

Hand lever valve VHER

FESTO



Characteristics

At a glance

Powerful:

- Flow rate 600 ... 3800 l/min

Flexible:

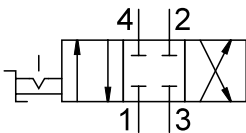
- 4/3-way valve; mid-position closed, mid-position exhausted
- Connection 1/8 NPT, 1/4 NPT, 1/2 NPT
- 3/3-way valve; the hand lever valves VHER can be used as a 3/3-way valve by closing port 2

Practical:

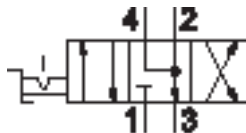
- These valves can be used to stop single-acting cylinders (3/3-way valve) or double-acting cylinders within the stroke range.
- With the mid-position closed, the piston of the drive moves until the forces are in equilibrium.
- In the mid-position exhausting, the piston can be moved manually, only the frictional forces have to be overcome.

Valve function

[B43C] 4/3-way valve, detenting, mid-position closed



[B43E] 4/3-way valve, detenting, mid-position exhausted



Product segmentation



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Type code

001	Series	
VHER	Hand lever valve with detent	
002	Product version	
	Standard	
003	Actuation type	
H	Hand lever, top	
004	Valve function	
B43C	4/3-way valve, detenting, mid-position closed	
B43E	4/3-way valve, detenting, mid-position exhausted	

005	Flow direction	
	Standard	
006	Connection direction	
	Front and rear	
B	Underneath	
007	Pneumatic connection	
N18	1/8 NPT	
N14	1/4 NPT	
N12	1/2 NPT	

Datasheet

General technical data

Valve function	4/3 exhausted		4/3 closed					
Standard nominal flow rate (standardised to DIN 1343)	3,200 l/min	3,800 l/min	600 l/min	800 l/min	1,150 l/min	1,500 l/min	3,200 l/min	3,800 l/min
Design	Rotary gate valve							
Sealing principle	Hard							
Type of mounting	Front panel mounting, With through-hole, Either:							
Type of piloting	Direct							
Type of actuation	Manual							
Actuator lock	–							
Switching position indicator	With accessories							
Mounting position	–							
Flow direction	Non-reversible							
Overlap	yes							
Exhaust-air function	With flow control option							
Nominal size	12 mm		6 mm		8 mm		12 mm	
Pneumatic connection, port 1	NPT1/2-14		NPT1/8-27		NPT1/4-18		NPT1/2-14	
Pneumatic connection, port 2	NPT1/2-14		NPT1/8-27		NPT1/4-18		NPT1/2-14	
Pneumatic connection, port 3	NPT1/2-14		NPT1/8-27		NPT1/4-18		NPT1/2-14	
Pneumatic connection, port 4	NPT1/2-14		NPT1/8-27		NPT1/4-18		NPT1/2-14	
Actuating torque	5 Nm		0.9 Nm		2 Nm		5 Nm	

Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	0 ... 10 bar
Ambient temperature	-20 ... 80°C
Media temperature	-20 ... 80°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress

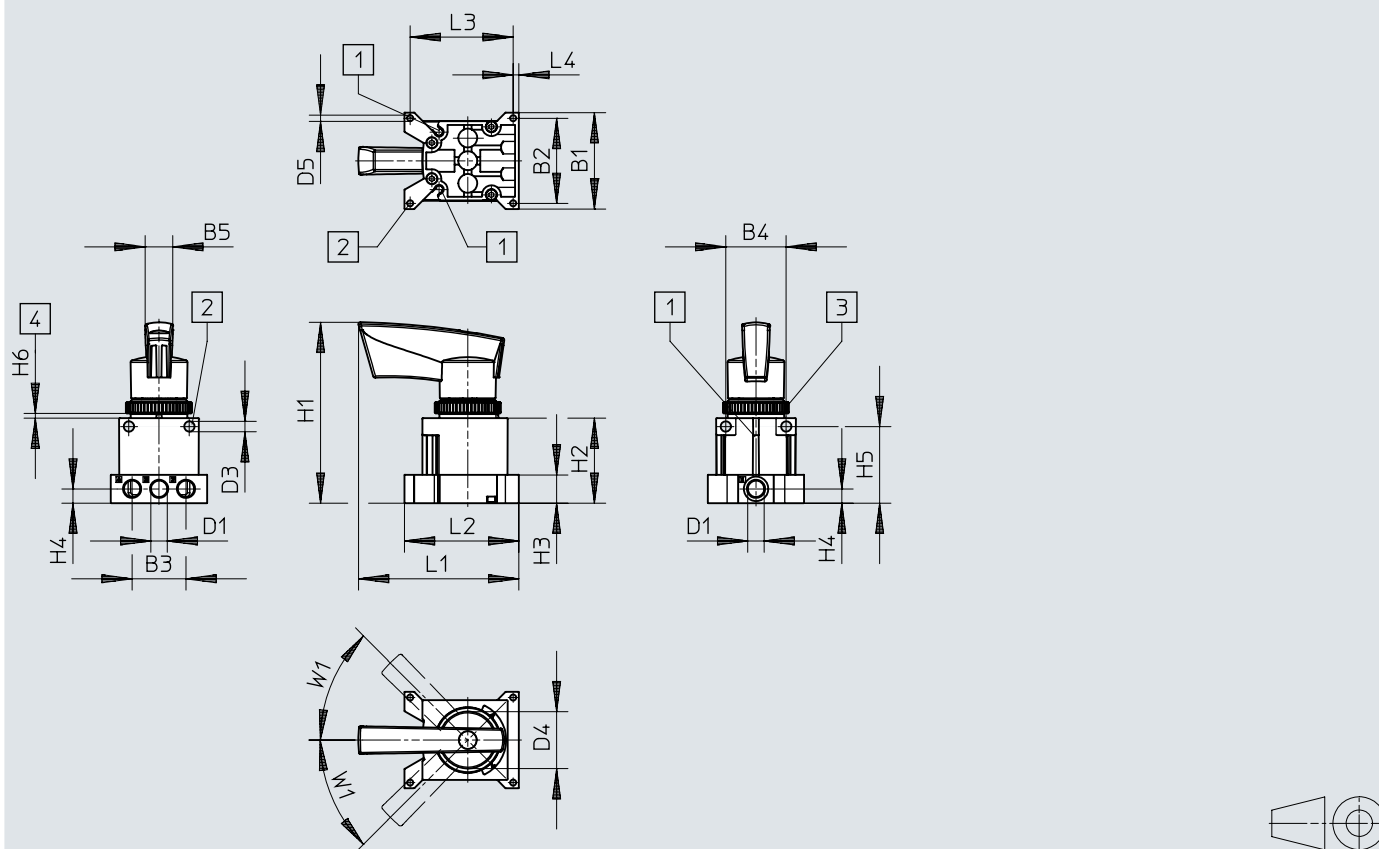
1) More information www.festo.com/x/topic/crc

Materials

Material housing	Die-cast aluminium
Material lever	Die-cast aluminium
Material seals	NBR
Note on materials	RoHS-compliant

Dimensions

Dimensions – Pneumatic connection 1/8 NPT, at the side

Download CAD data www.festo.com

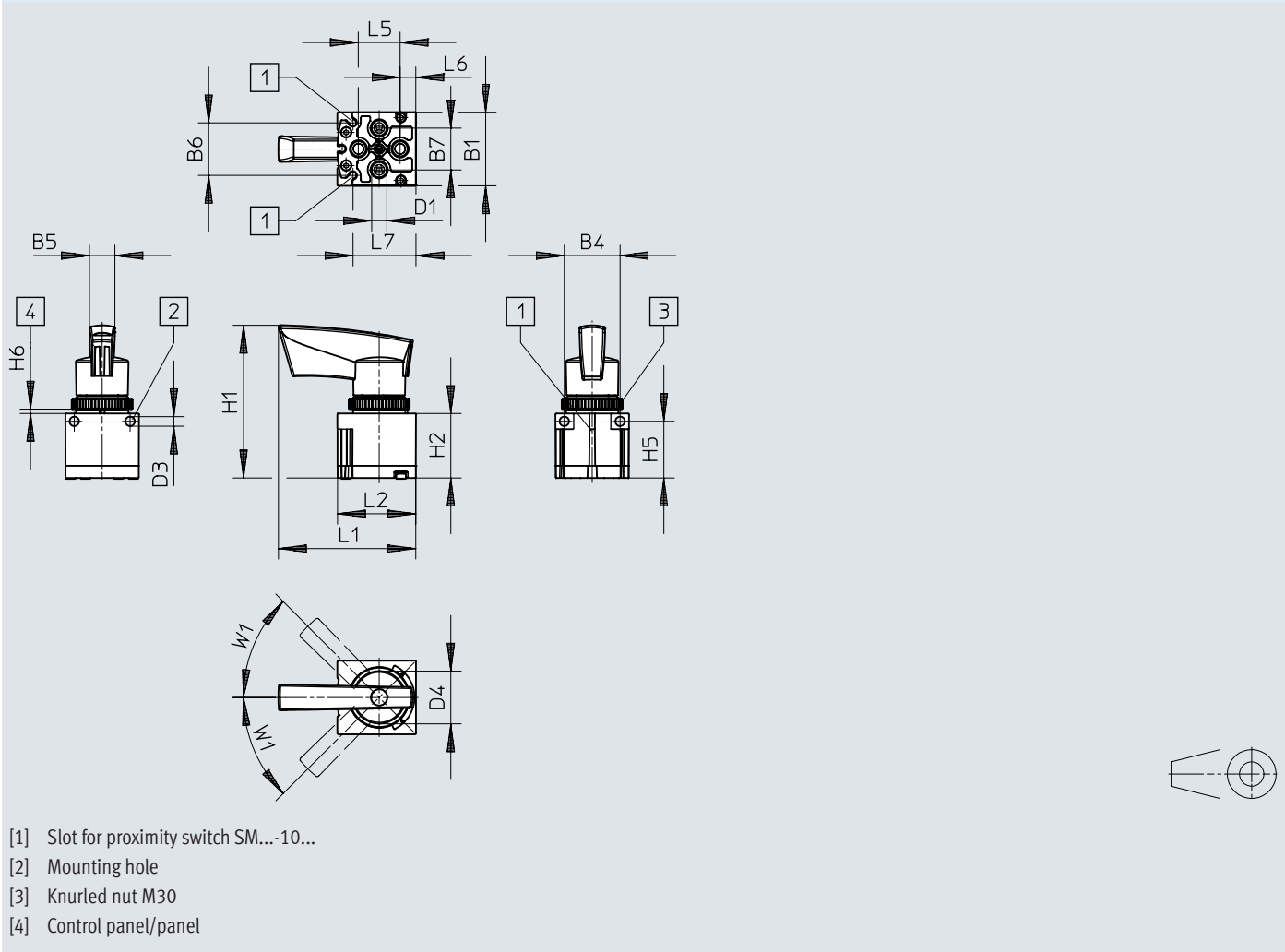
- [1] Slot for proximity switch SM...-10...
 [2] Mounting hole
 [3] Knurled nut M30
 [4] Control panel/panel

	B1	B2	B3	B4	B5	D1	D3 Ø	D4 Ø	D5 Ø
VHER-H-B43...-N18	51	45	28,5	32	14,6	1/8 NPT	5,5	30,2	3,3

	H1	H2	H3	H4	H5	H6		L1	L2	L3	L4	W1
						min.	max.					
VHER-H-B43...-N18	95,6	45	15	7,5	40,5	2	4	84,9	60,5	54,5	3	45°

Dimensions

Dimensions – Pneumatic connection 1/8 NPT, underneath Download CAD data www.festo.com

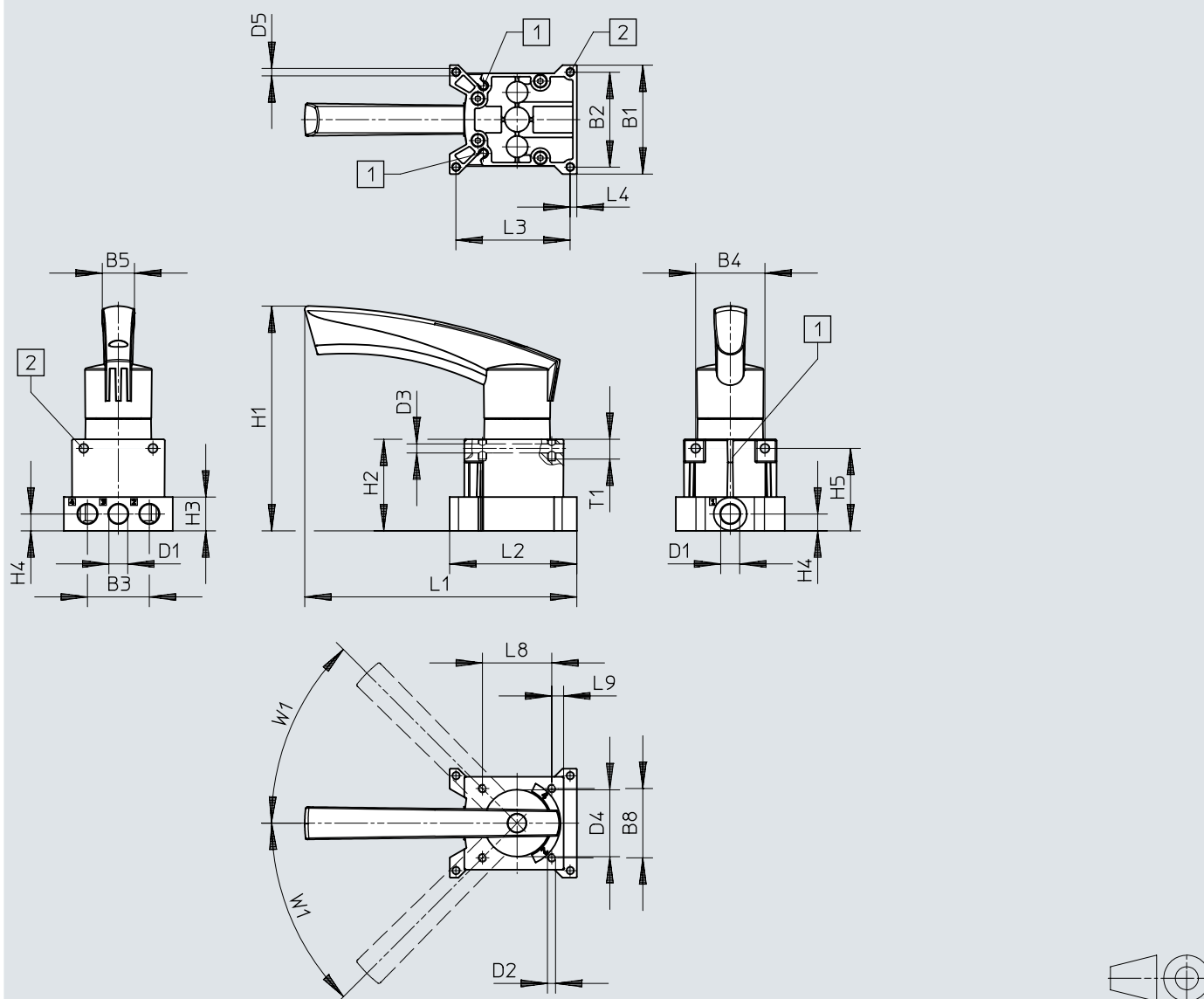


	B1	B4	B5	B6	B7	D1	D3 Ø	D4 Ø
VHER-H-B43...-B-N18	42,2	32	14,6	30,4	24	1/8 NPT	5,5	30,2

	H1	H2	H5	H6		L1	L2	L5	L6	L7	W1
				min.	max.						
VHER-H-B43...-B-N18	87,6	37	32,5	2	4	78,6	44,9	24	9	36,2	45°

Dimensions

Dimensions – Pneumatic connection 1/4 NPT, at the side

Download CAD data www.festo.com

[1] Slot for proximity switch SM...-10...

[2] Mounting hole

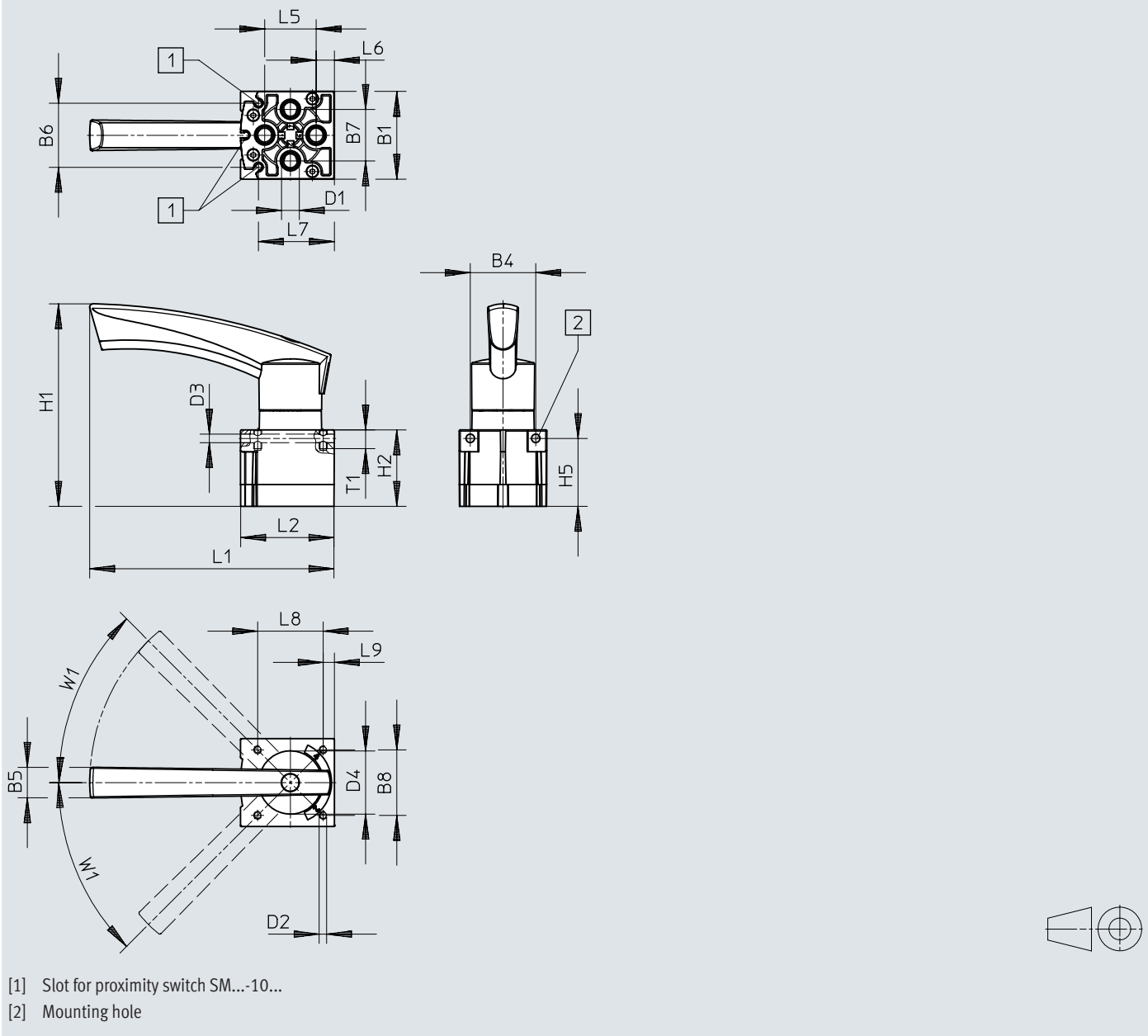
	B1	B2	B3	B4	B5	B8	D1	D2	D3 Ø	D4 Ø	D5 Ø
VHER-H-B43...-N14	66	57,5	37,5	42	19,5	42	1/4 NPT	M5	5,5	40,5	4,5

	H1	H2	H3	H4	H5	L1	L2	L3	L4	L8	L9	T1	W1
VHER-H-B43...-N14	136,3	55,5	20,5	10,3	50	164,8	77	69,2	4	42	7,2	12	45°

Dimensions

Dimensions – Pneumatic connection 1/4 NPT, underneath

Download CAD data www.festo.com

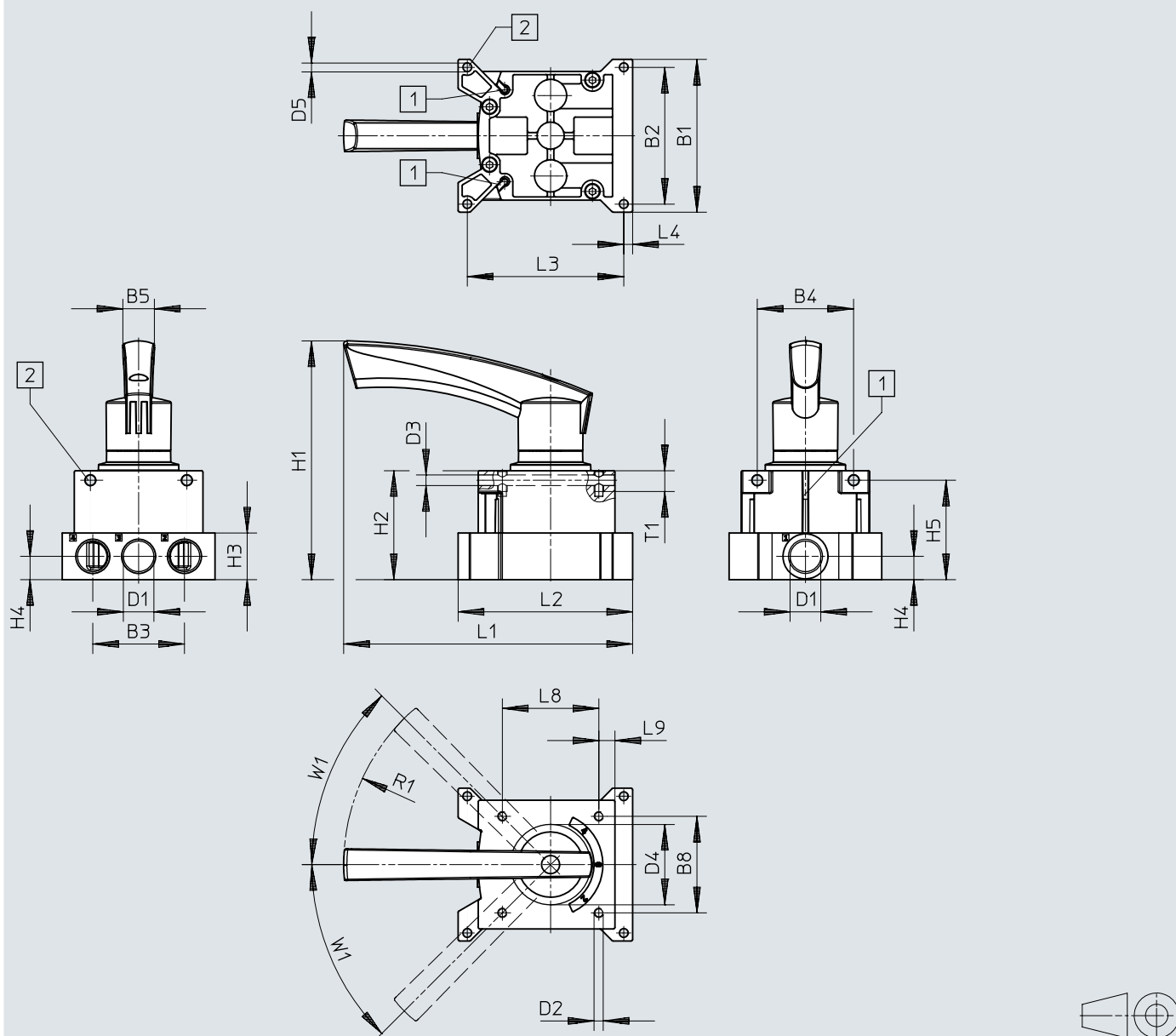


	B1	B4	B5	B6	B7	B8	D1	D2	D3 Ø	D4 Ø
VHER-H-B43...-B-N14	56,3	42	19,5	40,4	33	42	1/4 NPT	M5	5,5	40,5

	H1	H2	H5	L1	L2	L5	L6	L7	L8	T1	W1
VHER-H-B43...-B-N14	129,8	49	43,5	156,6	59,8	33	11	48,2	42	12	45°

Dimensions

Dimensions – Pneumatic connection 1/2 NPT, at the side

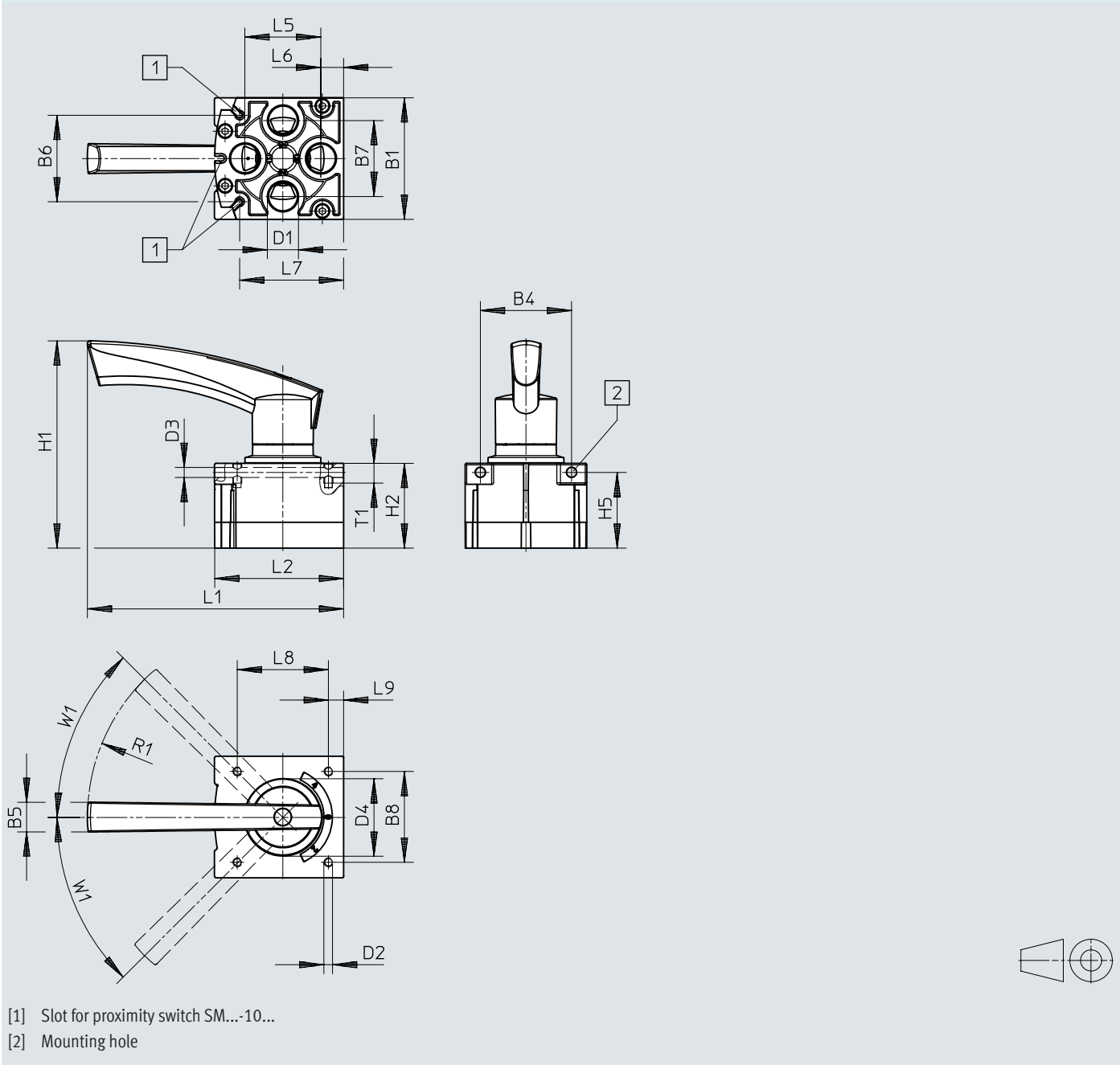
Download CAD data www.festo.com

	B1	B2	B3	B4	B5	B8	D1	D2	D3	D4	D5
VHER-H-B43-...-N12	95	85	57	60	19,5	60	1/2 NPT	M5	6,6	51	5,5

	H1	H2	H3	H4	H5	L1	L2	L3	L4	L8	L9	R1	T1	W1
VHER-H-B43-...-N12	149	68	29	14,5	61,8	180	108,8	97,3	5,5	60	10	128	13	45°

Dimensions

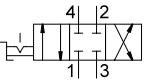
Dimensions – Pneumatic connection 1/2 NPT, underneath Download CAD data www.festo.com

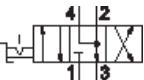


	B1	B4	B5	B6	B7	B8	D1	D2	D3 Ø	D4 Ø
VHER-H-B43-...-B-N12	80	60	19,5	56,9	50	60	1/2 NPT	M5	6,6	51

	H1	H2	H5	L1	L2	L5	L6	L7	L8	L9	R1	T1	W1
VHER-H-B43-...-B-N12	136,5	55,8	49,8	168,8	84,8	50	15	68,5	60	10	128	13	45°

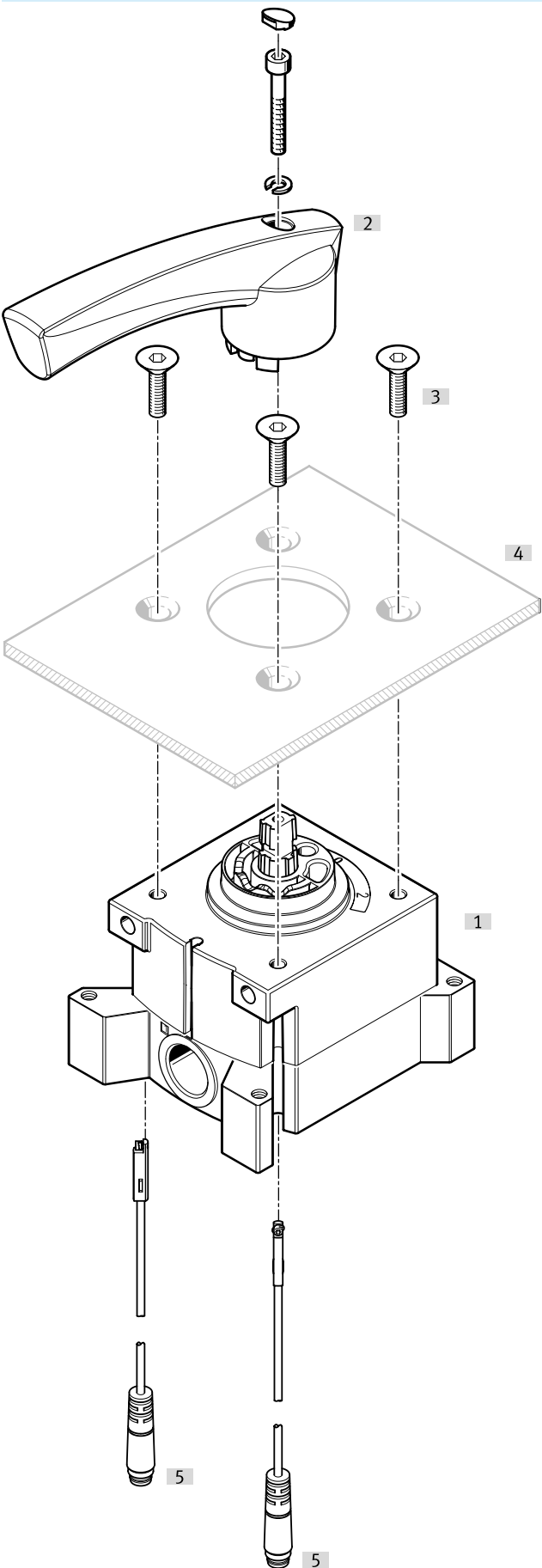
Ordering data

Mid-position closed					
	Construction width	Product weight	Pneumatic connection, port 1	Part no.	Type
	42 mm	220 g	NPT1/8-27	3488213	VHER-H-B43C-B-N18
	51 mm	260 g		3488212	VHER-H-B43C-N18
	56 mm	510 g	NPT1/4-18	3520389	VHER-H-B43C-B-N14
	66 mm	560 g		3520365	VHER-H-B43C-N14
	80 mm	860 g	NPT1/2-14	3192086	VHER-H-B43C-B-N12
	95 mm	1,010 g		3192085	VHER-H-B43C-N12

Mid-position exhausted					
	Construction width	Product weight	Pneumatic connection, port 1	Part no.	Type
	80 mm	860 g	NPT1/2-14	3192088	VHER-H-B43E-B-N12
	95 mm	1,010 g		3192087	VHER-H-B43E-N12

Peripherals

Peripherals overview Panel mounting, lever left

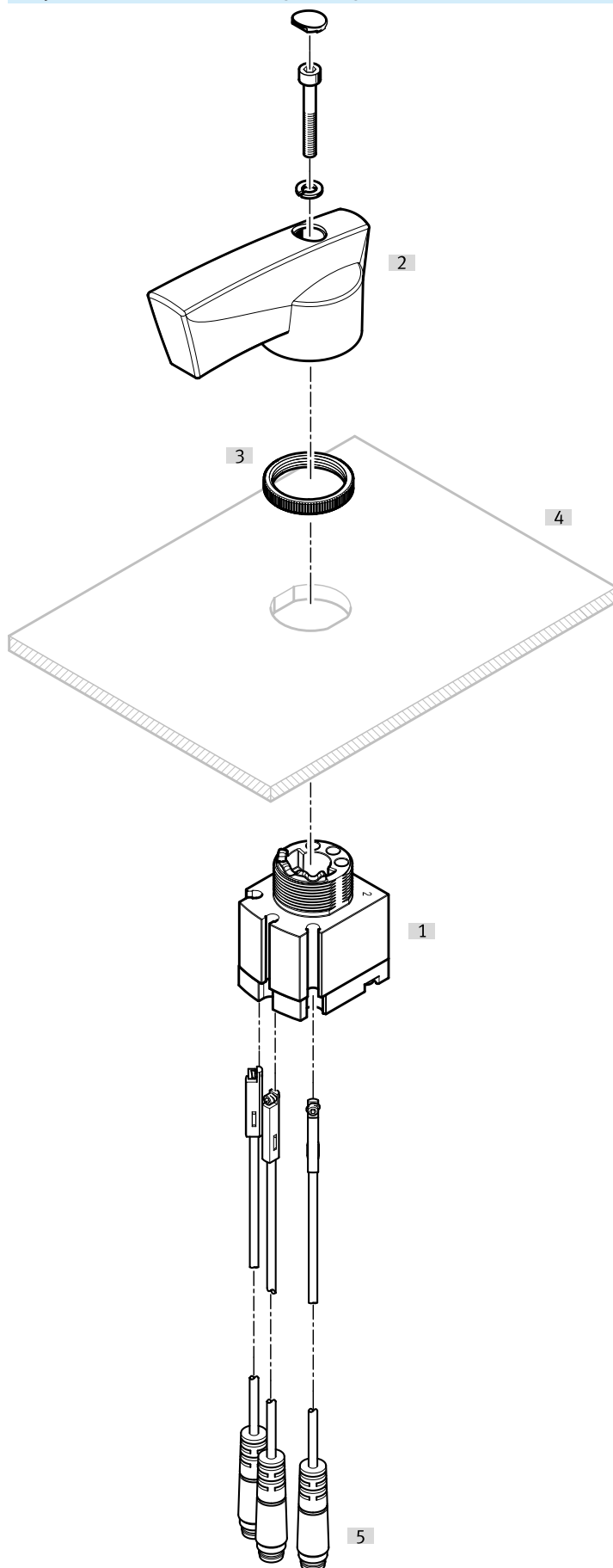


Peripherals

Accessories		→ Link
Type/order code	Description	
[1] Hand lever valve VHER	Connection size M5, G1/8, G1/4, G1/2 (pneumatic connections at the side)	vher
[2] Operating lever	Large, metal	–
[3] Retaining screws	- For design reasons, not every hand lever valve VHER can be screwed to a control panel on the lever side using retaining screws. - Not included in the scope of delivery	–
[4] Control panel	Not included in the scope of delivery	–
[5] Proximity switch SME-10-KL	Not included in the scope of delivery (electrical connection, outlet on long side)	21
[5] Proximity switch SME-10-SL	Not included in the scope of delivery (electrical connection, outlet on long side)	21

Peripherals

Peripherals overview Panel mounting, lever right

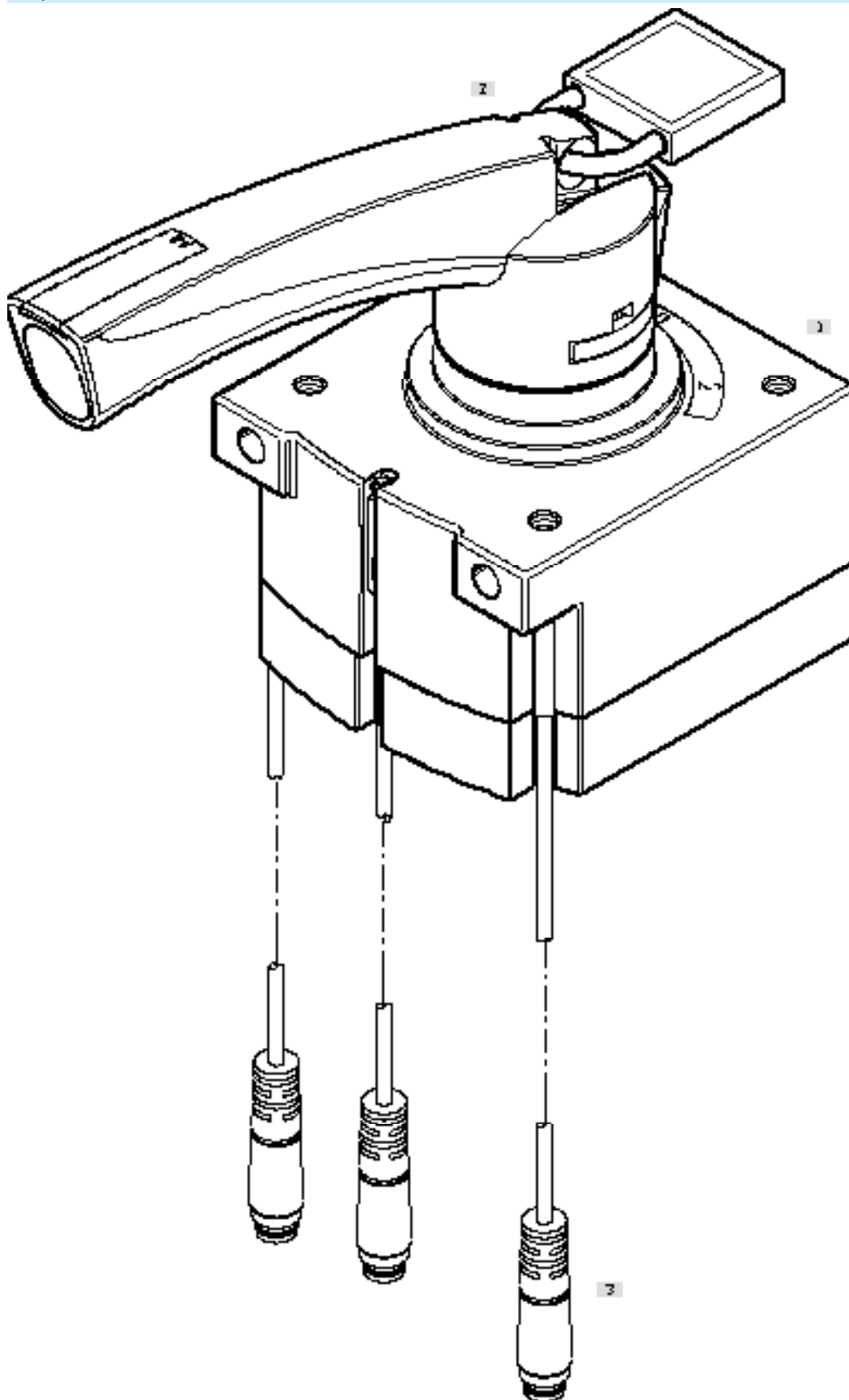


Peripherals

Accessories		→ Link
Type/order code	Description	
[1] Hand lever valve VHER	Connection size M5, G1/8, G1/4, G1/2 (pneumatic connections underneath)	vher
[2] Operating lever	Large, metal	–
[3] Knurled nut	Panel mounting	–
[4] Control panel	Not included in the scope of delivery	–
[5] Proximity switch SME-10-KL	Not included in the scope of delivery (electrical connection, outlet on long side)	21
[5] Proximity switch SME-10-SL	Not included in the scope of delivery (electrical connection, outlet on long side)	21

Peripherals

Peripherals overview Mounted valves with accessories on the left

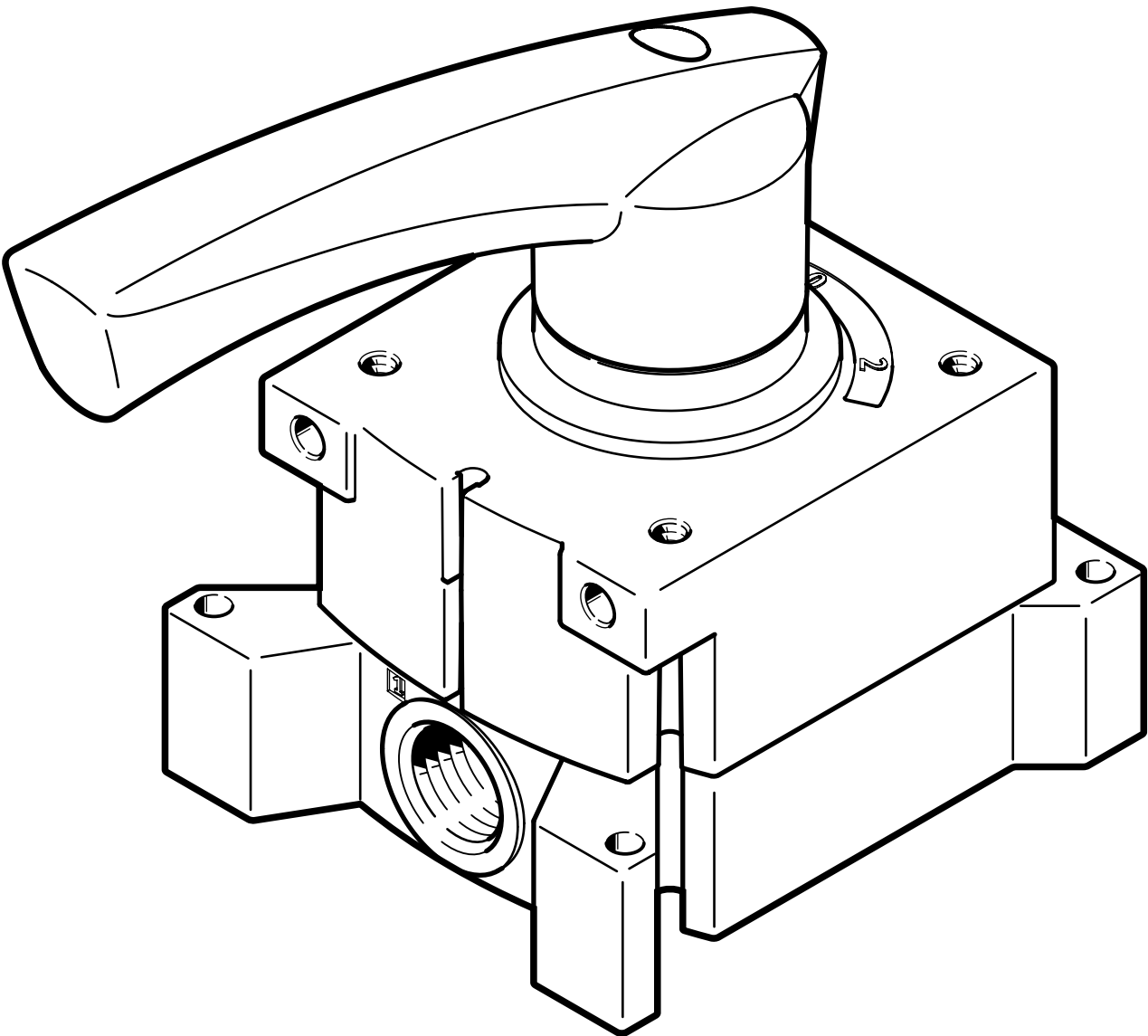


Peripherals

Accessories		→ Link
Type/order code	Description	
[1] Hand lever valve VHER-P-H-...	- Connection size M5, G1/8, G1/4, G1/2 with polymer lever, large pneumatic connections underneath) - For design reasons, not every hand lever valve VHER can be screwed to a control panel on the lever side using retaining screws.	vher
[2] Lock	Not included in the scope of delivery	–
[3] Proximity switch SME-10-KL	Not included in the scope of delivery (electrical connection, outlet on long side)	21
[3] Proximity switch SME-10-SL	Not included in the scope of delivery (electrical connection, outlet on long side)	21

Peripherals

Peripherals overview Mounted valves with accessories on the right



Accessories		→ Link
Type/order code	Description	
[1] Hand lever valve VHER-H...	- Connection size M5, G1/8, G1/4, G1/2 with metal lever, large (pneumatic connections at the side) - For design reasons, not every hand lever valve VHER can be screwed to a control panel on the lever side using retaining screws.	vher

Accessories

Push-in fittings, 1/8 NPT, pneumatic connection underneath, external hex (short version)					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread 1/8 NPT	For tubing outside diameter of 5/32"	10	572305	QBM-1/8-5/32-U
		For tubing O.D. 1/8"		533270	QBM-1/8-1/8-U

Push-in fittings, 1/8 NPT, pneumatic connection underneath, external hex				
	Pneumatic connection, port 1	Pneumatic connection, port 2	Part no.	Type
	Male thread 1/8 NPT	For tubing outside diameter of 5/32"	533271	QB-1/8-5/32-U

Push-in fittings, 1/4 NPT, pneumatic connection underneath, external hex				
	Pneumatic connection, port 1	Pneumatic connection, port 2	Part no.	Type
	Male thread 1/4 NPT	For tubing outside diameter of 5/32"	567772	QB-1/4-5/32-U
		For tubing outside diameter of 3/16"	533275	QB-1/4-3/16-U
		For tubing outside diameter of 1/4"	★ 533276	QB-1/4-1/4-U
		For tubing outside diameter of 5/16"	★ 533277	QB-1/4-5/16-U

Push-in fittings, 1/2 NPT, pneumatic connection underneath, external hex				
	Pneumatic connection, port 1	Pneumatic connection, port 2	Part no.	Type
	Male thread 1/2 NPT	For tubing outside diameter of 3/8"	★ 533283	QB-1/2-3/8-U
		For tubing outside diameter of 1/2"	★ 533284	QB-1/2-1/2-U

Push-in fittings, 1/8 NPT, pneumatic connection underneath, internal hex					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread 1/8 NPT	For tubing outside diameter of 5/32"	10	572317	QB-1/8-5/32-I-U
		For tubing outside diameter of 3/16"		572315	QB-1/8-3/16-I-U
		For tubing outside diameter of 1/4"		★ 572318	QB-1/8-1/4-I-U
		For tubing outside diameter of 5/16"		572319	QB-1/8-5/16-I-U

Push-in fittings, 1/4 NPT, pneumatic connection underneath, internal hex (short version)					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread 1/4 NPT	For tubing O.D. 1/8"	10	572306	QBM-1/4-1/8-U

Push-in fittings, 1/4 NPT, pneumatic connection underneath, internal hex					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread 1/4 NPT	For tubing outside diameter of 1/4"	10	★ 572320	QB-1/4-1/4-I-U
		For tubing outside diameter of 5/16"		572321	QB-1/4-5/16-I-U
		For tubing outside diameter of 3/8"		572322	QB-1/4-3/8-I-U

Accessories

Push-in fittings, 1/2 NPT, pneumatic connection underneath, internal hex					
	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type	
	For tubing outside diameter of 1/2"	10	572326	QB-1/2-1/2-I-U	

Push-in fittings, 1/8 NPT, pneumatic connection at the side, internal hex					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread 1/8 NPT	For tubing outside diameter of 5/32"	10	572317	QB-1/8-5/32-I-U
		For tubing outside diameter of 1/4"		★ 572318	QB-1/8-1/4-I-U

Push-in fittings, 1/4 NPT, pneumatic connection at the side, internal hex					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread 1/4 NPT	For tubing outside diameter of 1/4"	10	★ 572320	QB-1/4-1/4-I-U
		For tubing outside diameter of 5/16"		572321	QB-1/4-5/16-I-U
		For tubing outside diameter of 3/8"		572322	QB-1/4-3/8-I-U

Push-in fittings, 1/2 NPT, pneumatic connection at the side, internal hex					
	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type	
	For tubing outside diameter of 1/2"	10	572326	QB-1/2-1/2-I-U	

Silencer, 1/8 NPT and 1/4 NPT, pneumatic connection underneath					
	Pneumatic connection	Material screwed plug	Material shock absorber insert	Part no.	Type
	1/8 NPT	Aluminium	PE	12638	U-1/8-B-NPT
	1/4 NPT			12639	U-1/4-B-NPT

Silencer, 1/2 NPT, pneumatic connection underneath						
	Pneumatic con- nection	Material screwed plug	Material shock absorber insert	Material housing	Part no.	Type
	1/2 NPT	Aluminium	PE	Aluminium	12741	U-1/2-B-NPT

Silencer, 1/8 NPT and 1/4 NPT, pneumatic connection at the side					
	Pneumatic connection	Material screwed plug	Material shock absorber insert	Part no.	Type
	1/8 NPT	Aluminium	PE	12638	U-1/8-B-NPT
	1/4 NPT			12639	U-1/4-B-NPT

Silencer, 1/2 NPT, pneumatic connection at the side					
	Pneumatic connection	Material screwed plug	Material shock absorber insert	Part no.	Type
	1/2 NPT	Aluminium	PE	12741	U-1/2-B-NPT

Accessories

Proximity switch, outlet orientation longitudinal connection				
	Cable length	Part no.	Type	
	0.3 m	173212	SME-10-SL-LED-24	
	2.5 m	173210	SME-10-KL-LED-24	

Blanking plug with sealing ring, internal hex				
	Pneumatic connection, port 1	Packaging unit [units]	Part no.	Type
	NPT1/8-27	1	173985	B-1/8-NPT
	NPT1/4-18		174165	B-1/4-NPT
	NPT1/2-14		31785	B-1/2-NPT