

Tiger valve 2000

FESTO



Characteristics

At a glance

General information:

- A comprehensive and consistent program with 5/2- and 5/3-way valves
- Poppet valve for monostable functions or piston slide for the more complex, air-suspended types like the 5/3-way valves
- With flow-optimized interior for higher flow rate performances with the same overall width
- Pneumatic connections G1/8, G1/4, G3/8
- Versatile and flexible, can be mounted on the side and front
- Pneumatically or electrically actuated
- Versatile electrical connection technology with F solenoid coil or V solenoid coil with low power consumption, also for equipping valve terminals
- Functional and timeless design, with closed housing front

F-solenoid coils:

- Voltage 12 to 230 V DC; 12 to 240 V AC (50 to 60 Hz)
- Power consumption 4.1 to 5.5 W DC; 3.85 to 9 VA AC
- For all MFH valves
- Specified types suitable for potentially explosive atmospheres in accordance with the ATEX directive
- Solenoid coil can be easily replaced at a later date
- Solenoid coil not in scope of delivery

V-solenoid coils:

- Voltage 24 V DC
- Power consumption 2.5 W
- For all MVH valves
- Low heating

Type code

001	Series	
MFH	Solenoid valve, with armature tube for F solenoid coil, single solenoid, normally closed	
MVH	Single solenoid valve, with V solenoid coil	
JMFH	Solenoid valve, with armature tube for F solenoid coil, double solenoid	
JMVH	Double solenoid valve, with V solenoid coil	
VL	Pneumatic valve, single solenoid	
J	Pneumatic valve, bistable	

002	Valve function	
5	5/2 directional control valve	
5/3G	5/3 directional control valve, mid-position closed	
5/3E	5/3 directional control valve, mid-position exhausted	
5/3B	5/3 directional control valve, mid-position pressurized	

003	Pneumatic connection	
1/8	G1/8	
1/4	G1/4	
3/8	G3/8	

004	Reset method	
L	Pneumatic spring	
	Mechanical spring	

005	Pilot air	
	Internal	
S	External	

006	Generation	
B	Series B	

007	Certification	
	Without	
EX	ATEX certification	

Datasheet

Solenoid valves MFH-B, 5/2-directional valves, General technical data

Pneumatic connection 1	G1/8		G1/4		G3/8	
Reset method	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring
Valve function	5/2-way, monostable					
Structural design	Plate seat	Piston gate valve	Plate seat	Piston gate valve		
Normal nominal flow rate (normalized to DIN 1343)	750 l/min	1,000 l/min	1,300 l/min	1,600 l/min	2,000 l/min	
Lap	Negative overlap	Positive overlap	Negative overlap	Positive overlap		
Sealing principle	Soft					
Actuation type	Electrical					
Type of control	Piloted					
Pilot air supply port	External, Internal					
Flow direction	Non-reversible	Non-reversible, Reversible	Non-reversible	Non-reversible, Reversible		
Exhaust air function	–		Adjustable			
Manual override	Non-detenting					
Type of mounting ¹⁾	Alternatively:, On PR manifold rail, With through-hole					
Mounting position	Any					
Electrical connection	Via F coil, to be ordered separately					
b-value	0.34	–	0.29	0.38	–	
C value	3	–	5.5	6.35	–	
Nominal width	5 mm	8 mm	7 mm	10 mm	12 mm	
Width dimension	27 mm		33 mm			41 mm
Width	26 mm		32 mm			40 mm
Product weight	220 g, 250 g	280 g, 300 g	300 g, 360 g	380 g	630 g	

1) Fastening of types MFH-3-3/4- and MÖFH-3-3/4- only with through hole

Solenoid valves MFH-B, 5/2-way valves, safety-related characteristics

Max. switching frequency	3 Hz
Max. positive test pulse with 0 signal	2,200 µs
Max. negative test pulse on 1 signal	3,700 µs

Solenoid valves MFH-B, 5/2-way valves, ATEX

ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T4 Gb
ATEX category for dust	II 2D
Type of (ignition) protection for dust	Ex h IIIC T130°C Db
Explosive ambient temperature	-5°C ≤ Ta ≤ +40°C
CE marking (see declaration of conformity) ¹⁾	as per EU explosion protection directive (ATEX)
UKCA marking (see declaration of conformity) ²⁾	acc. to UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Degree of protection	IP65

1) Further information www.festo.com/catalogue/...d/Support/Downloads.

2) Further information www.festo.com/catalogue/...d/Support/Downloads.

Datasheet

Solenoid valves MFH-B, 5/2-directional valves, operating and environmental conditions						
Pneumatic connection 1	G1/8		G1/4		G3/8	
Reset method	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]					
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]					
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)					
Operating pressure	0 ... 1 MPa	-0.09 ... 1 MPa	0 ... 1 MPa	-0.09 ... 1 MPa		
Operating pressure	0 ... 10 bar	-0.9 ... 10 bar	0 ... 10 bar	-0.9 ... 10 bar		
Pilot pressure	2 ... 10 bar	3 ... 10 bar	1.5 ... 8 bar	3 ... 10 bar	2.5 ... 10 bar	2 ... 10 bar
Pilot pressure MPa	0.2 ... 1 MPa	0.3 ... 1 MPa	0.15 ... 0.8 MPa	0.3 ... 1 MPa	0.25 ... 1 MPa	0.2 ... 1 MPa
Ambient temperature	-5 ... 40°C					
Temperature of medium	-10 ... 60°C					
Storage temperature	-40 ... 60°C					
Note on materials	RoHS compliant					
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress					
LABS (PWIS) conformity	VDMA24364-B1/B2-L					

1) For more information, visit www.festo.com/x/topic/kbk

Solenoid valves MFH-B, 5/2-way valves, electrical data	
Electrical connection	Via F coil, to be ordered separately
Degree of protection	IP65

Weights						
Pneumatic connection 1	G1/8		G1/4		G3/8	
Reset method	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring
On switching time	10 ms	27 ms	12 ms	23 ms	20 ms	25 ms, 27 ms
Switching time off	30 ms	22 ms	36 ms	42 ms	56 ms	50 ms, 65 ms

Materials	
Housing material	Die-cast aluminum
Seals material	NBR, TPE-U(PU)
Note on materials	RoHS compliant

General technical data			
Pneumatic connection 1	G1/8	G1/4	G3/8
Valve function	5/2-way, bistable		
Structural design	Piston gate valve		
Lap	Positive overlap		
Sealing principle	Soft		
Actuation type	Electrical		
Reset method	–		Mechanical spring
Type of control	Piloted		
Pilot air supply port	External, Internal		
Flow direction	Non-reversible, Reversible		
Exhaust air function	–	Adjustable	
Manual override	Non-detenting		
Type of mounting	Alternatively:, On PR manifold rail, With through-hole		
Mounting position	Any		
Electrical connection	Via F coil, to be ordered separately		
b-value	–	0.38	–
C value	–	6.35	–
Nominal width	8 mm	10 mm	12 mm
Normal nominal flow rate (normalized to DIN 1343)	1,000 l/min	1,600 l/min	2,000 l/min
Width dimension	27 mm	33 mm	41 mm
Width	26 mm	32 mm	40 mm
Product weight	400 g, 440 g	460 g	650 g

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Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, safety-related characteristics

Max. switching frequency	3 Hz
Max. positive test pulse with 0 signal	2,200 µs
Max. negative test pulse on 1 signal	3,700 µs

Solenoid valves MFH-B, 5/2-directional valves, solenoid pilot valves, operating and environmental conditions

Pneumatic connection 1	G1/8	G1/4	G3/8
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Operating pressure	0.2 ... 1 MPa		0.2 ... 0.8 MPa
Operating pressure	2 ... 10 bar		2 ... 8 bar
Ambient temperature	-5 ... 40°C		
Temperature of medium	-10 ... 60°C		
Storage temperature	-40 ... 60°C		
Note on materials	RoHS compliant		
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

1) For more information, visit www.festo.com/x/topic/kbk

Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, electrical data

Electrical connection	Via F coil, to be ordered separately
Degree of protection	IP65

Weights

Pneumatic connection 1	G1/8	G1/4	G3/8
Changeover time	12 ms	14 ms	12 ms

Materials

Housing material	Die-cast aluminum
Seals material	NBR
Note on materials	RoHS compliant

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General technical data			
Pneumatic connection 1	G1/8	G1/4	G3/8
Actuation type	Electrical		
Valve function	5/3-way, pressurized, 5/3 exhausted, 5/3-way, closed		
Structural design	Piston gate valve		
Lap	Positive overlap		
Sealing principle	Soft		
Type of control	directly, Piloted	Piloted	
Pilot air supply port	External, Internal		
Flow direction	Non-reversible, Reversible		
Exhaust air function	–	Adjustable	
Manual override	None, Non-detenting	Non-detenting	
Type of mounting	Alternatively:, On PR manifold rail, With through-hole		
Mounting position	Any		
Electrical connection	Via F coil, to be ordered separately		
b-value	–	0.38	–
C value	–	6.35	–
Nominal width	8 mm	10 mm	12 mm
Normal nominal flow rate (normalized to DIN 1343)	1,000 l/min	1,600 l/min	2,200 l/min, 2,600 l/min
Width dimension	27 mm	33 mm	41 mm
Width	26 mm	32 mm	40 mm
Product weight	400 g, 440 g, 575 g	500 g	780 g, 1,000 g

Solenoid valves MFH-B, 5/3-way valves, safety-related characteristics

Max. switching frequency	3 Hz
Max. positive test pulse with 0 signal	2,200 µs
Max. negative test pulse on 1 signal	3,700 µs

Solenoid valves MFH-B, 5/3-way valves, ATEX

ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T4 Gb
ATEX category for dust	II 2D
Type of (ignition) protection for dust	Ex h IIIC T130°C Db
Explosive ambient temperature	-5°C ≤ Ta ≤ +40°C
CE marking (see declaration of conformity) ¹⁾	as per EU explosion protection directive (ATEX)
UKCA marking (see declaration of conformity) ²⁾	acc. to UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Degree of protection	IP65

1) Further information www.festo.com/catalogue/...d/Support/Downloads.2) Further information www.festo.com/catalogue/...d/Support/Downloads.

Datasheet

Solenoid valves MFH-B, 5/3-directional valves, operating and environmental conditions

Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Operating pressure	-0.09 ... 1 MPa
Operating pressure	-0.9 ... 10 bar
Pilot pressure MPa	0.3 ... 1 MPa
Pilot pressure	3 ... 10 bar
Ambient temperature	-5 ... 40°C
Temperature of medium	-10 ... 60°C
Storage temperature	-40 ... 60°C
Note on materials	RoHS compliant
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) For more information, visit www.festo.com/x/topic/kbk

Solenoid valves MFH-B, 5/3-way valves, electrical data

Electrical connection	Via F coil, to be ordered separately
Degree of protection	IP65

Weights

Pneumatic connection 1	G1/8			G1/4			G3/8		
Valve function	5/3-way, pressurized	5/3 exhausted	5/3-way, closed	5/3-way, pressurized	5/3 exhausted	5/3-way, closed	5/3-way, pressurized	5/3 exhausted	5/3-way, closed
On switching time	23 ms	21 ms	20 ms, 23 ms	22 ms	23 ms, 24 ms	18 ms, 20 ms	25 ms	26 ms	20 ms, 24 ms
Switching time off	21 ms	20 ms	23 ms, 30 ms	23 ms	32 ms, 36 ms	30 ms, 36 ms	118 ms	114 ms	80 ms, 96 ms
Changeover time	16 ms	24 ms	23 ms	35 ms	35 ms, 37 ms	30 ms	78 ms	83 ms	54 ms

Materials

Housing material	Die-cast aluminum
Seals material	NBR
Note on materials	RoHS compliant

Datasheet

General technical data						
Pneumatic connection 1	G1/8		G1/4		G3/8	
Reset method	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring
Valve function	5/2-way, monostable					
Structural design	Plate seat	Piston gate valve	Plate seat	Piston gate valve		
Lap	Negative overlap	Positive overlap, Negative overlap	Negative overlap	Positive overlap		
Sealing principle	Soft					
Actuation type	Electrical					
Type of control	Piloted					
Pilot air supply port	External, Internal					
Flow direction	Non-reversible	Non-reversible, Reversible	Non-reversible	Non-reversible, Reversible		
Exhaust air function	–		Adjustable			
Manual override	Non-detenting					
Type of mounting	Alternatively: On PR manifold rail, With through-hole					
Mounting position	Any					
b-value	0.34	–	0.29	0.38	–	
C value	3	–	5.5	6.35	–	
Nominal width	5 mm	8 mm	7 mm	10 mm	12 mm	
Normal nominal flow rate (normalized to DIN 1343)	750 l/min	1,000 l/min	1,300 l/min	1,600 l/min	2,000 l/min	
Width dimension	–		33 mm			41 mm
Width	26 mm		32 mm			40 mm
Product weight	230 g	290 g	360 g	440 g	750 g	

Solenoid valves MVH-B, 5/2-way valves, safety-related characteristics

Max. switching frequency	3 Hz
Max. positive test pulse with 0 signal	2,200 µs
Max. negative test pulse on 1 signal	3,700 µs

Solenoid valves MVH-B, 5/2-directional valves, operating and environmental conditions

Pneumatic connection 1	G1/8		G1/4		G3/8	
Reset method	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]					
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]					
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)					
Operating pressure	0 ... 1 MPa	-0.09 ... 1 MPa	0 ... 1 MPa	-0.09 ... 1 MPa		
Operating pressure	0 ... 10 bar	-0.9 ... 10 bar	0 ... 10 bar	-0.9 ... 10 bar		
Pilot pressure MPa	0.2 ... 1 MPa	0.3 ... 1 MPa	0.15 ... 0.8 MPa	0.3 ... 1 MPa	0.25 ... 1 MPa	0.2 ... 1 MPa
Pilot pressure	2 ... 10 bar	3 ... 10 bar	1.5 ... 8 bar	3 ... 10 bar	2.5 ... 10 bar	2 ... 10 bar
Ambient temperature	-5 ... 50°C					
Temperature of medium	-5 ... 50°C					
Storage temperature	-40 ... 60°C					
Note on materials	RoHS compliant					
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress					
LABS (PWIS) conformity	VDMA24364-B1/B2-L					

1) For more information, visit www.festo.com/x/topic/kbk

Solenoid valves MVH-B, 5/2-way valves, electrical data

Coil characteristics	24 V DC: 2.5 W
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Datasheet

Weights

Pneumatic connection 1	G1/8		G1/4		G3/8	
Reset method	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring	Mechanical spring	Pneumatic spring
On switching time	20 ms	30 ms	15 ms	28 ms	22 ms	
Switching time off	36 ms	25 ms	36 ms	37 ms	60 ms	

Materials

Housing material	Die-cast aluminum
Seals material	NBR, TPE-U(PU)
Note on materials	RoHS compliant

General technical data

General technical data			
Pneumatic connection 1	G1/8	G1/4	G3/8
Valve function	5/2-way, bistable		
Structural design	Piston gate valve		
Lap	Positive overlap		
Sealing principle	Soft		
Actuation type	Electrical		
Type of control	Piloted		
Pilot air supply port	External, Internal		
Flow direction	Non-reversible, Reversible		
Exhaust air function	–	Adjustable	
Manual override	Non-detenting		
Type of mounting	Alternatively:, On PR manifold rail, With through-hole		
Mounting position	Any		
b-value	–	0.38	–
C value	–	6.35 l/sbar	–
Nominal width	8 mm	10 mm	12 mm
Normal nominal flow rate (normalized to DIN 1343)	1,000 l/min	1,600 l/min	2,000 l/min
Width dimension	–	33 mm	41 mm
Width	26 mm	32 mm	40 mm
Product weight	560 g	615 g	900 g

Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, safety-related characteristics

Max. switching frequency	3 Hz
Max. positive test pulse with 0 signal	2,200 µs
Max. negative test pulse on 1 signal	3,700 µs

Solenoid valves JMVH-B, 5/2-directional valves, solenoid pilot valves, operating and environmental conditions

Pneumatic connection 1	G1/8	G1/4	G3/8
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Operating pressure	-0.09 ... 1 MPa		
Operating pressure	-0.9 ... 10 bar		
Pilot pressure MPa	0.2 ... 1 MPa		
Pilot pressure	2 ... 10 bar		
Ambient temperature	-5 ... 50°C		
Temperature of medium	-5 ... 50°C		
Storage temperature	-40 ... 60°C		
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

1) For more information, visit www.festo.com/x/topic/kbk

Datasheet

Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, electrical data

Coil characteristics	24 V DC: 2.5 W
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Weights

Pneumatic connection 1	G1/8	G1/4	G3/8
Changeover time	18 ms	16 ms	17 ms

Materials

Housing material	Die-cast aluminum
Seals material	NBR
Note on materials	RoHS compliant

General technical data

Pneumatic connection 1				G1/8				G1/4				G3/8					
Valve function				5/3-way, pressurized		5/3 exhausted	5/3-way, closed		5/3-way, pressurized		5/3 exhausted		5/3-way, closed		5/3-way, closed		
Flow direction				Non-reversible	Reversible	Non-reversible		Reversible	Non-reversible	Reversible	Non-reversible		Reversible	Non-reversible		Reversible	
Structural design				Piston gate valve													
Lap				Positive overlap													
Sealing principle				Soft													
Actuation type				Electrical													
Reset method				Mechanical spring													
Type of control				Piloted													
Pilot air supply port				Internal	External	Internal		External	Internal	External	Internal		External	Internal		External	
Exhaust air function				–				Adjustable									
Manual override				Non-detenting													
Type of mounting				Alternatively:, On PR manifold rail, With through-hole													
Mounting position				Any													
b-value				–				0.38				–					
C value				–				6.35 l/sbar				–					
Nominal width				8 mm				10 mm				12 mm					
Normal nominal flow rate (normalized to DIN 1343)				1,000 l/min				1,600 l/min				2,600 l/min		2,200 l/min			
Width dimension				27 mm				33 mm				41 mm					
Width				26 mm				32 mm				40 mm					
Product weight				575 g				660 g				1,000 g				780 g	1,000 g

Solenoid valves MVH-B, 5/3-way valves, safety-related characteristics

Max. switching frequency	3 Hz
Max. positive test pulse with 0 signal	2,200 µs
Max. negative test pulse on 1 signal	3,700 µs

Datasheet

Solenoid valves MVH-B, 5/3-directional valves, operating and environmental conditions

Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Operating pressure	-0.09 ... 1 MPa
Operating pressure	-0.9 ... 10 bar
Pilot pressure MPa	0.3 ... 1 MPa
Pilot pressure	3 ... 10 bar
Ambient temperature	-5 ... 50°C
Temperature of medium	-5 ... 50°C
Storage temperature	-40 ... 60°C
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) For more information, visit www.festo.com/x/topic/kbk

Solenoid valves MVH-B, 5/3-way valves, electrical data

Coil characteristics	24 V DC: 2.5 W
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Solenoid valves MVH-B, 5/3-directional valves, valve switching times

Pneumatic connection 1	G1/8			G1/4			G3/8		
Valve function	5/3-way, pressurized	5/3 exhausted	5/3-way, closed	5/3-way, pressurized	5/3 exhausted	5/3-way, closed	5/3-way, pressurized	5/3 exhausted	5/3-way, closed
On switching time	31 ms	30 ms	28 ms	32 ms	36 ms	24 ms, 27 ms	35 ms		27 ms
Switching time off ¹⁾	26 ms	29 ms	32 ms	41 ms	38 ms	36 ms, 37 ms	92 ms	87 ms	89 ms
Changeover time	20 ms	34 ms	32 ms	46 ms		39 ms	73 ms	75 ms	57 ms

1) MVH-5/3...-1/8 and MVH-5/3...-1/8-B-VI-X: After long electrical activation (> 16h), the switch-off time of the 5/3 directional control valves can increase to max. 50 ms.

MVH-5/3...-1/4 and MVH-5/3...-1/4-B-VI-X: After long electrical activation (> 16h), the switch-off time of the 5/3 directional control valves can increase to max. 100 ms.

MVH-5/3...-3/8: After long electrical activation (> 16h), the switch-off time of the 5/3 directional control valves can increase to max. 150 ms.

Materials

Housing material	Die-cast aluminum
Seals material	NBR
Note on materials	RoHS compliant

General technical data

Pneumatic connection 1	G1/8	G1/4	G3/8
Valve function	5/2-way, monostable		
Structural design	Plate seat		Piston gate valve
Lap	Negative overlap		Positive overlap
Sealing principle	Soft		
Actuation type	Pneumatic		
Reset method	Mechanical spring		
Type of control	directly		
Pilot air supply port	External		
Flow direction	Non-reversible		Reversible
Exhaust air function	Adjustable		
Manual override	None		
Type of mounting	Alternatively:, On PR manifold rail, With through-hole		
Mounting position	Any		
b-value	–	0.29	–
C value	–	5.5 l/sbar	–
Nominal width	5 mm	7 mm	12 mm
Normal nominal flow rate (normalized to DIN 1343)	750 l/min	1,300 l/min	2,000 l/min
Width dimension	27 mm	33 mm	41 mm
Width	26 mm	32 mm	40 mm
Product weight	170 g	240 g	570 g

Datasheet

Pneumatic valves VL, 5/2-way valves, safety-related characteristics

Max. switching frequency	3 Hz
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Pneumatic valves VL, 5/2-way valves, ATEX

ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T4 Gb
ATEX category for dust	II 2D
Type of (ignition) protection for dust	Ex h IIIC T130°C Db
Explosive ambient temperature	-10°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity) ¹⁾	as per EU explosion protection directive (ATEX)
UKCA marking (see declaration of conformity) ²⁾	acc. to UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)

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2) Further information www.festo.com/catalogue/...d/Support/Downloads.

Pneumatic valves VL, 5/2-directional valves, operating and environmental conditions

Pneumatic connection 1	G1/8	G1/4	G3/8
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Operating pressure	0 ... 1 MPa		-0.09 ... 1 MPa
Operating pressure	0 ... 10 bar		-0.9 ... 10 bar
Pilot pressure MPa	0.15 ... 0.8 MPa	0.15 ... 1 MPa	0.25 ... 1 MPa
Pilot pressure	1.5 ... 8 bar	1.5 ... 10 bar	2.5 ... 10 bar
Ambient temperature	-10 ... 60°C		
Temperature of medium	-10 ... 60°C		
Storage temperature	-40 ... 60°C		
Note on materials	RoHS compliant		
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

1) For more information, visit www.festo.com/x/topic/kbk

Weights

Pneumatic connection 1	G1/8	G1/4	G3/8
On switching time	2 ms		4 ms
Switching time off	10 ms	12 ms	16 ms

Materials

Housing material	Die-cast aluminum
Seals material	NBR, PU, TPE-U(PU)
Note on materials	RoHS compliant

Datasheet

General technical data

Pneumatic connection 1	G1/8	G1/4	G3/8
Valve function	5/2-way, bistable		
Structural design	Piston gate valve		
Lap	Positive overlap		
Sealing principle	Soft		
Actuation type	Pneumatic		
Type of control	directly		
Pilot air supply port	External		
Flow direction	Reversible		
Exhaust air function	Adjustable		
Manual override	None		
Type of mounting	Alternatively:, On PR manifold rail, With through-hole		
Mounting position	Any		
b-value	–	0.38	–
C value	–	6.35 l/sbar	–
Nominal width	8 mm	10 mm	12 mm
Normal nominal flow rate (normalized to DIN 1343)	1,000 l/min	1,600 l/min	2,000 l/min
Width dimension	27 mm	33 mm	41 mm
Width	26 mm	32 mm	40 mm
Product weight	320 g	375 g	550 g

Pneumatic valves J, 5/2-way valves, impulse valves, safety-related characteristics

Max. switching frequency	3 Hz
--------------------------	------

Pneumatic valves J, 5/2directional valves, Double pilot valves, Magnet pulse valves, Operating and environmental conditions

Pneumatic connection 1	G1/8	G1/4	G3/8
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]		
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)		
Operating pressure	-0.09 ... 1 MPa		
Operating pressure	-0.9 ... 10 bar		
Pilot pressure	2 ... 10 bar		–
Pilot pressure MPa	0.2 ... 1 MPa		–
Ambient temperature	-10 ... 60°C		
Temperature of medium	-10 ... 60°C		
Storage temperature	-40 ... 60°C		
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress		
LABS (PWIS) conformity	VDMA24364-B1/B2-L		

1) For more information, visit www.festo.com/x/topic/kbk

Weights

Changeover time	3 ms
-----------------	------

Materials

Housing material	Die-cast aluminum
Seals material	NBR
Note on materials	RoHS compliant

Datasheet

General technical data			
Pneumatic connection 1	G1/8	G1/4	G3/8
Actuation type	Pneumatic		
Valve function	5/3-way, pressurized, 5/3 exhausted, 5/3-way, closed		
Structural design	Piston gate valve		
Lap	Positive overlap		
Sealing principle	Soft		
Type of control	directly		
Pilot air supply port	External		
Flow direction	Reversible		
Exhaust air function	Adjustable		
Manual override	None		
Type of mounting	Alternatively:, On PR manifold rail, With through-hole		
Mounting position	Any		
b-value	–	0.38	–
C value	–	6.35 l/sbar	–
Nominal width	8 mm	10 mm	12 mm
Normal nominal flow rate (normalized to DIN 1343)	1,000 l/min	1,600 l/min	2,000 l/min, 2,200 l/min, 2,600 l/min
Width dimension	27 mm	33 mm	41 mm
Width	26 mm	32 mm	40 mm
Product weight	320 g	375 g	680 g

Pneumatic valves J, 5/3-way valves, safety-related characteristics

Max. switching frequency	3 Hz
--------------------------	------

Pneumatic valves J, 5/3-directional valves, operating and environmental conditions

Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Operating pressure	-0.09 ... 1 MPa
Operating pressure	-0.9 ... 10 bar
Pilot pressure MPa	0.3 ... 1 MPa
Pilot pressure	3 ... 10 bar
Ambient temperature	-10 ... 60°C
Temperature of medium	-10 ... 60°C
Storage temperature	-40 ... 60°C
Note on materials	RoHS compliant
Corrosion resistance class (CRC) ¹⁾	1 - Low corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L

1) For more information, visit www.festo.com/x/topic/kbk

Weights

Pneumatic connection 1	G1/8			G1/4			G3/8		
Valve function	5/3-way, pressurized	5/3 exhausted	5/3-way, closed	5/3-way, pressurized	5/3 exhausted	5/3-way, closed	5/3-way, pressurized	5/3 exhausted	5/3-way, closed
On switching time	5 ms			6 ms			7 ms		
Switching time off	14 ms			26 ms			28 ms		
Changeover time	16 ms	24 ms	23 ms	35 ms		30 ms	78 ms	83 ms	54 ms

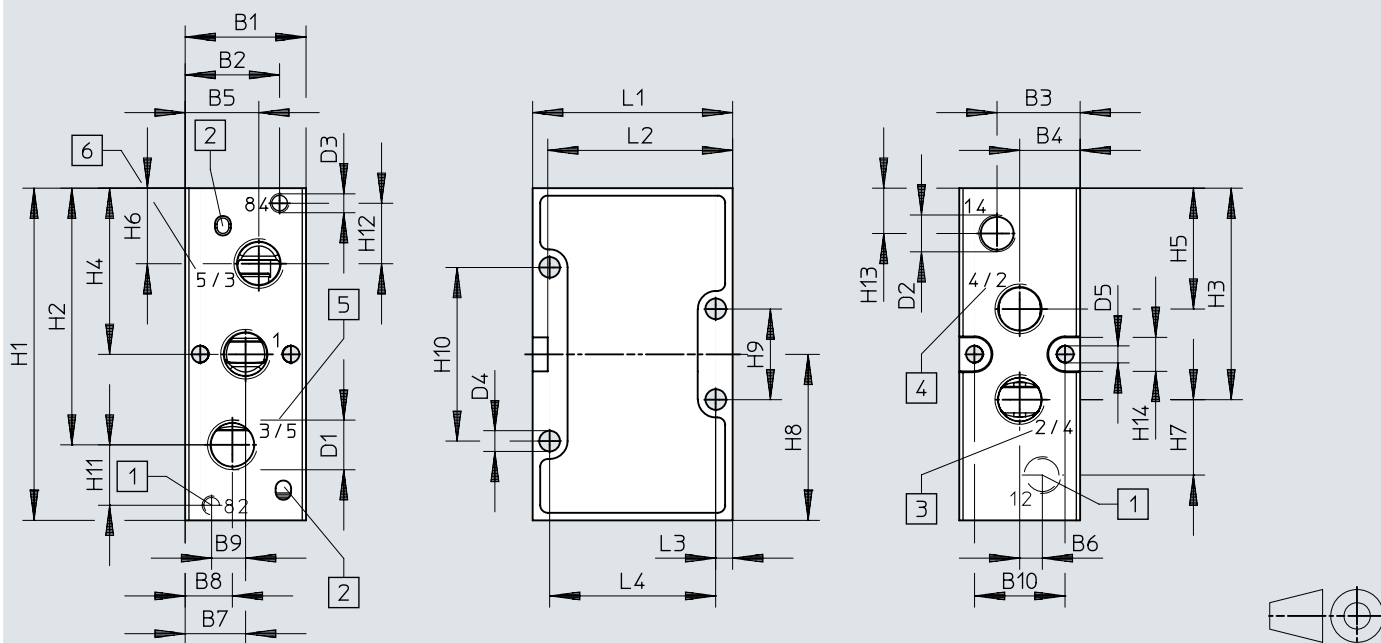
Materials

Housing material	Die-cast aluminum
Seals material	NBR
Note on materials	RoHS compliant

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, pneumatic connection
G1/8, G1/4

Download CAD data www.festo.com



[1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B

[2] Anti-twist protection

[3] 2 for poppet seat valve; 4 for Piston slide valve

[4] 4 for poppet seat valve; 2 for Piston slide valve

[5] 3 for poppet seat valve; 5 for Piston slide valve

[6] 5 for poppet seat valve; 3 for Piston slide valve

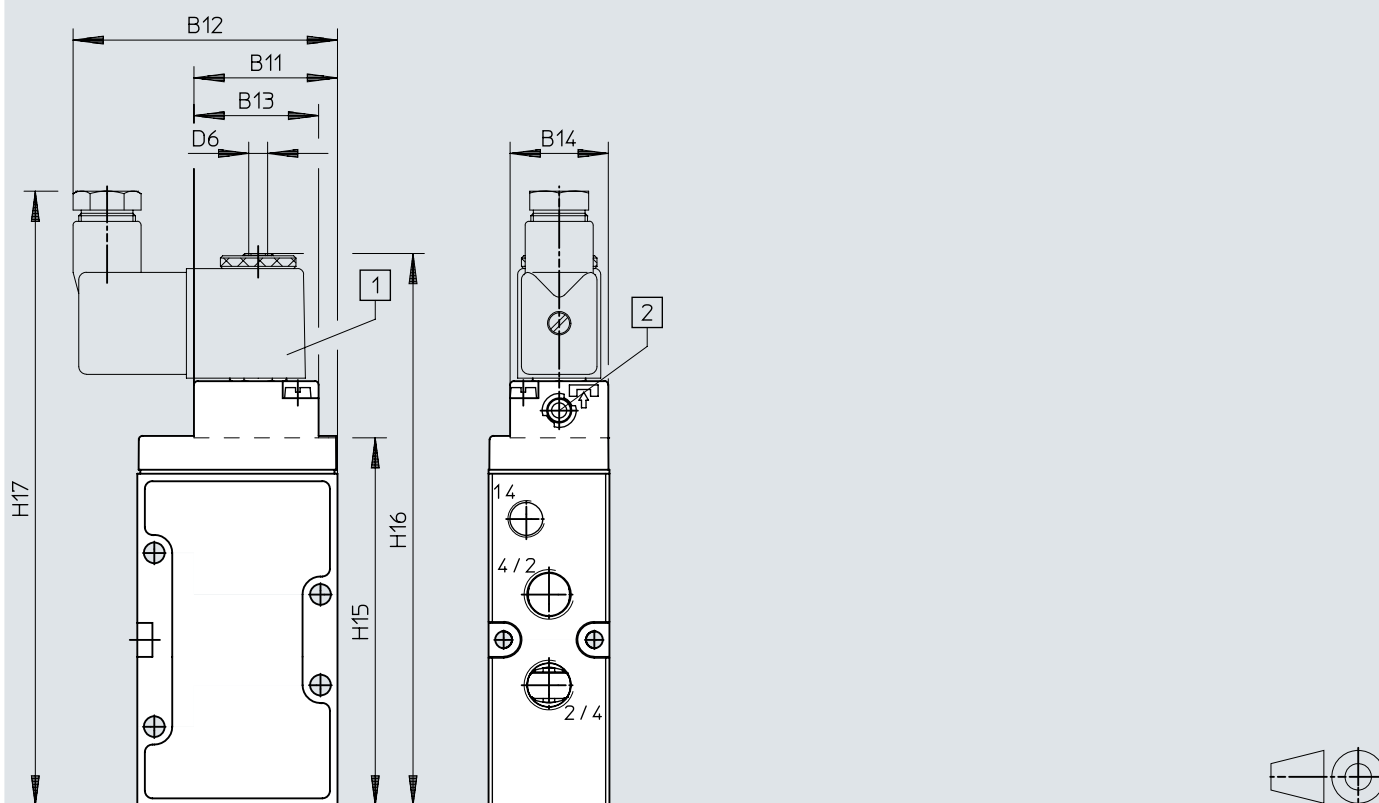
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5	H1 ±0,2	H2
MFH-5-1/8	26	16,5	18	13	16,5	5	13	9,5	8	19,5	G1/8	G1/8	M5	4,5	4,3	77	59,5
MFH-5-1/4	32	19,5	22	16	19,5	6	16	12,5	9	24	G1/4	G1/8	M5	5,5	4,3	88	68

	H3	H4	H5	H6	H7	H8 ±0,2	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3	L4
MFH-5-1/8	49,5	38,5	27,5	17,5	19	38,5	21	41	12	12	8,5	9	47	43	3,5	40
MFH-5-1/4	56	44	32	20	20	44	22	48	16	16	12	9	53	49	4,5	44

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, pneumatic connection
G1/8, G1/4, installation dimensions with F solenoid coil, mechanical reset
type

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[1] Solenoid coil can be rotated by 360°

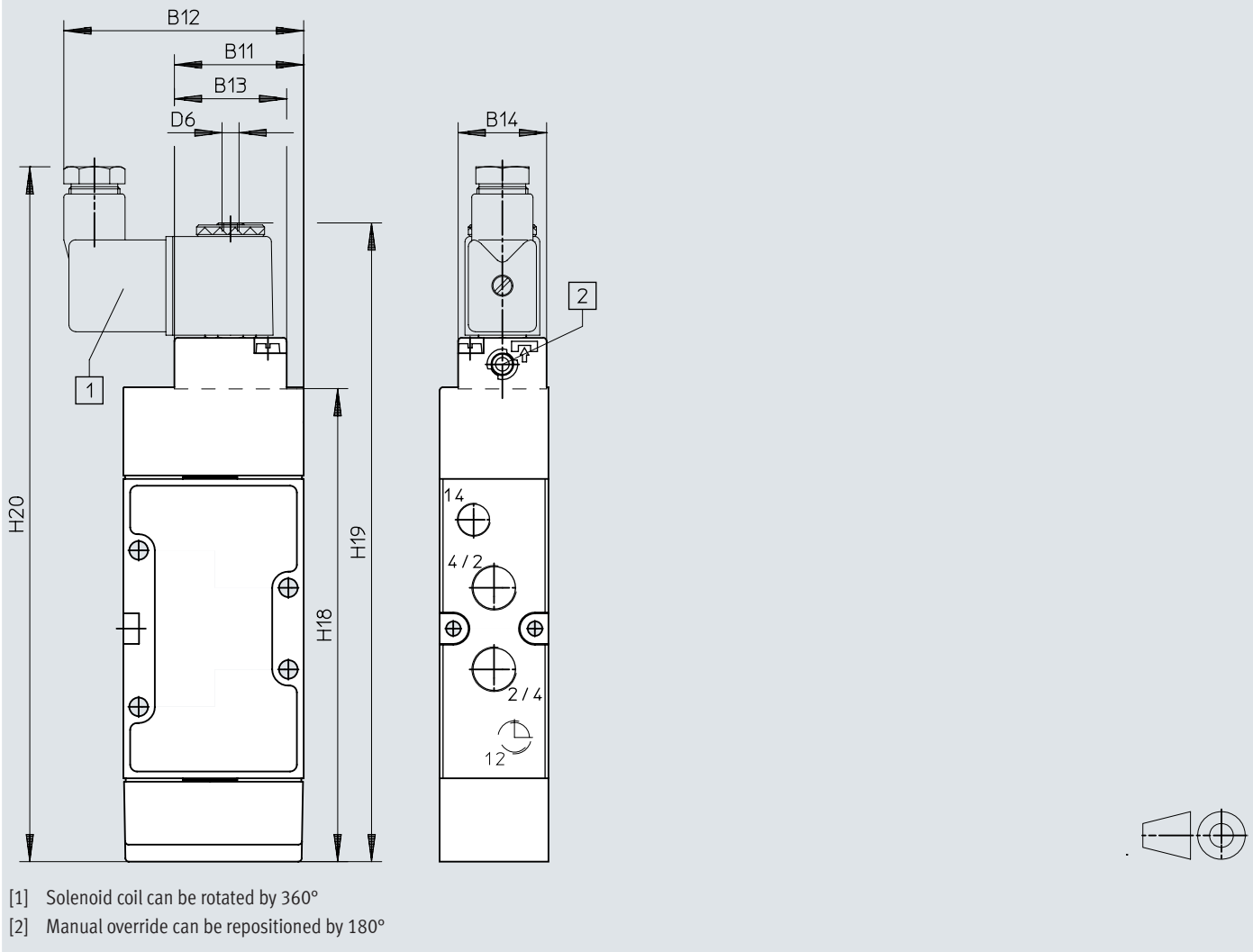
[2] Manual override can be repositioned by 180°

	B11	B12	B13	B14	D6	H15	H16	H17
MFH-5-1/8	36,8	67	33	26	M5	86,5	135,3	151,8
MFH-5-1/4	38	70				97,5	146,3	162,8

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, pneumatic connection
G1/8, G1/4, installation dimensions with F solenoid coil, pneumatic reset
type

Download CAD data www.festo.com

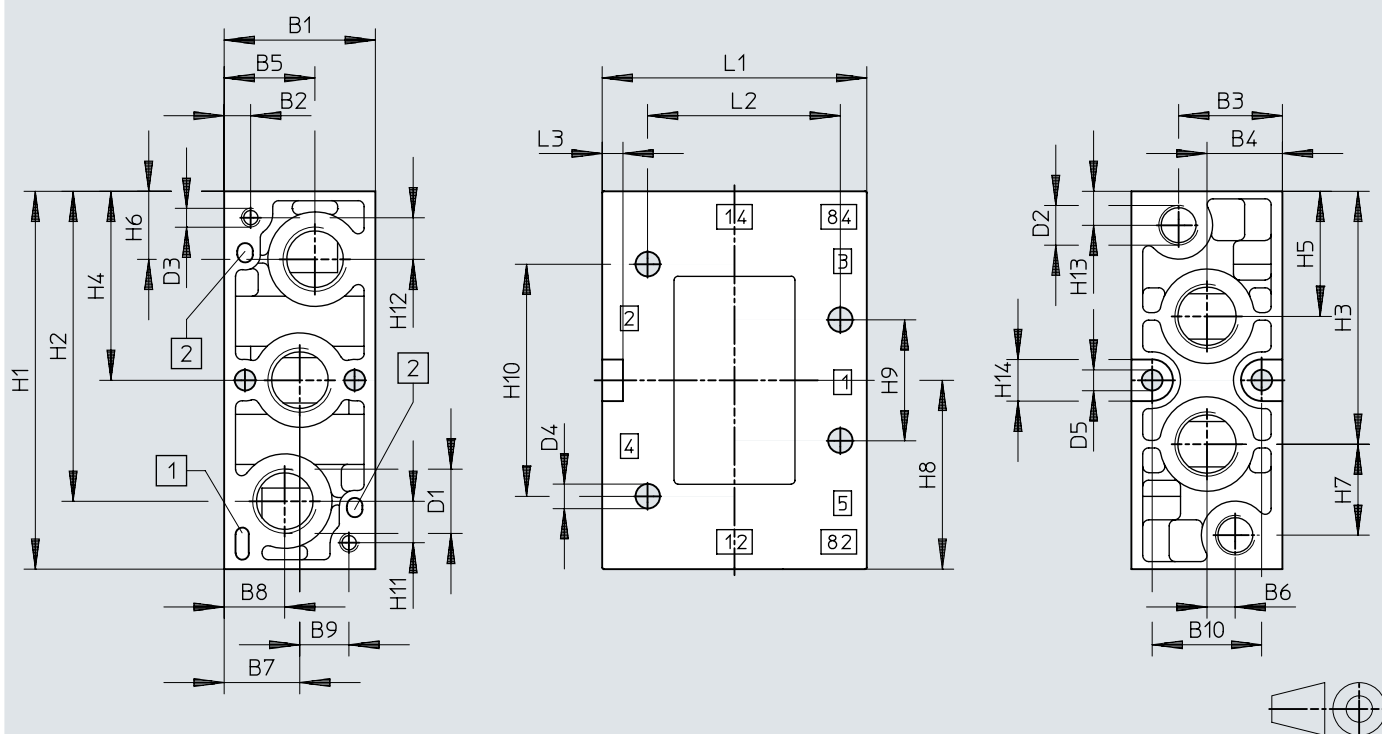


	B11	B12	B13	B14	D6	H18	H19	H20
MFH-5-1/8	36,8	67	33	26	M5	126,2	175	191,5
MFH-5-1/4	38	70				139	187,8	204,3

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, pneumatic connection
G3/8

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- [1] for encoding pin
[2] Anti-twist protection

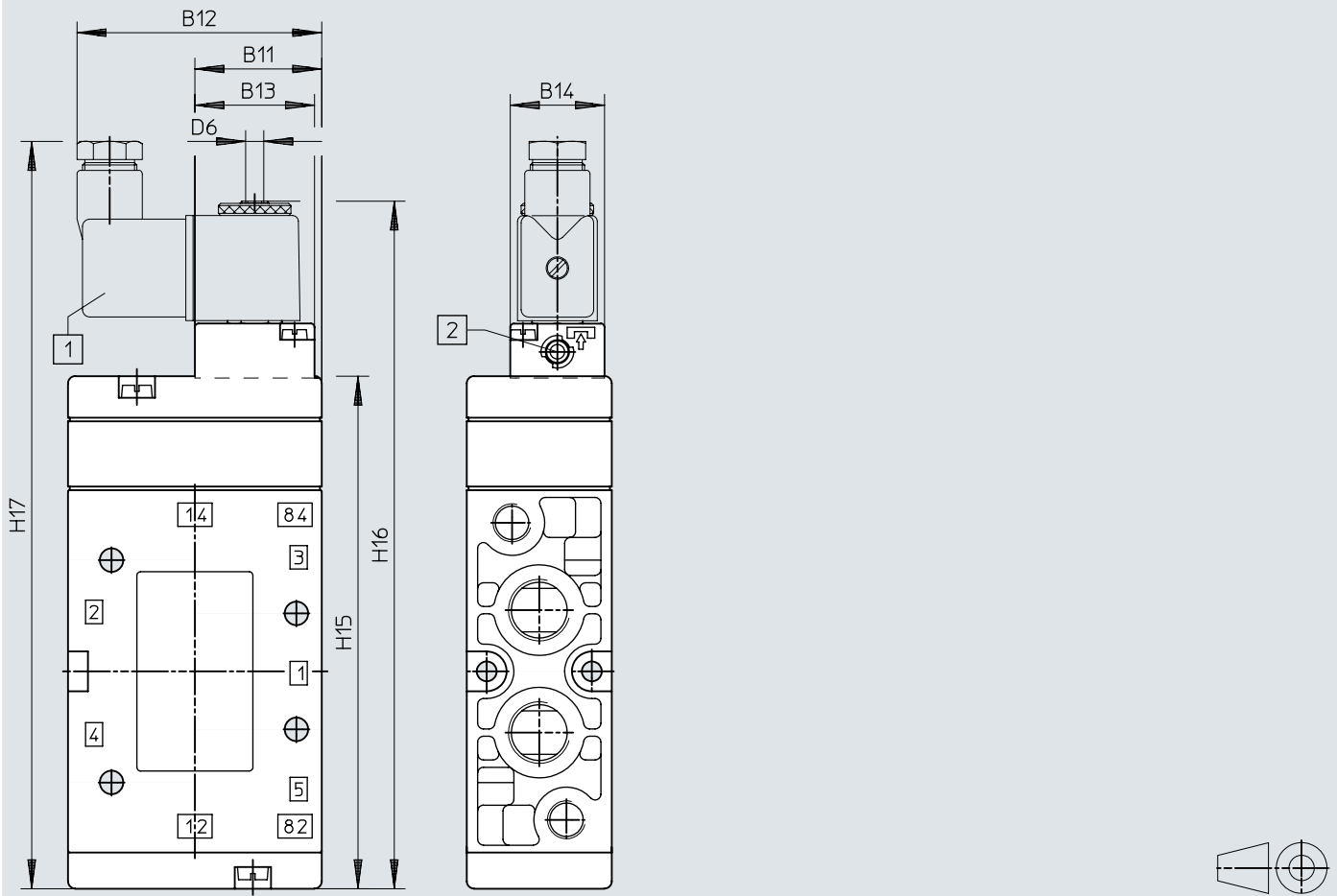
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5
MFH-5-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5

	H1 ±0,1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3
MFH-5-3/8	100	82	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	70	51	5,5

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, pneumatic connection G3/8, installation dimensions with F solenoid coil, mechanical or pneumatic reset type

Download CAD data www.festo.com



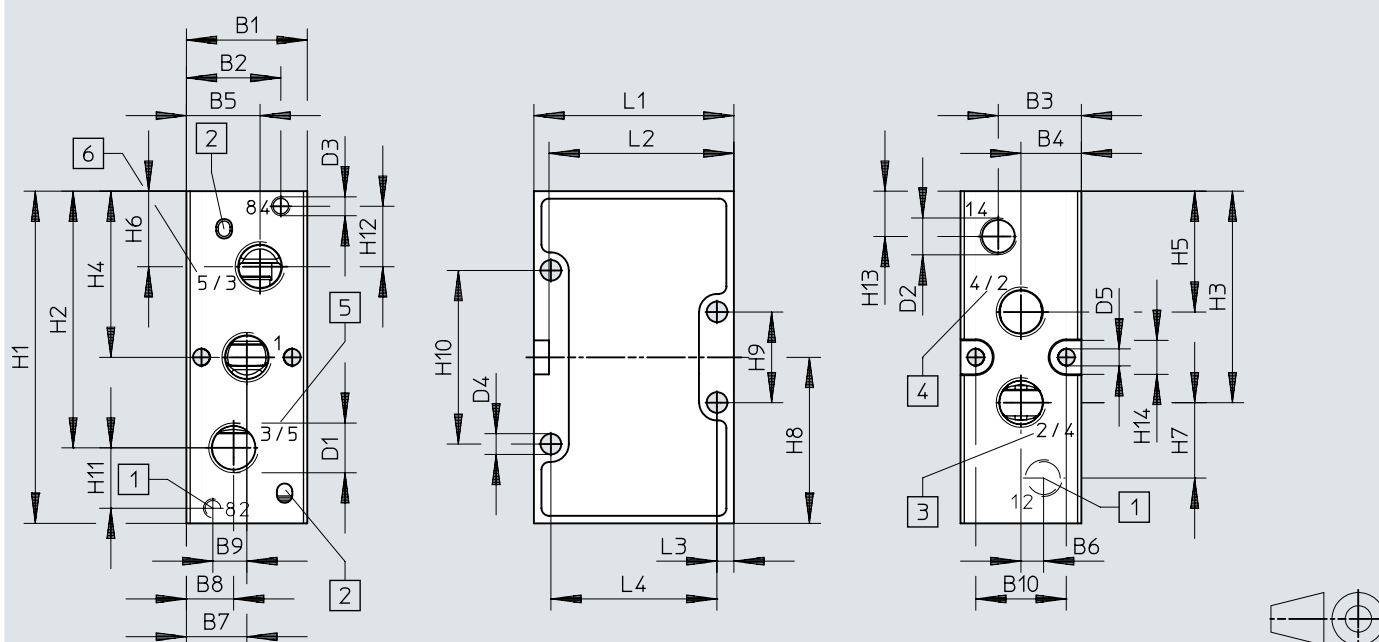
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°

	B11	B12	B13	B14	D6	H15	H16	H17
MFH-5-3/8	35	67,5	33	26	M5	141,5	190	206

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, pneumatic connection G1/8, G1/4

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[1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B

[2] Anti-twist protection

[3] 2 for poppet seat valve; 4 for Piston slide valve

[4] 4 for poppet seat valve; 2 for Piston slide valve

[5] 3 for poppet seat valve; 5 for Piston slide valve

[6] 5 for poppet seat valve; 3 for Piston slide valve

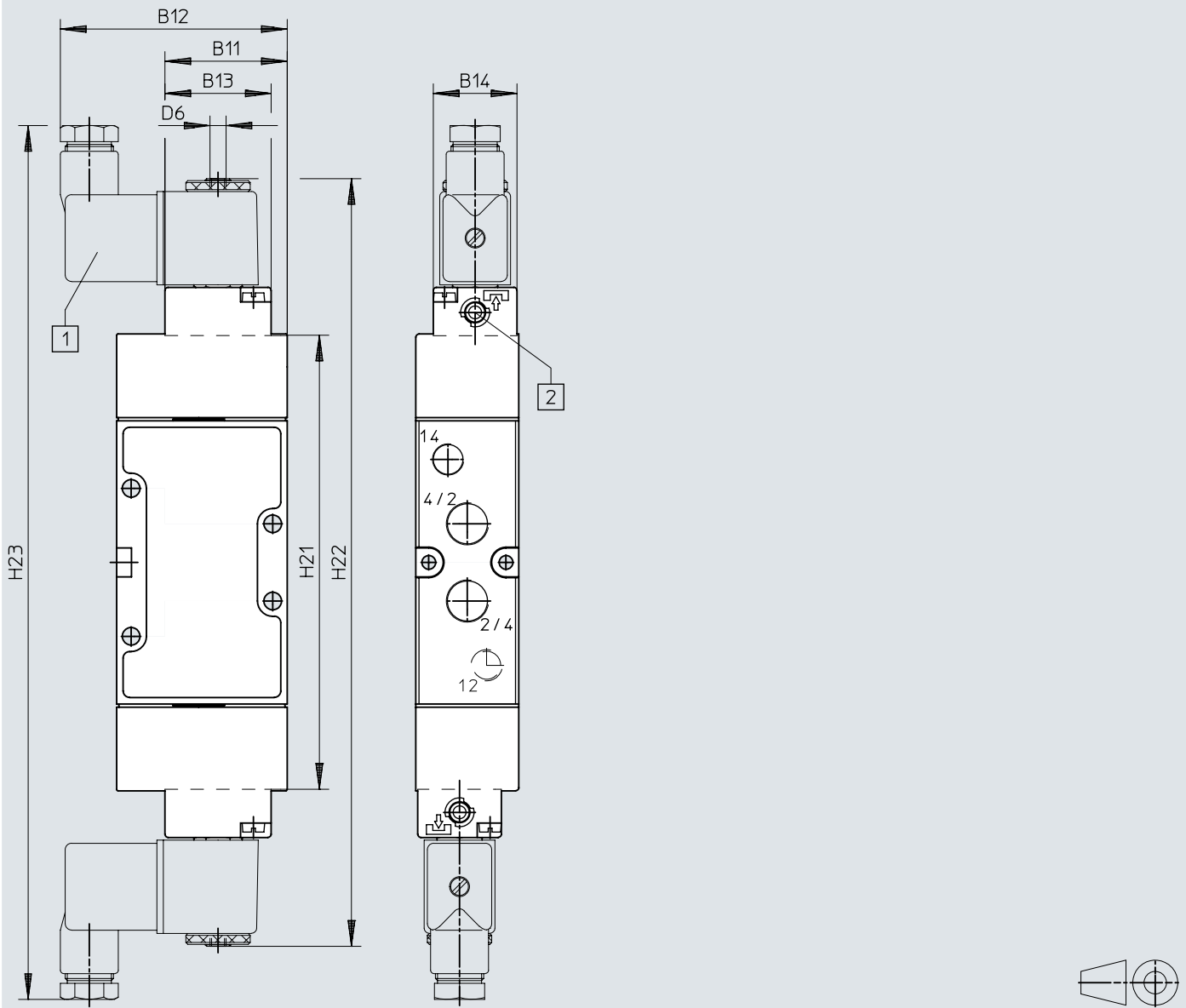
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5	H1 ±0,2	H2
JMFH-5-1/8	26	16,5	18	13	16,5	5	13	9,5	8	19,5	G1/8	G1/8	M5	4,5	4,3	77	59,5
JMFH-5-1/4	32	19,5	22	16	19,5	6	16	12,5	9	24	G1/4	G1/4	M5	5,5	4,3	88	68

	H3	H4	H5	H6	H7	H8 ±0,2	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3	L4
JMFH-5-1/8	49,5	38,5	27,5	17,5	19	38,5	21	41	12	12	8,5	9	47	43	3,5	40
JMFH-5-1/4	56	44	32	20	20	44	22	48	16	16	12	9	53	49	4,5	44

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, pneumatic connection G1/8, G1/4, installation dimensions with F solenoid coil, reset type mechanical or pneumatic

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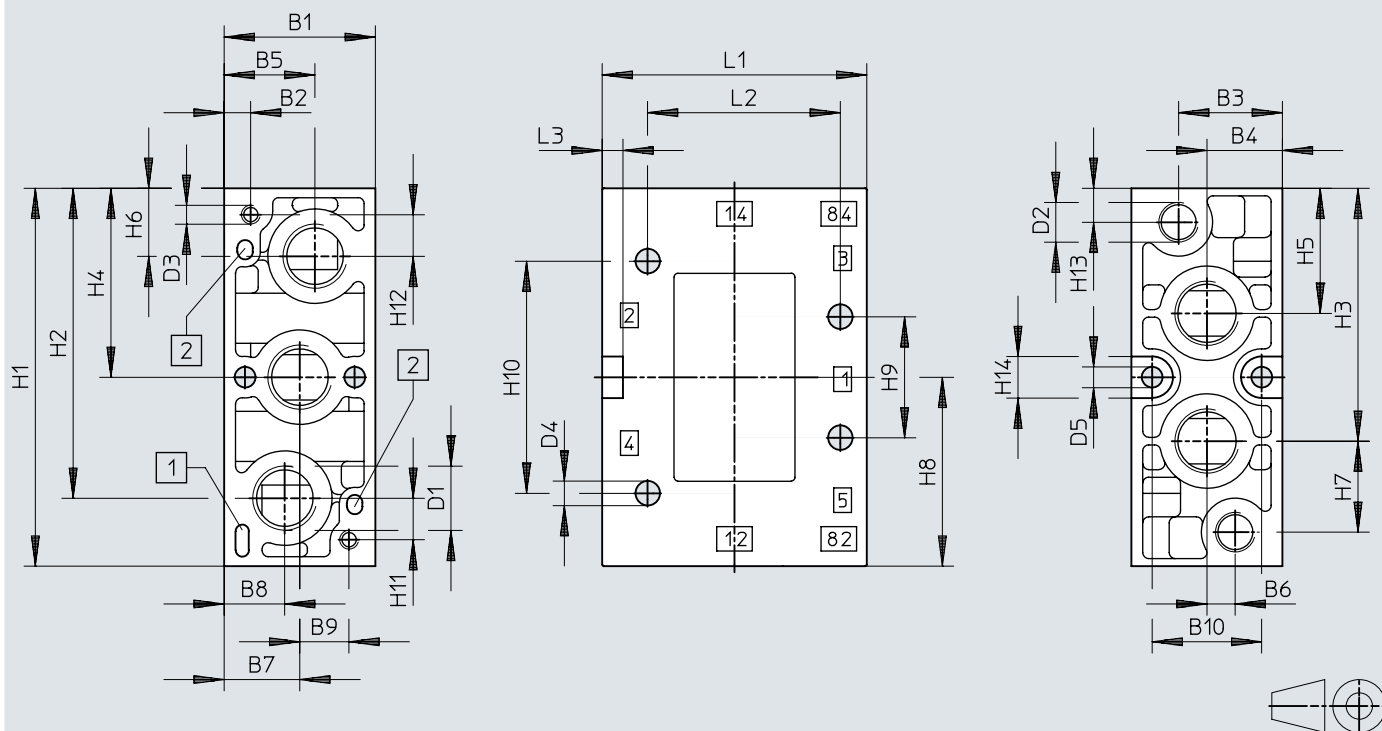
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°

	B11	B12	B13	B14	D6	H21	H22	H23
JMFH-5-1/8	36,8	67	33	26	M5	129	226,6	259,6
JMFH-5-1/4	38	70				141,5	239,1	272,1

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, pneumatic connection G3/8

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- [1] for encoding pin
[2] Anti-twist protection

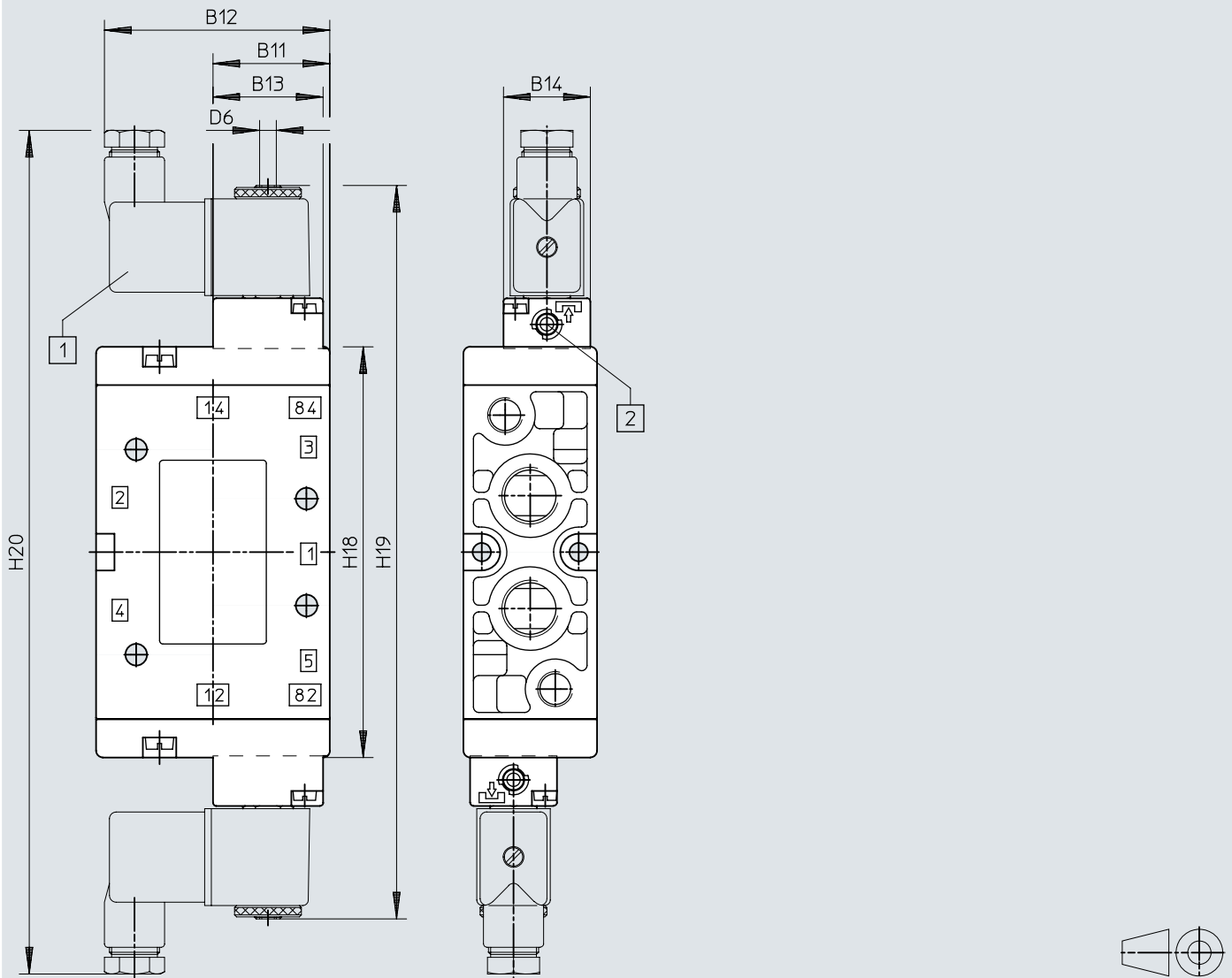
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5
MFH-5/3-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5

	H1 ±0,1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3
MFH-5/3-3/8	100	82	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	70	51	5,5

Dimensions

Dimensions – Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, pneumatic connection G3/8, installation dimensions with F solenoid coil, mechanical or pneumatic reset type

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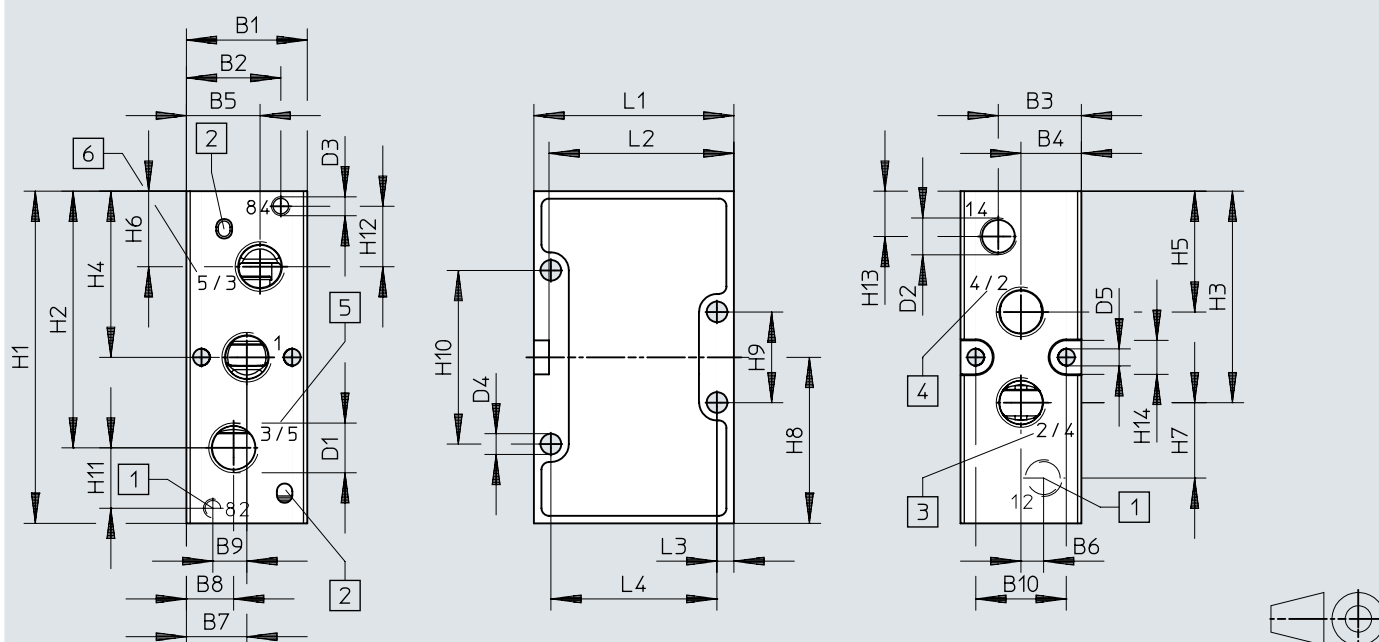
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°

	B11	B12	B13	B14	D6	H18	H19	H20
JMFH-5-3/8	35	67,5	33	26	M5	123	220	253

Dimensions

Dimensions – Solenoid valves MFH-B, 5/3-way valves, pneumatic connection
G1/8, G1/4

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[1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B

[2] Anti-twist protection

[3] 2 for poppet seat valve; 4 for Piston slide valve

[4] 4 for poppet seat valve; 2 for Piston slide valve

[5] 3 for poppet seat valve; 5 for Piston slide valve

[6] 5 for poppet seat valve; 3 for Piston slide valve

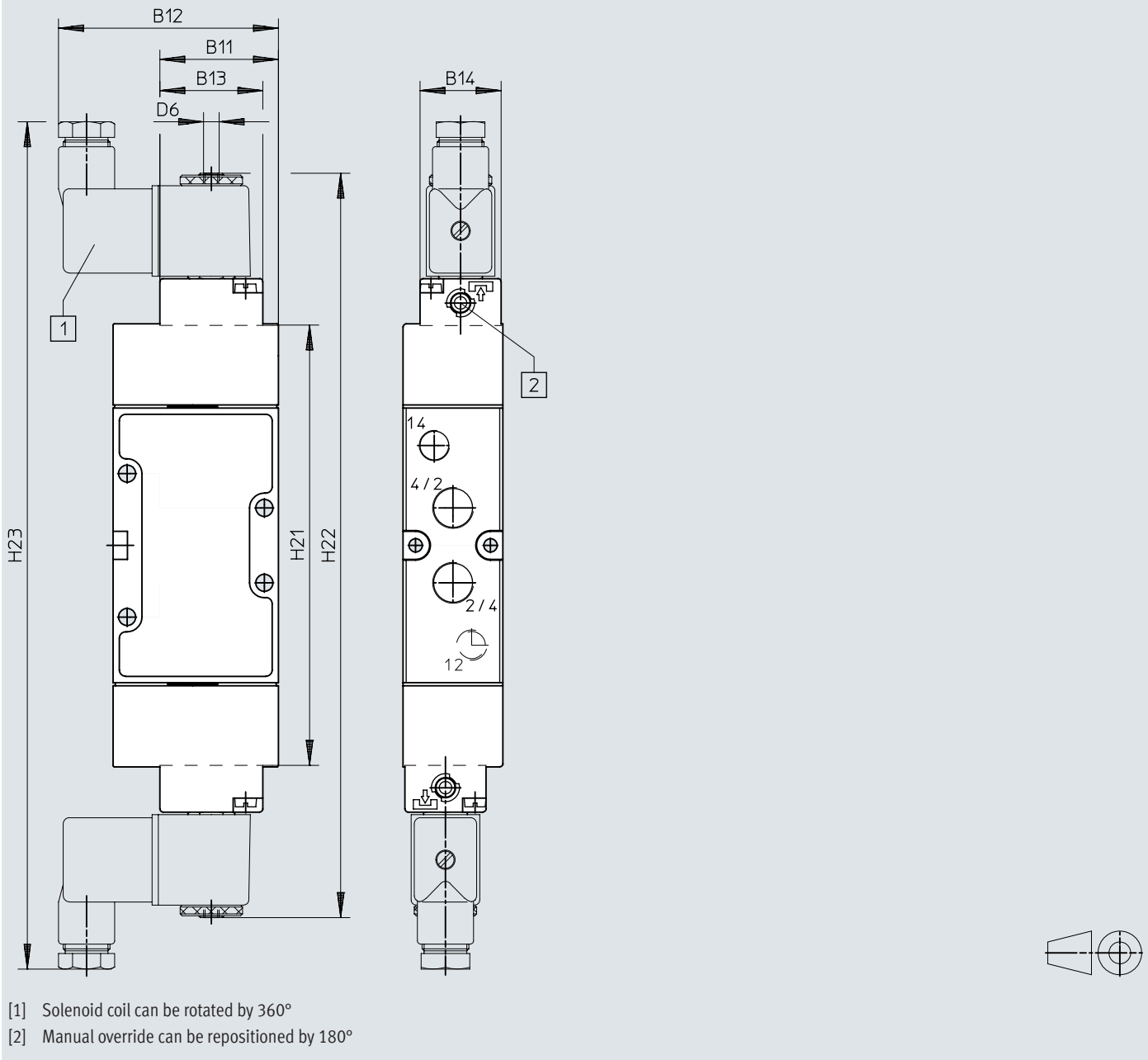
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5	H1 ±0,2	H2
MFH-5/3-1/8	26	16,5	18	13	16,5	5	13	9,5	8	19,5	G1/8	G1/8	M5	4,5	4,3	77	59,5
MFH-5/3-1/4	32	19,5	22	16	19,5	6	16	12,5	9	24	G1/4	G1/4	M5	5,5	4,3	88	68

	H3	H4	H5	H6	H7	H8 ±0,2	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3	L4
MFH-5/3-1/8	49,5	38,5	27,5	17,5	19	38,5	21	41	12	12	8,5	9	47	43	3,5	40
MFH-5/3-1/4	56	44	32	20	20	44	22	46	16	16	12	9	53	49	4,5	44

Dimensions

Dimensions – Solenoid valves MFH-B, 5/3-way valves, pneumatic connection
G1/8, G1/4, installation dimensions with F solenoid coil, reset type mechanical or pneumatic

Download CAD data www.festo.com

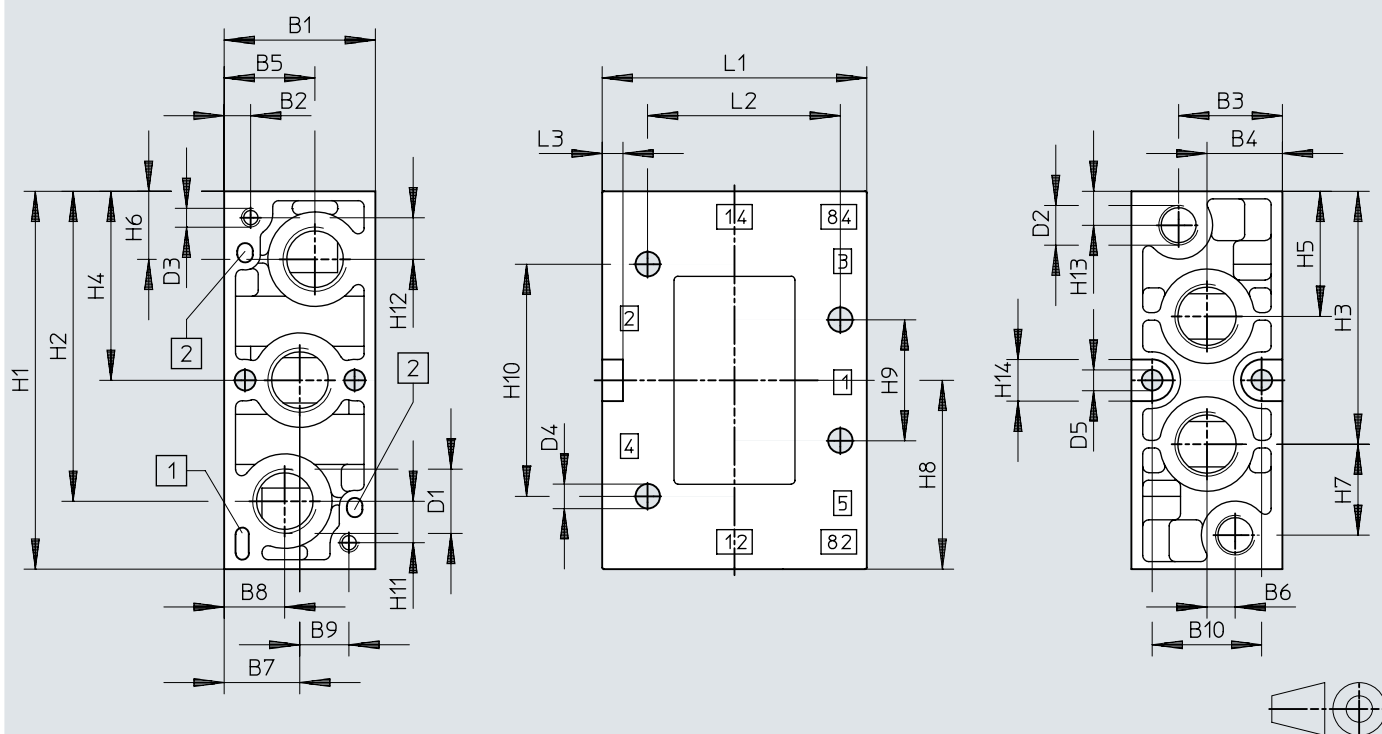


	B11	B12	B13	B14	D6	H21	H22	H23
MFH-5/3-1/8	36,8	67	33	26	M5	129	226,6	259,6
MFH-5/3-1/4	38	70				141,5	239,1	272,1

Dimensions

Dimensions – Solenoid valves MFH-B, 5/3-way valves, pneumatic connection
G3/8

Download CAD data www.festo.com



- [1] for encoding pin
[2] Anti-twist protection

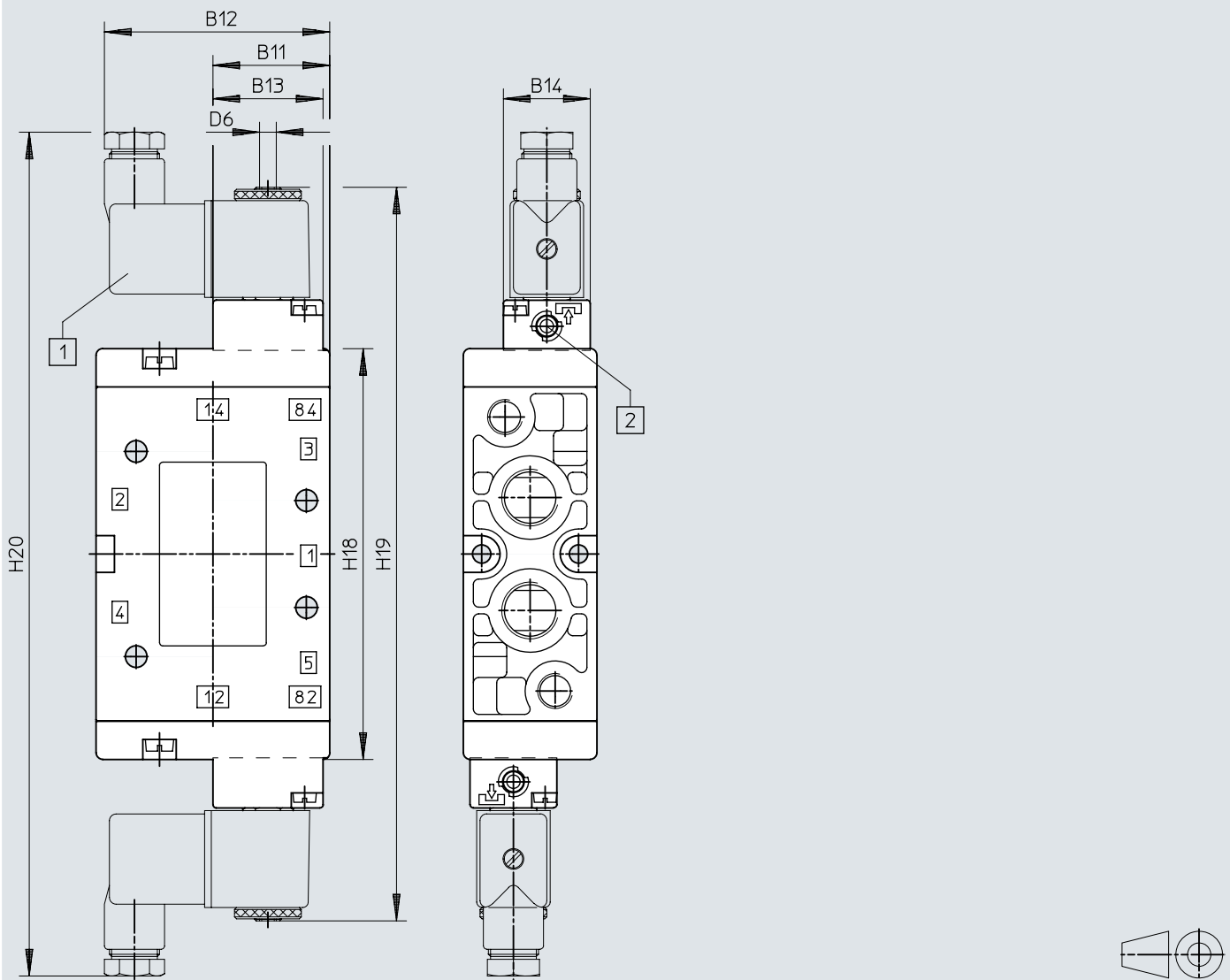
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5
MFH-5/3-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5

	H1 ±0,1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3
MFH-5/3-3/8	100	82	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	70	51	5,5

Dimensions

Dimensions – Solenoid valves MFH-B, 5/3-way valves, pneumatic connection
G3/8, installation dimensions with F solenoid coil, mechanical or pneumatic
reset type

Download CAD data www.festo.com



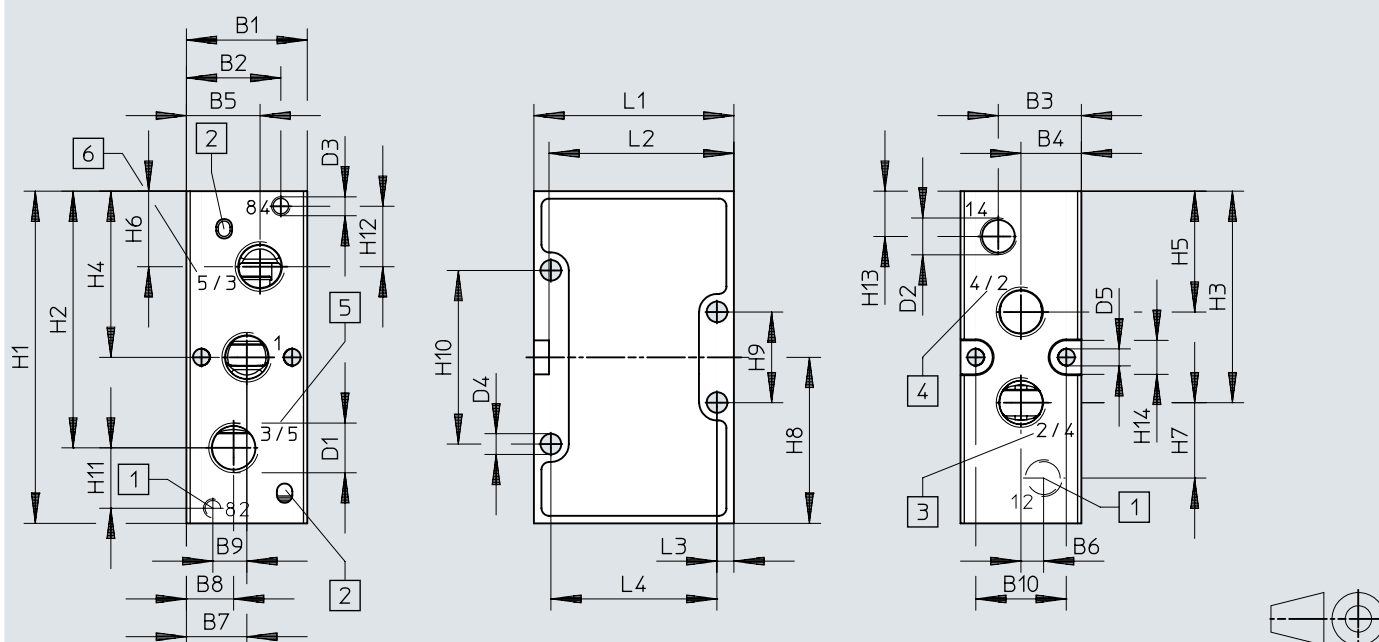
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°

	B11	B12	B13	B14	D6	H18	H19	H20
JMFH-5/3-3/8	35	67,5	33	26	M5	123	220	253

Dimensions

Dimensions – Solenoid valves MVH-B, 5/2-way valves, pneumatic connection
G1/8, G1/4

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[1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B

[2] Anti-twist protection

[3] 2 for poppet seat valve; 4 for Piston slide valve

[4] 4 for poppet seat valve; 2 for Piston slide valve

[5] 3 for poppet seat valve; 5 for Piston slide valve

[6] 5 for poppet seat valve; 3 for Piston slide valve

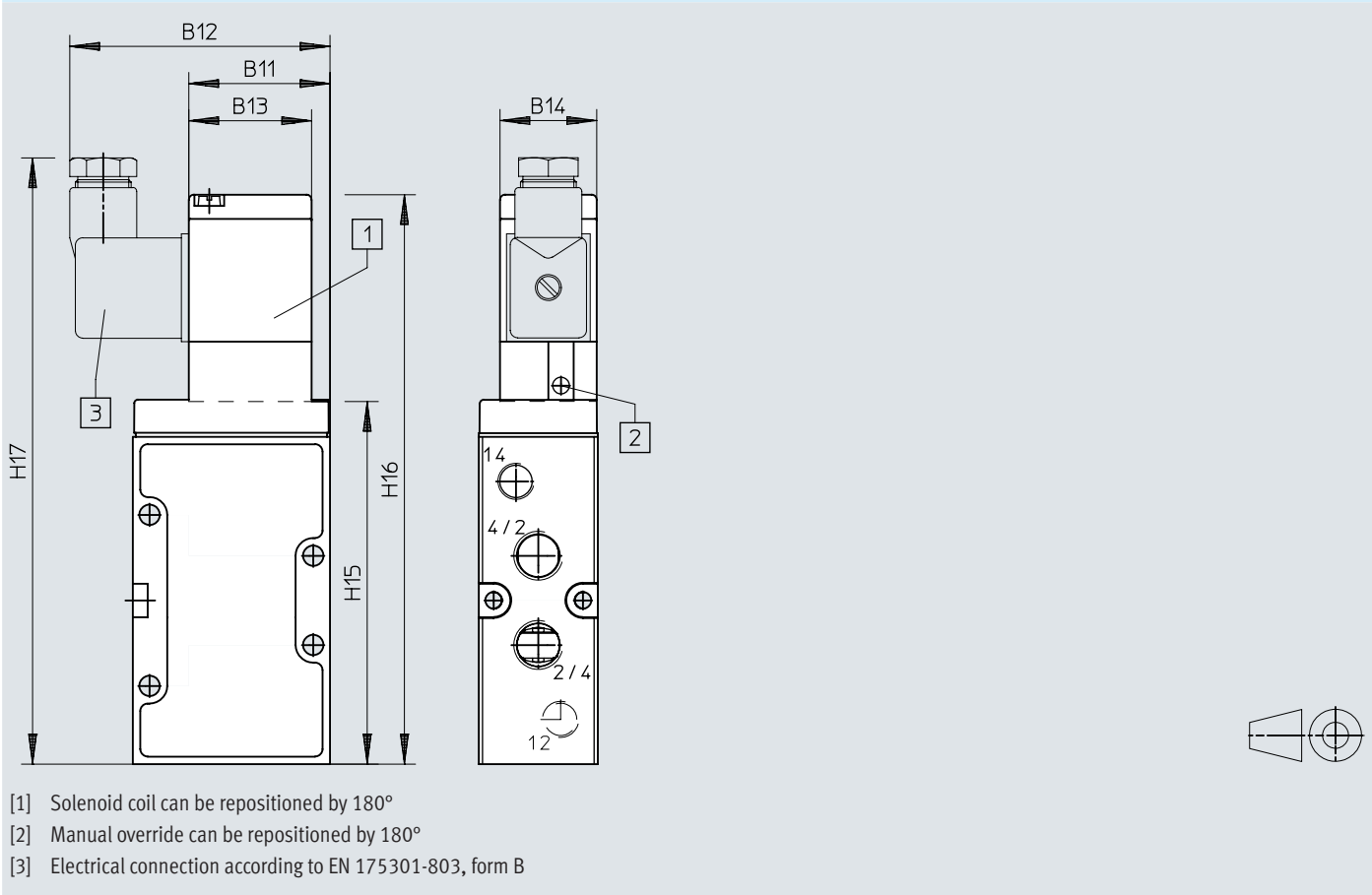
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5	H1 ±0,2	H2
MVH-5-1/8	26	16,5	18	13	16,5	5	13	9,5	8	19,5	G1/8	G1/8	M5	4,5	4,3	77	59,5
MVH-5-1/4	32	19,5	22	16	19,5	6	16	12,5	9	24	G1/4	G1/4	M5	5,5	4,3	88	68

	H3	H4	H5	H6	H7	H8 ±0,2	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3	L4
MVH-5-1/8	49,5	38,5	27,5	17,5	19	38,5	21	41	12	12	8,5	9	47	43	3,5	40
MVH-5-1/4	56	44	32	20	20	44	22	48	16	16	12	9	53	49	4,5	44

Dimensions

Dimensions – Solenoid valves MVH-B, 5/2-way valves, pneumatic connection
G1/8, G1/4, installation dimensions with V solenoid coil, mechanical reset
type

Download CAD data www.festo.com

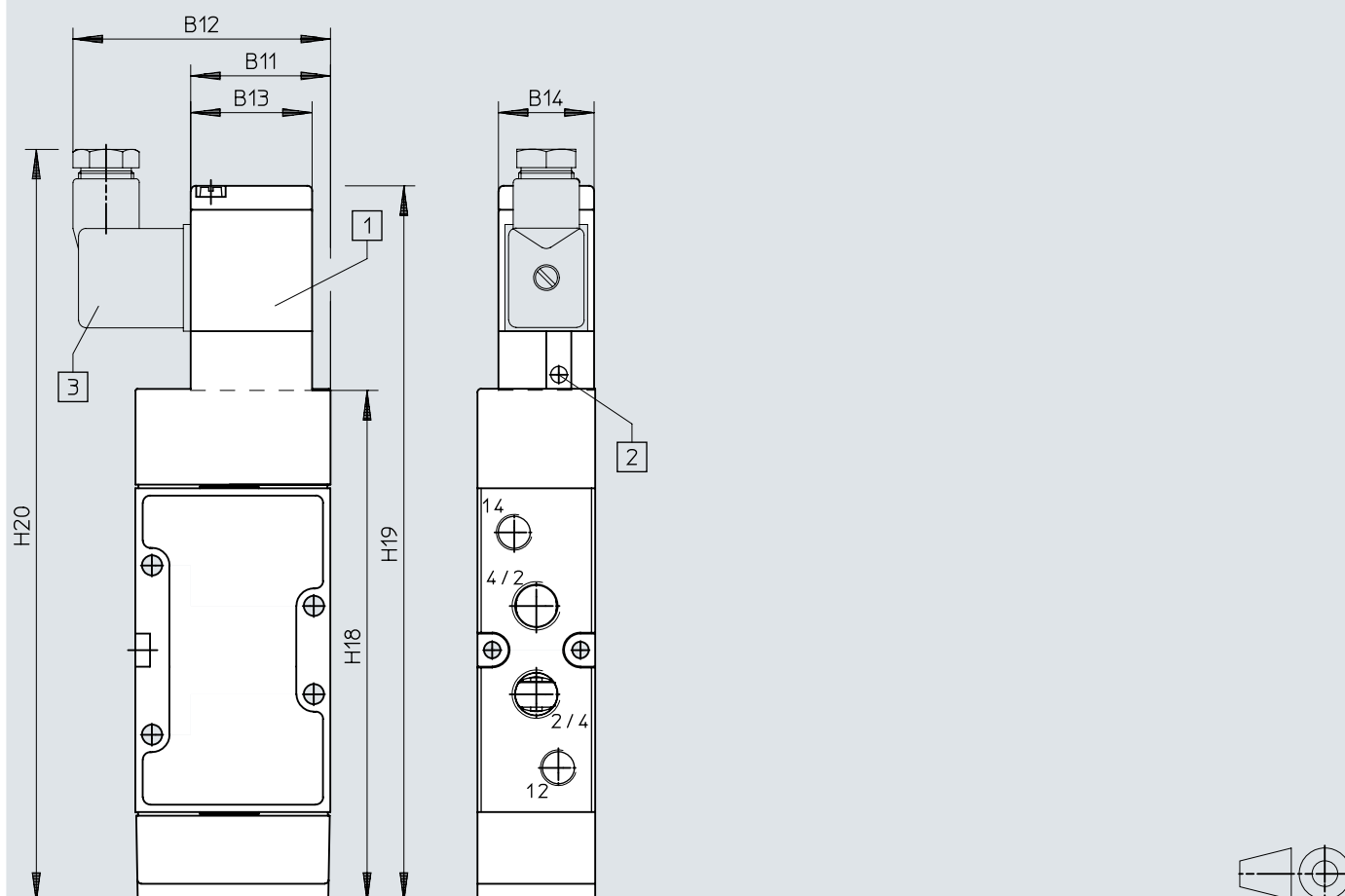


	B11	B12	B13	B14	H15	H16	H17
MVH-5-1/8	36,8	67	33	26	86,5	142,6	152,6
MVH-5-1/4	38	70			97,5	153,1	163,1

Dimensions

Dimensions – Solenoid valves MVH-B, 5/2-way valves, pneumatic connection
G1/8, G1/4, installation dimensions with V solenoid coil, pneumatic reset
type

Download CAD data www.festo.com



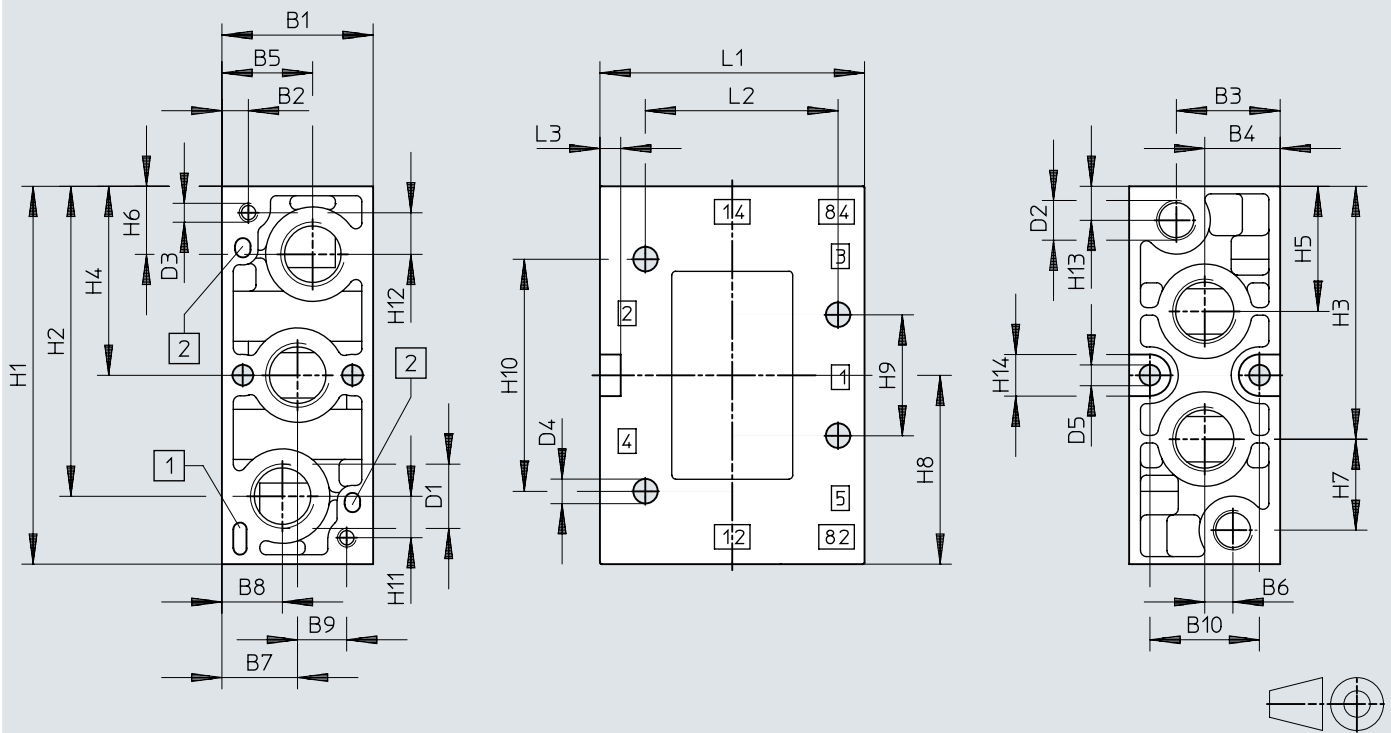
- [1] Solenoid coil can be repositioned by 180°
- [2] Manual override can be repositioned by 180°
- [3] Electrical connection according to EN 175301-803, form B

	B11	B12	B13	B14	H18	H19	H20
MVH-5-1/8	36,8	67	33	26	126,2	182,3	192,3
MVH-5-1/4	38	70			139	195,6	205,8

Dimensions

Dimensions – Solenoid valves MVH-B, 5/2-way valves, pneumatic connection
G3/8

Download CAD data www.festo.com



- [1] for encoding pin
- [2] Anti-twist protection

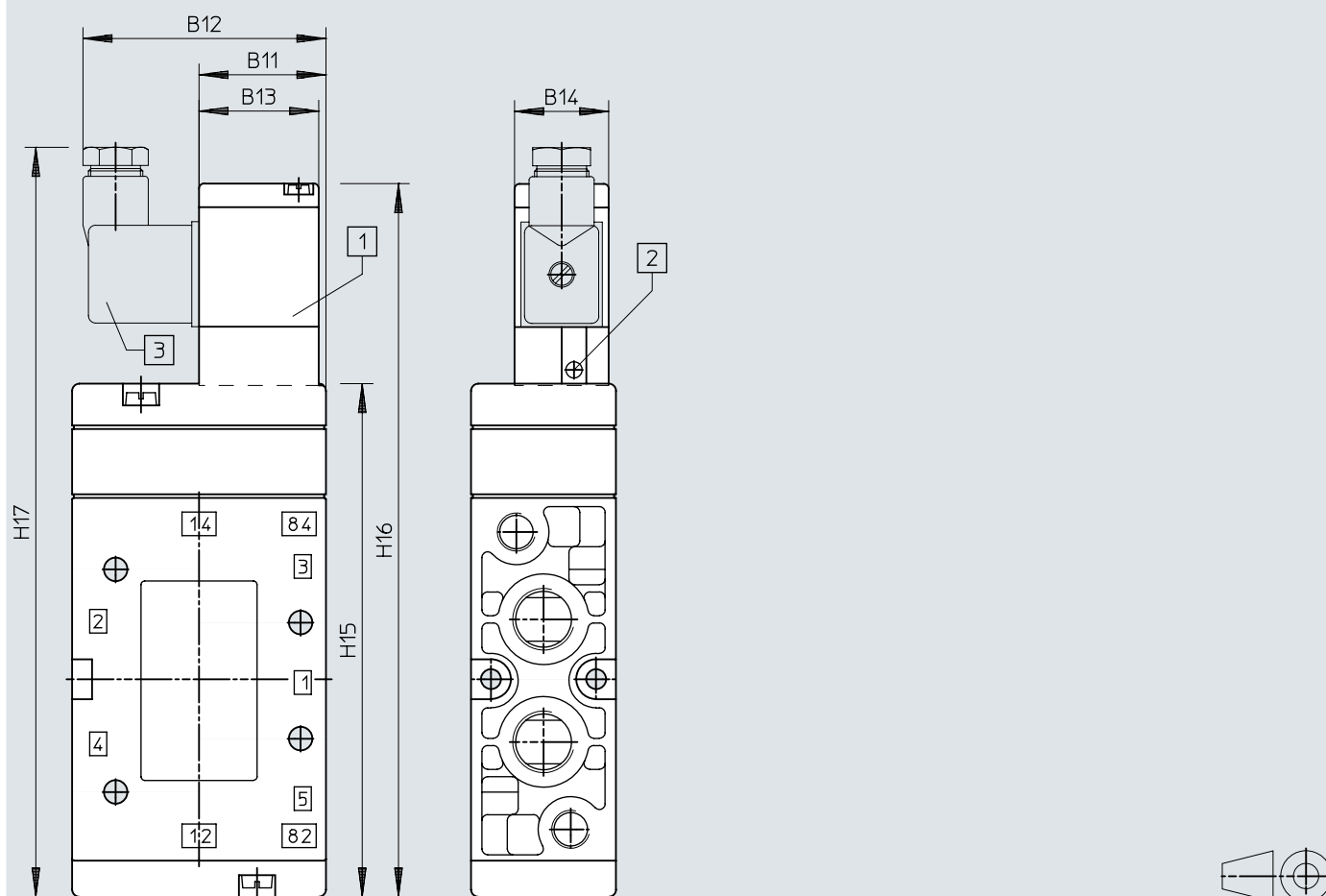
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5
MVH-5-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5

	H1 ±0,1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3
MVH-5-3/8	100	82	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	70	51	5,5

Dimensions

Dimensions – Solenoid valves MVH-B, 5/2-way valves, pneumatic connection G3/8, installation dimensions with V solenoid coil, mechanical or pneumatic reset type

Download CAD data www.festo.com



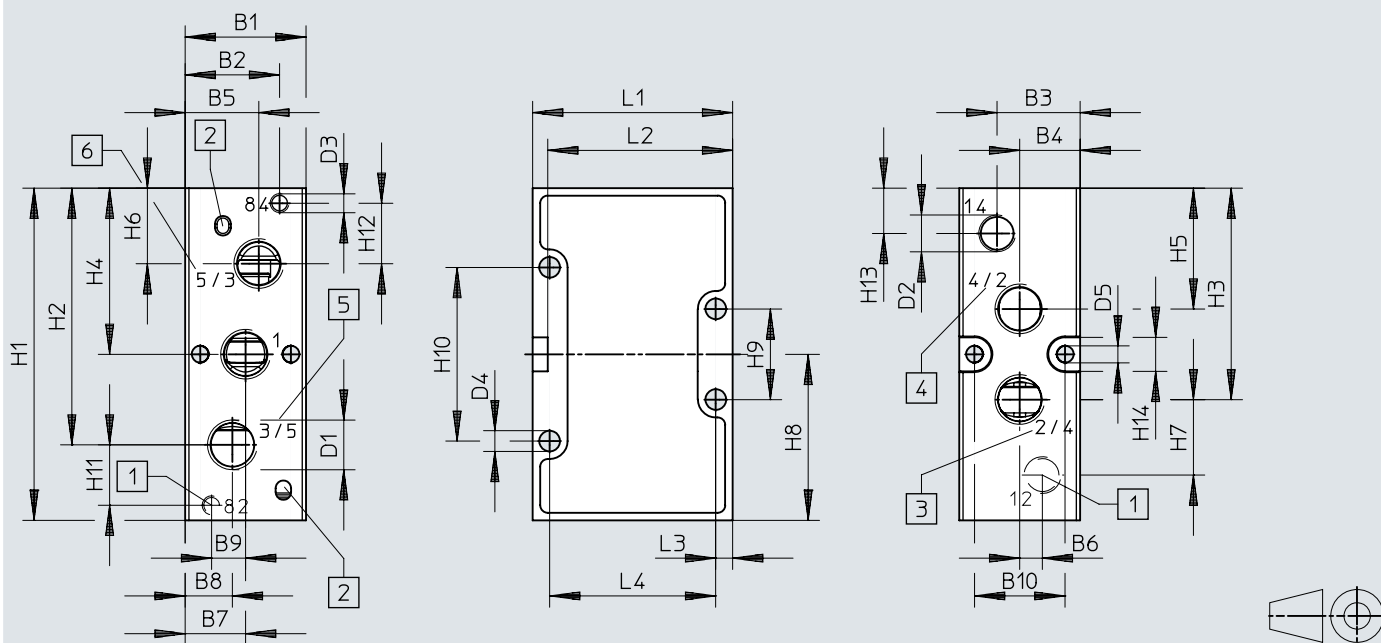
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°
- [3] Connection for device plug according to EN 175301-803, form B

	B11	B12	B13	B14	H15	H16	H17
MVH-5-3/8	35	67,5	33	26	141,5	197	207

Dimensions

Dimensions – Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, pneumatic connection G1/8, G1/4

Download CAD data www.festo.com



- [1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B
 [2] Anti-twist protection
 [3] 2 for poppet seat valve; 4 for Piston slide valve
 [4] 4 for poppet seat valve; 2 for Piston slide valve
 [5] 3 for poppet seat valve; 5 for Piston slide valve
 [6] 5 for poppet seat valve; 3 for Piston slide valve

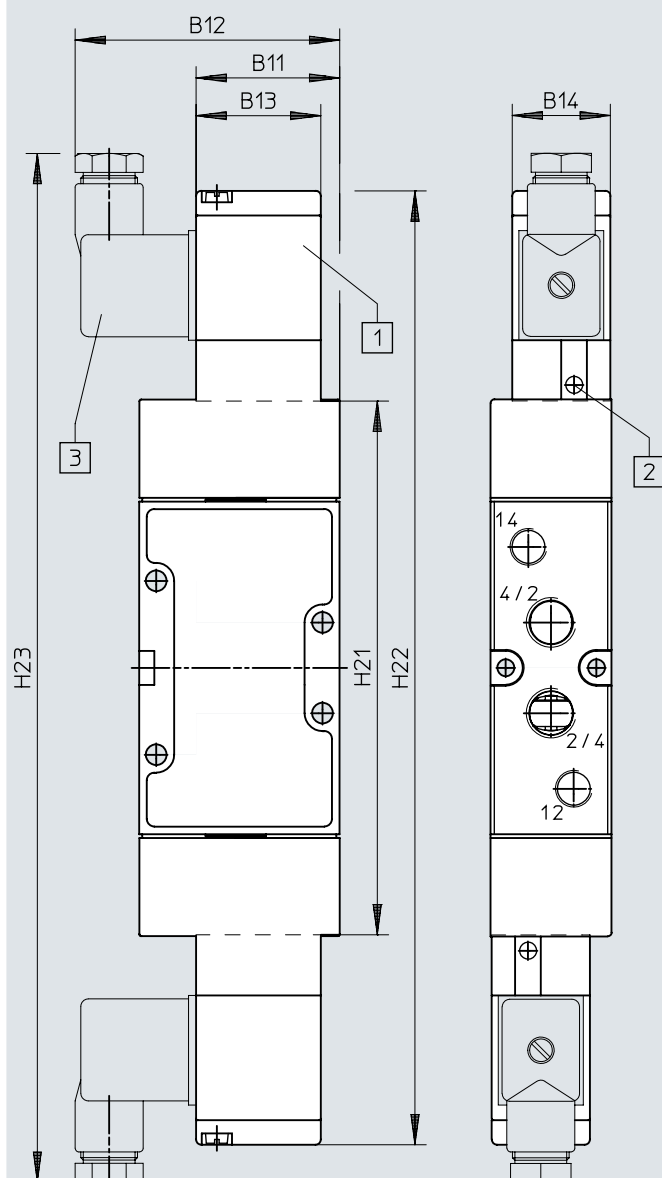
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5	H1 ±0,2	H2
JMVH-5-1/8	26	16,5	18	13	16,5	5	13	9,5	8	19,5	G1/8	G1/8	M5	4,5	4,3	77	59,5
JMVH-5-1/4	32	19,5	22	16	19,5	6	16	12,5	9	24	G1/4			5,5	4,3	88	68

	H3	H4	H5	H6	H7	H8 ±0,2	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3	L4
JMVH-5-1/8	49,5	38,5	27,5	17,5	19	38,5	21	41	12	12	8,5	9	47	43	3,5	40
JMVH-5-1/4	56	44	32	20	20	44	22	48	16	16	12		53	49	4,5	44

Dimensions

Dimensions – Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, pneumatic connection G1/8, G1/4, installation dimensions with V solenoid coil, reset type mechanical or pneumatic

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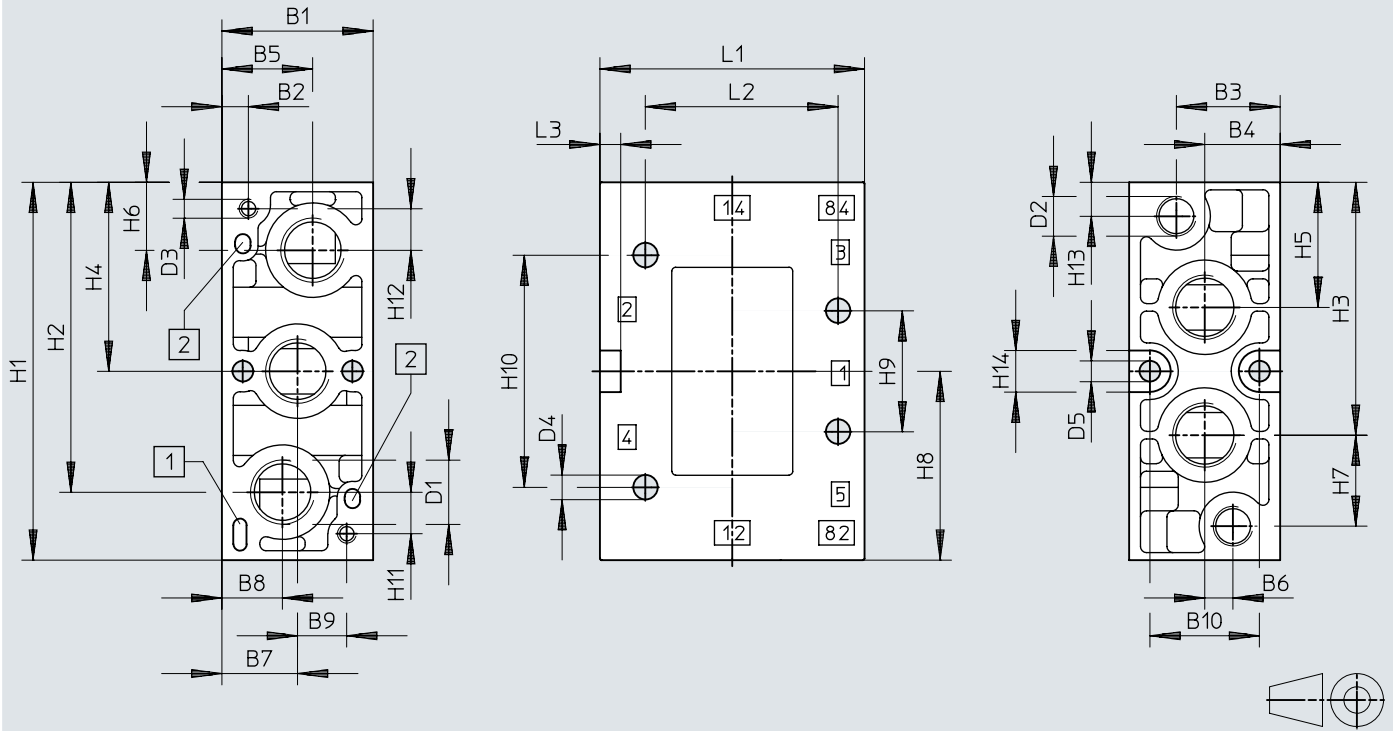
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°
- [3] Electrical connection according to EN 175301-803, form B

	B11	B12	B13	B14	H21	H22	H23
JMVH-5-1/8	36,8	67	33	26	129	241,2	261,2
JMVH-5-1/4	38	70			141	254,2	274,5

Dimensions

Dimensions – Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, pneumatic connection G3/8

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- [1] for encoding pin
- [2] Anti-twist protection

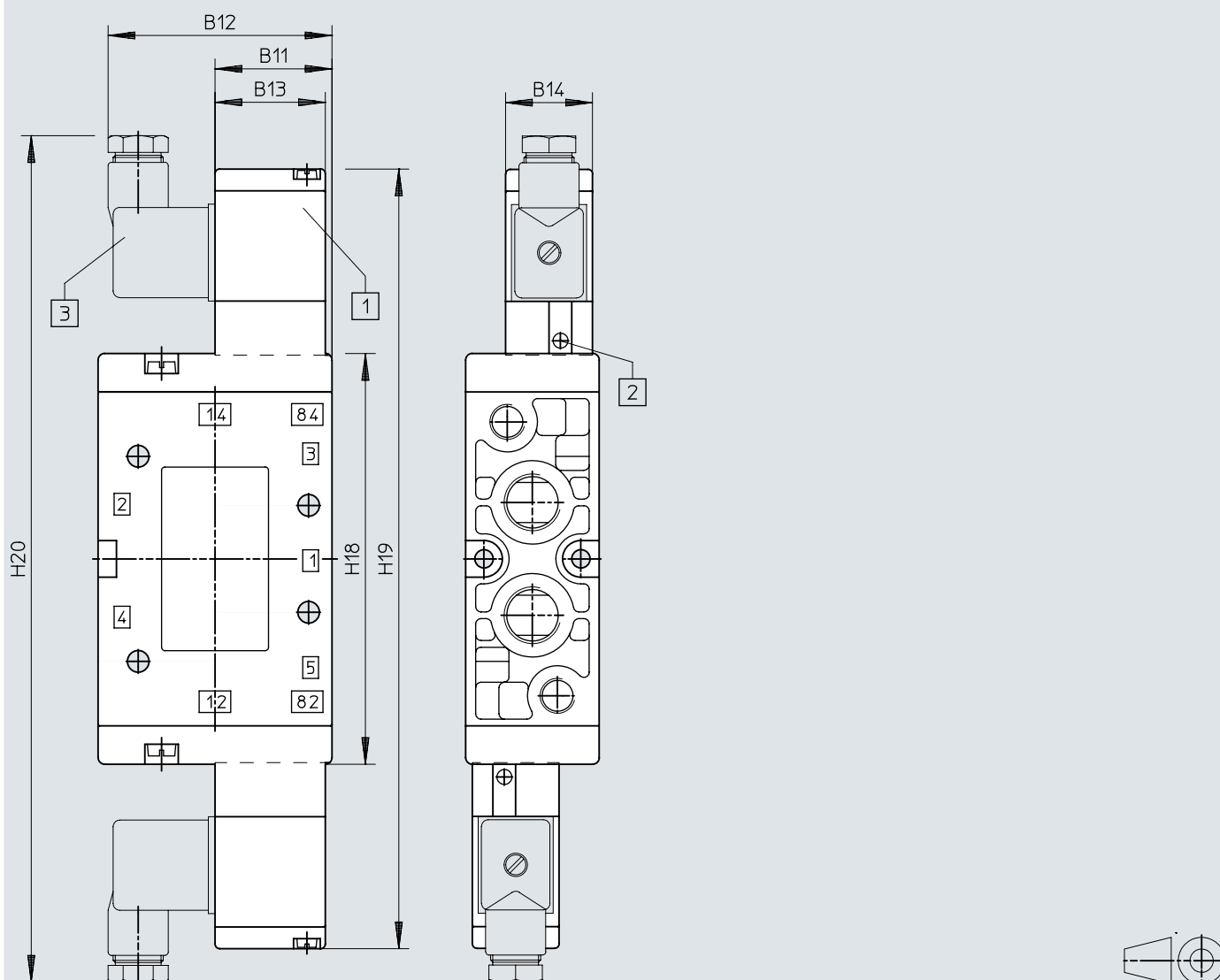
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5
JMVH-5-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5

	H1 ±0,1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3
JMVH-5-3/8	100	82	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	70	51	5,5

Dimensions

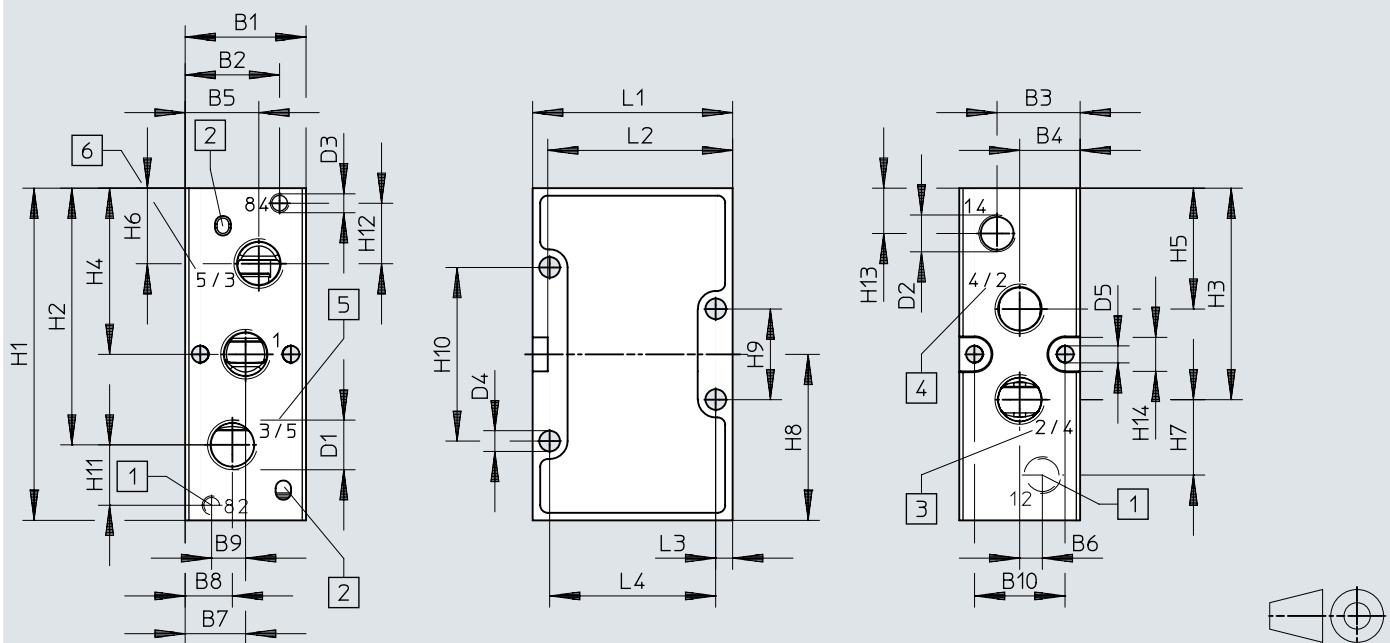
Dimensions – Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, pneumatic connection G3/8, installation dimensions with V solenoid coil, reset type mechanical or pneumatic

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- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°
- [3] Electrical connection according to EN 175301-803, form B

	B11	B12	B13	B14	H18	H19	H20
JMVH-5-3/8	35	67,5	33	26	123	234	254

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- [1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B
[2] Anti-twist protection
[3] 2 for poppet seat valve; 4 for Piston slide valve
[4] 4 for poppet seat valve; 2 for Piston slide valve
[5] 3 for poppet seat valve; 5 for Piston slide valve
[6] 5 for poppet seat valve; 3 for Piston slide valve

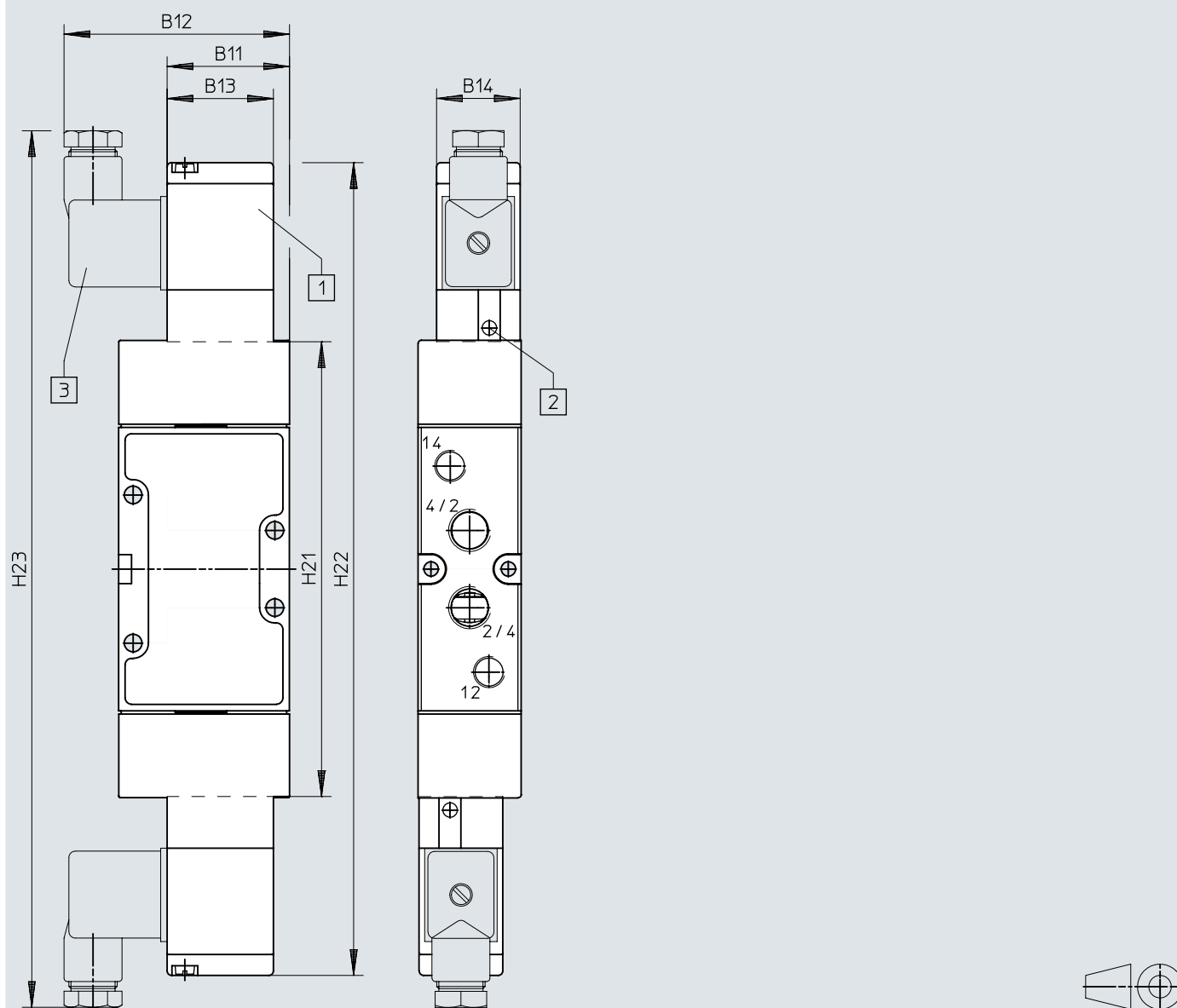
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 Ø	D2 Ø	D3	D4 Ø	D5	H1 ±0,2	H2
MVH-5/3-1/8	26	16,5	18	13	16,5	5	13	9,5	8	19,5	G1/8	G1/8	M5	4,5	4,3	77	59,5
MVH-5/3-1/4	32	19,5	22	16	19,5	6	16	12,5	9	24	G1/4			5,5	4,3	88	68

	H3	H4	H5	H6	H7	H8 ±0,2	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3	L4
MVH-5/3-1/8	49,5	38,5	27,5	17,5	19	38,5	21	41	12	12	8,5	9	47	43	3,5	40
MVH-5/3-1/4	56	44	32	20	20	44	22	48	16	16	12		53	49	4,5	44

Dimensions

Dimensions – Solenoid valves MVH-B, 5/3-way valves, pneumatic connection
G1/8, G1/4, installation dimensions with V solenoid coil, mechanical reset
type

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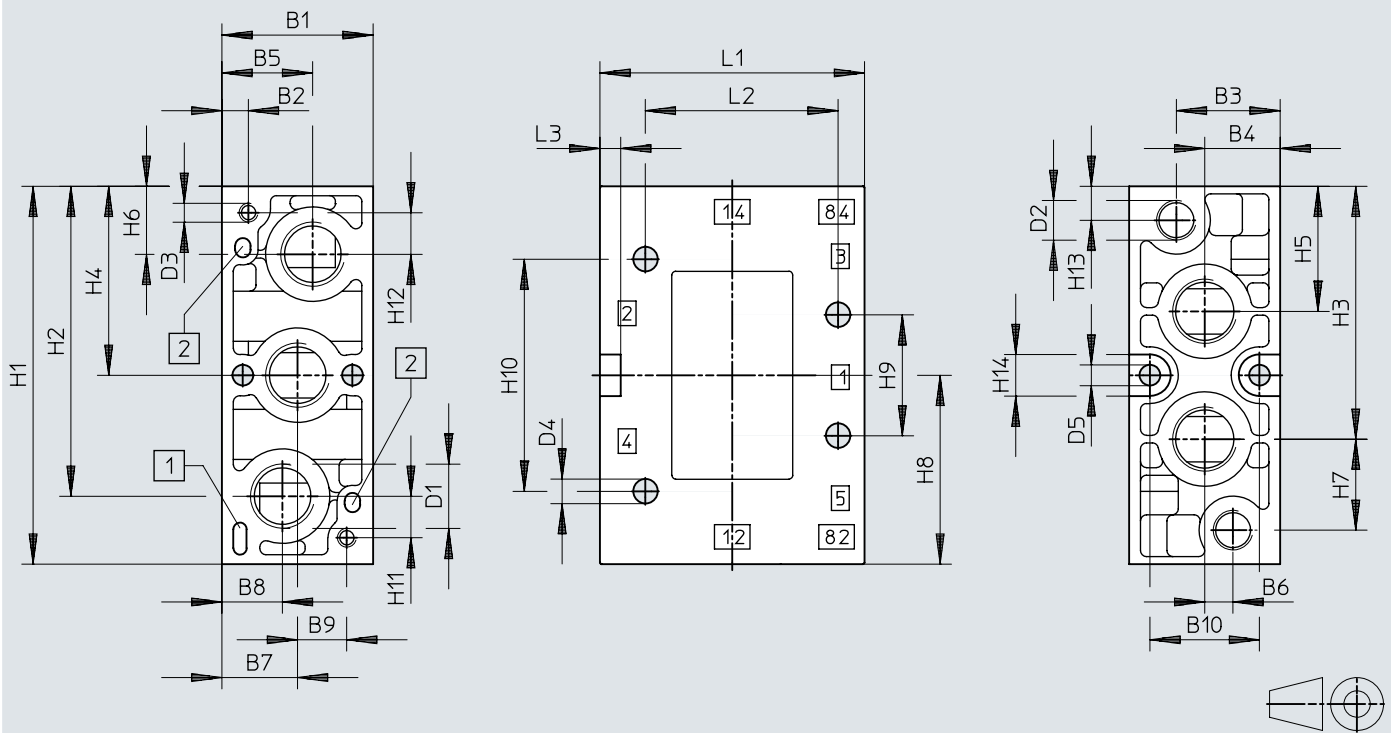
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°
- [3] Electrical connection according to EN 175301-803, form B

	B11	B12	B13	B14	H21	H22	H23
MVH-5/3-1/8	36,8	67	33	26	129	241,2	261,2
MVH-5/3-1/4	38	70			141	254,2	274,5

Dimensions

Dimensions – Solenoid valves MVH-B, 5/3-way valves, pneumatic connection
G3/8

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- [1] for encoding pin
- [2] Anti-twist protection

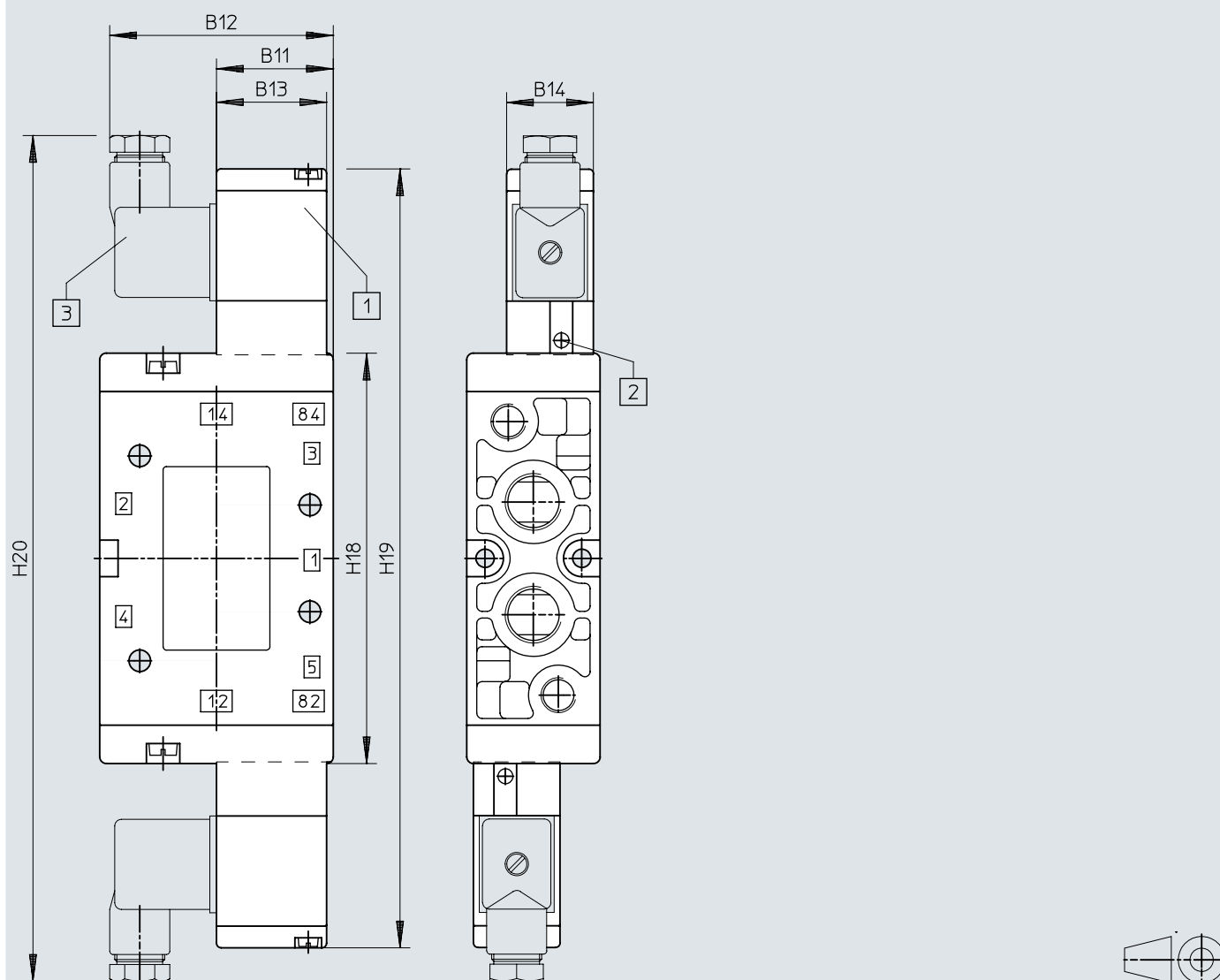
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1 ø	D2 ø	D3	D4 ø	D5
MVH-5/3-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5

	H1 ±0,1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0,2	L2	L3
MVH-5/3-3/8	100	82	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	70	51	5,5

Dimensions

Dimensions – Solenoid valves MVH-B, 5/3-way valves, pneumatic connection
G3/8, installation dimensions with F solenoid coil, mechanical reset type

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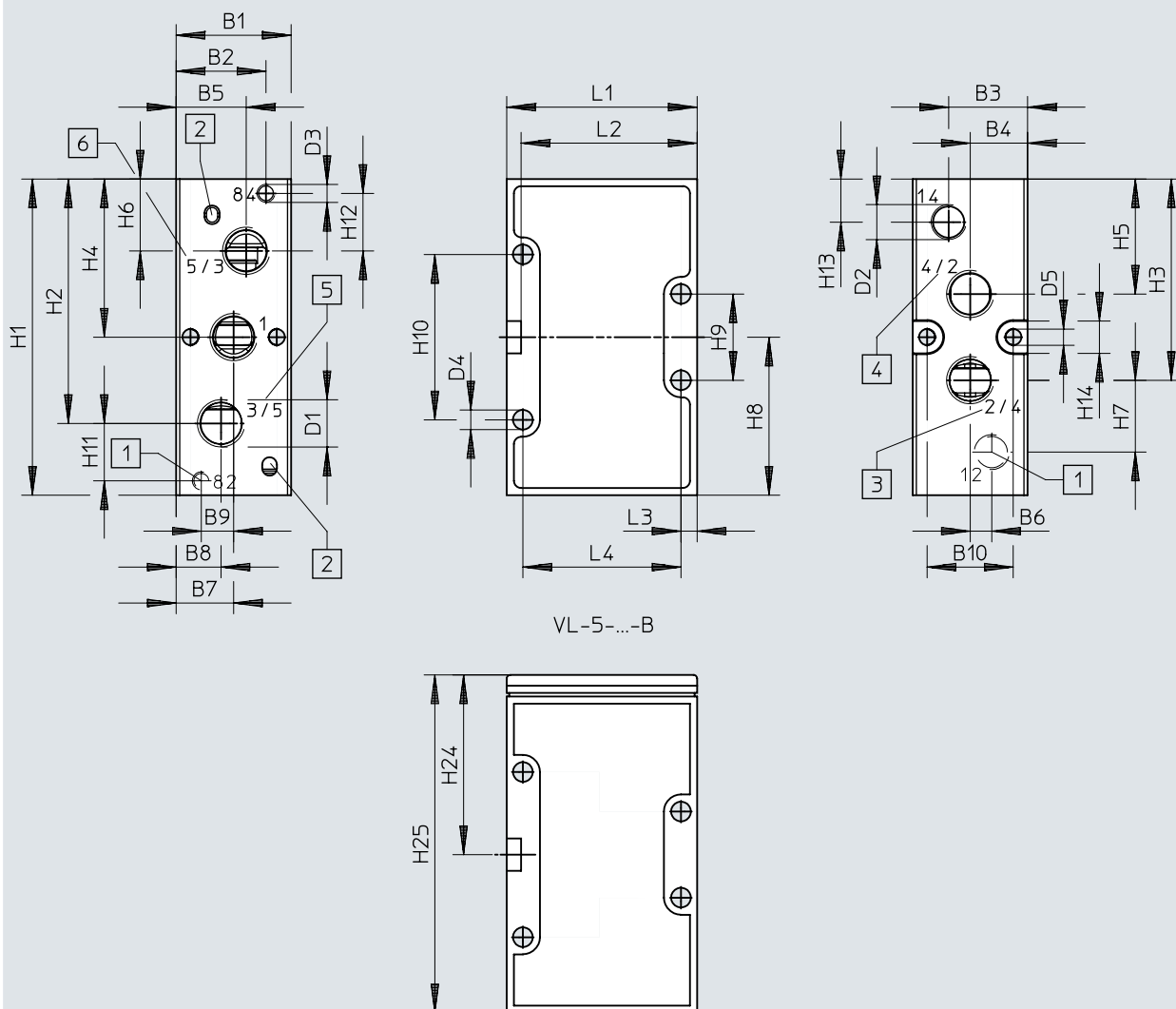
- [1] Solenoid coil can be rotated by 360°
- [2] Manual override can be repositioned by 180°
- [3] Electrical connection according to EN 175301-803, form B

	B11	B12	B13	B14	H18	H19	H20
MVH-5/3-3/8	35	67,5	33	26	123	234	254

Dimensions

Dimensions – Pneumatic valves VL, 5/2-way valves, pneumatic connection
G1/8, G1/4, VL-5-...-B

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- [1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B
- [2] Anti-twist protection
- [3] 2 for poppet seat valve; 4 for Piston slide valve
- [4] 4 for poppet seat valve; 2 for Piston slide valve
- [5] 3 for poppet seat valve; 5 for Piston slide valve
- [6] 5 for poppet seat valve; 3 for Piston slide valve

Dimensions

	B1	B2	B3	B4	B5	B6	B7	B8	
VL-5-1/8	26	16,5	18	13	16,5	5	13	9,5	
VL-5-1/4	32	19,5	22	16	19,5	6	16	12,5	

	B9	B10	D1 Ø	D2 Ø	D3	D4 Ø	D5	
VL-5-1/8	8	19,5	G1/8	G1/8	M5	4,5	4,3	
VL-5-1/4	9	24	G1/4			5,5	4,3	

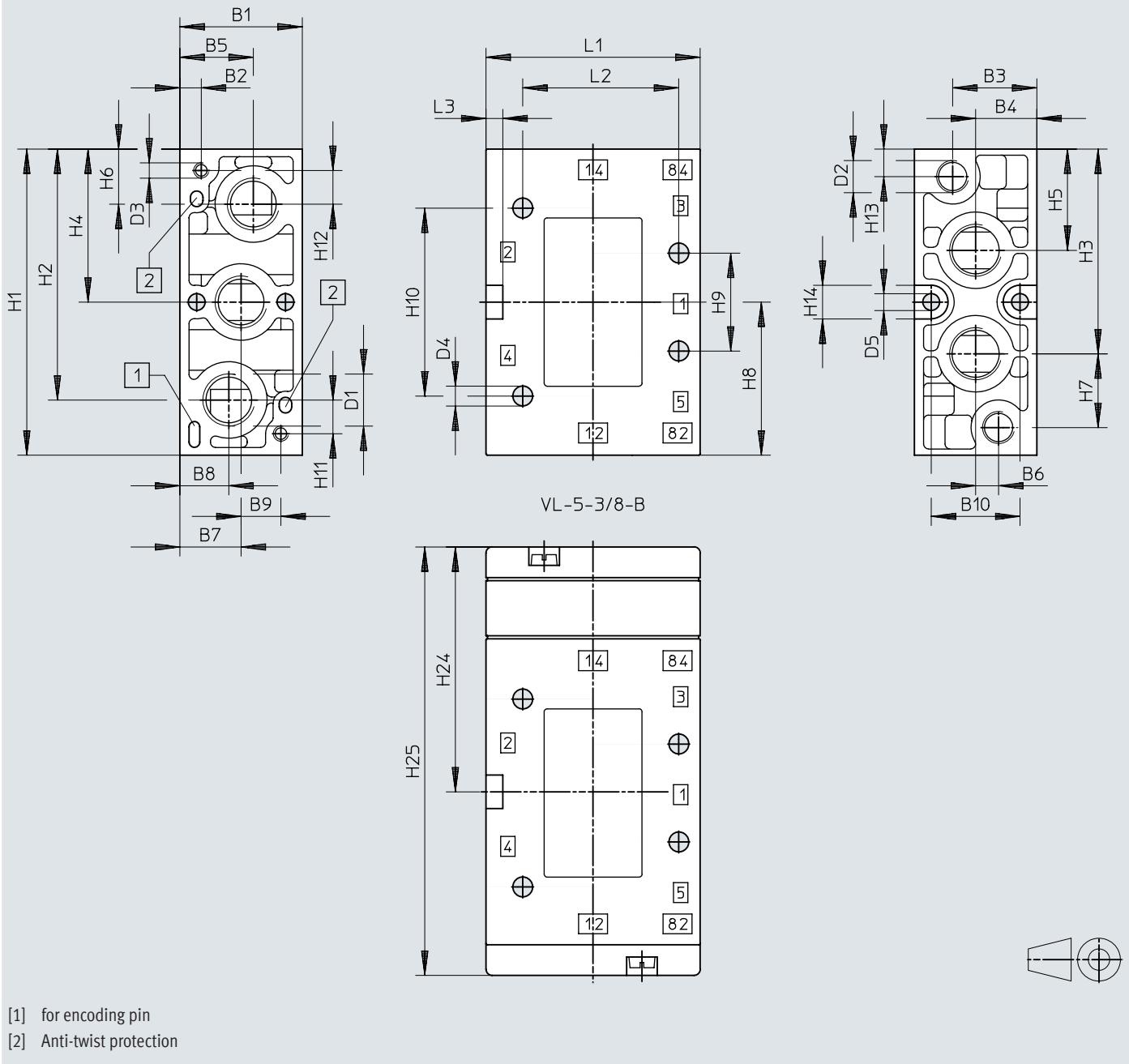
	H1 ± 0,2	H2	H3	H4	H5	H6	H7	H8 ± 0,2	H9	H10
VL-5-1/8	77	59,5	49,5	38,5	27,5	17,5	19	38,5	21	41
VL-5-1/4	88	68	56	44	32	20	20	44	22	46

	H11	H12	H13	H14	H24	H25	L1 ± 0,2	L2	L3	L4
VL-5-1/8	12	12	8,5	9	50	94	47	43	3,5	40
VL-5-1/4	16	16	12		44,4	83	53	49	4,5	44

Dimensions

Dimensions – Pneumatic valves VL, 5/2-way valves, pneumatic connection
G3/8, VL-5-...-B

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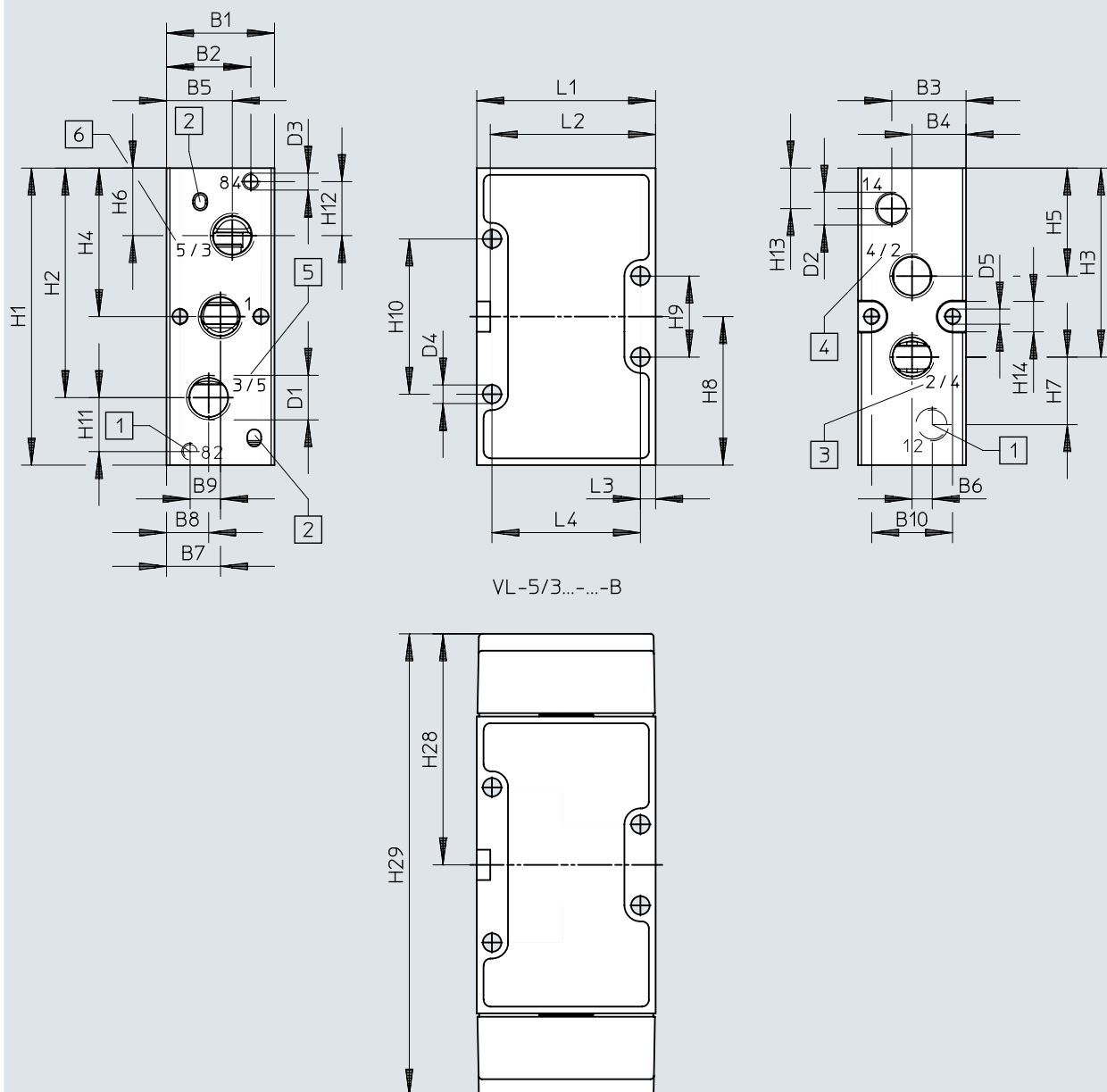


	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1	D2	D3	D4 ø	D5 ø	H1 ±0,1	H2
VL-5-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5	100	82
	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H24	H25	L1 ±0,2	L2	L3
VL-5-3/8	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	11	11	70	51	5,5

Dimensions

Dimensions – Pneumatic valves J, 5/2-way valves, double pilot valves, pneumatic connection G1/8, G1/4, J-5-...-B

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- [1] Connection 12 and 82 not available for MFH-5-...-B and MFH-5-...-S-B
- [2] Anti-rotation lock and for coding pin
- [3] 2 for poppet seat valve; 4 for Piston slide valve
- [4] 4 for poppet seat valve; 2 for Piston slide valve
- [5] 3 for poppet seat valve; 5 for Piston slide valve
- [6] 5 for poppet seat valve; 3 for Piston slide valve

Dimensions

	B1	B2	B3	B4	B5	B6	B7	B8	
J-5-1/8	26	16,5	18	13	16,5	5	13	9,5	
J-5-1/4	32	19,5	22	16	19,5	6	16	12,5	

	B9	B10	D1 Ø	D2 Ø	D3	D4 Ø	D5	
J-5-1/8	8	19,5	G1/8	G1/8	M5	4,5	4,3	
J-5-1/4	9	24	G1/4			5,5	4,3	

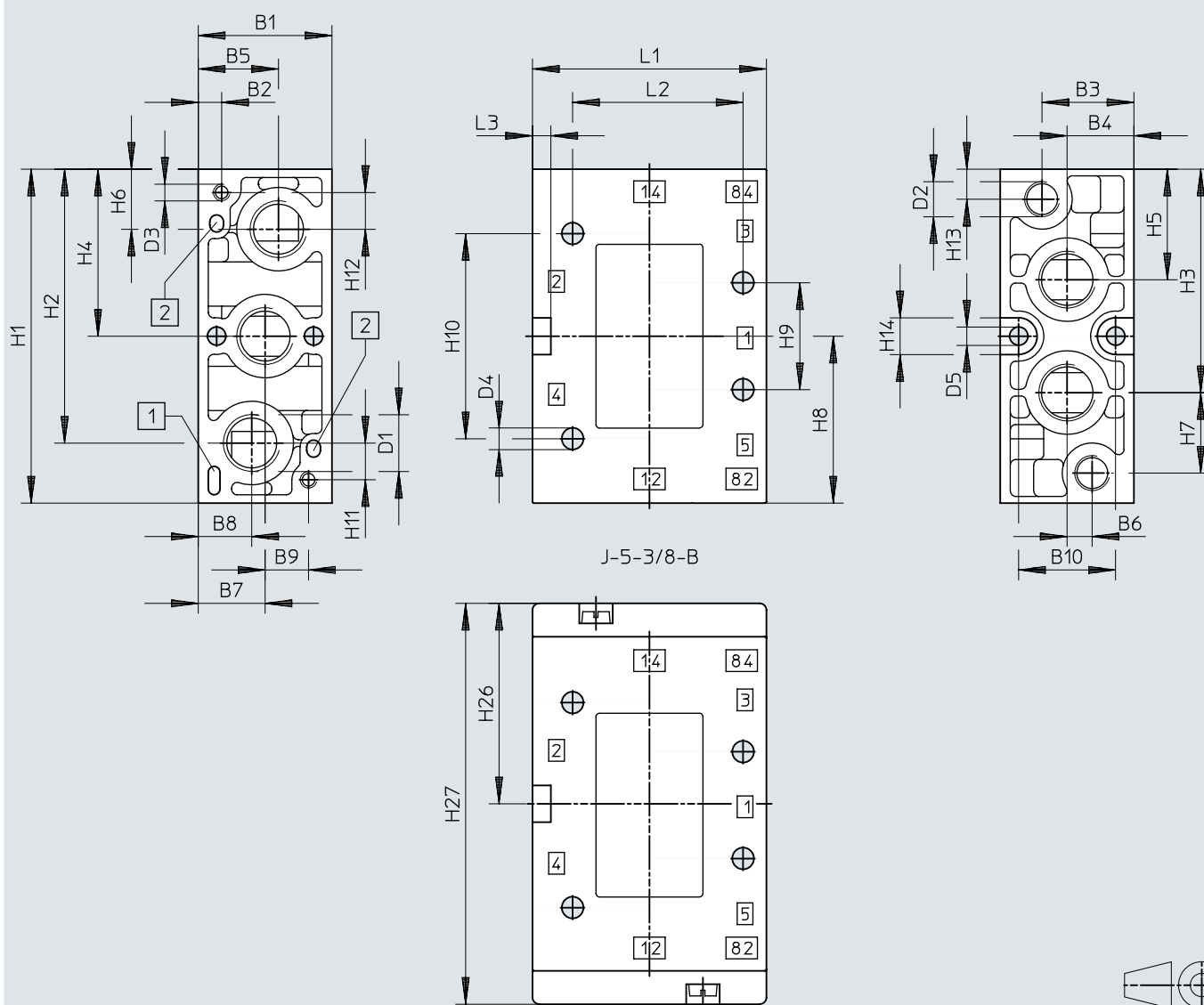
	H1 ± 0,2	H2	H3	H4	H5	H6	H7	H8 ± 0,2	H9	H10
J-5-1/8	77	59,5	49,5	38,5	27,5	17,5	19	38,5	21	41
J-5-1/4	88	68	56	44	32	20	20	44	22	46

	H11	H12	H13	H14	H28	H29	L1 ± 0,2	L2	L3	L4
J-5-1/8	12	12	8,5	9	68,5	137	47	43	3,5	40
J-5-1/4	16	16	12		61,7	123,4	53	49	4,5	44

Dimensions

Dimensions – Pneumatic valves J, 5/2-way valves, double pilot valves, pneumatic connection G3/8, J-5-3/8-B

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- [1] for encoding pin
[2] Anti-twist protection

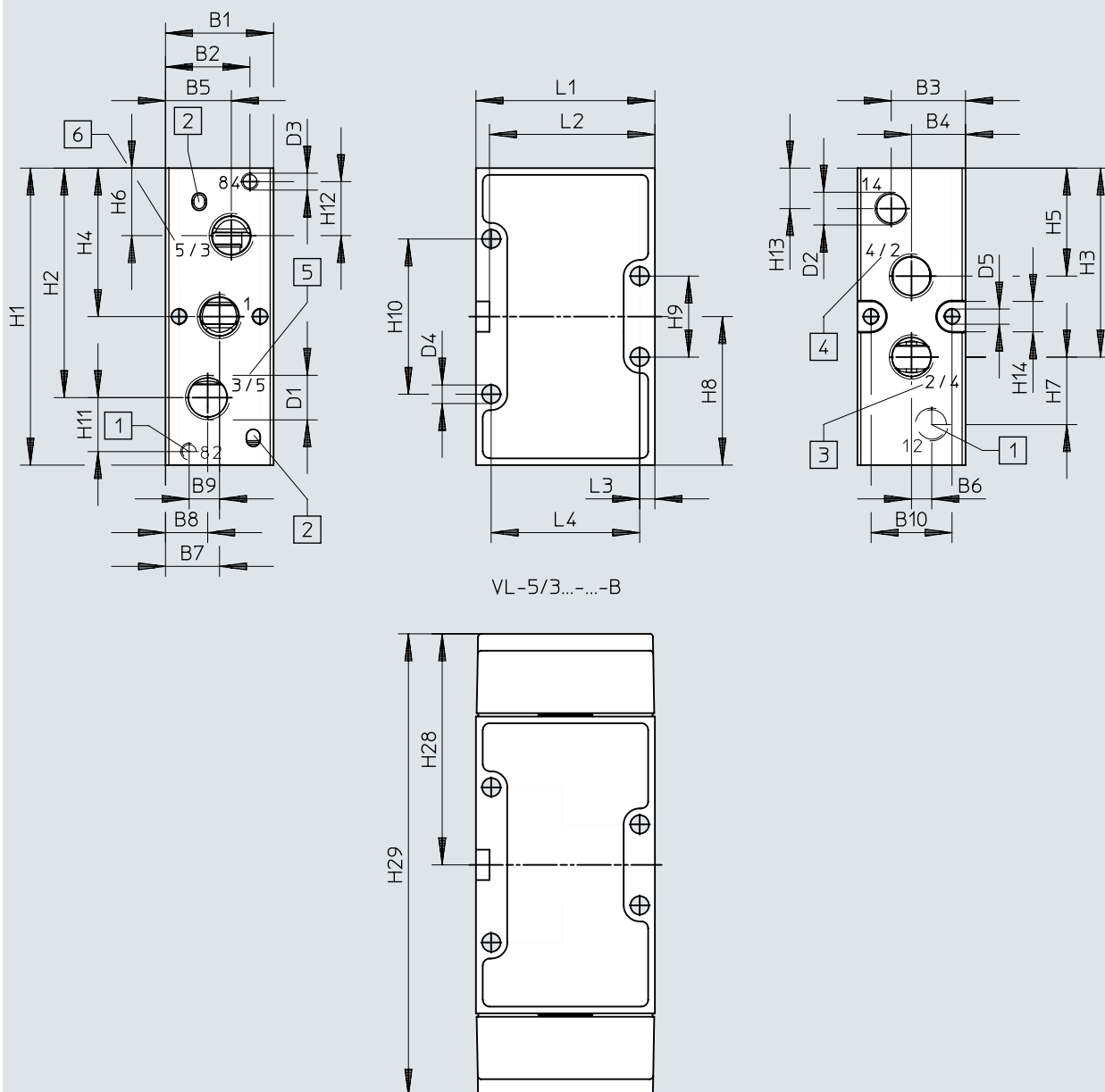
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1	D2	D3	D4 Ø	D5 Ø	H1 ±0,1	H2
J-5-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5	100	82

	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H26	H27	L1 ±0,2	L2	L3
J-5-3/8	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	60	120	70	51	5,5

Dimensions

Dimensions – Pneumatic valves VL, 5/2-way valves, pneumatic connection
G1/8, G1/4, VL-5/3...-B

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- [1] Connection 12 and 82 not available for MFH-5...-B and MFH-5...-S-B
- [2] Anti-rotation lock and for coding pin
- [3] 2 for poppet seat valve; 4 for Piston slide valve
- [4] 4 for poppet seat valve; 2 for Piston slide valve
- [5] 3 for poppet seat valve; 5 for Piston slide valve
- [6] 5 for poppet seat valve; 3 for Piston slide valve

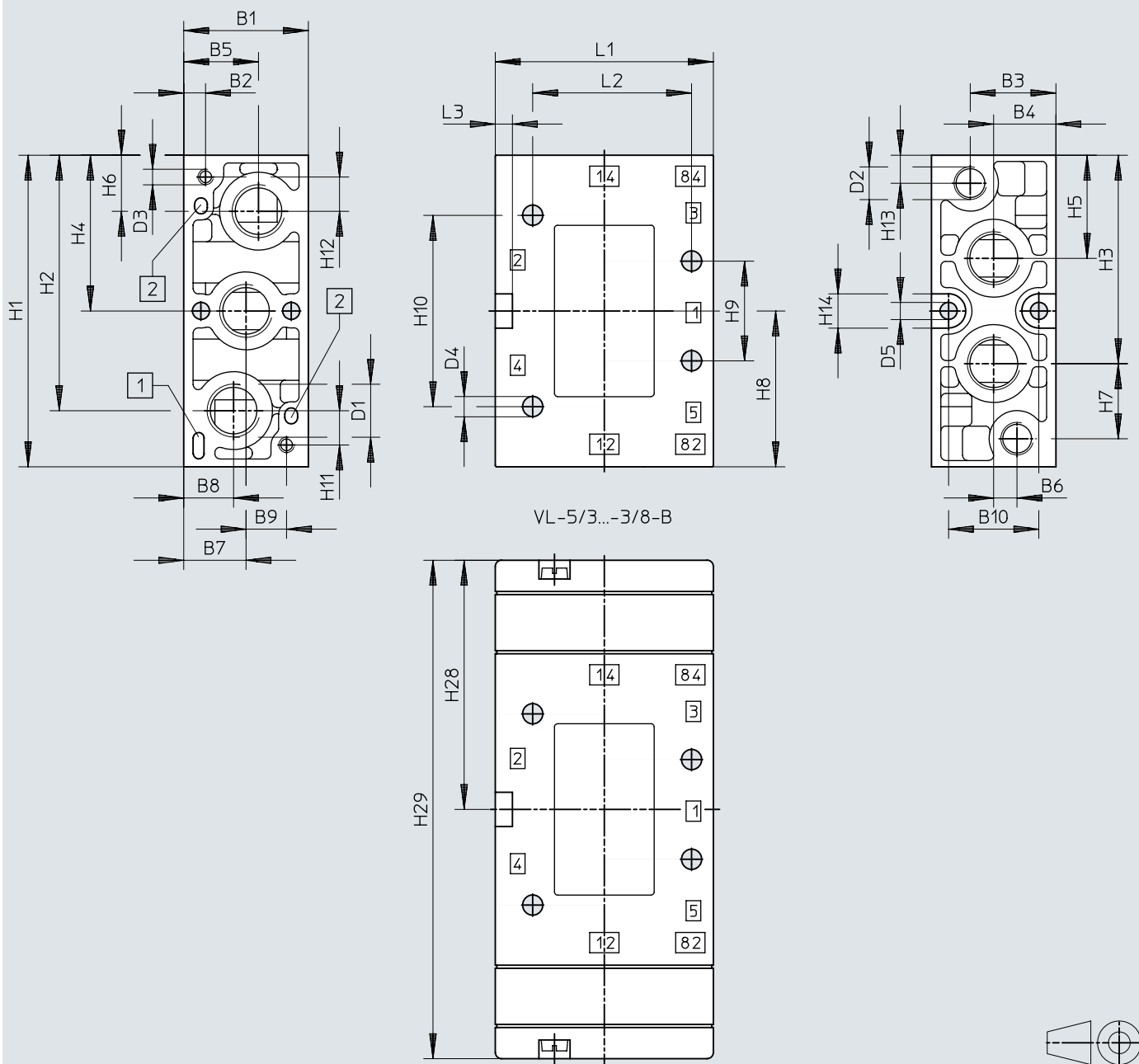
Dimensions

	B1	B2	B3	B4	B5	B6	B7	B8	
J-5-1/8	26	16,5	18	13	16,5	5	13	9,5	
J-5-1/4	32	19,5	22	16	19,5	6	16	12,5	

	B9	B10	D1 Ø	D2 Ø	D3	D4 Ø	D5	
J-5-1/8	8	19,5	G1/8	G1/8	M5	4,5	4,3	
J-5-1/4	9	24	G1/4			5,5	4,3	

	H1 ± 0,2	H2	H3	H4	H5	H6	H7	H8 ± 0,2	H9	H10
J-5-1/8	77	59,5	49,5	38,5	27,5	17,5	19	38,5	21	41
J-5-1/4	88	68	56	44	32	20	20	44	22	46

	H11	H12	H13	H14	H28	H29	L1 ± 0,2	L2	L3	L4
J-5-1/8	12	12	8,5	9	68,5	137	47	43	3,5	40
J-5-1/4	16	16	12		61,7	123,4	53	49	4,5	44

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- [1] for encoding pin
- [2] Anti-twist protection

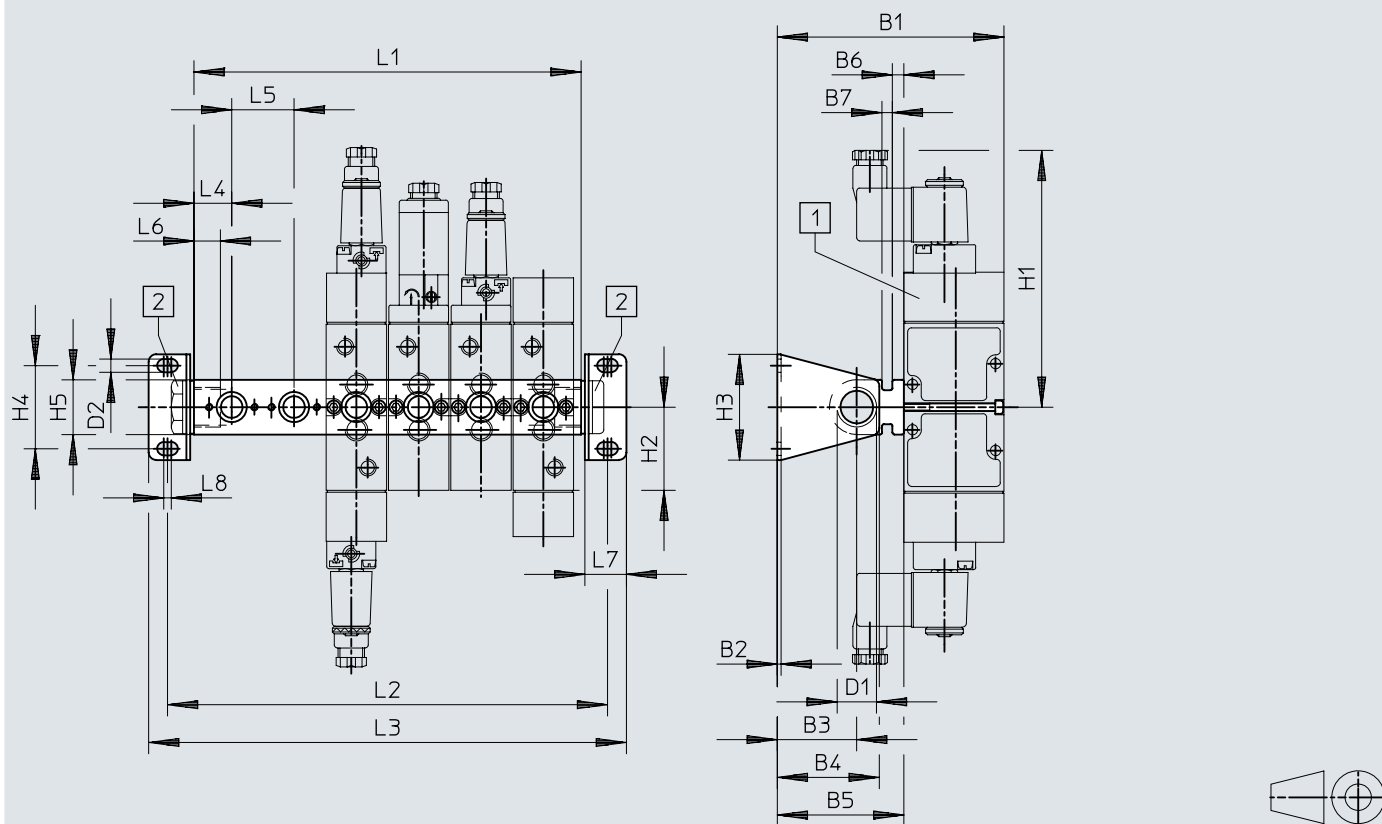
	B1 ±0,1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1	D2	D3	D4 Ø	D5 Ø	H1 ±0,1	H2
VL-5-3/8	40	13	27,5	20	24	7,6	20	16	13	29	G3/8	G1/8	M5	6,5	5,5	100	82

	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H28	H29	L1 ±0,2	L2	L3
VL-5-3/8	66,9	50	33,1	18	24,1	50	32	61,4	11	11	9	11	80	160	70	51	5,5

Dimensions

Dimensions – Manifold rail PAL-...-B

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[1] The covers of all valves can be moved by 180°

[2] Blanking plugs and reducing nipples are not included in the scope of delivery

Dimensions

	B1	B2	B3	B4	B5	B6	B7	D1	D2	H1	H2	H3	H4	L4	L5	L6	L7	L8
PAL-1/8	104	2	33,5	44,5	57	5	5,5	G3/8	5,2	130	38,5	44	32	18	27	12	20	4
PAL-1/4	120	2	42	54	67	6,1	5,5	G1/2	7	136	44	56	44	20	33	14	22	4
PAL-3/8	176	3	75	93	106	4	14	G3/4	9	147	50	80	60	25	41	17	30	5

	L1				L2				L3			
PAL-1/8-2-B	63				89				107			
PAL-1/8-3-B	90				116				134			
PAL-1/8-4-B	117				143				161			
PAL-1/8-5-B	144				170				188			
PAL-1/8-6-B	171				197				215			
PAL-1/8-7-B	198				224				242			
PAL-1/8-8-B	225				251				269			
PAL-1/8-9-B	252				278				296			
PAL-1/8-10-B	279				305				323			

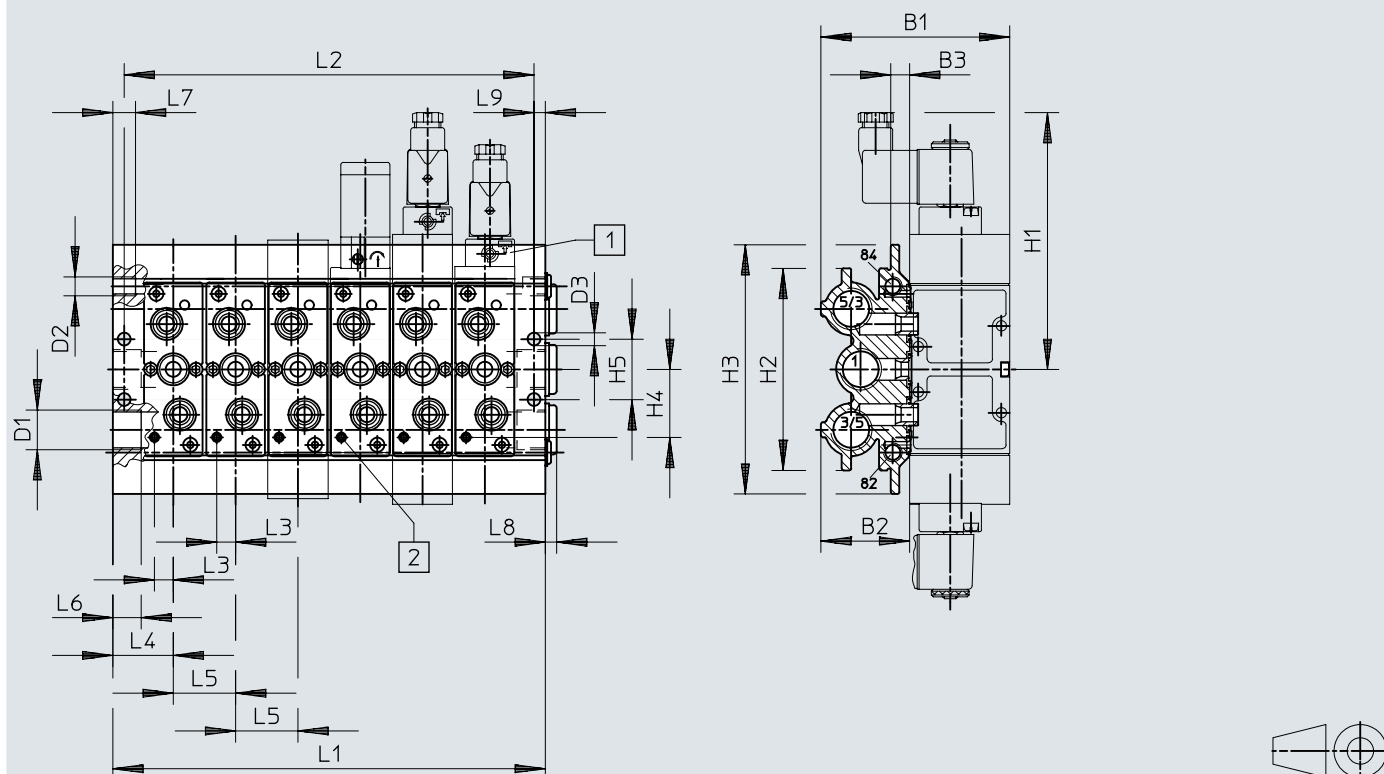
	L1				L2				L3			
PAL-1/4-2-B	73				101				121			
PAL-1/4-3-B	106				134				154			
PAL-1/4-4-B	139				167				187			
PAL-1/4-5-B	172				200				220			
PAL-1/4-6-B	205				233				253			
PAL-1/4-7-B	238				266				286			
PAL-1/4-8-B	271				299				319			
PAL-1/4-9-B	304				322				352			
PAL-1/4-10-B	337				365				385			

	L1				L2				L3			
PAL-3/8-2-B	91				127				155			
PAL-3/8-3-B	132				168				196			
PAL-3/8-4-B	173				209				237			
PAL-3/8-5-B	214				250				278			
PAL-3/8-6-B	255				291				319			
PAL-3/8-7-B	296				332				360			
PAL-3/8-8-B	337				373				401			
PAL-3/8-9-B	378				414				442			
PAL-3/8-10-B	419				455				483			

Dimensions

Dimensions – Manifold block PRS

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[1] The covers of all valves can be moved by 180°

[2] Drilled hole for Spring pin DIN 7346 Ø 3 mm

Dimensions

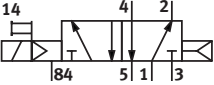
	B1	B2	B3	D1	D2	D3	H1	H2	H3	H4	H5	L3	L4	L5	L6	L7	L8	L9
PRS-1/8	93	45,5	11,2	G3/8	G1/8	6,8	130	95	120	27	27,5	9,4	25,5	27	14	8	5	6
PRS-1/4	100	47	10	G1/2	G1/8	6,8	136	107	132	36	32	10	32	33	15	12	6	9
PRS-3/8	131	60,5	12,5	G3/4	G1/8	9	147	128	153	44	44	15,2	36,5	41	16	12	6	7,5

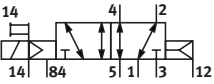
	L1	L2
PRS-1/8-2-BB	78	66
PRS-1/8-3-BB	105	93
PRS-1/8-4-BB	132	120
PRS-1/8-5-BB	159	147
PRS-1/8-6-BB	186	174
PRS-1/8-7-BB	213	201
PRS-1/8-8-BB	240	228
PRS-1/8-9-BB	267	255
PRS-1/8-10-BB	294	282

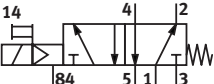
	L1	L2
PRS-1/4-2-B	97	85
PRS-1/4-3-B	130	118
PRS-1/4-4-B	163	151
PRS-1/4-5-B	196	184
PRS-1/4-6-B	229	217
PRS-1/4-7-B	262	250
PRS-1/4-8-B	259	283
PRS-1/4-9-B	328	316
PRS-1/4-10-B	361	349

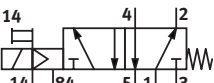
	L1	L2
PRS-3/8-2-B	114	99
PRS-3/8-3-B	155	140
PRS-3/8-4-B	196	181
PRS-3/8-5-B	237	222
PRS-3/8-6-B	278	263
PRS-3/8-8-B	360	345
PRS-3/8-10-B	442	427

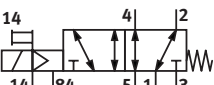
Ordering data

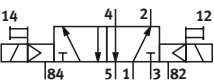
Solenoid valves MFH-B, 5/2-way valves, pneumatic reset type, non-reversible flow direction, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	535921	MFH-5-1/8-L-B-EX
				30991	MFH-5-1/8-L-B
	G1/4	G1/4	G1/4	31010	MFH-5-1/4-L-B
				535922	MFH-5-1/4-L-B-EX
	G3/8	G3/8	G3/8	535923	MFH-5-3/8-L-B-EX
				14946	MFH-5-3/8-L-B

Solenoid valves MFH-B, 5/2-way valves, pneumatic reset type, reversible flow direction, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30992	MFH-5-1/8-L-S-B
				535927	MFH-5-1/8-L-S-B-EX
	G1/4	G1/4	G1/4	535928	MFH-5-1/4-L-S-B-EX
				33185	MFH-5-1/4-L-S-B
	G3/8	G3/8	G3/8	535929	MFH-5-3/8-L-S-B-EX
				33181	MFH-5-3/8-L-S-B

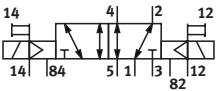
Solenoid valves MFH-B, 5/2-way valves, mechanical reset type, non-reversible flow direction, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	19758	MFH-5-1/8-B
				535918	MFH-5-1/8-B-EX
	G1/4	G1/4	G1/4	535919	MFH-5-1/4-B-EX
				15901	MFH-5-1/4-B
	G3/8	G3/8	G3/8	535920	MFH-5-3/8-B-EX
				19705	MFH-5-3/8-B

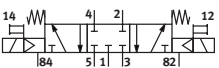
Solenoid valves MFH-B, 5/2-way valves, mechanical reset type, non-reversible flow direction, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	19759	MFH-5-1/8-S-B
				535924	MFH-5-1/8-S-B-EX
	G1/4	G1/4	G1/4	15902	MFH-5-1/4-S-B
				535925	MFH-5-1/4-S-B-EX

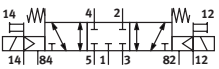
Solenoid valves MFH-B, 5/2-way valves, mechanical reset type, reversible flow direction, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G3/8	G3/8	G3/8	19706	MFH-5-3/8-S-B
				535926	MFH-5-3/8-S-B-EX

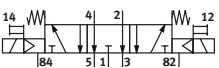
Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, non-reversible flow direction, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	535930	JMFH-5-1/8-B-EX
				30486	JMFH-5-1/8-B
	G1/4	G1/4	G1/4	535931	JMFH-5-1/4-B-EX
				19789	JMFH-5-1/4-B
	G3/8	G3/8	G3/8	19700	JMFH-5-3/8-B
				535932	JMFH-5-3/8-B-EX

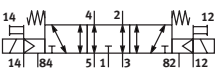
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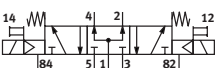
Solenoid valves MFH-B, 5/2-way valves, double solenoid valves, reversible flow direction, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	535933	JMFH-5-1/8-S-B-EX
				30487	JMFH-5-1/8-S-B
	G1/4	G1/4	G1/4	19790	JMFH-5-1/4-S-B
				535934	JMFH-5-1/4-S-B-EX
	G3/8	G3/8	G3/8	535935	JMFH-5-3/8-S-B-EX
				19702	JMFH-5-3/8-S-B

Solenoid valves MFH-B, 5/3-way valves, normally closed, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	535936	MFH-5/3G-1/8-B-EX
				30484	MFH-5/3G-1/8-B
	G1/4	G1/4	G1/4	19787	MFH-5/3G-1/4-B
				535937	MFH-5/3G-1/4-B-EX
	G3/8	G3/8	G3/8	19707	MFH-5/3G-3/8-B
				535938	MFH-5/3G-3/8-B-EX

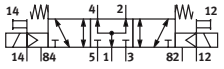
Solenoid valves MFH-B, 5/3-way valves, normally closed, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	535939	MFH-5/3G-1/8-S-B-EX
				30993	MFH-5/3G-1/8-S-B
	G1/4	G1/4	G1/4	535940	MFH-5/3G-1/4-S-B-EX
				31001	MFH-5/3G-1/4-S-B
	G3/8	G3/8	G3/8	535941	MFH-5/3G-3/8-S-B-EX
				31317	MFH-5/3G-3/8-S-B

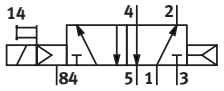
Solenoid valves MFH-B, 5/3-way valves, normally exhausted, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30483	MFH-5/3E-1/8-B
				535942	MFH-5/3E-1/8-B-EX
	G1/4	G1/4	G1/4	535943	MFH-5/3E-1/4-B-EX
				19786	MFH-5/3E-1/4-B
	G3/8	G3/8	G3/8	19708	MFH-5/3E-3/8-B
				535944	MFH-5/3E-3/8-B-EX

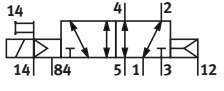
Solenoid valves MFH-B, 5/3-way valves, normally exhausted, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30994	MFH-5/3E-1/8-S-B
				535945	MFH-5/3E-1/8-S-B-EX
	G1/4	G1/4	G1/4	535946	MFH-5/3E-1/4-S-B-EX
				31002	MFH-5/3E-1/4-S-B
	G3/8	G3/8	G3/8	31318	MFH-5/3E-3/8-S-B
				535947	MFH-5/3E-3/8-S-B-EX

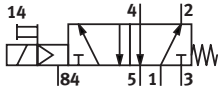
Solenoid valves MFH-B, 5/3-way valves, normally open, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	535948	MFH-5/3B-1/8-B-EX
				30485	MFH-5/3B-1/8-B
	G1/4	G1/4	G1/4	535949	MFH-5/3B-1/4-B-EX
				19788	MFH-5/3B-1/4-B
	G3/8	G3/8	G3/8	535950	MFH-5/3B-3/8-B-EX
				19709	MFH-5/3B-3/8-B

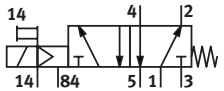
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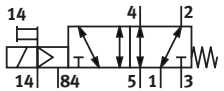
Solenoid valves MFH-B, 5/3-way valves, normally open, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30995	MFH-5/3B-1/8-S-B
				535951	MFH-5/3B-1/8-S-B-EX
	G1/4	G1/4	G1/4	535952	MFH-5/3B-1/4-S-B-EX
				31003	MFH-5/3B-1/4-S-B
	G3/8	G3/8	G3/8	535953	MFH-5/3B-3/8-S-B-EX
				31319	MFH-5/3B-3/8-S-B

Solenoid valves MVH-B, 5/2-way valves, pneumatic reset type, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	19749	MVH-5-1/8-L-B
	G1/4	G1/4	G1/4	31009	MVH-5-1/4-L-B
	G3/8	G3/8	G3/8	14947	MVH-5-3/8-L-B

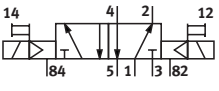
Solenoid valves MVH-B, 5/2-way valves, pneumatic reset type, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	19750	MVH-5-1/8-L-S-B
	G1/4	G1/4	G1/4	33184	MVH-5-1/4-L-S-B
	G3/8	G3/8	G3/8	33180	MVH-5-3/8-L-S-B

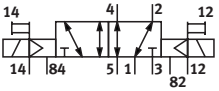
Solenoid valves MVH-B, 5/2-way valves, mechanical reset type, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	19779	MVH-5-1/8-B
	G1/4	G1/4	G1/4	19701	MVH-5-1/4-B
	G3/8	G3/8	G3/8	14945	MVH-5-3/8-B

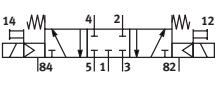
Solenoid valves MVH-B, 5/2-way valves, mechanical reset type, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30996	MVH-5-1/8-S-B
	G1/4	G1/4	G1/4	15903	MVH-5-1/4-S-B

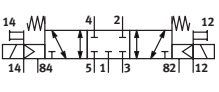
Solenoid valves MVH-B, 5/2-way valves, mechanical reset type, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G3/8	G3/8	G3/8	15342	MVH-5-3/8-S-B

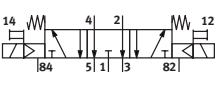
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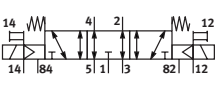
Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30475	JMVH-5-1/8-B
	G1/4	G1/4	G1/4	19136	JMVH-5-1/4-B
	G3/8	G3/8	G3/8	14948	JMVH-5-3/8-B

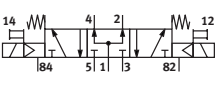
Solenoid valves JMVH-B, 5/2-way valves, double solenoid valves, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30476	JMVH-5-1/8-S-B
	G1/4	G1/4	G1/4	19137	JMVH-5-1/4-S-B
	G3/8	G3/8	G3/8	15343	JMVH-5-3/8-S-B

Solenoid valves MVH-B, 5/3-way valves, normally closed, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30477	MVH-5/3G-1/8-B
	G1/4	G1/4	G1/4	19138	MVH-5/3G-1/4-B
	G3/8	G3/8	G3/8	14944	MVH-5/3G-3/8-B

Solenoid valves MVH-B, 5/3-way valves, normally closed, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30997	MVH-5/3G-1/8-S-B
	G1/4	G1/4	G1/4	31004	MVH-5/3G-1/4-S-B
	G3/8	G3/8	G3/8	15346	MVH-5/3G-3/8-S-B

Solenoid valves MVH-B, 5/3-way valves, normally exhausted, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30478	MVH-5/3E-1/8-B
	G1/4	G1/4	G1/4	19139	MVH-5/3E-1/4-B
	G3/8	G3/8	G3/8	14943	MVH-5/3E-3/8-B

Solenoid valves MVH-B, 5/3-way valves, normally exhausted, external pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30998	MVH-5/3E-1/8-S-B
	G1/4	G1/4	G1/4	31005	MVH-5/3E-1/4-S-B
	G3/8	G3/8	G3/8	15344	MVH-5/3E-3/8-S-B

Solenoid valves MVH-B, 5/3-way valves, normally open, internal pilot air supply					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30480	MVH-5/3B-1/8-B
	G1/4	G1/4	G1/4	19140	MVH-5/3B-1/4-B
	G3/8	G3/8	G3/8	19699	MVH-5/3B-3/8-B

Ordering data

Solenoid valves MVH-B, 5/3-way valves, normally open, external pilot air supply

	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30999	MVH-5/3B-1/8-S-B
	G1/4	G1/4	G1/4	31006	MVH-5/3B-1/4-S-B
	G3/8	G3/8	G3/8	15345	MVH-5/3B-3/8-S-B

Pneumatic valves VL, 5/2-way valves, mechanical reset type, pneumatic connection G1/8, G1/4

	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	536040	VL-5-1/8-B-EX
				31000	VL-5-1/8-B
	G1/4	G1/4	G1/4	536041	VL-5-1/4-B-EX
				14294	VL-5-1/4-B

Pneumatic valves VL, 5/2-way valves, mechanical reset type, pneumatic connection G3/8

	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G3/8	G3/8	G3/8	14952	VL-5-3/8-B
				536042	VL-5-3/8-B-EX

Pneumatic valves J, 5/2-way valves, impulse valves

	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	30988	J-5-1/8-B
				536043	J-5-1/8-B-EX
	G1/4	G1/4	G1/4	14295	J-5-1/4-B
				536044	J-5-1/4-B-EX
	G3/8	G3/8	G3/8	536045	J-5-3/8-B-EX
				14953	J-5-3/8-B

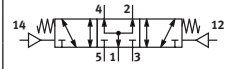
Pneumatic valves VL, 5/3-way valves, normally closed

	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	536046	VL-5/3G-1/8-B-EX
				30990	VL-5/3G-1/8-B
	G1/4	G1/4	G1/4	14298	VL-5/3G-1/4-B
				536047	VL-5/3G-1/4-B-EX
	G3/8	G3/8	G3/8	14950	VL-5/3G-3/8-B
				536048	VL-5/3G-3/8-B-EX

Pneumatic valves VL, 5/3-way valves, normally exhausted

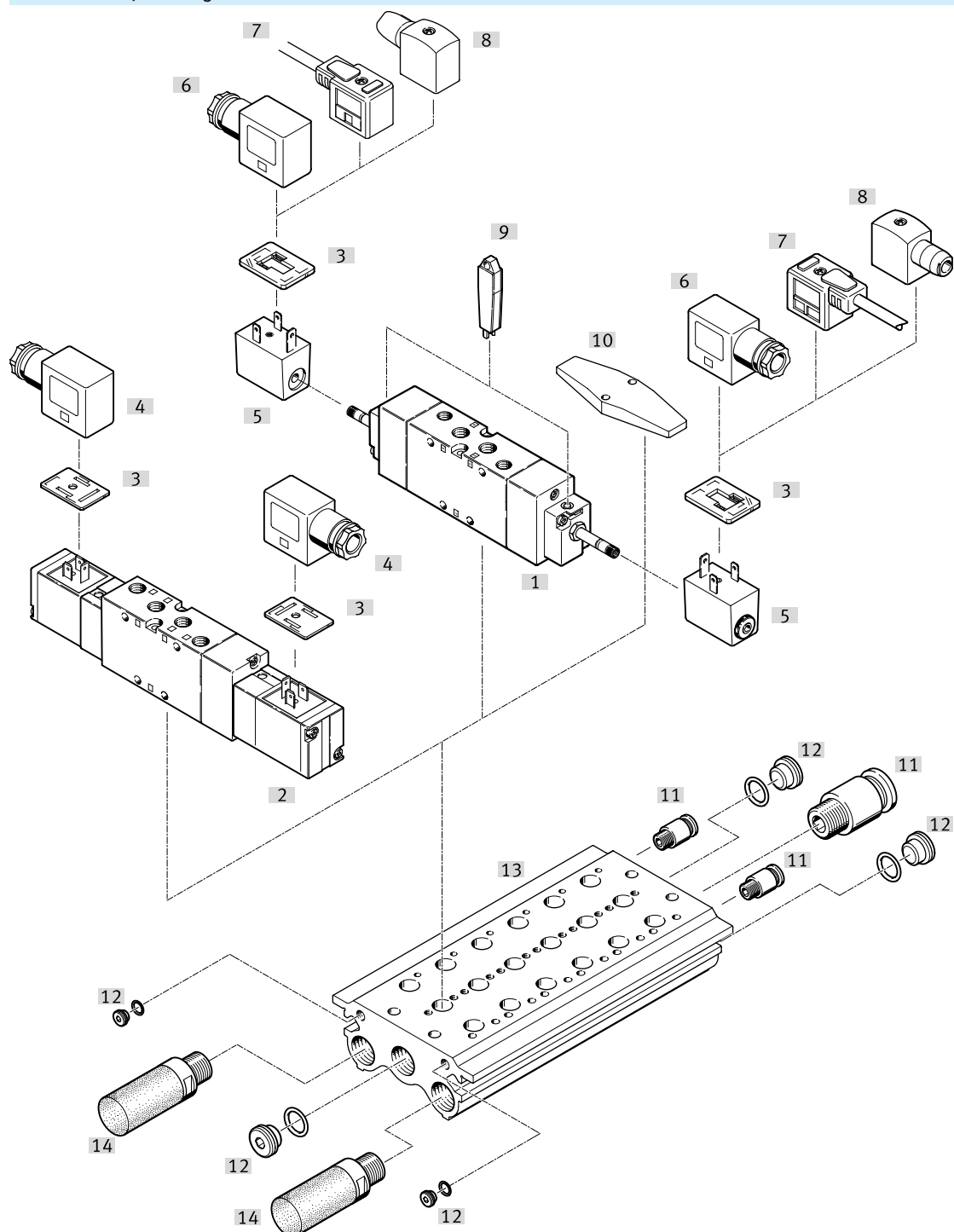
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	31309	VL-5/3E-1/8-B
				536049	VL-5/3E-1/8-B-EX
	G1/4	G1/4	G1/4	14297	VL-5/3E-1/4-B
				536050	VL-5/3E-1/4-B-EX
	G3/8	G3/8	G3/8	14949	VL-5/3E-3/8-B
				536051	VL-5/3E-3/8-B-EX

Ordering data

Pneumatic valves VL, 5/3-way valves, normally open					
	Pneumatic connection 1	Pneumatic connection 2	Pneumatic connection 3	Part no.	Type
	G1/8	G1/8	G1/8	31310	VL-5/3B-1/8-B
				536052	VL-5/3B-1/8-B-EX
	G1/4	G1/4	G1/4	14299	VL-5/3B-1/4-B
				536053	VL-5/3B-1/4-B-EX
	G3/8	G3/8	G3/8	536054	VL-5/3B-3/8-B-EX
				14951	VL-5/3B-3/8-B

Peripherals overview

Solenoid valves, mounting on manifold block



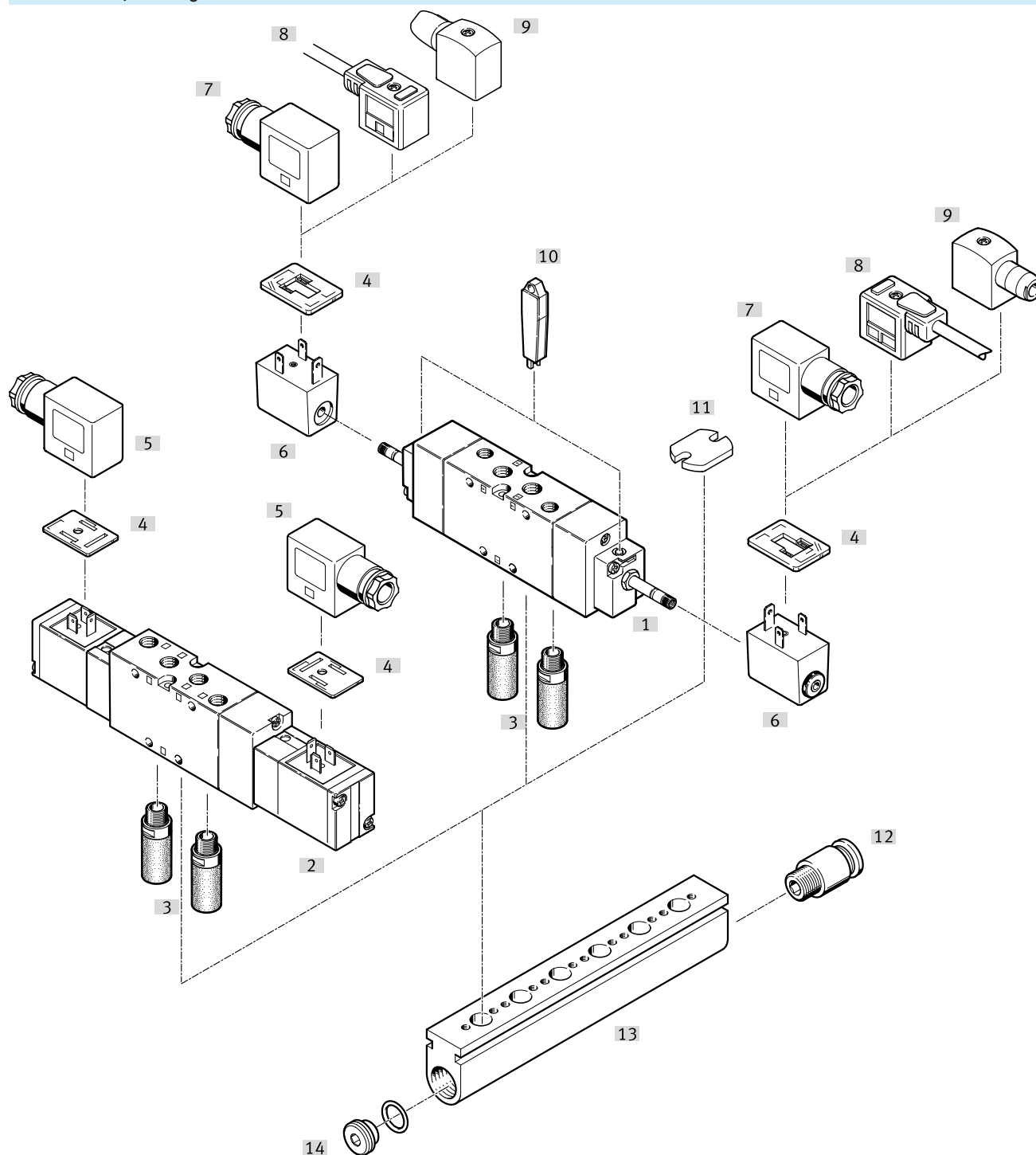
Accessories		→ Page/Internet
Type/order code	Description	
[1] Solenoid valve MFH	Basic valve for F solenoid coil	mfh
[2] Solenoid valve MVH	With V solenoid coil	mvh
[3] Illuminating seal M...-LD	For displaying the switching status	-
[4] Plug socket MSSD-V	For solenoid valves MVH, JMVH	69
[5] F-solenoid coil MSFG, MSFW	F solenoid coil for basic valves MFH, JMFH	68
[6] Plug socket MSSD-F	For solenoid valves MFH, JMFH	69
[7] Connecting cable KMF	For solenoid valves MFH, JMFH	69
[8] Plug socket MSSD-F-S	For solenoid valves MFH, JMFH	
[9] Manual override AHB	By inserting and rotating the manual override AHB (by 90°), the valve can be engaged	68

Peripherals overview

Accessories		→ Page/Internet
Type/order code	Description	
[10] Cover plate PRSB	For covering vacant positions	68
[11] Push-in fitting QS	For connecting tubing with standard O.D.	↗ qs
[12] Sealing plug PRSV	–	68
[13] Manifold block PRS	–	67
[14] Silencer	For mounting in exhaust ports	↗ u

Peripherals overview

Solenoid valves, mounting on manifold rail



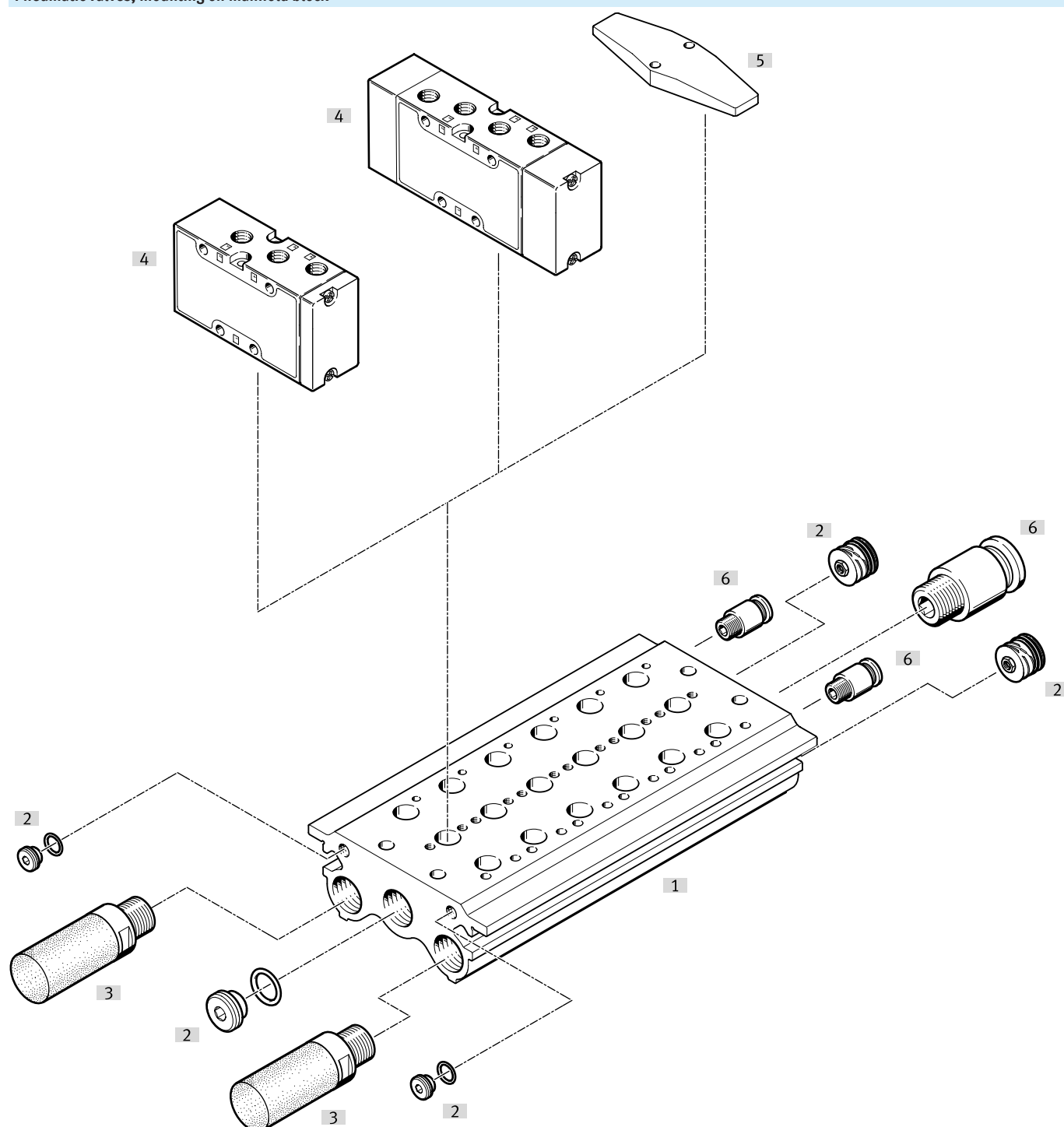
Accessories		→ Page/Internet
Type/order code	Description	
[1] Solenoid valve MFH	Basic valve for F solenoid coil	mfh
[2] Solenoid valve MVH	With V solenoid coil	mvh
[3] Silencer	For mounting in exhaust ports	u
[4] Illuminating seal M...-LD	For displaying the switching status	-
[5] Plug socket MSSD-V	For solenoid valves MVH, JMVH	69
[6] F-solenoid coil MSFG, MSFW	F solenoid coil for basic valves MFH, JMFH	68
[7] Plug socket MSSD-F	For solenoid valves MFH, JMFH	69
[8] Manifold rail PAL	–	67
[9] Sealing plug PRSV	–	68

Peripherals overview

Accessories		→ Page/Internet
Type/order code	Description	
[10] Manual override AHB	By inserting and rotating the manual override AHB (by 90°), the valve can be engaged	68
[11] Cover plate PALB	For covering vacant positions	68
[12] Push-in fitting QS	For connecting tubing with standard O.D.	qs
[13] Connecting cable KMF	For solenoid valves MFH, JMFH	69
[14] Plug socket MSSD-FS	For solenoid valves MFH, JMFH	

Peripherals overview

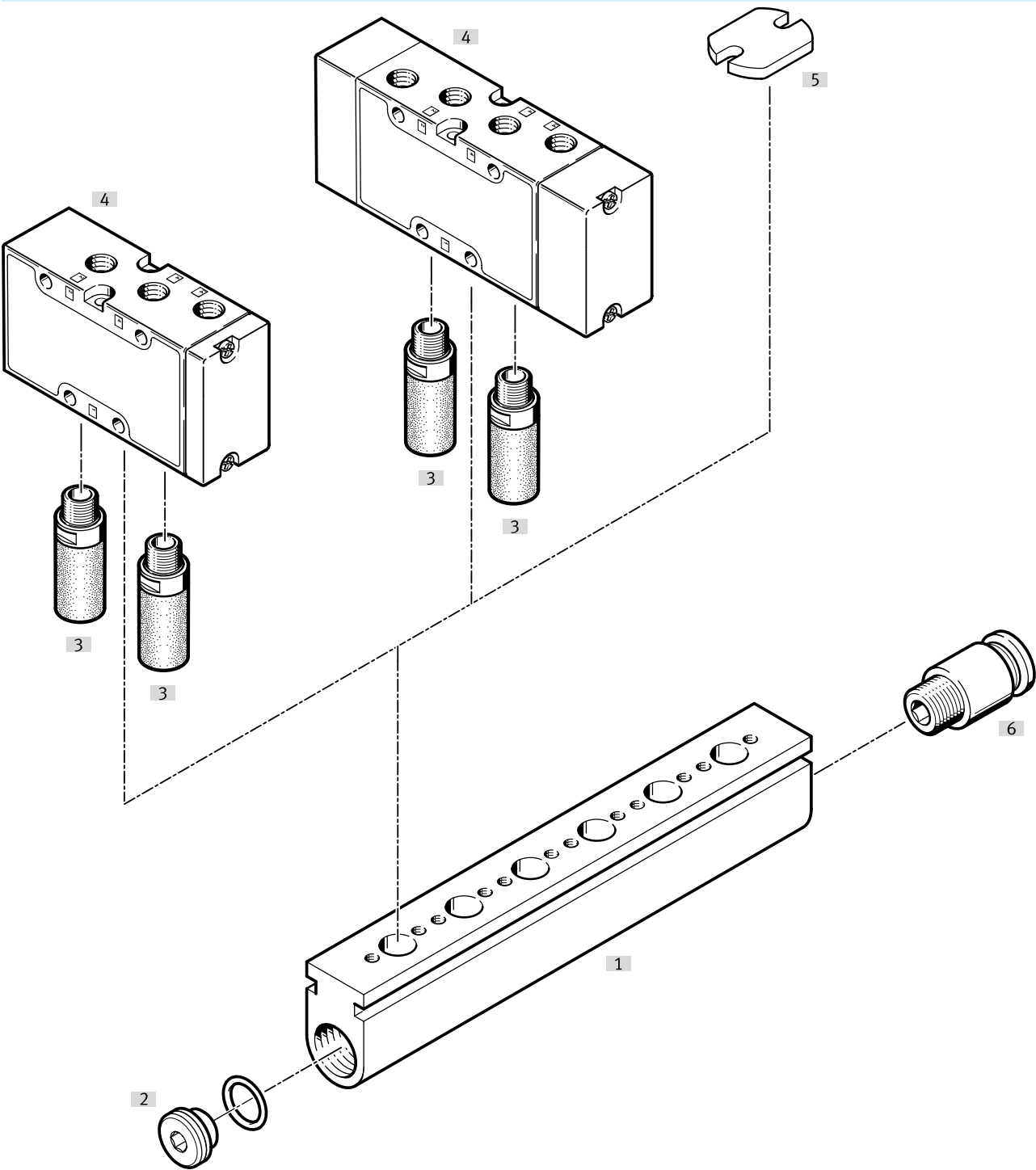
Pneumatic valves, mounting on manifold block



Accessories		→ Page/Internet
Type/order code	Description	
[1] Manifold block PRS	–	67
[2] Sealing plug PRSV	–	68
[3] Silencer	For mounting in exhaust ports	u
[4] Pneumatic valve VL, J	–	vl, j
[5] Cover plate PRSB	For covering vacant positions	68
[6] Push-in fitting QS	–	qs

Peripherals overview

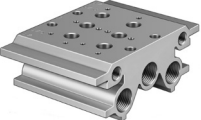
Pneumatic valves, mounting on manifold rail



Accessories		→ Page/Internet
Type/order code	Description	
[1] Manifold rail PAL	–	67
[2] Sealing plug PRSV	–	68
[3] Silencer	For mounting in exhaust ports	↗ u
[4] Pneumatic valve VL, J	–	↗ vl, j
[5] Cover plate PALB	For covering vacant positions	68
[6] Push-in fitting QS		↗ qs

Accessories

Manifold rail PAL-....-B					
	Pneumatic connection 1	Product weight	Material of sub-base	Part no.	Type
	G3/8	150 g	Aluminum, Anodized	30552	PAL-1/8-2-B
		190 g		30553	PAL-1/8-3-B
		230 g		30554	PAL-1/8-4-B
		260 g		30555	PAL-1/8-5-B
		290 g		30556	PAL-1/8-6-B
		340 g		30557	PAL-1/8-7-B
		370 g		30558	PAL-1/8-8-B
		410 g		30559	PAL-1/8-9-B
		450 g		30560	PAL-1/8-10-B
	G1/2	230 g		30280	PAL-1/4-2-B
		290 g		30281	PAL-1/4-3-B
		350 g		30282	PAL-1/4-4-B
		420 g		30283	PAL-1/4-5-B
		480 g		30284	PAL-1/4-6-B
		540 g		30285	PAL-1/4-7-B
		600 g		30286	PAL-1/4-8-B
		660 g		30287	PAL-1/4-9-B
		730 g		30288	PAL-1/4-10-B
	G3/4	510 g		30692	PAL-3/8-2-B
		610 g		30693	PAL-3/8-3-B
		720 g		30694	PAL-3/8-4-B
		830 g		30695	PAL-3/8-5-B
		960 g		30696	PAL-3/8-6-B
		1,060 g		30697	PAL-3/8-7-B
		1,160 g		30698	PAL-3/8-8-B
		1,260 g		30699	PAL-3/8-9-B
		1,360 g		30680	PAL-3/8-10-B

Manifold block PRS					
	Pneumatic connection 1	Product weight	Material of sub-base	Part no.	Type
	G3/8	700 g	Aluminum	30542	PRS-1/8-2-BB
		920 g		30543	PRS-1/8-3-BB
		1,150 g		30544	PRS-1/8-4-BB
		1,320 g		30545	PRS-1/8-5-BB
		1,520 g		30546	PRS-1/8-6-BB
		1,750 g		30547	PRS-1/8-7-BB
		2,010 g		30548	PRS-1/8-8-BB
		2,200 g		30549	PRS-1/8-9-BB
		2,400 g		30550	PRS-1/8-10-BB
	G1/2	1,050 g		15861	PRS-1/4-2-B
		1,310 g		15862	PRS-1/4-3-B
		1,610 g		15863	PRS-1/4-4-B
		1,900 g		15864	PRS-1/4-5-B
		2,200 g		15865	PRS-1/4-6-B
		2,500 g		15866	PRS-1/4-7-B
		2,800 g		15867	PRS-1/4-8-B
		3,100 g		15868	PRS-1/4-9-B
		3,360 g		15869	PRS-1/4-10-B
	G3/4	1,600 g		30682	PRS-3/8-2-B
		2,100 g		30683	PRS-3/8-3-B
		2,630 g		30684	PRS-3/8-4-B
		3,100 g		30685	PRS-3/8-5-B
		3,500 g		30686	PRS-3/8-6-B
		4,620 g		30688	PRS-3/8-8-B
		5,600 g		30690	PRS-3/8-10-B

Accessories

Cover plate for vacant positions PRSB			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B1/B2-L	15909	PRSB-1/8-B
		30666	PRSB-1/4-B
		30681	PRSB-3/8-B

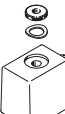
Cover plate for vacant positions PALB			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B1/B2-L	30905	PALB-3/8-B
		30903	PALB-1/8-B
		30904	PALB-1/4-B

Sealing plug PRSV for the formation of pressure zones			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B1/B2-L	160997	PRSV-1/8
		160996	PRSV-1/4

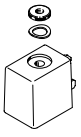
Manual override AHB			
	Corrosion resistance class (CRC) ¹⁾	Part no.	Type
	2 - Moderate corrosion stress	157651	AHB-MD/MF/MV

1) Further information, visit www.festo.com/x/topic/kbk

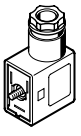
Inscription label KMC/F/V-BZ-35X			
	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B2-L	33362	KMC/F/V-BZ-35X

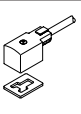
F solenoid coils, without plug socket					
	Coil characteristics	Type of ignition protection for gas	Type of (ignition) protection for dust	Part no.	Type
	110 V AC: 50/60 Hz, initial power 9.0 VA, holding power 7.0 VA	Ex nA IIC T4 X Gc	Ex tc IIIC T130°C X Dc IP65	34420	MSFW-110-50/60-OD
				536933	MSFW-110-50/60-EX
	12 V DC: 4.1 W			34410	MSFG-12-OD
				34422	MSFW-230-50/60-OD
	230 V AC: 50/60 Hz, initial power 9.0 VA, holding power 7.0 VA	Ex nA IIC T4 X Gc	Ex tc IIIC T130°C X Dc IP65	536934	MSFW-230-50/60-EX
				34424	MSFW-240-50/60-OD
	240 V AC: 50/60 Hz, initial power 9.0 VA, holding power 7.0 VA			34415	MSFW-24-50/60-OD
				536932	MSFW-24-50/60-EX
	24 V AC: 50/60 Hz, initial power 9.0 VA, holding power 7.0 VA	Ex nA IIC T4 X Gc	Ex tc IIIC T130°C X Dc IP65	34411	MSFG-24/42-50/60-OD
				536931	MSFG-24-EX
	24 V DC: 4.5 W	Ex nA IIC T4 X Gc	Ex tc IIIC T130°C X Dc IP65	34413	MSFG-42-OD
	42 V DC: 5.5 W				

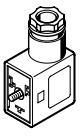
Accessories

F solenoid coils, without plug socket					
	Coil characteristics	Type of ignition protection for gas	Type of (ignition) protection for dust	Part no.	Type
	48 V AC: 50/60 Hz, initial power 9.0 VA, holding power 7.0 VA			34418	MSFW-48-50/60-OD

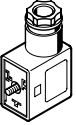
F solenoid coils, cable with open end, 3-wire						
	Coil characteristics	Type of ignition protection for gas	Type of (ignition) protection for dust	Cable length	Part no.	Type
	110 V AC: 50/60 Hz, power 4.18 VA	Ex mb IICT5 Gb	Ex mb IIIC T95°C Db	1 m	8059811	VACF-B-K1-16B-1-EX4-M
				5 m	8059812	VACF-B-K1-16B-5-EX4-M
	230 V AC: 50/60 Hz, power 5.0 VA			1 m	8059809	VACF-B-K1-3A-1-EX4-M
				5 m	8059810	VACF-B-K1-3A-5-EX4-M
	24 V AC: 50/60 Hz, power 3.85 VA			1 m	8059808	VACF-B-K1-1A-1-EX4-M
					8059804	VACF-B-K1-1-1-EX4-M
	24 V DC: 4.36 W			5 m	8059805	VACF-B-K1-1-5-EX4-M
				10 m	8059806	VACF-B-K1-1-10-EX4-M
				20 m	8059807	VACF-B-K1-1-20-EX4-M

Plug socket for F solenoid coils, without cable, cable connection with clamping screws				
	Electrical connection 2	Cable fitting	Part no.	Type
		M16x1.5	539710	MSSD-F-M16
	Screw terminal	Pg9	34431	MSSD-F

Connecting cable for F solenoid coils					
	Switching position indication	Nominal operating voltage DC	Cable length	Part no.	Type
			2.5 m	30936	KMF-1-230AC-2.5
			5 m	30938	KMF-1-230AC-5
	LED	24 V	2.5 m	30935	KMF-1-24DC-2.5-LED
			5 m	30937	KMF-1-24DC-5-LED
			10 m	193458	KMF-1-24-10-LED

Plug socket for V solenoid coils, without cable, cable connection with clamping screws				
	Electrical connection 2	Cable fitting	Part no.	Type
	Screw terminal	Pg9	33295	MSSD-V

Accessories

Plug socket for V solenoid coils, without cable, cable connection with insulation displacement technology			
	Type of mounting	Part no.	Type
	On air solenoid valve with M3 central screw	539713	MSSD-V-M16

Connecting cable for V solenoid coils					
	Switching status indication	Nominal operating voltage DC	Cable length	Part no.	Type
	LED	24 V	2.5 m	30939	KMV-1-24DC-2,5-LED
			5 m	30941	KMV-1-24DC-5-LED
			10 m	193456	KMV-1-24-10-LED

Illuminating seal for F solenoid coils			
	DC operating voltage range	Part no.	Type
	12 ... 24 V	19143	MF-LD-12-24DC

Illuminating seal for V solenoid coils			
	DC operating voltage range	Part no.	Type
	12 ... 24 V	35558	MV-LD-12-24DC