V AC	Non-detenting	546258	VSCS-B-M32-MH-WA-1AC1
			Non-detenting/detenting	571063	VSCS-B-M32-MD-WA-1AC1

# Standard valves to ISO 15218

Technical data – Valve with square plug, type C

**Piloted standard valve with square plug**

VSCS-B-M32-...-2AC1

VSCS-B-M32-...-3AC1

- Valve actuator for electrically actuating basic valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection: to EN 175301-803, type C
- With protective earth conductor



General technical data	
Electrical connection	Square plug, type C (with protective earth conductor), to EN 175301-803
Valve function	3/2-way valve, closed, single solenoid
Sealing principle	Soft
Actuation type	Electric
Reset method	Mechanical spring
Type of control	Direct
Direction of flow	Non-reversible
Non-overlapping	No
Width [mm]	15
Mounting position	Any
Mounting	On basic valve body or sub-base via screws (2x M3)
Standard nominal flow rate [l/min]	18
Duty cycle [%]	100
Operating pressure [bar]	0 ... 10
Protection class to EN 60529	IP65 (in combination with plug socket)
Conforms to standard	ISO 15218

Coil characteristics			
Type		MH ... 2AC1 MD ... 2AC1	MH ... 3AC1 MD ... 3AC1
Operating voltage	[V AC]	110	230
	[V DC]	–	–
	[Hz]	50/60	50/60
Power	[W]	–	–
Pick-up power	[VA]	2.9	2.9
Holding power	[VA]	2.1	2.1
Switching time on/off	[ms]	6/6	6/6
Perm. voltage fluctuations	[%]	–15/+10	–15/+10

Materials	
Seals	NBR
Note on materials	RoHS-compliant

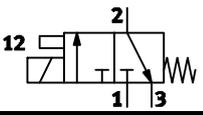
Safety data	
Note on forced checking procedure	Switching frequency min. 1/week
Resistance to shocks	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6

# Standard valves to ISO 15218

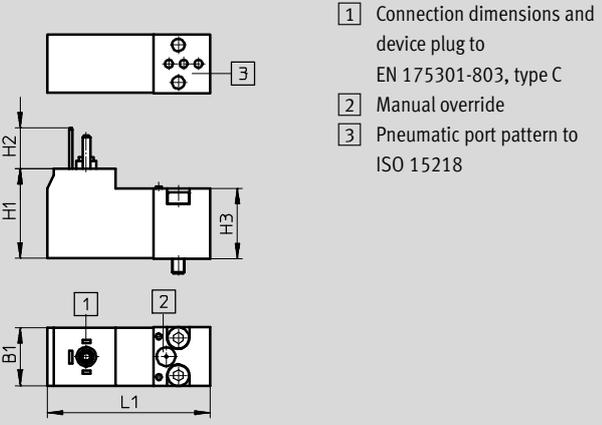
Technical data – Valve with square plug, type C

Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Lubricated operation possible (required during subsequent operation)
Ambient temperature [°C]	-10 ... +50
Temperature of medium [°C]	-10 ... +50
Corrosion resistance class CRC <sup>1)</sup>	2
CE marking (see declaration of conformity) <sup>2)</sup>	In accordance with EU Low Voltage Directive

- 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.
- 2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

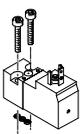
Valve functions	
Circuit symbol	Description
	3/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Mechanical spring return</li> </ul>

**Dimensions** Download CAD data → [www.festo.com](http://www.festo.com)



1) Connection dimensions and device plug to EN 175301-803, type C  
2) Manual override  
3) Pneumatic port pattern to ISO 15218

Type	B1	H1	H2	H3	L1
VSCS-B-M32-...C1	15.2	23.2	10.5	18.2	41.9

Ordering data					
Pilot valve to ISO 15218		Operating voltage	Manual override	Part No.	Type
	Square plug, type C, to EN 175301-803, with protective earth conductor	110 V AC	Non-detenting	546259	VSCS-B-M32-MH-WA-2AC1
			Non-detenting/detenting	571064	VSCS-B-M32-MD-WA-2AC1
		230 V AC	Non-detenting	546260	VSCS-B-M32-MH-WA-3AC1
			Non-detenting/detenting	571065	VSCS-B-M32-MD-WA-3AC1

# Standard valves to ISO 15218

Technical data – Valve with round plug, M12

**Piloted standard valve with round plug**

VSCS-B-M32 ... R3

- Valve actuator for electrically actuating basic valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection: to IEC 61076-2-101/M12x1



General technical data	
Electrical connection	Round plug, M12x1, to IEC 61076-2-101
Valve function	3/2-way valve, closed, single solenoid
Sealing principle	Soft
Actuation type	Electric
Reset method	Mechanical spring
Type of control	Direct
Direction of flow	Non-reversible
Non-overlapping	No
Width [mm]	15
Mounting position	Any
Mounting	On basic valve body or sub-base via screws (2x M3)
Standard nominal flow rate [l/min]	18
Duty cycle [%]	100
Operating pressure [bar]	0 ... 10
Protection class to EN 60529	IP65 (in combination with plug socket)
Conforms to standard	ISO 15218

Coil characteristics	
Operating voltage [V DC]	24
Power [W]	1.8
Switching time on/off [ms]	6/6
Perm. voltage fluctuations [%]	-15/+10

Materials	
Seals	NBR
Note on materials	RoHS-compliant

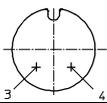
Safety data	
Note on forced checking procedure	Switching frequency min. 1/week
Max. positive test pulse with 0 signal [µs]	2100
Max. negative test pulse with 1 signal [µs]	800
Resistance to shocks	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6

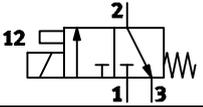
# Standard valves to ISO 15218

Technical data – Valve with round plug, M12

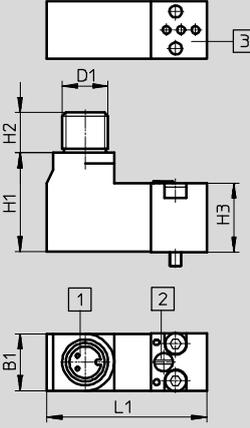
Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Lubricated operation possible (required during subsequent operation)
Ambient temperature [°C]	-10 ... +50
Temperature of medium [°C]	-10 ... +50
Corrosion resistance class CRC <sup>1)</sup>	2
Certification	c UL us - Recognized (OL)

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.

Pin allocation		
M12x1, 2-pin	Pin	Description
	3	0 V
	4	U <sub>B</sub>

Valve functions	
Circuit symbol	Description
	3/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Mechanical spring return</li> </ul>

**Dimensions** Download CAD data → [www.festo.com](http://www.festo.com)



- 1 Connection dimensions and device plug, M12 plug
- 2 Manual override
- 3 Pneumatic port pattern to ISO 15218

Type	B1	D1	H1	H2	H3	L1
VSCS-...R3	15.2	M12	26.1	10.6	18.2	41.9

Ordering data					
Pilot valve to ISO 15218		Operating voltage	Manual override	Part No.	Type
	Round plug M12, to IEC 61076-2-101	24 V DC	Non-detenting	573214	VSCS-B-M32-MH-WA-1R3
			Non-detenting/detenting	573215	VSCS-B-M32-MD-WA-1R3

# Standard valves to ISO 15218

Technical data – Valve with square plug, type A

**Pilot standard valve with square plug MDH-3/2 ...**

- Valve actuator for electrical actuation of basic valve bodies
- Pneumatic connection: to ISO 15218 (CNOMO)
- Electrical connection: to EN 175301-803, type A



General technical data	
Electrical connection	Square plug, type A, to EN 175301-803
Valve function	3/2-way valve, single solenoid, closed
Sealing principle	Soft-sealing
Actuation type	Electric
Reset method	Mechanical spring
Design	Poppet valve
Type of control	Direct
Direction of flow	Non-reversible
Non-overlapping	No
Switching position display	No
Width [mm]	30
Mounting position	Any
Mounting	Screwed to basic valve body or connecting plate
Manual override	Non-detenting
Standard nominal flow rate [l/min]	50
Duty cycle [%]	100
Operating pressure [bar]	1 ... 16
Protection class to EN 60529	IP65 (in combination with plug socket)
Conforms to standard	ISO 15218
Weight [g]	140

Coil characteristics					
Type		MDH-3/2-24VDC/42VAC	MDH-3/2-24DC	MDH-3/2-110VAC	MDH-3/2-230VAC
Operating voltage	[V AC]	42	48	110	230
	[V DC]	24	24	–	–
	[Hz]	50/60	50/60	50/60	50/60
Power	[W]	8.4	6	–	–
Pick-up power	[VA]	11.5	14.5	12	12
Holding power	[VA]	8.5	9.9	8	8
Switching time on/off	[ms]	11/9	11/9	11/9	11/9
Perm. voltage fluctuations	[%]	–10/+10	–10/+10	–10/+10	–10/+10
Perm. frequency fluctuations	[%]	–10/+10	–	–10/+10	–10/+10

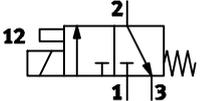
# Standard valves to ISO 15218

Technical data – Valve with square plug, type A

Operating and environmental conditions		
Type	MDH-3/2-24DC MDH-3/2-24VDC/42VAC	MDH-3/2-110VAC MDH-3/2-230VAC
Operating medium	Compressed air according 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)	
Ambient temperature [°C]	-10 ... +50	-15 ... +50
Temperature of medium [°C]	-15 ... +80	-15 ... +80
Corrosion resistance class CRC <sup>1)</sup>	2	
CE marking (see declaration of conformity) <sup>2)</sup>	-	To EU Low Voltage Directive

- 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.
- 2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Materials	
Type	MDH ...
Seals	FPM
Note on materials	RoHS-compliant

Valve functions	
Circuit symbol	Description
	MDH-3/2-... 3/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Mechanical spring return</li> </ul>

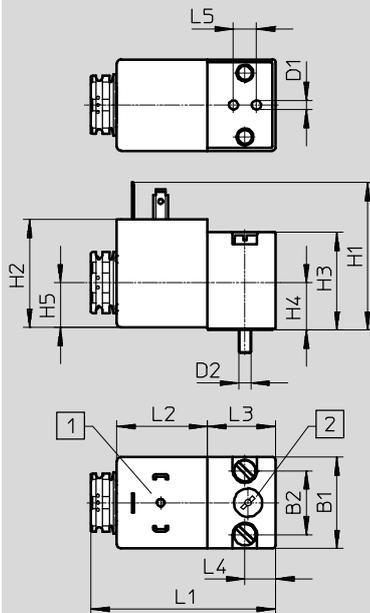
# Standard valves to ISO 15218

Technical data – Valve with square plug, type A



## Dimensions

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- 1 Connection dimensions and device plug to EN 175301-803, type A
- 2 Manual override

Type	B1	B2	D1	D2	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5
	+0.15 -0.5	+0.15 -0.5	+0.25 -0.2			+0.2 -0.4	+0.4 -0.1		±0.2	+1.0 -0.5	+0.3			
MDH-3/2 ...	30	21	3	M4	48.4	35.5	32	15.5	14.7	60.7	29.5	22	10	7.5

## Ordering data

Pilot valve to ISO 15218		Operating voltage	Manual override	Part No.	Type
	Square plug, type A, to EN 175301-803	24 V DC/42 V AC	Non-detenting	<b>119603</b>	<b>MDH-3/2-24VDC/42VAC</b>
		24 V DC/48 V AC	Non-detenting	<b>119600</b>	<b>MDH-3/2-24DC</b>
		110 V AC	Non-detenting	<b>119601</b>	<b>MDH-3/2-110VAC</b>
		230 V AC	Non-detenting	<b>119602</b>	<b>MDH-3/2-230VAC</b>