

Hand lever valves VHER




Hand lever valves VHER

Key features

FESTO



Powerful

-  - Flow
170 ... 3800 l/min

Flexible

- 4/3-way valve
mid-position closed
mid-position exhausted
mid-position pressurised
- Connections: M5, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{1}{2}$
- 3/3-way valve
Hand lever valves VHER can be used as 3/3-way valves by sealing port 2

Practical

With these valves it is possible to stop single-acting cylinders (3/3-way valve) or double-acting cylinders (4/3-way valve) within the stroke range.

In mid-position closed, the drive piston moves until the forces are balanced.

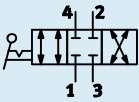
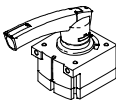

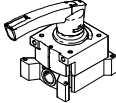

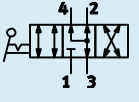
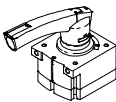

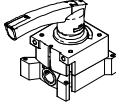

In mid-position exhausted the piston can be moved manually; only the frictional forces have to be overcome. In mid-position pressurised, the same pressure is present at ports 2 and 4. The piston is not moved (in the case of flat surfaces).

- 2 - Type discontinued
Available up until 07/2016

FESTO

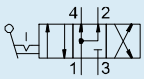
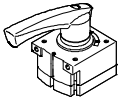
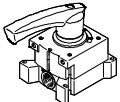
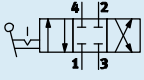
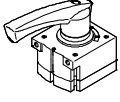
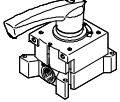
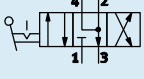
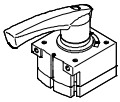
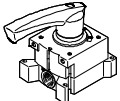
Hand lever valves VHER-AH, VHER-BH

Product range overview

Function	Feature	Type	Nominal flow rate [l/min.]	Hand lever		→ Page/ Internet
	Port underneath, mid-position closed					
		VHER-AH-M04C-G18-UD	800	Metal	Without lock	8
		VHER-AH-M04C-G14-UD	1500			
		VHER-BH-M04C-M05-UD	260	Polymer	With lock	17
		VHER-BH-M04C-G18-UD	800			
		VHER-BH-M04C-G14-UD	1500			
	Port at side, mid-position closed					
		VHER-AH-M04C-G18-LD	600	Metal	Without lock	8
		VHER-AH-M04C-G14-LD	1150			
		VHER-BH-M04C-M05-LD	170	Polymer	With lock	17
VHER-BH-M04C-G18-LD		600				
VHER-BH-M04C-G14-LD		1150				
	Port underneath, mid-position exhausted					
		VHER-AH-M04E-G18-UD	800	Metal	Without lock	8
		VHER-AH-M04E-G14-UD	1500			
		VHER-BH-M04E-M05-UD	260	Polymer	With lock	17
		VHER-BH-M04E-G18-UD	800			
		VHER-BH-M04E-G14-UD	1500			
	Port at side, mid-position exhausted					
		VHER-AH-M04E-G18-LD	600	Metal	Without lock	8
		VHER-AH-M04E-G14-LD	1150			
		VHER-BH-M04E-M05-LD	170	Polymer	With lock	17
VHER-BH-M04E-G18-LD		600				
VHER-BH-M04E-G14-LD		1150				

Hand lever valves VHER-B43

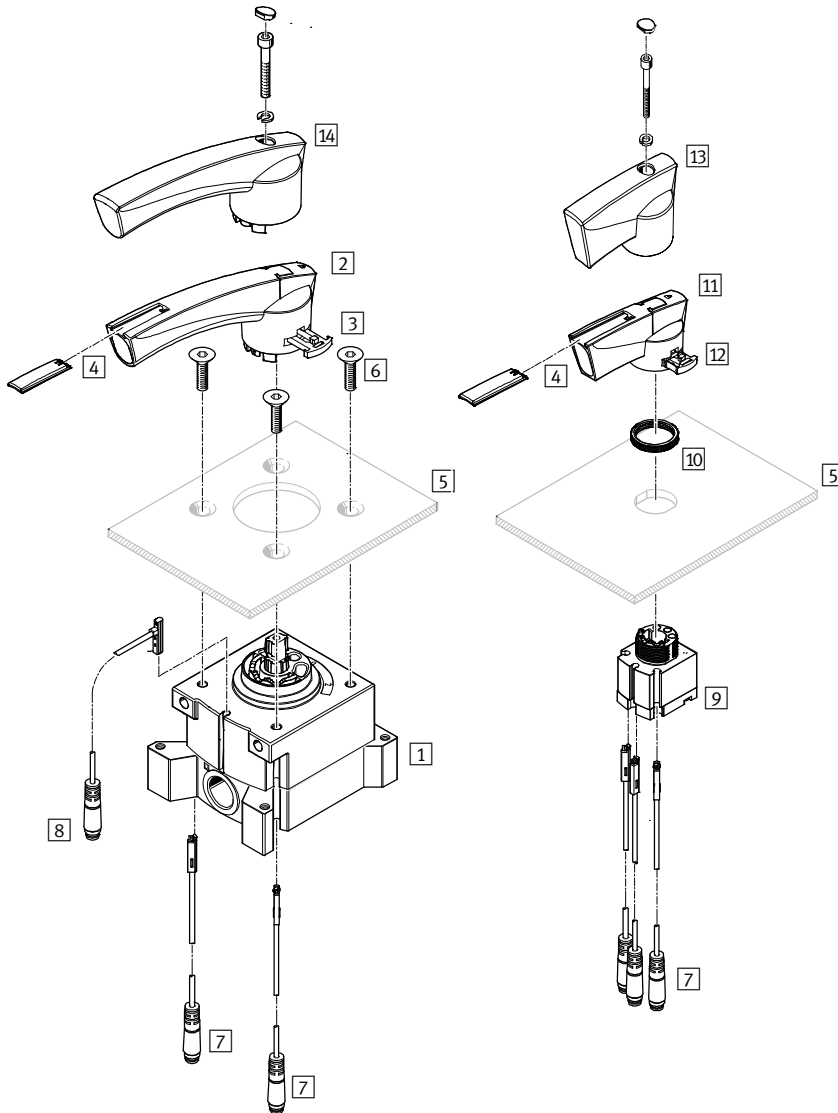
Product range overview

Function	Feature	Type	Nominal flow rate [l/min.]	Hand lever		→ Page/ Internet
	Port underneath, mid-position pressurised					
		VHER-H-B43U-B-G18	800	Metal	Without lock	26
		VHER-H-B43U-B-G14	1500			
		VHER-H-B43U-B-G12	3800			
		VHER-P-H-B43U-B-M5	260	Polymer	With lock	39
		VHER-P-H-B43U-B-G18	800			
		VHER-P-H-B43U-B-G14	1500			
	VHER-P-H-B43U-B-G12	3800				
	Port at side, mid-position pressurised					
		VHER-H-B43U-G18	600	Metal	Without lock	26
		VHER-H-B43U-G14	1150			
		VHER-H-B43U-G12	3200			
		VHER-P-H-B43U-M5	170	Polymer	With lock	39
		VHER-P-H-B43U-G18	600			
VHER-P-H-B43U-G14		1150				
VHER-P-H-B43U-G12		3200				
	Port underneath, mid-position closed					
		VHER-H-B43C-B-G18	800	Metal	Without lock	26
		VHER-H-B43C-B-G14	1500			
		VHER-H-B43C-B-G12	3800			
		VHER-P-H-B43C-B-M5	260	Polymer	With lock	39
		VHER-P-H-B43C-B-G18	800			
		VHER-P-H-B43C-B-G14	1500			
	VHER-P-H-B43C-B-G12	3800				
	Port at side, mid-position closed					
		VHER-H-B43C-G18	600	Metal	Without lock	26
		VHER-H-B43C-G14	1150			
		VHER-H-B43C-G12	3200			
		VHER-P-H-B43C-M5	170	Polymer	With lock	39
		VHER-P-H-B43C-G18	600			
VHER-P-H-B43C-G14		1150				
VHER-P-H-B43C-G12		3200				
	Port underneath, mid-position exhausted					
		VHER-H-B43E-B-G18	800	Metal	Without lock	26
		VHER-H-B43E-B-G14	1500			
		VHER-H-B43E-B-G12	3800			
		VHER-P-H-B43E-B-M5	260	Polymer	With lock	39
		VHER-P-H-B43E-B-G18	800			
		VHER-P-H-B43E-B-G14	1500			
	VHER-P-H-B43E-B-G12	3800				
	Port at side, mid-position exhausted					
		VHER-H-B43E-G18	600	Metal	Without lock	26
		VHER-H-B43E-G14	1150			
		VHER-H-B43E-G12	3200			
		VHER-P-H-B43E-M5	170	Polymer	With lock	39
		VHER-P-H-B43E-G18	600			
VHER-P-H-B43E-G14		1150				
VHER-P-H-B43E-G12		3200				

Hand lever valves VHER

Peripherals overview

Control panel installation



Component parts and accessories	Brief description	→ Page/ Internet
1 Hand lever valves VHER	Connection size M5, G $\frac{1}{8}$, G $\frac{1}{4}$ (lateral pneumatic connections)	8, 17
Hand lever valve VHER...-B43-...	Connection size M5, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{1}{2}$ (lateral pneumatic connections)	26, 39
2 Actuating lever	Large, polymer (VHER-BH..., VHER-P...-B43-...)	-
3 Lever mounting clip	Large	-
4 Inscription label	-	-
5 Control panel	Not included in the scope of delivery	-
6 Mounting screws	Not included in the scope of delivery	-
7 Proximity sensor SM...-10-... -L-...	Not included in the scope of delivery (electrical connection, in-line outlet)	15, 24, 37, 50
8 Proximity sensor SM...-10-... -Q-...	Not included in the scope of delivery (electrical connection, lateral outlet)	15, 24, 37, 50
9 Hand lever valve VHER...	Connection size M5 and G $\frac{1}{8}$ (pneumatic connections underneath)	8, 17
10 Knurled nut	Control panel mounting	-
11 Actuating lever	Small, polymer	-
12 Lever mounting clip	Small	-
13 Actuating lever	Small, metal	-
14 Actuating lever	Large, metal (VHER-AH..., VHER...-B43-...)	-

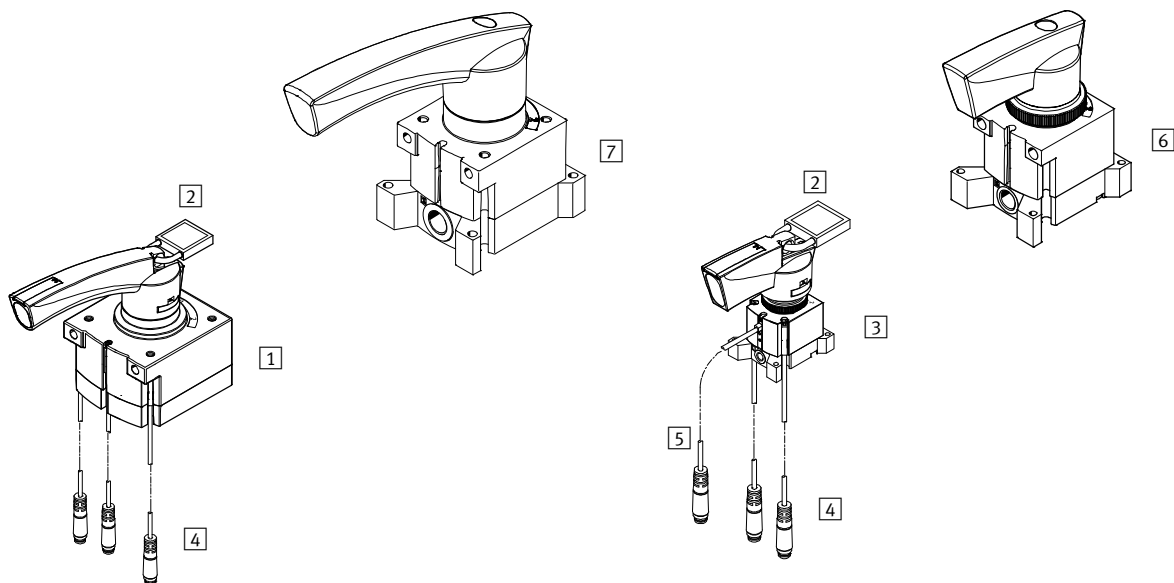
- 7 - Type discontinued
Available up until 07/2016

Hand lever valves VHER

Peripherals overview

FESTO

Mounted valves with accessories



Component parts and accessories	Brief description	→ Page/ Internet
1 Hand lever valve VHER-BH... Hand lever valve VHER-...-B43-...	Connection size M5, G $\frac{1}{8}$, G $\frac{1}{4}$, with polymer lever, large (pneumatic connections underneath) Connection size M5, G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{1}{2}$ with polymer lever, large (pneumatic connections underneath)	17 ↗ 39
2 Lock	Not included in the scope of delivery	-
3 Hand lever valve VHER-BH...	Connection size M5 and G $\frac{1}{8}$ with polymer lever, small (pneumatic connections underneath)	17 ↗
4 Proximity sensor SM...-10-... -L-...	Not included in the scope of delivery (electrical connection, in-line outlet)	15, 24, 37, 50
5 Proximity sensor SM...-10-... -Q-...	Not included in the scope of delivery (electrical connection, lateral outlet)	15, 24, 37, 50
6 Hand lever valve VHER-AH...	Connection size G $\frac{1}{8}$ with metal lever, small (lateral pneumatic connections)	8 ↗
7 Hand lever valve VHER-AH... Hand lever valve VHER-...-B43-...	Connection size G $\frac{1}{4}$, with metal lever, large (lateral pneumatic connections) Connection size G $\frac{1}{8}$, G $\frac{1}{4}$, G $\frac{1}{2}$ with metal lever, large (lateral pneumatic connections)	8 ↗ 26

- 2 - Type discontinued
Available up until 07/2016

FESTO

Hand lever valves, VHER-AH, reversible, metal lever

Type codes




	VHER	-	AH	-		-		-	
Type									
VHER	Hand lever valve with detent								
Design									
AH	Hand lever, metal version								
Valve function									
M04C	4/3-way valve, mid-position closed								
M04E	4/3-way valve, mid-position exhausted								
Connection size									
G18	G $\frac{1}{8}$								
G14	G $\frac{1}{4}$								
Connection type									
LD	To the side								
UD	Underneath								

- 1 - Type discontinued
Available up until 07/2016

Hand lever valves, VHER-AH, reversible, metal lever

Technical data VHER-AH

FESTO

-  Flow rate
600 ... 1500 l/min
-  Pressure
-0.95 ... +10 bar
-  Temperature range
-20 ... +80 °C



General technical data			
Connection size		G $\frac{1}{8}$	G $\frac{1}{4}$
Valve function		4/3-way, closed or exhausted	
Design		Rotary slide valve	
Sealing principle		Hard	
Type of mounting		Option of front panel mounting or through-holes	
Type of control		Direct	
Type of actuation		Manual	
Actuating lever (can be removed)		Metal	
Switching status display		Via accessories	
Mounting position		Any	
Direction of flow		Reversible	
Non-overlapping		Yes	
Exhaust air function		With flow control	
Nominal flow rate	Port at the side	[l/min]	600
	Port underneath	[l/min]	800
Nominal flow rate			1150
			1500
Nominal width		[mm]	6
Pneumatic connection 1,2,3,4			G $\frac{1}{8}$
Actuating torque at 10 bar		[Nm]	1.1
			2.8

Operating and environmental conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	[bar]	-0.95 ... 10
Ambient temperature	[°C]	-20 ... +80
Corrosion resistance class	[CRC]	2 ¹⁾

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

Proximity sensors for switching status display			
Connection size	Connection direction	Type	
		SME-10-... L-...	SME-10-... Q-...
G $\frac{1}{8}$	Underneath	■	■
	At the side	-	■
G $\frac{1}{4}$	Underneath	■	■
	At the side	-	■

- 2 - Type discontinued
Available up until 07/2016

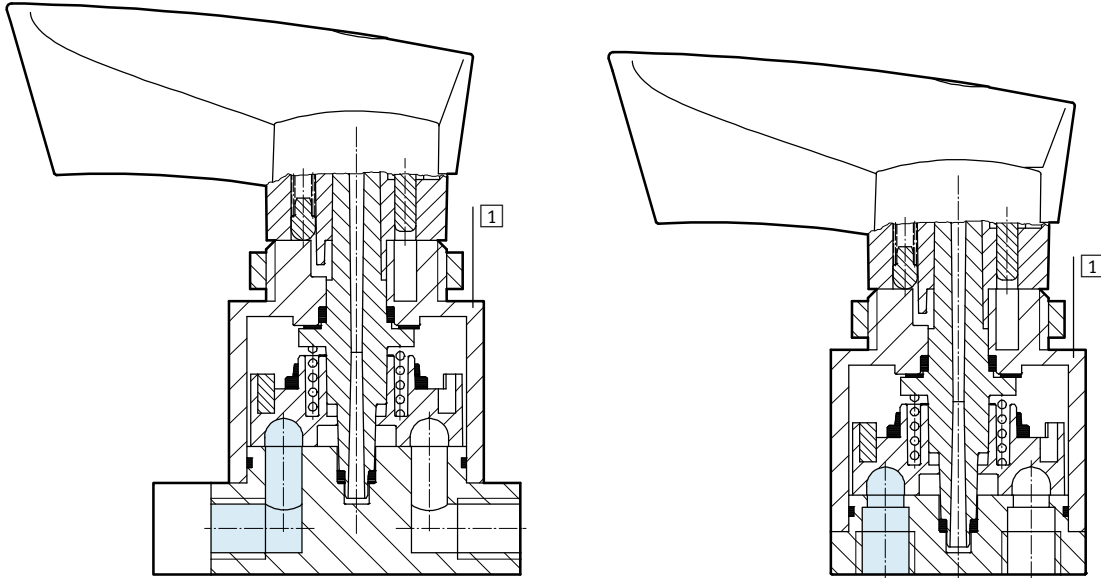
FESTO

Hand lever valves, VHER-AH, reversible, metal lever

Technical data VHER-AH

Sectional view

Hand lever valve VHER-AH...



Materials

1	Housing	Die-cast aluminium
-	Seals	Nitrile rubber
-		Contains paint-wetting impairment substances
-		Free of copper and PTFE

- 1 - Type discontinued
Available up until 07/2016

Hand lever valves, VHER-AH, reversible, metal lever

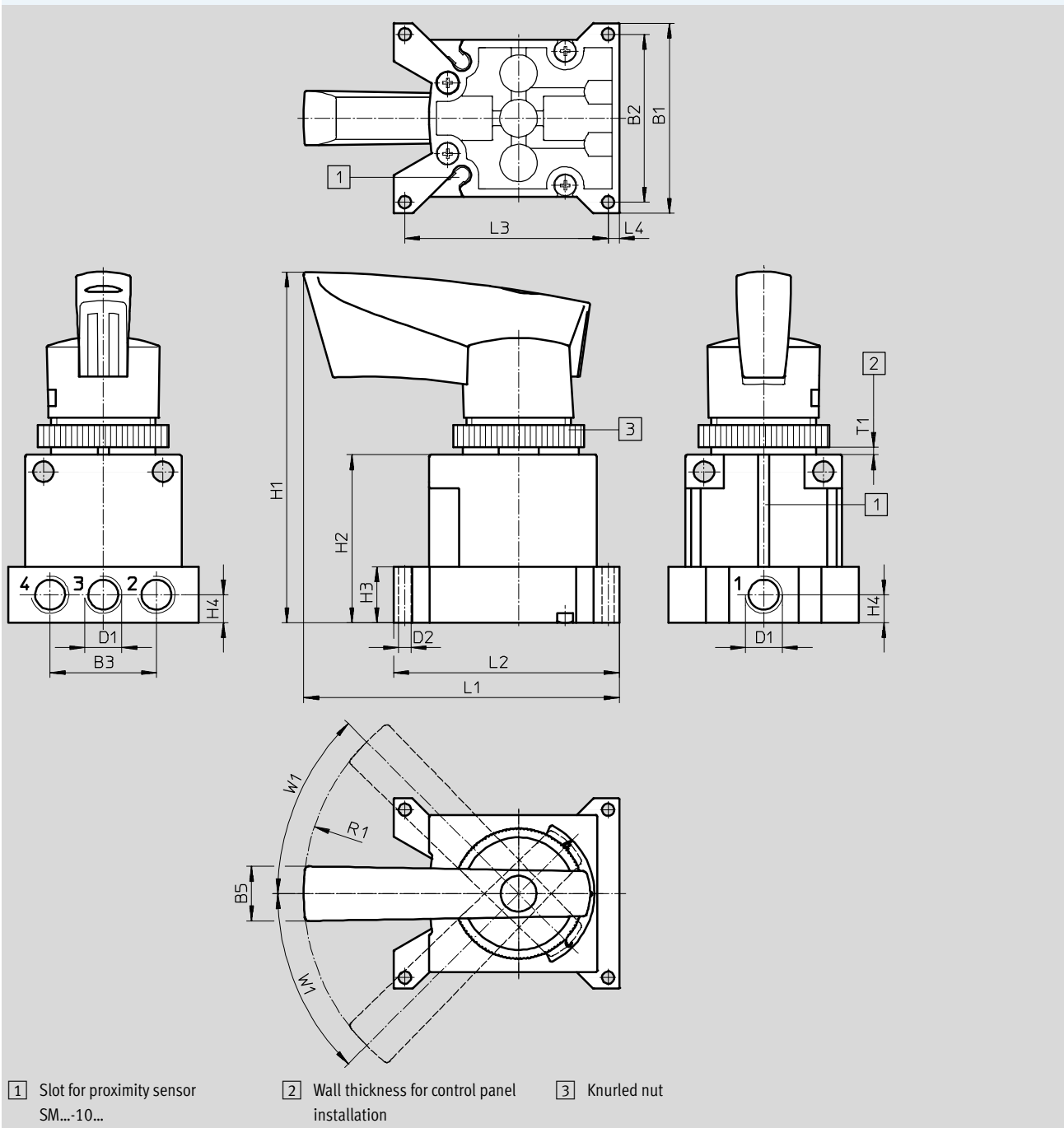
Technical data VHER-AH

FESTO

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G¹/₈ at the side



Type	B1	B2	B3	B5	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	R1	T1	W1
VHER-AH...-G18-LD	51	45	28.5	14.6	G ¹ / ₈	3.3	95	45	15	7.5	85	60.5	54.5	3	57.9	2 ... 4	45°

- 2 - Type discontinued
Available up until 07/2016

FESTO

Hand lever valves, VHER-AH, reversible, metal lever

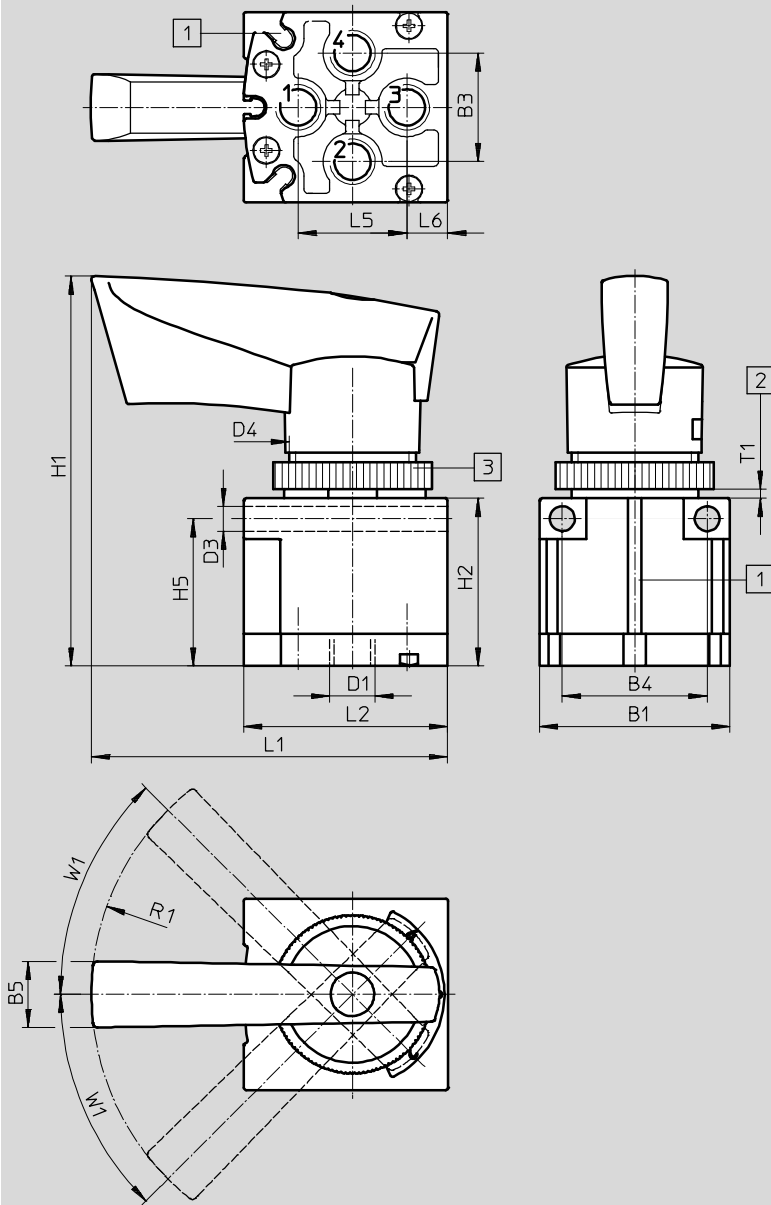
Technical data VHER-AH

Dimensions

Pneumatic connection G $\frac{1}{8}$ underneath

Download CAD data → www.festo.com

Mounting aperture



1 Slot for proximity sensor
SM...-10...

2 Wall thickness for control panel
installation

3 Knurled nut

Type	B1	B3	B4	B5	D1	D3 Ø	D4	H1	H2	H5	L1	L2	L5	L6	R1	T1	W1
VHER-AH-...-G18-UD	42	24	32	14.6	G $\frac{1}{8}$	5.5	M30	87	37	32.5	79	45	24	9	57.9	2 ... 4	45°

- 1 - Type discontinued
Available up until 07/2016

Hand lever valves, VHER-AH, reversible, metal lever

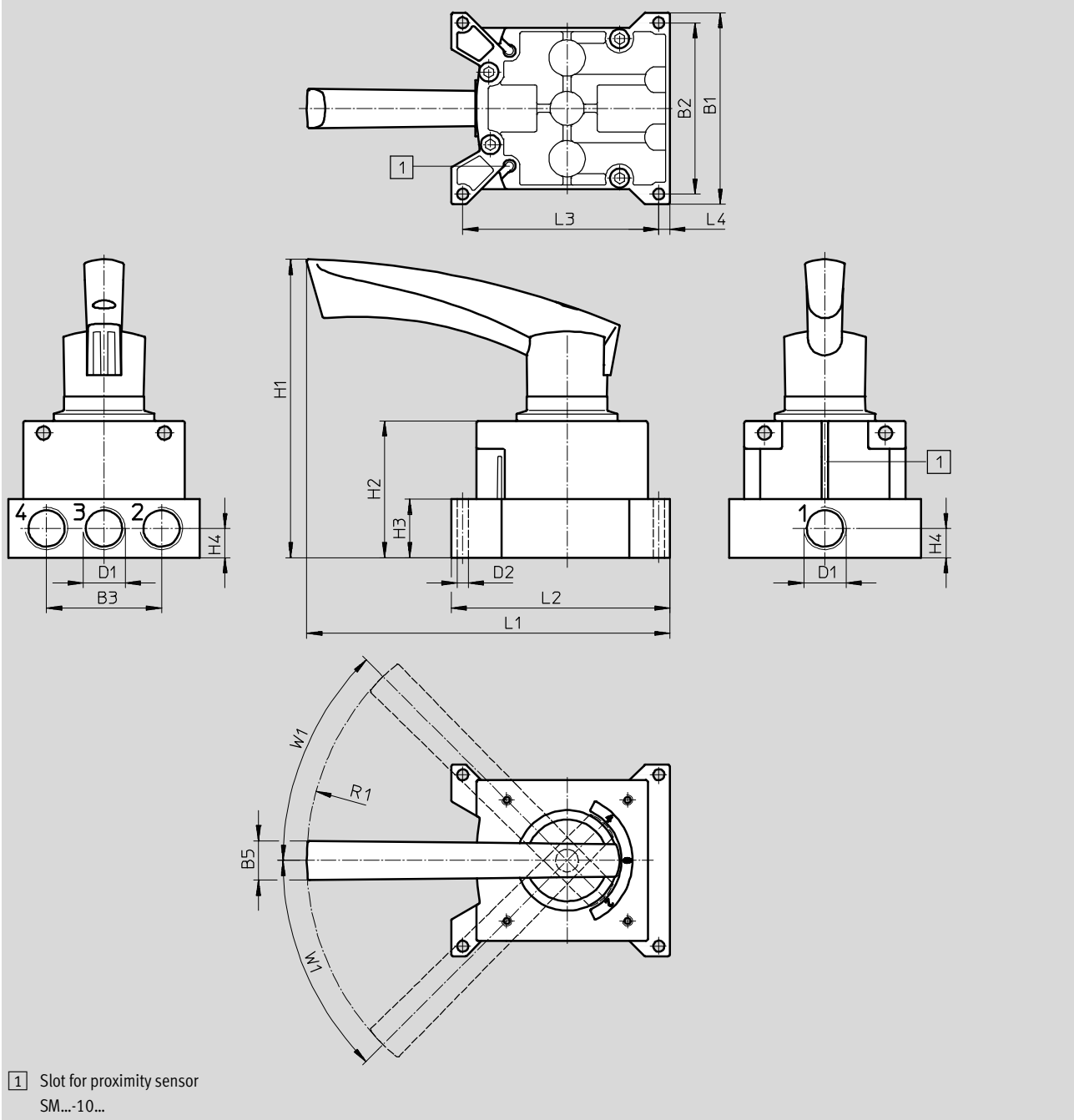
Technical data VHER-AH

FESTO

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{4}$ at the side



Type	B1	B2	B3	B5	D1	D2 ∅	H1	H2	H3	H4	L1	L2	L3	L4	R1	W1
VHER-AH...-G14-LD	66	57.5	37.5	19.5	G $\frac{1}{4}$	4.5	136	56	20.5	10.3	165	77	69.2	4	128.7	45°

- 2 - Type discontinued
Available up until 07/2016

FESTO

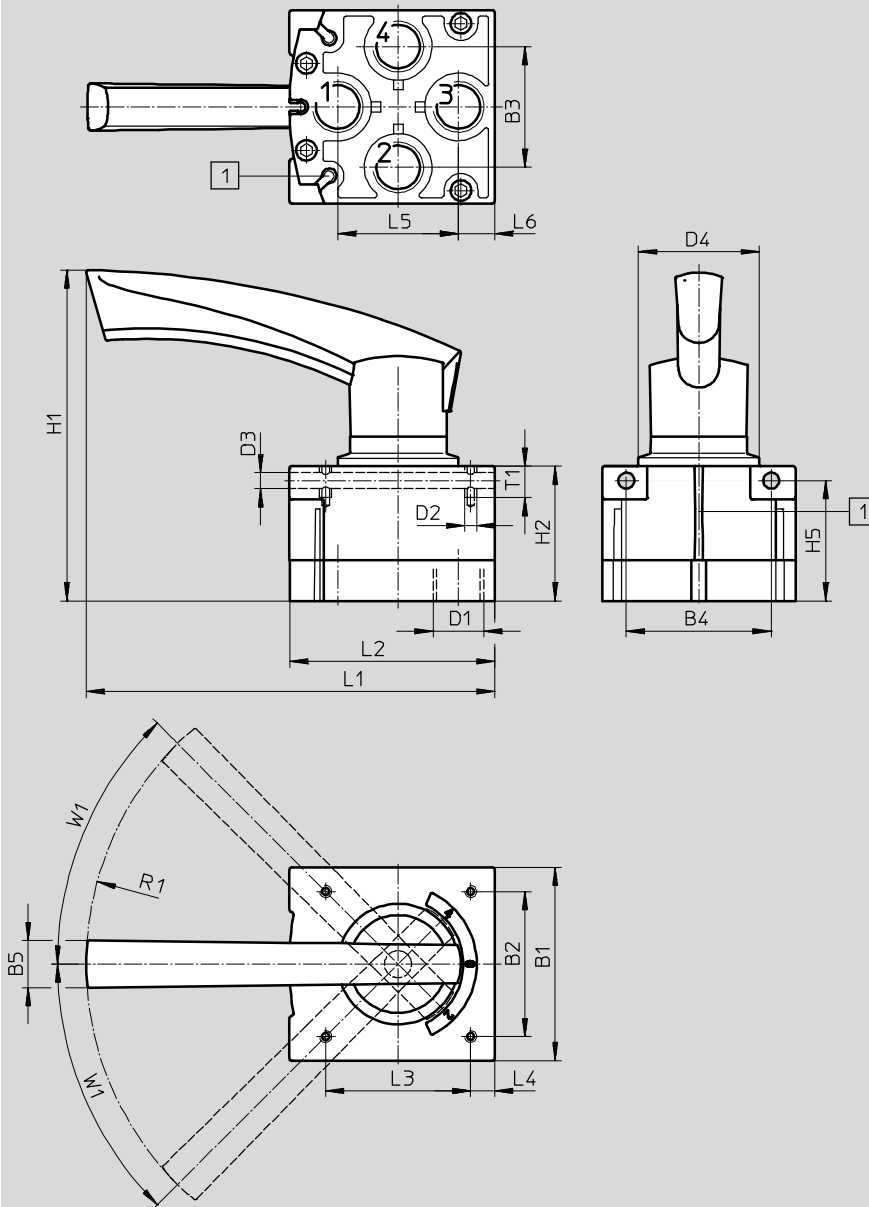
Hand lever valves, VHER-AH, reversible, metal lever

Technical data VHER-AH

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{4}$ underneath



1 Slot for proximity sensor
SM...-10...

Type	B1	B2	B3	B4	B5	D1	D2	D3	D4	H1	H2	H5	L1	L2	L3	L4	L5	L6	R1	T1	W1
VHER-AH...-G14-UD	56	42	33	42	19.5	G $\frac{1}{4}$	M5	5.5	40.5	130	49	43.5	157	60	42	7.2	33	11.4	128.7	12	45°

- 1 - Type discontinued
Available up until 07/2016

FESTO

Hand lever valves, VHER-AH, reversible, metal lever

Ordering data

Ordering data – Hand lever valves						
Circuit symbol	Description	Weight [g]	Connection direction	Connection size	Part No.	Type
4/3-way valve ¹⁾						
	Mid-position closed	260	At the side	G $\frac{1}{8}$	538178	VHER-AH-M04C-G18-LD
		560		G $\frac{1}{4}$	538180	VHER-AH-M04C-G14-LD
		220	Underneath	G $\frac{1}{8}$	538179	VHER-AH-M04C-G18-UD
		510		G $\frac{1}{4}$	538181	VHER-AH-M04C-G14-UD
	Mid-position exhausted	260	At the side	G $\frac{1}{8}$	538184	VHER-AH-M04E-G18-LD
		560		G $\frac{1}{4}$	538186	VHER-AH-M04E-G14-LD
		220	Underneath	G $\frac{1}{8}$	538185	VHER-AH-M04E-G18-UD
		510		G $\frac{1}{4}$	538187	VHER-AH-M04E-G14-UD

1) The hand lever valve can be used as a 3/3-way valve by sealing port 2.

Ordering data – Push-in fittings						
Description	Connection			Part No.	Type	PU ¹⁾
Pneumatic connection: underneath						
	G $\frac{1}{8}$	With external hex for (short design)	Tubing O.D. 4 mm	186264	QSM-G $\frac{1}{8}$ -4	10
			Tubing O.D. 6 mm	186265	QSM-G $\frac{1}{8}$ -6	10
		With external hex for	Tubing O.D. 4 mm	186095	QS-G $\frac{1}{8}$ -4	10
			Tubing O.D. 6 mm	186096	QS-G $\frac{1}{8}$ -6	10
			Tubing O.D. 8 mm	186098	QS-G $\frac{1}{8}$ -8	10
		With internal hex for (short design)	Tubing O.D. 4 mm	186266	QSM-G $\frac{1}{8}$ -4-I	10
	Tubing O.D. 6 mm		186267	QSM-G $\frac{1}{8}$ -6-I	10	
	Tubing O.D. 8 mm		186106	QS-G $\frac{1}{8}$ -4-I	10	
	G $\frac{1}{4}$	With external hex for	Tubing O.D. 6 mm	186097	QS-G $\frac{1}{4}$ -6	10
			Tubing O.D. 8 mm	186099	QS-G $\frac{1}{4}$ -8	10
			Tubing O.D. 10 mm	186101	QS-G $\frac{1}{4}$ -10	10
		With internal hex for	Tubing O.D. 6 mm	186108	QS-G $\frac{1}{4}$ -6-I	10
Tubing O.D. 8 mm			186110	QS-G $\frac{1}{4}$ -8-I	10	
Tubing O.D. 10 mm			186112	QS-G $\frac{1}{4}$ -10-I	10	
Pneumatic connection: at the side						
	G $\frac{1}{8}$	With internal hex for (short design)	Tubing O.D. 4 mm	186266	QSM-G $\frac{1}{8}$ -4-I	10
			Tubing O.D. 6 mm	186267	QSM-G $\frac{1}{8}$ -6-I	10
		With internal hex for	Tubing O.D. 4 mm	186106	QS-G $\frac{1}{8}$ -4-I	10
			Tubing O.D. 6 mm	186107	QS-G $\frac{1}{8}$ -6-I	10
	Tubing O.D. 8 mm		186109	QS-G $\frac{1}{8}$ -8-I	10	
	G $\frac{1}{4}$	With internal hex for	Tubing O.D. 6 mm	186108	QS-G $\frac{1}{4}$ -6-I	10
			Tubing O.D. 8 mm	186110	QS-G $\frac{1}{4}$ -8-I	10
Tubing O.D. 10 mm			186112	QS-G $\frac{1}{4}$ -10-I	10	


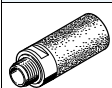
1) Packaging unit

 Type discontinued
Available up until 07/2016

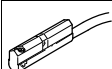
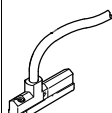
FESTO

Hand lever valves, VHER-AH, reversible, metal lever


Accessories

Ordering data – Silencers							
Description	Connection	Materials			Part No.	Type	PU ¹⁾
		Threaded plug	Silencer insert	Housing			
Pneumatic connection: underneath							
	G1/8	Die-cast aluminium	PE	Die-cast aluminium	6841	U-1/8-B	1
		PE	PE	–	161419	UC-1/8	1
		–	PE	PA	2307	U-1/8	1
	G1/4	Die-cast aluminium	PE	Die-cast aluminium	6842	U-1/4-B	1
		PE	PE	–	165004	UC-1/4	1
		–	PE	PA	2316	U-1/4	1
Pneumatic connection: at the side							
	G1/8	PE	PE	–	161419	UC-1/8	1
	G1/4	PE	PE	–	165004	UC-1/4	1

1) Packaging unit

Ordering data – Proximity sensors						
Description	Connection outlet direction	Electrical connection	Cable length [m]	Part No.	Type	PU ¹⁾
	In-line	Cable, 3-wire	2.5	173210	SME-10-KL-LED-24	1
		Plug connector M8x1, 3-pin	0.3	173212	SME-10-SL-LED-24	1
	Lateral	Cable, 3-wire	2.5	173211	SME-10-KQ-LED-24	1
		Plug connector M8x1, 3-pin	0.3	173213	SME-10-SQ-LED-24	1

1) Packaging unit

Ordering data						
Description	Connection	Part No.	Type	PU ¹⁾		
Blanking plug						
	For sealing ports	M5	3843	B-M5	10	
		G1/8	3568	B-1/8	10	
		G1/4	3569	B-1/4	10	

1) Packaging unit

- 1 - Type discontinued
Available up until 07/2016

FESTO

Hand lever valves, VHER-BH, reversible, polymer lever

Type codes


		VHER	-	BH	-		-		-	
Type										
VHER	Hand lever valve with detent									
Design										
BH	Hand lever, polymer version									
Valve function										
M04C	4/3-way valve, mid-position closed									
M04E	4/3-way valve, mid-position exhausted									
Connection size										
M05	M5 (polymer version only)									
G18	G $\frac{1}{8}$									
G14	G $\frac{1}{4}$									
Connection type										
LD	To the side									
UD	Underneath									


- 2 - Type discontinued
Available up until 07/2016


FESTO

Hand lever valves, VHER-BH, reversible, polymer lever

Technical data VHER-BH

-  - Flow rate
170 ... 1500 l/min

-  - Pressure
-0.95 ... +10 bar

-  - Temperature range
-20 ... +80 °C



General technical data					
Connection size		M5	G1/8	G1/4	
Valve function		4/3-way, closed or exhausted			
Design		Rotary slide valve			
Sealing principle		Hard			
Type of mounting		Front panel mounting	Option of front panel mounting or through-holes		
Type of control		Direct			
Type of actuation		Manual			
Actuating lever (can be removed)		Polymer (plastic)			
Actuator lock		With accessories (Actuating lever can be latched and locked in 3 positions. If the actuating lever is locked, it cannot be removed.)			
Switching status display		Via accessories			
Mounting position		Any			
Direction of flow		Reversible			
Nominal flow rate	Port at the side	[l/min]	170	600	1150
	Port underneath	[l/min]	260	800	1500
Nominal width		[mm]	4	6	8
Pneumatic connection 1,2,3,4			M5	G1/8	G1/4
Actuating torque at 10 bar		[Nm]	0.6	1.1	2.8

Operating and environmental conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	[bar]	-0.95 ... 10
Ambient temperature	[°C]	-20 ... +80
Corrosion resistance class	[CRC]	2 ¹⁾

1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. External visible parts with primarily decorative surface requirements which are in direct contact with the surrounding industrial environment or media such as coolants or lubricating agents.

Proximity sensors for switching status display			
Connection size	Connection direction	Type	
		SME-10-... L-...	SME-10-... Q-...
M5	Underneath	■	■
	At the side	-	■
G1/8	Underneath	■	■
	At the side	-	■
G1/4	Underneath	■	■
	At the side	-	■

- 1 - Type discontinued
Available up until 07/2016

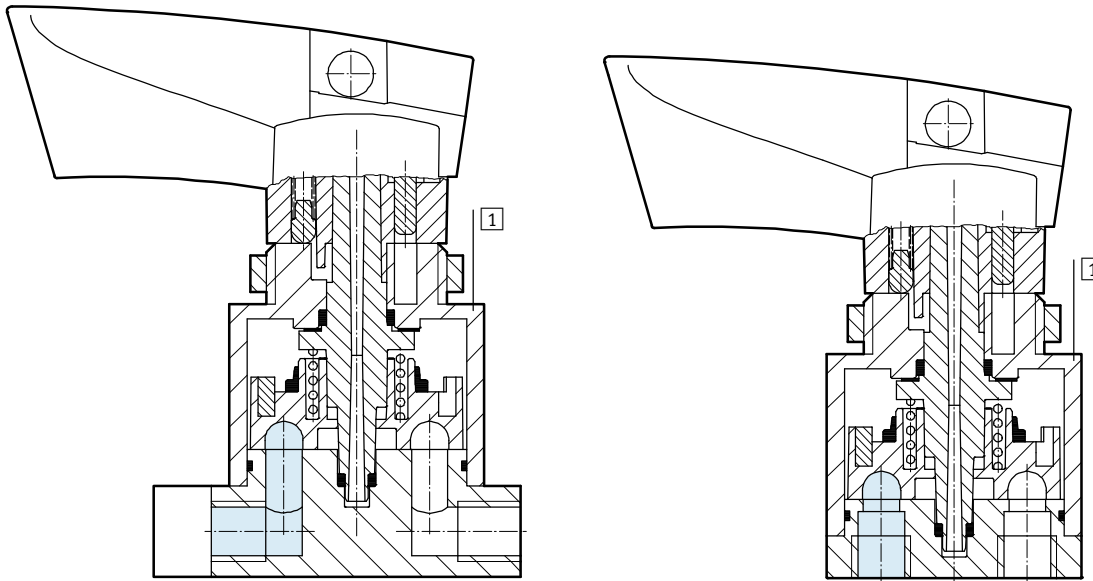
Hand lever valves, VHER-BH, reversible, polymer lever

Technical data VHER-BH

FESTO

Sectional view

Hand lever valve VHER-BH-...



Materials			
Connection size	M5	G $\frac{1}{8}$	G $\frac{1}{4}$
1 Housing	Reinforced PA	Reinforced PA	Die-cast aluminium
- Seals	Nitrile rubber		
-	Contains paint-wetting impairment substances		
-	Free of copper and PTFE		

- 2 - Type discontinued
Available up until 07/2016

FESTO

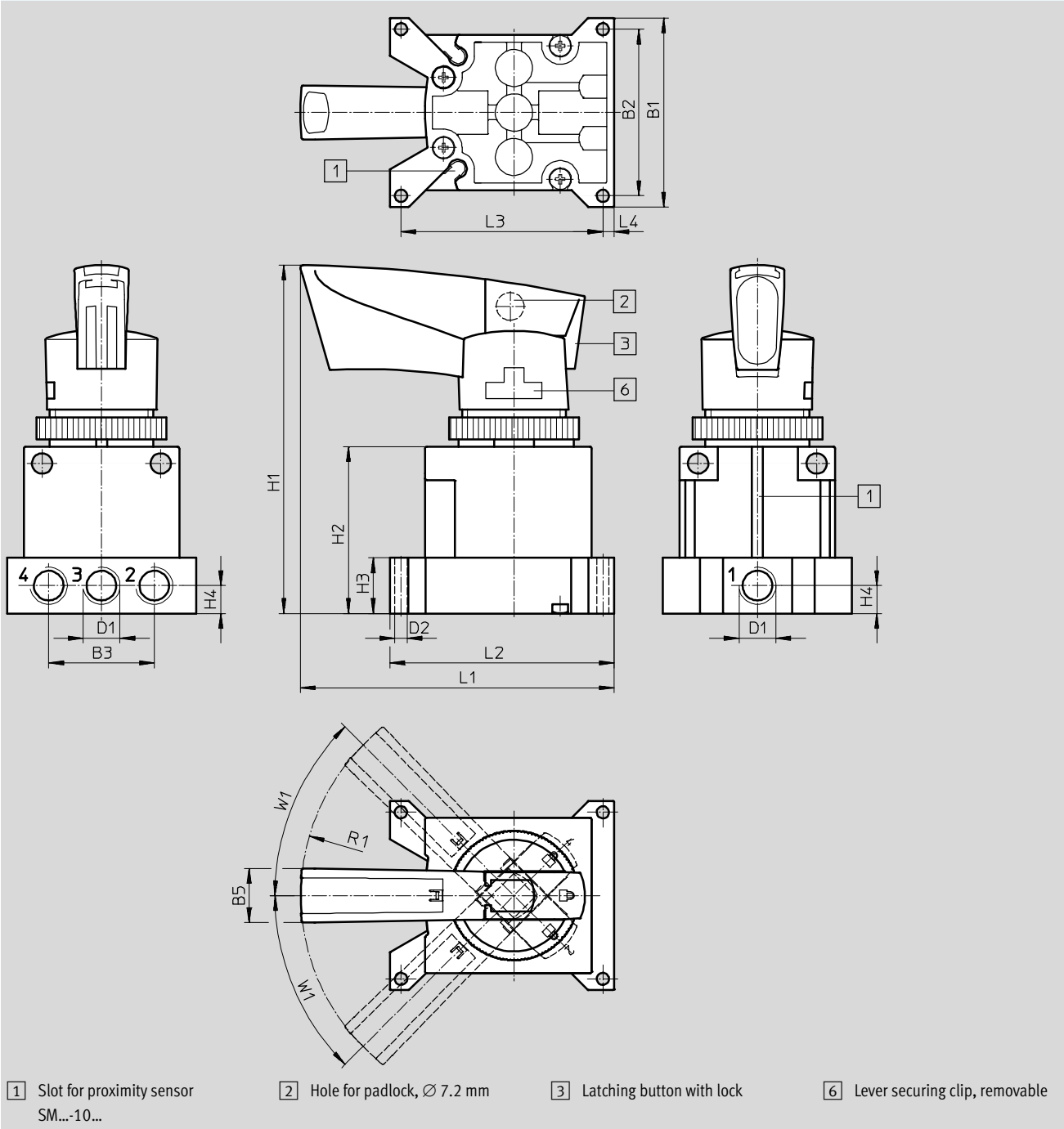
Hand lever valves, VHER-BH, reversible, polymer lever

Technical data VHER-BH

Dimensions

Download CAD data → www.festo.com

Pneumatic connections M5 and G1/8 at the side



Type	B1	B2	B3	B5	D1	D2 ∅	H1	H2	H3	H4	L1	L2	L3	L4	R1	W1
VHER-BH...-M05-LD	37	32	17.4	14.6	M5	2.7	82	32	10	5	78	45	40	2.5	57.9	45°
VHER-BH...-G18-LD	51	45	28.5	14.6	G1/8	3.3	94	45	15	7.5	85	60.5	54.5	6	57.9	

- 1 - Type discontinued
Available up until 07/2016

Hand lever valves, VHER-BH, reversible, polymer lever

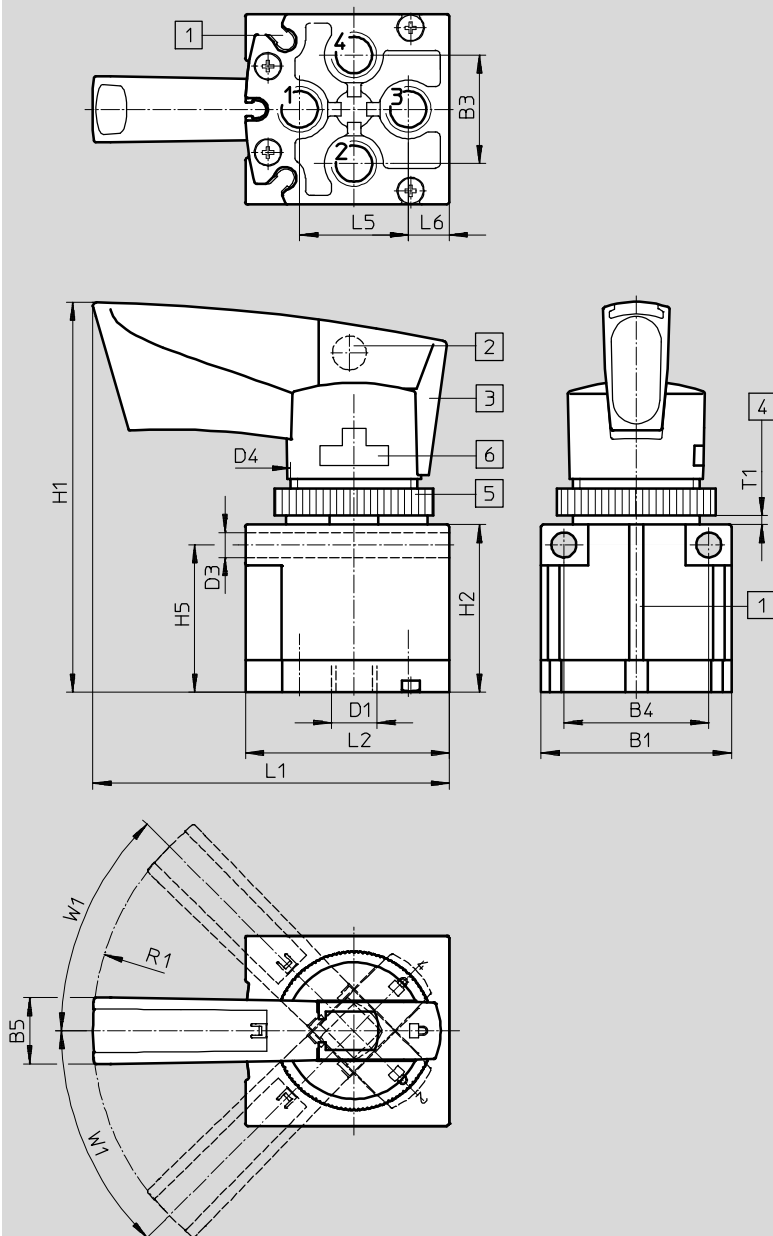
Technical data VHER-BH

FESTO

Dimensions

Download CAD data → www.festo.com

Pneumatic connections M5 and G1/8 underneath



- 1 Slot for proximity sensor SM...-10...
- 2 Hole for padlock, \varnothing 7.2 mm
- 3 Latching button with lock
- 4 Wall thickness for control panel installation
- 5 Knurled nut
- 6 Lever securing clip, removable

Type	B1	B3	B4	B5	D1	D3 Ø	D4	H1	H2	H5	L1	L2	L5	L6	R1	T1	W1
VHER-BH...-M05-UD	30	17	-	14.6	M5	-	M22	79	28.6	-	73	33.8	17	6.5	57.9	2 ... 4	45°
VHER-BH...-G18-UD	42	24	32	14.6	G1/8	5.5	M30	86	37	32.5	79	45	24	9	57.9	1.5 ... 5.5	

- 2 - Type discontinued
Available up until 07/2016

FESTO

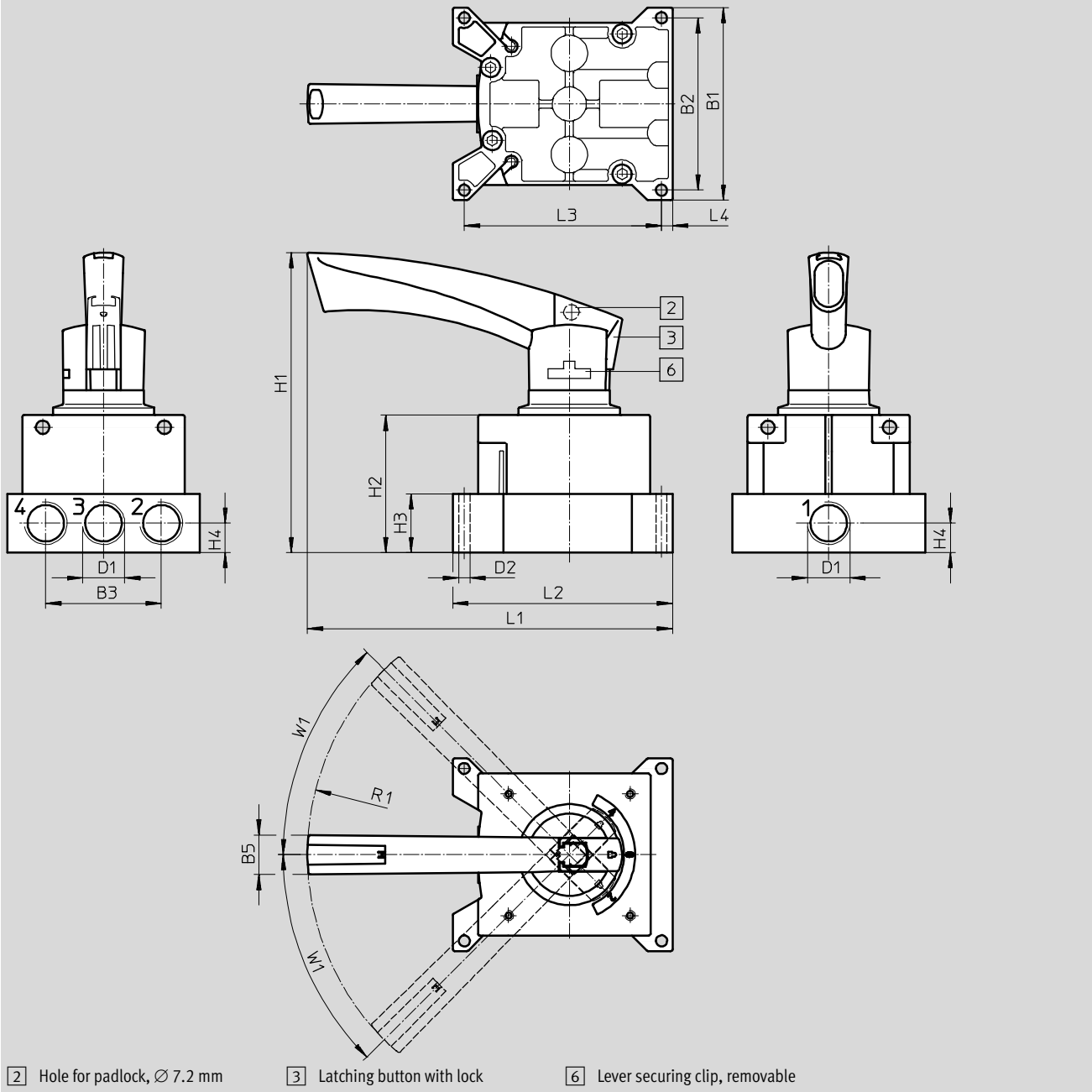
Hand lever valves, VHER-BH, reversible, polymer lever

Technical data VHER-BH

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{4}$ at the side



Type	B1	B2	B3	B5	D1	D2 \varnothing	H1	H2	H3	H4	L1	L2	L3	L4	R1	W1
VHER-BH-...-G14-LD	66	57.5	37.5	19.5	G $\frac{1}{4}$	4.5	136	55.5	20.5	10.3	166	77	69.2	4	128.7	45°

- 1 - Type discontinued
Available up until 07/2016

Hand lever valves, VHER-BH, reversible, polymer lever

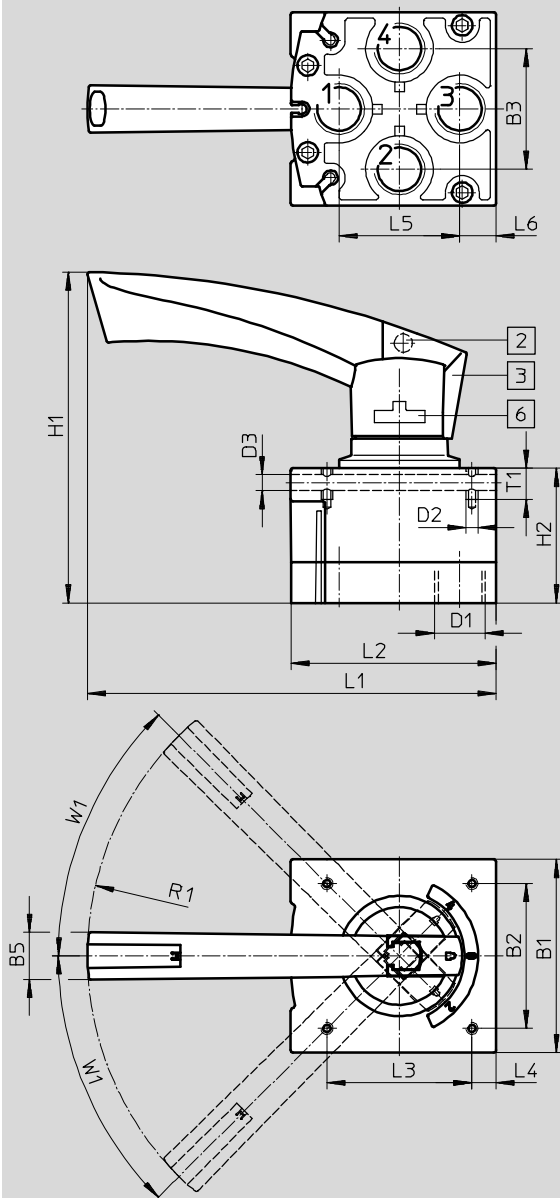
Technical data VHER-BH

FESTO

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{4}$ underneath



- 2 Hole for padlock, \varnothing 7.2 mm
 3 Latching button with lock
 6 Lever securing clip, removable

Type	B1	B2	B3	B4	B5	D1	D2	D3 \varnothing	D4
VHER-BH...-G14-UD	56.3	42	33	42	19.5	G $\frac{1}{4}$	M5	5.5	40.5

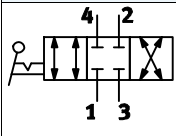
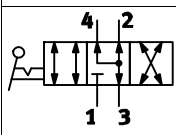
Type	H1	H2	H5	L1	L2	L3	L4	L5	L6	R1	T1	W1
VHER-BH...-G14-UD	129	49	43.5	157	60.2	42	7.2	33	11.7	128.7	12	45°

- 2 - Type discontinued
Available up until 07/2016



FESTO

Hand lever valves, VHER-BH, reversible, polymer lever

Ordering data

Ordering data – Hand lever valves						
Circuit symbol	Description	Weight [g]	Connection direction	Connection size	Part No.	Type
4/3-way valve ¹⁾						
	Mid-position closed	95	At the side	M5	538190	VHER-BH-M04C-M05-LD
		165		G $\frac{1}{8}$	538192	VHER-BH-M04C-G18-LD
		435		G $\frac{1}{4}$	538194	VHER-BH-M04C-G14-LD
		80	Underneath	M5	538191	VHER-BH-M04C-M05-UD
		125		G $\frac{1}{8}$	538193	VHER-BH-M04C-G18-UD
		375		G $\frac{1}{4}$	538195	VHER-BH-M04C-G14-UD
	Mid-position exhausted	95	At the side	M5	538198	VHER-BH-M04E-M05-LD
		165		G $\frac{1}{8}$	538200	VHER-BH-M04E-G18-LD
		435		G $\frac{1}{4}$	538202	VHER-BH-M04E-G14-LD
		80	Underneath	M5	538199	VHER-BH-M04E-M05-UD
		125		G $\frac{1}{8}$	538201	VHER-BH-M04E-G18-UD
		375		G $\frac{1}{4}$	538203	VHER-BH-M04E-G14-UD

1) The hand lever valve can be used as a 3/3-way valve by sealing port 2.

Ordering data – Push-in fittings						
Description	Connection			Part No.	Type	PU ¹⁾
Pneumatic connection: underneath						
	M5	With external hex for (short design)	Tubing O.D. 3 mm	153302	QSM-M5-3	10
			Tubing O.D. 4 mm	153304	QSM-M5-4	10
			Tubing O.D. 6 mm	153306	QSM-M5-6	10
		With internal hex for (short design)	Tubing O.D. 3 mm	153313	QSM-M5-3-I	10
			Tubing O.D. 4 mm	153315	QSM-M5-4-I	10
			Tubing O.D. 6 mm	153317	QSM-M5-6-I	10
	G1/8	With external hex for (short design)	Tubing O.D. 4 mm	186264	QSM-G $\frac{1}{8}$ -4	10
			Tubing O.D. 6 mm	186265	QSM-G $\frac{1}{8}$ -6	10
			With external hex for	Tubing O.D. 4 mm	186095	QS-G $\frac{1}{8}$ -4
		Tubing O.D. 6 mm		186096	QS-G $\frac{1}{8}$ -6	10
		Tubing O.D. 8 mm		186098	QS-G $\frac{1}{8}$ -8	10
		With internal hex for (short design)	Tubing O.D. 4 mm	186266	QSM-G $\frac{1}{8}$ -4-I	10
			Tubing O.D. 6 mm	186267	QSM-G $\frac{1}{8}$ -6-I	10
			With internal hex for	Tubing O.D. 4 mm	186106	QS-G $\frac{1}{8}$ -4-I
		Tubing O.D. 6 mm		186107	QS-G $\frac{1}{8}$ -6-I	10
	Tubing O.D. 8 mm	186109		QS-G $\frac{1}{8}$ -8-I	10	
	G1/4	With external hex for	Tubing O.D. 6 mm	186097	QS-G $\frac{1}{4}$ -6	10
			Tubing O.D. 8 mm	186099	QS-G $\frac{1}{4}$ -8	10
Tubing O.D. 10 mm			186101	QS-G $\frac{1}{4}$ -10	10	
With internal hex for		Tubing O.D. 6 mm	186108	QS-G $\frac{1}{4}$ -6-I	10	
		Tubing O.D. 8 mm	186110	QS-G $\frac{1}{4}$ -8-I	10	
		Tubing O.D. 10 mm	186112	QS-G $\frac{1}{4}$ -10-I	10	
Pneumatic connection: at the side						
	M5	With internal hex for (short design)	Tubing O.D. 3 mm	153313	QSM-M5-3-I	10
			Tubing O.D. 4 mm	153315	QSM-M5-4-I	10
	G1/8	With internal hex for (short design)	Tubing O.D. 4 mm	186266	QSM-G $\frac{1}{8}$ -4-I	10
			Tubing O.D. 6 mm	186267	QSM-G $\frac{1}{8}$ -6-I	10
			With internal hex for	Tubing O.D. 4 mm	186106	QS-G $\frac{1}{8}$ -4-I
		Tubing O.D. 6 mm		186107	QS-G $\frac{1}{8}$ -6-I	10
		Tubing O.D. 8 mm		186109	QS-G $\frac{1}{8}$ -8-I	10
		G1/4	With internal hex for	Tubing O.D. 6 mm	186108	QS-G $\frac{1}{4}$ -6-I
	Tubing O.D. 8 mm			186110	QS-G $\frac{1}{4}$ -8-I	10
	Tubing O.D. 10 mm			186112	QS-G $\frac{1}{4}$ -10-I	10



1) Packaging unit

- 7 - Type discontinued
Available up until 07/2016

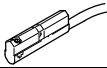
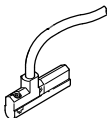
Hand lever valves, VHER-BH, reversible, polymer lever

Accessories


FESTO

Ordering data – Silencers							
Description	Connection	Materials			Part No.	Type	PU ¹⁾
		Threaded plug	Silencer insert	Housing			
Pneumatic connection: underneath							
	M5	PE	PE	–	165003	UC-M5	1
	G1/8	Die-cast aluminium	PE	Die-cast aluminium	6841	U-1/8-B	1
		PE	PE	–	161419	UC-1/8	1
		–	PE	PA	2307	U-1/8	1
	G1/4	Die-cast aluminium	PE	Die-cast aluminium	6842	U-1/4-B	1
		PE	PE	–	165004	UC-1/4	1
–		PE	PA	2316	U-1/4	1	
Pneumatic connection: at the side							
	M5	PE	PE	–	165003	UC-M5	1
	G1/8	PE	PE	–	161419	UC-1/8	1
	G1/4	PE	PE	–	165004	UC-1/4	1

1) Packaging unit

Ordering data – Proximity sensors							
Description	Connection outlet direction	Electrical connection	Cable length [m]	Part No.	Type	PU ¹⁾	
							N/O contact
	In-line	Cable, 3-wire	2.5	173210	SME-10-KL-LED-24	1	
		Plug connector M8x1, 3-pin	0.3	173212	SME-10-SL-LED-24	1	
	Lateral	Cable, 3-wire	2.5	173211	SME-10-KQ-LED-24	1	
		Plug connector M8x1, 3-pin	0.3	173213	SME-10-SQ-LED-24	1	

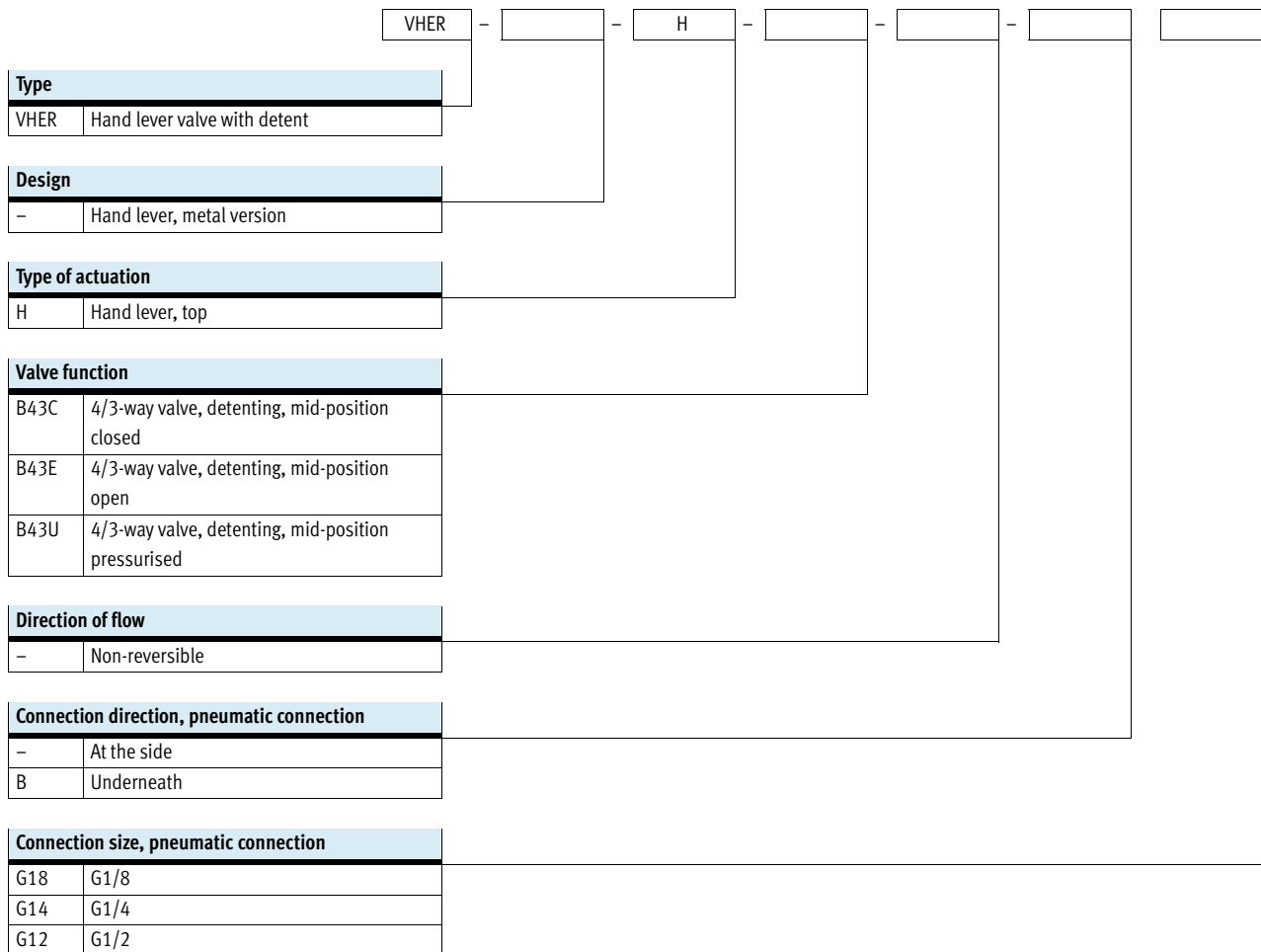
1) Packaging unit

Ordering data							
Description	Connection	Part No.	Type	PU ¹⁾			
Blanking plug							
	For sealing ports	M5	3843	B-M5	10		
		G1/8	3568	B-1/8	10		
		G1/4	3569	B-1/4	10		

1) Packaging unit




Hand lever valves, VHER-H-B43, non-reversible, metal lever

Type codes



Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

-  Flow rate
600 ... 3800 l/min
-  Pressure
-0.95 ... +10 bar
-  Temperature range
-20 ... +80 °C



General technical data					
Connection size		G1/8	G1/4	G1/2	
Valve function		4/3-way, detenting, mid-position closed, exhausted or pressurised			
Design		Rotary slide valve			
Sealing principle		Hard			
Type of mounting		Option of front panel mounting or through-holes			
Type of pilot control		Direct			
Type of actuation		Manual			
Actuating lever (can be removed)		Metal (die-cast aluminium)			
Actuator lock		None			
Switching position indication		Via accessories			
Mounting position		Any			
Direction of flow		Non-reversible			
Non-overlapping		Yes			
Exhaust air function		With flow control			
Nominal flow rate	Port at side	[l/min.]	600	1150	3200
	Port underneath	[l/min.]	800	1500	3800
Nominal width		[mm]	6	8	12
Pneumatic connection 1, 2, 3, 4			G1/8	G1/4	G1/2
Actuating torque at 6 bar		[Nm]	0.9	2	5

Operating and environmental conditions					
Connection size		G1/8	G1/4	G1/2	
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)			
Operating pressure		[bar]	0 ... 10 (vacuum only permitted at port 3)		
Ambient temperature		[°C]	-20 ... +80		
Temperature of medium		[°C]	-20 ... +80		
Corrosion resistance class CRC ¹⁾			2		

1) Corrosion resistance class 2 according to Festo standard 940070
Components subject to moderate corrosion stress. External visible parts with primarily decorative surface requirements which are in direct contact with the surrounding industrial environment or media such as coolants or lubricating agents.

Proximity sensors for switching position indication					
Connection size	Connection direction	Type			
		SME-10... -L-...	SMT-10... -L-...	SME-10... -Q-...	SMT-10... -Q-...
G1/8	Underneath	■	■	■	■
	At the side	-	-	■	■
G1/4	Underneath	■	■	■	■
	At the side	-	-	■	■
G1/2	Underneath	■	■	■	■
	At the side	-	-	■	■

Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Operation with different pressures

Vacuum operation

The direction of flow of valves VHER-B43 is clearly defined and cannot be reversed.

It should therefore be borne in mind that the direction of flow will be maintained during vacuum operation.

Vacuum may only be connected to port 3.
Vacuum operation at port 3:
-0.95 ... 0 bar

 Note

A filter must be installed upstream of valves operated in vacuum mode. This prevents any foreign matter in

the intake air getting into the valve (e.g. when operating a suction cup).

 Note

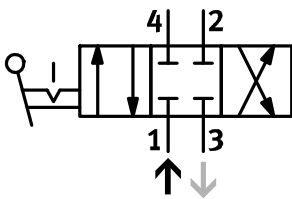
During vacuum operation, the valve function changes from exhausted (VHER-...-B43E-...) to pressurised (VHER-...-B43U-...) and vice versa.

 Note

Vacuum must not be connected to port 1.

During vacuum operation:

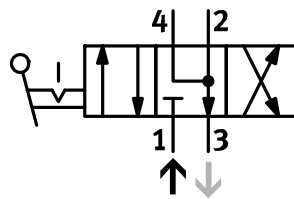
Mid-position closed (VHER-...-B43C-...)



(During normal operation: mid-position closed VHER-...-B43C-...)

During vacuum operation:

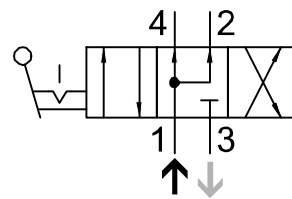
Mid-position pressurised (VHER-...-B43U-...)



(During normal operation: mid-position exhausted VHER-...-B43E-...)

During vacuum operation:

Mid-position exhausted (VHER-...-B43E-...)



(During normal operation: mid-position pressurised VHER-...-B43U-...)

Connections with vacuum:

- Vacuum is generated by connecting vacuum generator to port 3
- Exhaust (or pressurisation) takes place via port 1
- Vacuum operation (e.g. suction cup) takes place at port 2 (or 4)

Dual-pressure operation

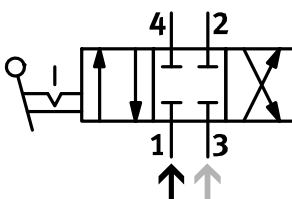
Valves VHER-B43 are suitable for dual-pressure operation.

Please note that for design reasons compressed air may only be applied to port 1 and 3.

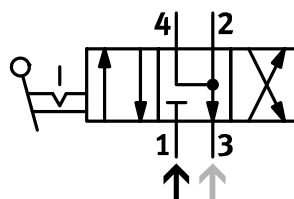
 Note

In the case of dual-pressure operation, the higher pressure must always be applied to port 1.

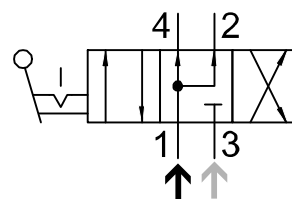
Mid-position closed VHER-...-B43C-...



Mid-position exhausted VHER-...-B43E-...



Mid-position pressurised VHER-...-B43U-...



Connections with dual-pressure operation:

- Supply port: port 1 (high pressure)
- Supply port: port 3 (lower pressure)

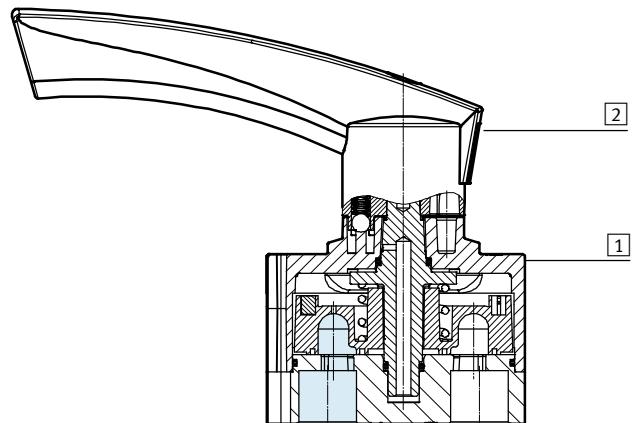
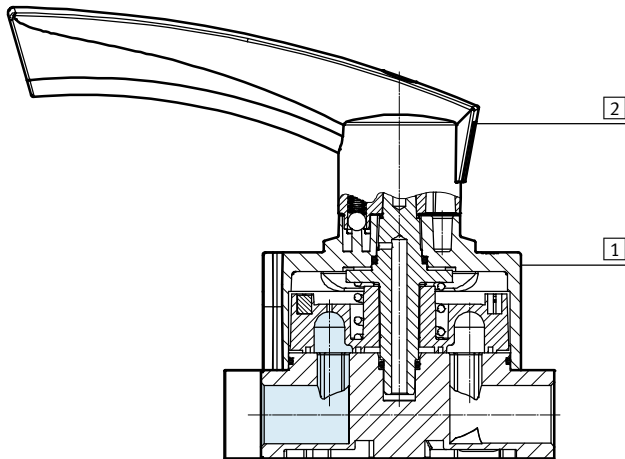
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Sectional view

Hand lever valve VHER-H-B43-...

Hand lever valve VHER-H-B43...-B-...



Materials

1	Housing	Die-cast aluminium
2	Actuating lever	Metal (die-cast aluminium)
-	Seals	NBR
-	Note on materials	RoHS compliant
-	Note on materials	Free of copper and PTFE

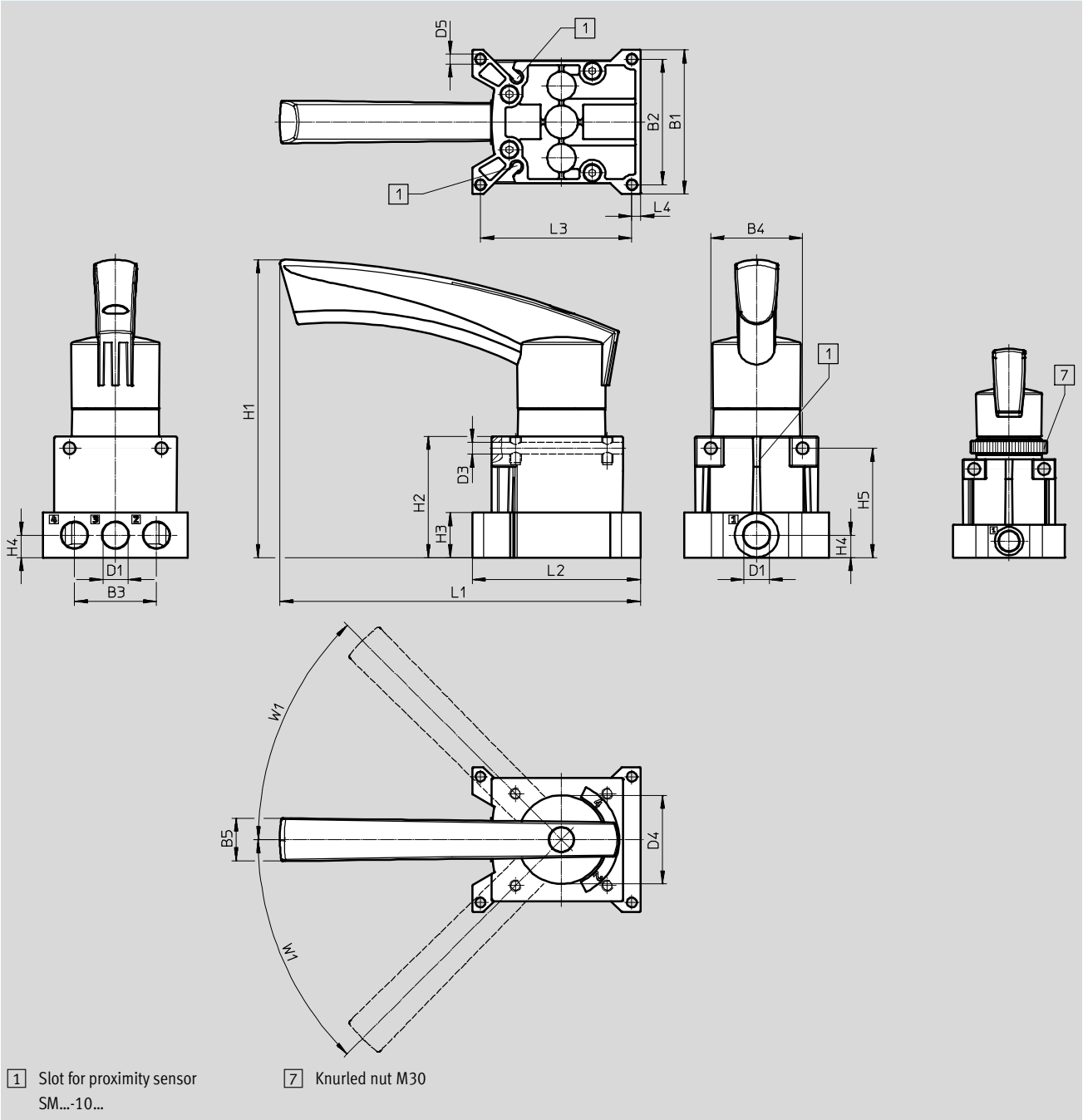
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{8}$ at side



Type	B1	B2	B3	B4	B5	D1	D3 ∅	D4 ∅	D5 ∅
VHER-H-B43...-G18	51	45	28.5	32	14.6	G $\frac{1}{8}$	5.5	30.2	3.3

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	W1
VHER-H-B43...-G18	95.6	45	15	7.5	40.5	84.9	60.5	54.5	3	45°

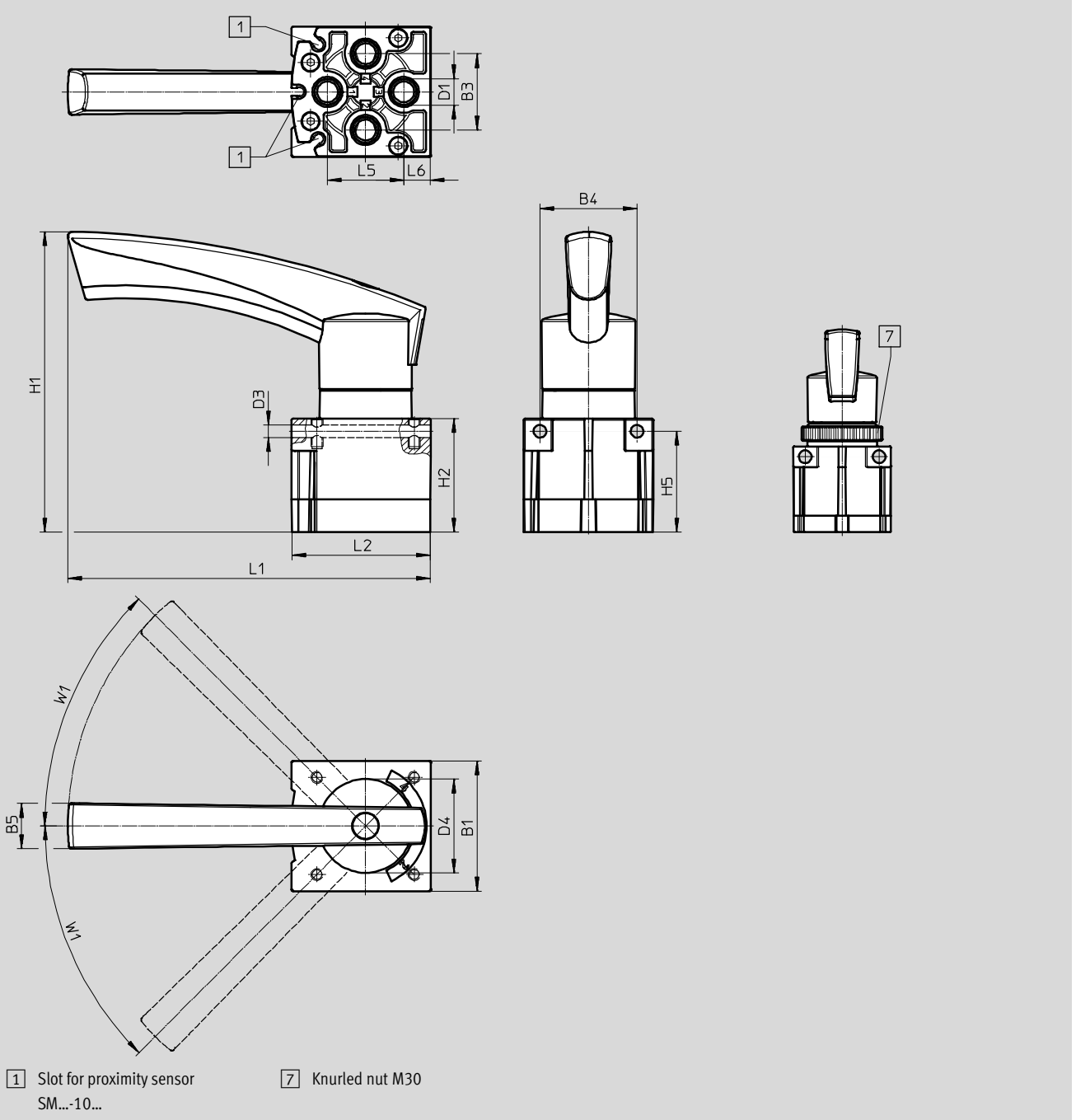
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G¹/₈ underneath



Type	B1	B3	B4	B5	D1	D3	D4
VHER-H-B43...-B-G18	42.2	24	32	14.6	G ¹ / ₈	5.5	30.2

Type	H1	H2	H5	L1	L2	L5	L6	W1
VHER-H-B43...-B-G18	87.6	37	32.5	78.6	44.9	24	9	45°

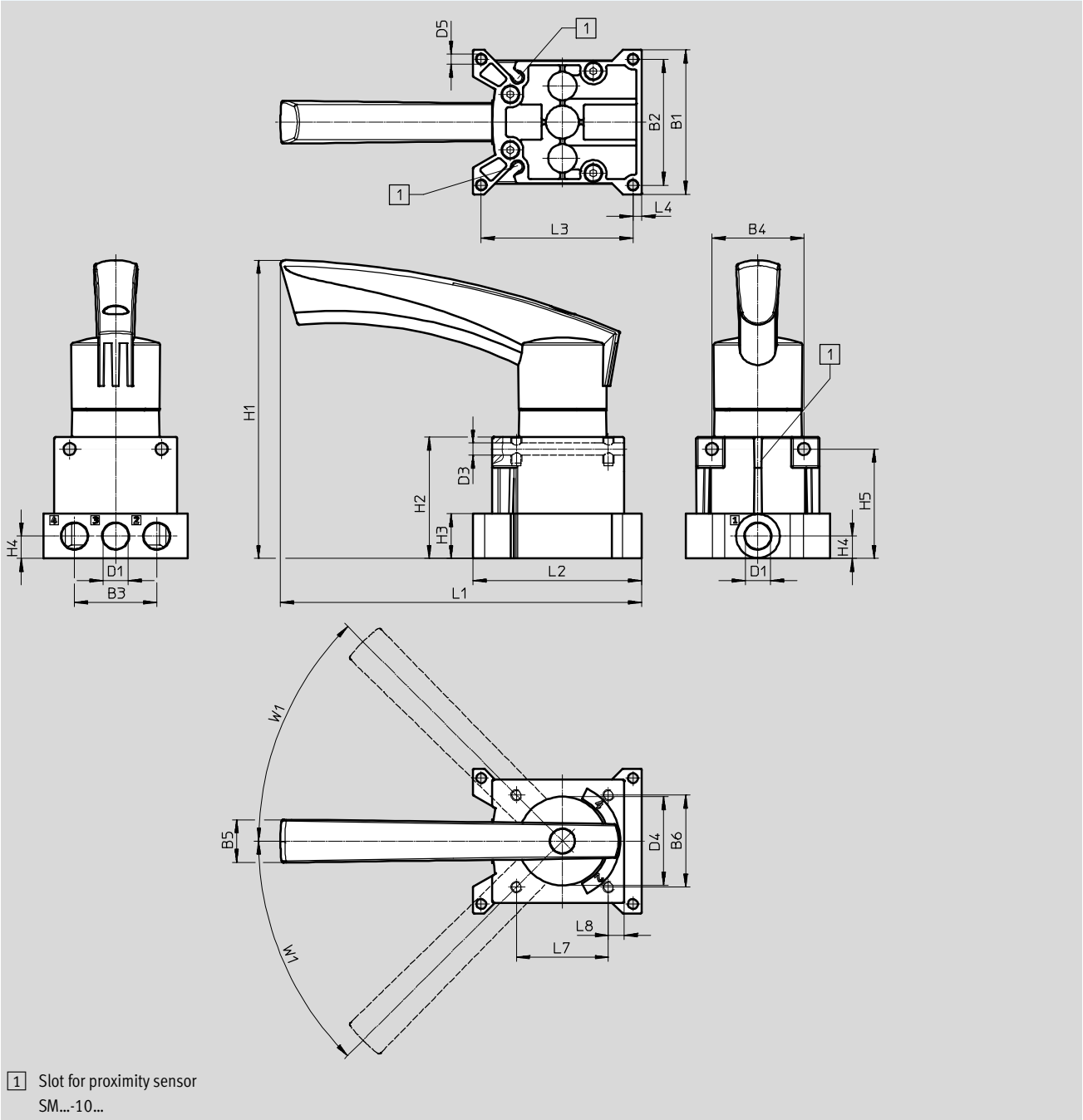
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{4}$ at side



Type	B1	B2	B3	B4	B5	B6	D1	D3 ∅	D4 ∅	D5 ∅
VHER-H-B43...-G14	66	57.5	37.5	42	19.5	42	G $\frac{1}{4}$	5.5	40.5	4.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L7	L8	W1
VHER-H-B43...-G14	136.3	55.5	20.5	10.3	50	164.8	77	69.2	4	42	7.2	45°

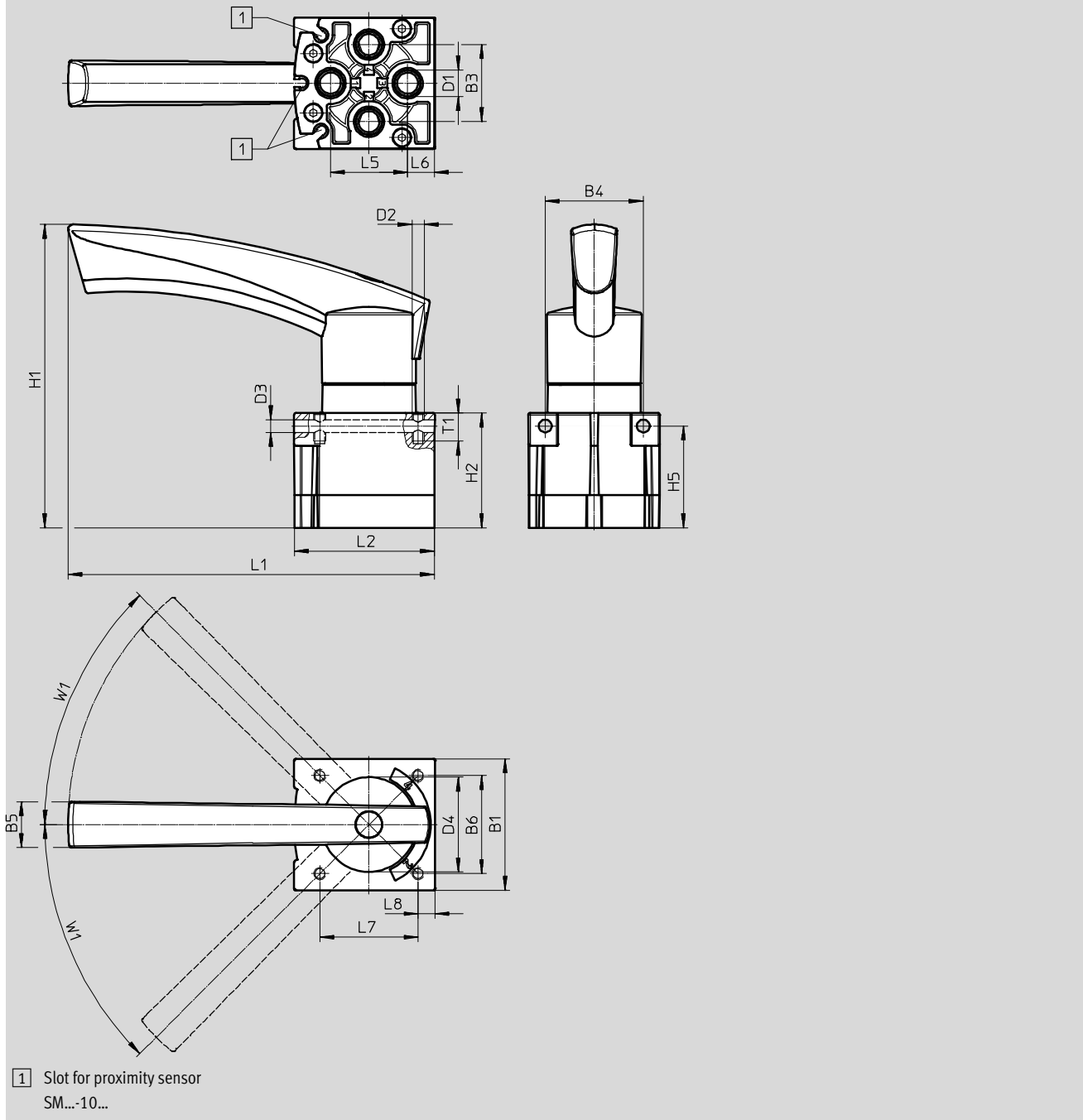
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G1/4 underneath



Type	B1	B3	B4	B5	B6	D1	D2	D3	D4
VHER-H-B43...-B-G14	56.3	33	42	19.5	42	G1/4	M5	5.5	40.5

Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	T1	W1
VHER-H-B43...-B-G14	129.8	49	43.5	156.6	59.8	33	11.4	42	7.2	12	45°

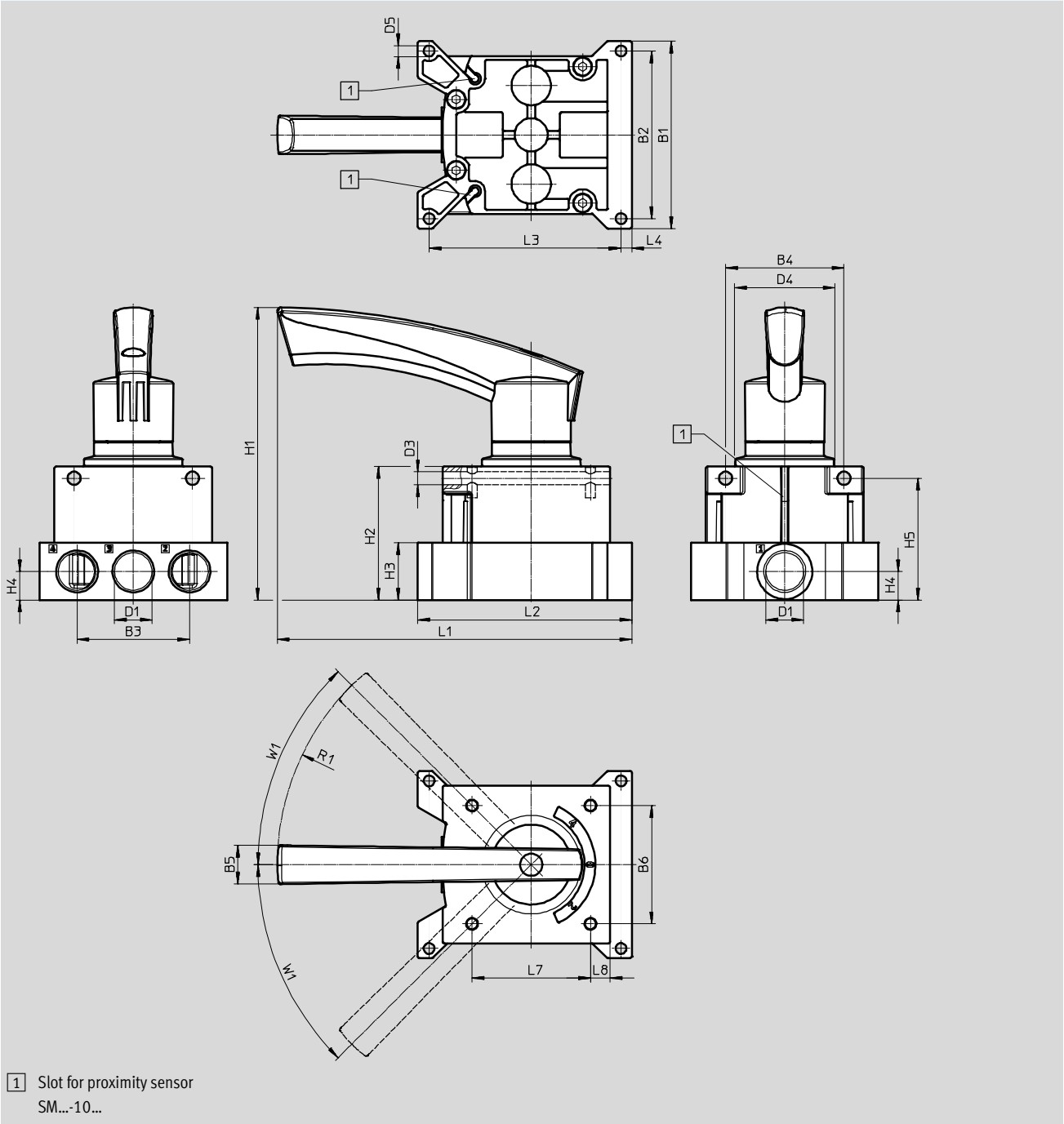
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{2}$ at side



Type	B1	B2	B3	B4	B5	D1	D3	D4	D5
VHER-H-B43-...-G12	95	85	57	60	19.5	G $\frac{1}{2}$	6.6 Ø	51 Ø	5.5 Ø

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L7	L8	R1	W1
VHER-H-B43-...-G12	149	68	29	14.5	61.8	180	108.5	97.3	5.5	60	10	128	45°

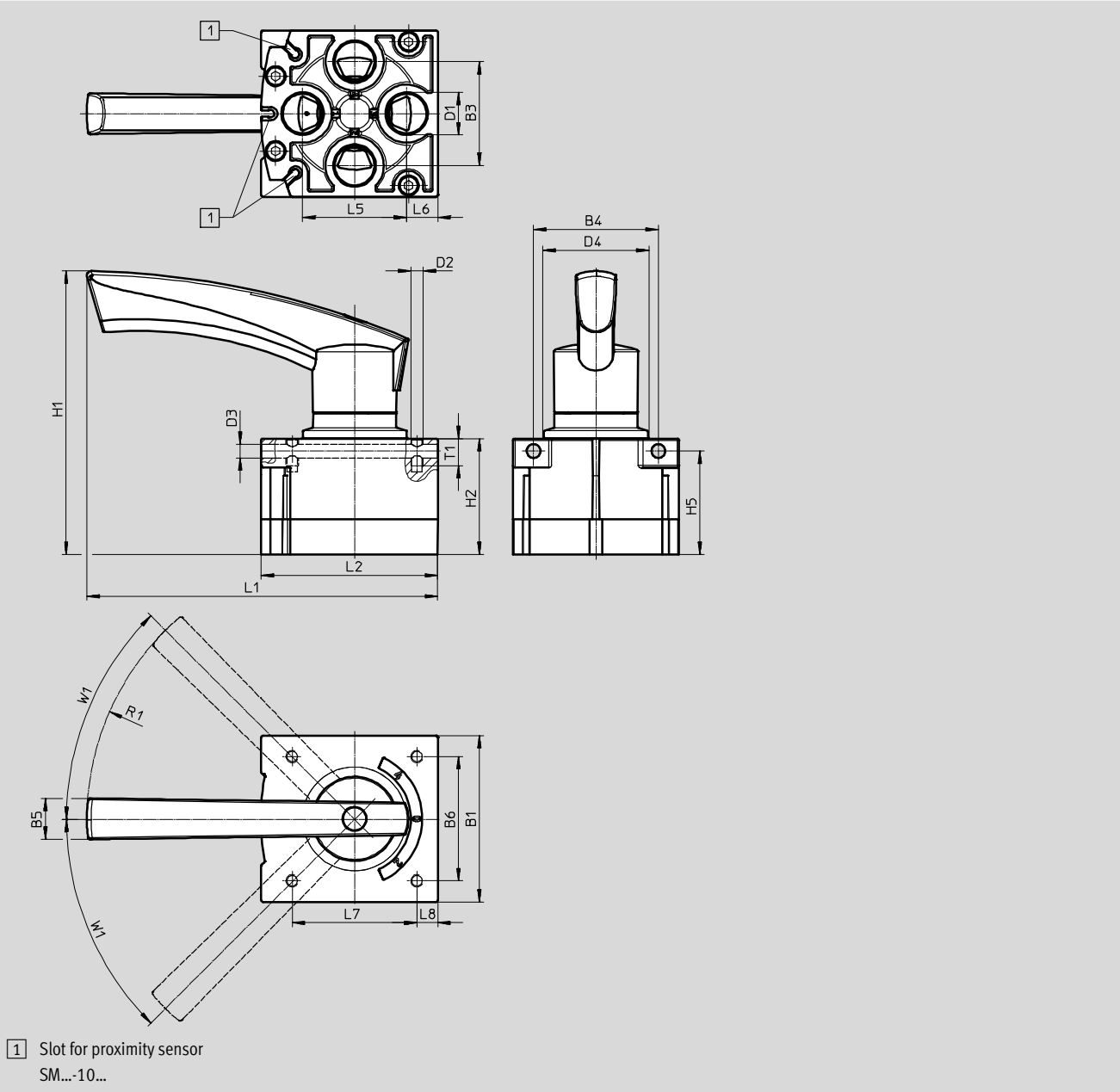
Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{2}$ underneath

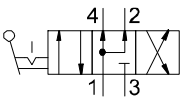




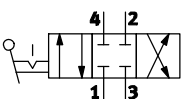




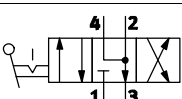






Type	B1	B3	B4	B5	B6	D1	D2	D3	D4
VHER-H-B43-...-B-G12	80	50	60	19.5	60	G $\frac{1}{2}$	M5	6.6	51









Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	R1	T1	W1
VHER-H-B43-...-B-G12	136.5	55.8	49.8	168.6	84.8	50	15	60	10	128	13	45°

Hand lever valves, VHER-H-B43, non-reversible, metal lever

Ordering data

Ordering data – Hand lever valves-									
Circuit symbol	Description	Actuating lever	Actuator lock	Pneumatic connection	Weight [g]	Width [mm]	Part No.	Type	
4/3-way valve ¹⁾									
	Mid-position pressurised	Metal	–	Underneath	220	42	3488215	VHER-H-B43U-B-G18	
					510	56	3515286	VHER-H-B43U-B-G14	
					860	80	3192072	VHER-H-B43U-B-G12	
		Metal	–	At the side	260	51	3488214	VHER-H-B43U-G18	
					560	66	3515108	VHER-H-B43U-G14	
					1010	95	3192071	VHER-H-B43U-G12	
	Mid-position closed	Metal	–	Underneath	220	42	3488205	VHER-H-B43C-B-G18	
					510	56	3515202	VHER-H-B43C-B-G14	
					860	80	3192066	VHER-H-B43C-B-G12	
		Metal	–	At the side	260	51	3488204	VHER-H-B43C-G18	
					560	66	3514710	VHER-H-B43C-G14	
					1010	95	3192065	VHER-H-B43C-G12	
	Mid-position exhausted	Metal	–	Underneath	220	42	3488207	VHER-H-B43E-B-G18	
					510	56	3515258	VHER-H-B43E-B-G14	
					860	80	3192068	VHER-H-B43E-B-G12	
		Metal	–	At the side	260	51	3488206	VHER-H-B43E-G18	
					560	66	3515082	VHER-H-B43E-G14	
					1010	95	3192067	VHER-H-B43E-G12	





1) The hand lever valve can be used as a 3/3-way valve by sealing port 2.

Ordering data – Push-in fittings						
Description	Connection		Part No.	Type	PU ¹⁾	
Pneumatic connection: underneath, external hexagon						
	G1/8	G thread with sealing ring for (short design)	Tubing O.D. 4 mm	186264	QSM-G1/8-4	10
			Tubing O.D. 6 mm	186265	QSM-G1/8-6	10
	G1/8	G thread with sealing ring for	Tubing O.D. 4 mm	186095	QS-G1/8-4	10
			Tubing O.D. 6 mm	186096	QS-G1/8-6	10
			Tubing O.D. 8 mm	186098	QS-G1/8-8	10
	G1/4	G thread with sealing ring for	Tubing O.D. 6 mm	186097	QS-G1/4-6	10
			Tubing O.D. 8 mm	186098	QS-G1/4-8	10
			Tubing O.D. 10 mm	186101	QS-G1/4-10	10
	G1/2	G thread with sealing ring for	Tubing O.D. 12 mm	186104	QS-G ¹ / ₂ -12	1
			Tubing O.D. 16 mm	186105	QS-G ¹ / ₂ -16	1
Pneumatic connection: underneath, internal hexagon						
	G1/8	G thread with sealing ring for (short design)	Tubing O.D. 4 mm	186266	QSM-G1/8-4-I	10
			Tubing O.D. 6 mm	186267	QSM-G1/8-6-I	10
	G1/8	G thread with sealing ring for	Tubing O.D. 4 mm	186106	QS-G1/8-4-I	10
			Tubing O.D. 6 mm	186107	QS-G1/8-6-I	10
			Tubing O.D. 8 mm	186109	QS-G1/8-8-I	10
	G1/4	G thread with sealing ring for	Tubing O.D. 6 mm	186108	QS-G1/4-6-I	10
			Tubing O.D. 8 mm	186110	QS-G1/4-8-I	10
			Tubing O.D. 10 mm	186112	QS-G1/4-10-I	10
	G1/2	G thread with sealing ring for	Tubing O.D. 12 mm	186115	QS-G ¹ / ₂ -12-I	1






1) Packaging unit

Hand lever valves, VHER-H-B43, non-reversible, metal lever

Accessories

Ordering data – Push-in fittings						
Description	Connection			Part No.	Type	PU ¹⁾
Pneumatic connection: at the side, internal hexagon						
	G1/8	G thread with sealing ring for (short design)	Tubing O.D. 4 mm	186266	QSM-G1/8-4-I	10
			Tubing O.D. 6 mm	186267	QSM-G1/8-6-I	10
	G1/8	G thread with sealing ring for	Tubing O.D. 4 mm	186106	QS-G1/8-4-I	10
			Tubing O.D. 6 mm	186107	QS-G1/8-6-I	10
			Tubing O.D. 8 mm	186109	QS-G1/8-8-I	10
	G1/4	G thread with sealing ring for	Tubing O.D. 6 mm	186108	QS-G1/4-6-I	10
			Tubing O.D. 8 mm	186110	QS-G1/4-8-I	10
			Tubing O.D. 10 mm	186112	QS-G1/4-10-I	10
	G1/2	G thread with sealing ring for	Tubing O.D. 12 mm	186115	QS-G1/2-12-I	1

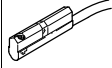
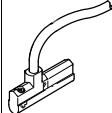
1) Packaging unit

Ordering data – Silencers							
Description	Connection	Materials			Part No.	Type	PU ¹⁾
		Stud end connector	Silencer	Housing			
Pneumatic connection: underneath							
	G1/8	PE	PE	–	161419	UC-1/8	1
	G1/4	PE	PE	–	165004	UC-1/4	1
	G1/8	Die-cast aluminium	PE	Die-cast aluminium	6841	U-1/8-B	1
	G1/8	PA	PE	PA	2307	U-1/8	1
	G1/4	Die-cast aluminium	PE	Die-cast aluminium	6842	U-1/4-B	1
	G1/4	PA	PE	PA	2316	U-1/4	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	6844	U-1/2-B	1
Pneumatic connection: at side							
	G1/8	PE	PE	–	161419	UC-1/8	1
	G1/4	PE	PE	–	165004	UC-1/4	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	6844	U-1/2-B	1

1) Packaging unit


Hand lever valves, VHER-H-B43, non-reversible, metal lever

Accessories

Ordering data – Proximity sensors-								
	Connection outlet direction	Measuring principle	Switching output	Electrical connection	Cable length [m]	Part No.	Type	PU ¹⁾
N/O contact								
	In-line	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	173210	SME-10-KL-LED-24	1
						551365	SME-10M-DS-24V-E-2,5-L-OE²⁾	1
				Plug M8x1, 3-pin	0.3	173212	SME-10-SL-LED-24	1
						551367	SME-10M-DS-24V-E-0,3-L-M8D²⁾	1
				Cable, 2-wire	2.5	551369	SME-10M-ZS-24V-E-2,5-L-OE²⁾	1
		Magneto-resistive	PNP	Cable, 3-wire	2.5	551373	SMT-10M-PS-24V-E-2,5-L-OE²⁾	1
				Plug M8x1, 3-pin	0.3	551375	SMT-10M-PS-24V-E-0,3-L-M8D²⁾	1
			NPN	Cable, 3-wire	2.5	551377	SMT-10M-NS-24V-E-2,5-L-OE²⁾	1
				Plug M8x1, 3-pin	0.3	551379	SMT-10M-NS-24V-E-0,3-L-M8D²⁾	1
			Non-contacting, 2-wire	Cable, 2-wire	2.5	551382	SMT-10M-ZS-24V-E-2,5-L-OE²⁾	1
	Lateral	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	173211	SME-10-KQ-LED-24	1
						551366	SME-10M-DS-24V-E-2,5-Q-OE²⁾	1
				Plug M8x1, 3-pin	0.3	173213	SME-10-SQ-LED-24	1
						551368	SME-10M-DS-24V-E-0,3-Q-M8D²⁾	1
				Cable, 2-wire	2.5	551370	SME-10M-ZS-24V-E-2,5-Q-OE²⁾	1
		Magneto-resistive	PNP	Cable, 3-wire	2.5	551374	SMT-10M-PS-24V-E-2,5-Q-OE²⁾	1
				Plug M8x1, 3-pin	0.3	551376	SMT-10M-PS-24V-E-0,3-Q-M8D²⁾	1
			NPN	Cable, 3-wire	2.5	551378	SMT-10M-NS-24V-E-2,5-Q-OE²⁾	1
				Plug M8x1, 3-pin	0.3	551380	SMT-10M-NS-24V-E-0,3-Q-M8D²⁾	1
			Non-contacting, 2-wire	Cable, 2-wire	2.5	551383	SMT-10M-ZS-24V-E-2,5-Q-OE²⁾	1

1) Packaging unit

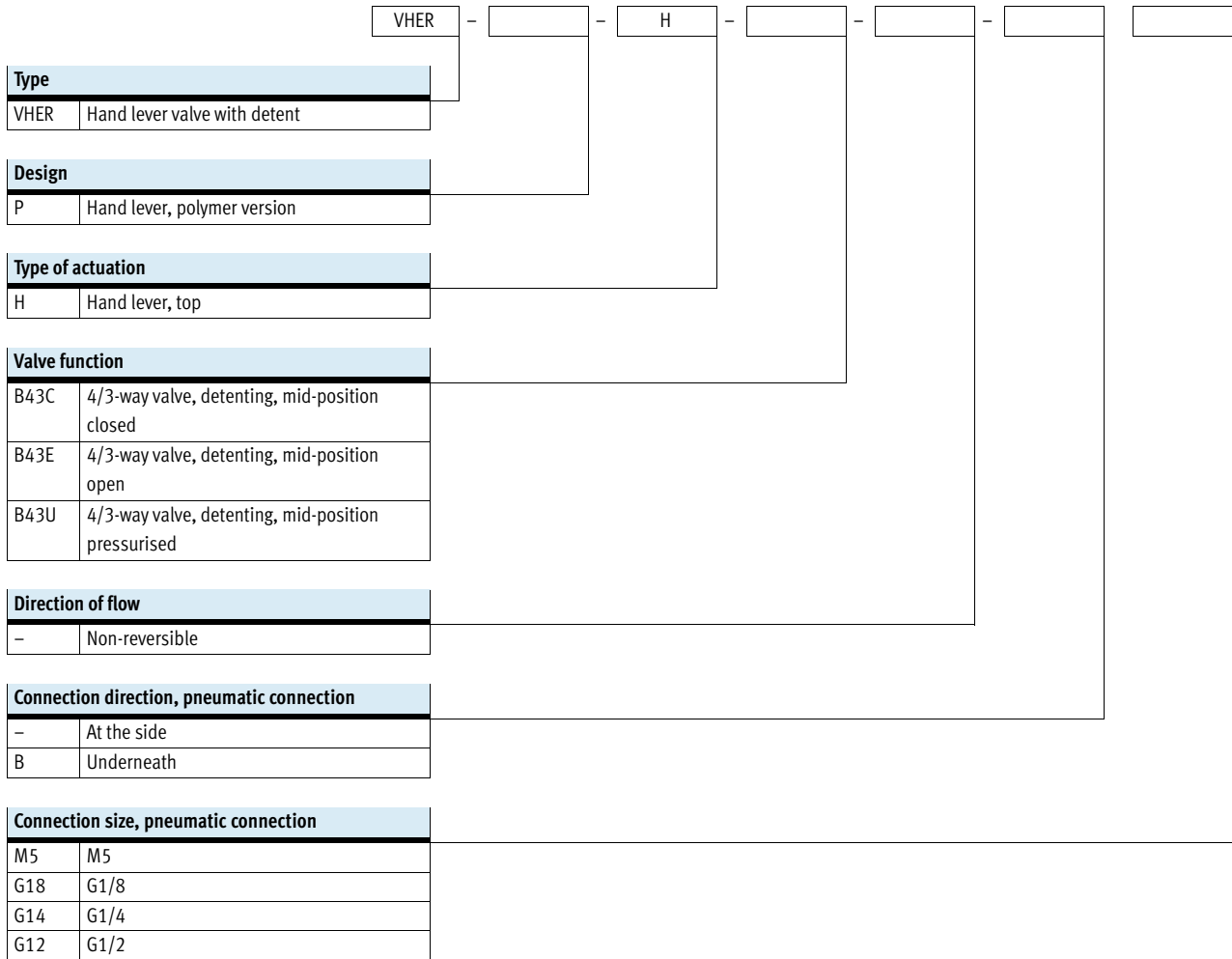
2) Oil-resistant, halogen-free, ROHS compliant

Ordering data						
	Description	Connection	Part No.	Type	PU ¹⁾	
Blanking plug						
	With sealing ring, internal hexagon, for sealing ports	G1/8	3568	B-1/8	10	
			534213	B-1/8-100	100	
		G1/4	3569	B-1/4	10	
			534214	B-1/4-50	50	
		G1/2	3571	B-1/2	10	
534216	B-1/2-20		20			

1) Packaging unit




Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Type codes



Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

-  Flow rate
170 ... 3800 l/min
-  Pressure
-0.95 ... +10 bar
-  Temperature range
-20 ... +80 °C



General technical data						
Connection size		M5	G1/8	G1/4	G1/2	
Valve function		4/3-way, detenting, mid-position closed, exhausted or pressurised				
Design		Rotary slide valve				
Sealing principle		Hard				
Type of mounting		Option of front panel mounting or through-holes				
Type of piloting		Direct				
Type of actuation		Manual				
Actuating lever (can be removed)		Polymer (plastic, PA)				
Actuator lock		With accessories (Actuating lever can be latched and locked in 3 positions. If the actuating lever is locked, it cannot be removed.)				
Switching position indication		Via accessories				
Mounting position		Any				
Direction of flow		Non-reversible				
Non-overlapping		Yes				
Exhaust air function		With flow control				
Nominal flow rate	Port at side	[l/min.]	170	600	1150	3200
	Port underneath	[l/min.]	260	800	1500	3800
Nominal width		[mm]	4	6	8	12
Pneumatic connection 1, 2, 3, 4			M5	G1/8	G1/4	G1/2
Actuating torque at 6 bar		[Nm]	0.5	0.9	2	5

Operating and environmental conditions						
Connection size		M5	G1/8	G1/4	G1/2	
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]				
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)				
Operating pressure		[bar]	0 ... 10 (vacuum only permitted at port 3)			
Ambient temperature		[°C]	-20 ... +80			
Temperature of medium		[°C]	-20 ... +80			
Corrosion resistance class CRC ¹⁾			2			

1) Corrosion resistance class 2 according to Festo standard 940070
Components subject to moderate corrosion stress. External visible parts with primarily decorative surface requirements which are in direct contact with the surrounding industrial environment or media such as coolants or lubricating agents.

Proximity sensors for switching position indication					
Connection size	Connection direction	Type			
		SME-10... -L-...	SMT-10... -L-...	SME-10... -Q-...	SMT-10... -Q-...
M5	Underneath	■	■	■	■
	At the side	-	-	■	■
G1/8	Underneath	■	■	■	■
	At the side	-	-	■	■
G1/4	Underneath	■	■	■	■
	At the side	-	-	■	■
G1/2	Underneath	■	■	■	■
	At the side	-	-	■	■

Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43


Operation with different pressures

Vacuum operation


The direction of flow of valves VHER-B43 is clearly defined and cannot be reversed.


It should therefore be borne in mind that the direction of flow will be maintained during vacuum operation.

Vacuum may only be connected to port 3.
Vacuum operation at port 3:
-0.95 ... 0 bar

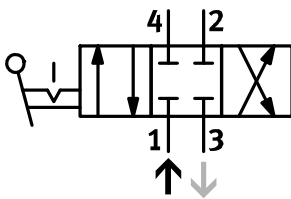
 Note
A filter must be installed upstream of valves operated in vacuum mode. This prevents any foreign matter in

the intake air getting into the valve (e.g. when operating a suction cup).

 Note
During vacuum operation, the valve function changes from exhausted (VHER-...-B43E-...) to pressurised (VHER-...-B43U-...) and vice versa.

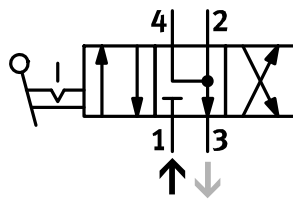
 Note
Vacuum must not be connected to port 1.

During vacuum operation:
Mid-position closed
(VHER-...-B43C-...)



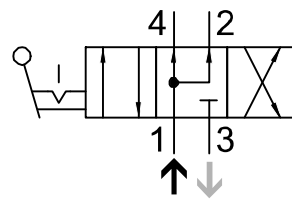
(During normal operation: mid-position closed VHER-...-B43C-...)

During vacuum operation:
Mid-position pressurised
(VHER-...-B43U-...)



(During normal operation: mid-position exhausted VHER-...-B43E-...)

During vacuum operation:
Mid-position exhausted
(VHER-...-B43E-...)



(During normal operation: mid-position pressurised VHER-...-B43U-...)


Connections with vacuum:

- Vacuum is generated by connecting vacuum generator to port 3
- Exhaust (or pressurisation) takes place via port 1
- Vacuum operation (e.g. suction cup) takes place at port 2 (or 4)

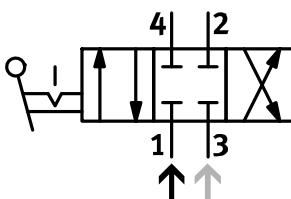
Dual-pressure operation

Valves VHER-B43 are suitable for dual-pressure operation.

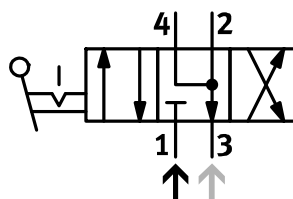
Please note that for design reasons compressed air may only be applied to port 1 and 3.

 Note
In the case of dual-pressure operation, the higher pressure must always be applied to port 1.

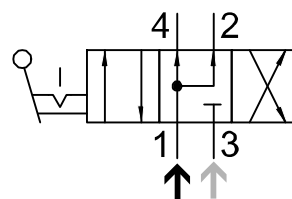
Mid-position closed
VHER-...-B43C-...



Mid-position exhausted
VHER-...-B43E-...



Mid-position pressurised
VHER-...-B43U-...



Connections with dual-pressure operation:

- Supply port: port 1 (high pressure)
- Supply port: port 3 (lower pressure)

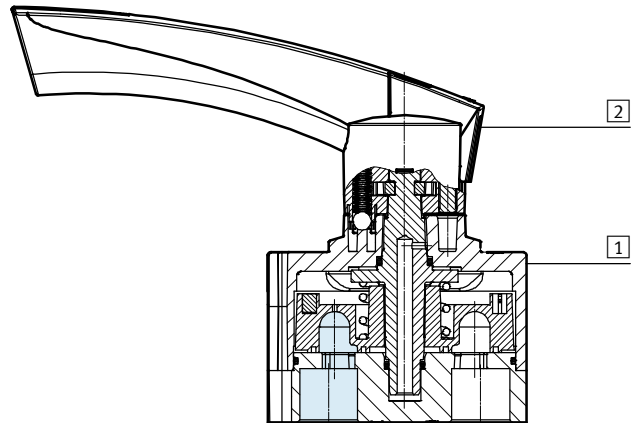
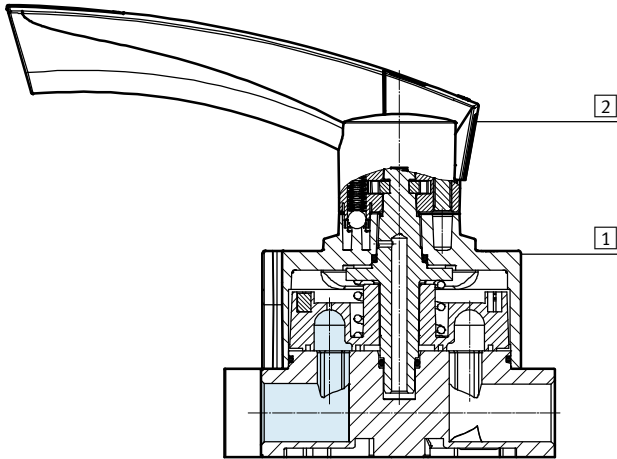
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Sectional view

Hand lever valve VHER-P-H-B43-...

Hand lever valve VHER-P-H-B43...-B-...



Materials		M5	G1/8	G1/4	G1/2
1	Housing	PA	PA	PA	Die-cast aluminium
2	Actuating lever	PA			
-	Seals	NBR			
-	Note on materials	RoHS compliant			
-	Note on materials	Free of copper and PTFE			

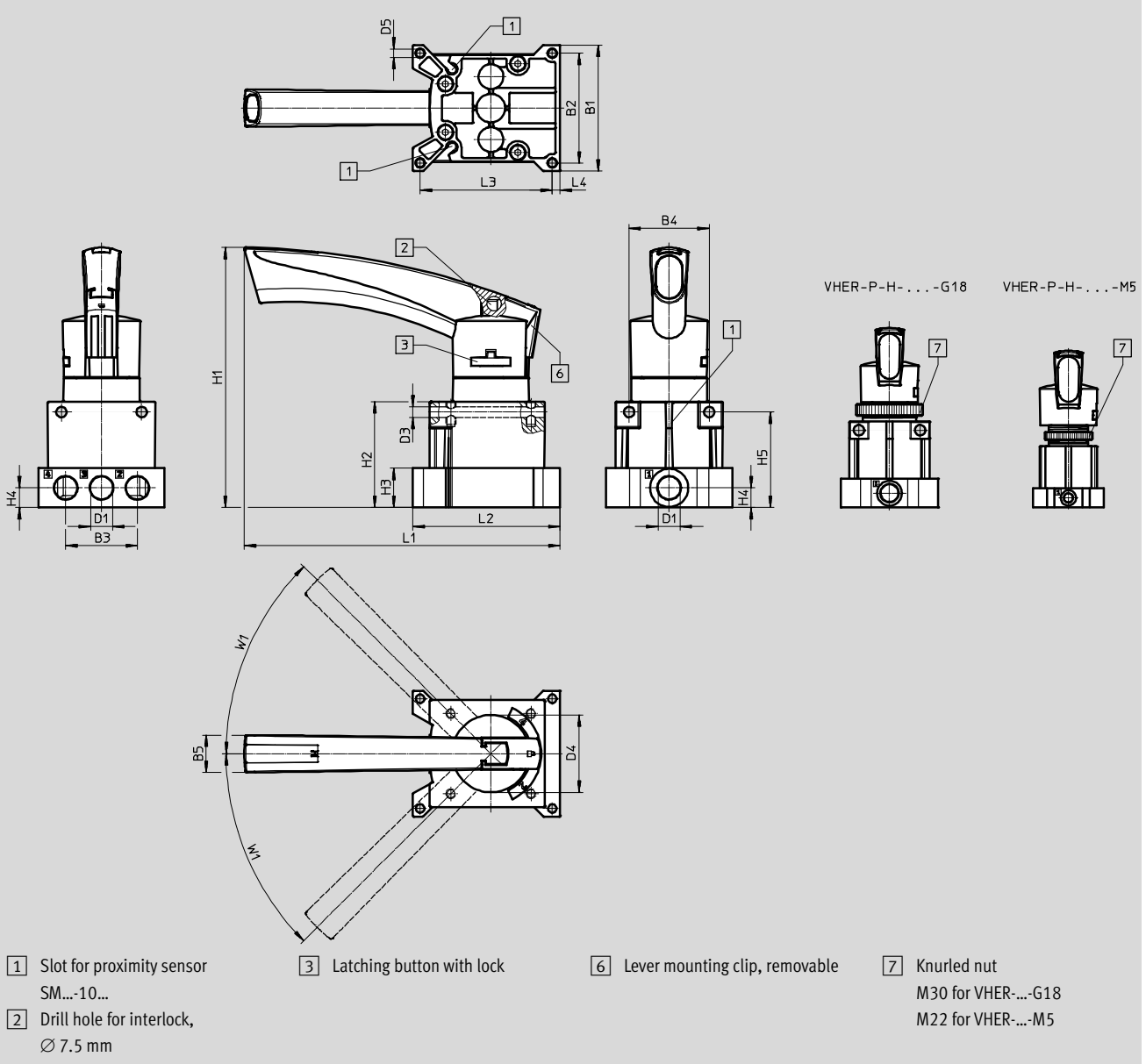
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connections M5 and G1/8 at side



Type	B1	B2	B3	B4	B5	D1	D3 \varnothing	D4 \varnothing	D5 \varnothing
VHER-P-H-B43...-M5	37	32	17.4	-	14.6	M5	-	30.2	2.7
VHER-P-H-B43...-G18	51	45	28.5	32	14.6	G1/8	5.5	30.2	3.3

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	W1
VHER-P-H-B43...-M5	82.1	32	10	5	-	77.6	45	40	2.5	45°
VHER-P-H-B43...-G18	94	45	15	7.5	40.5	84.6	60.5	54.5	3	45°

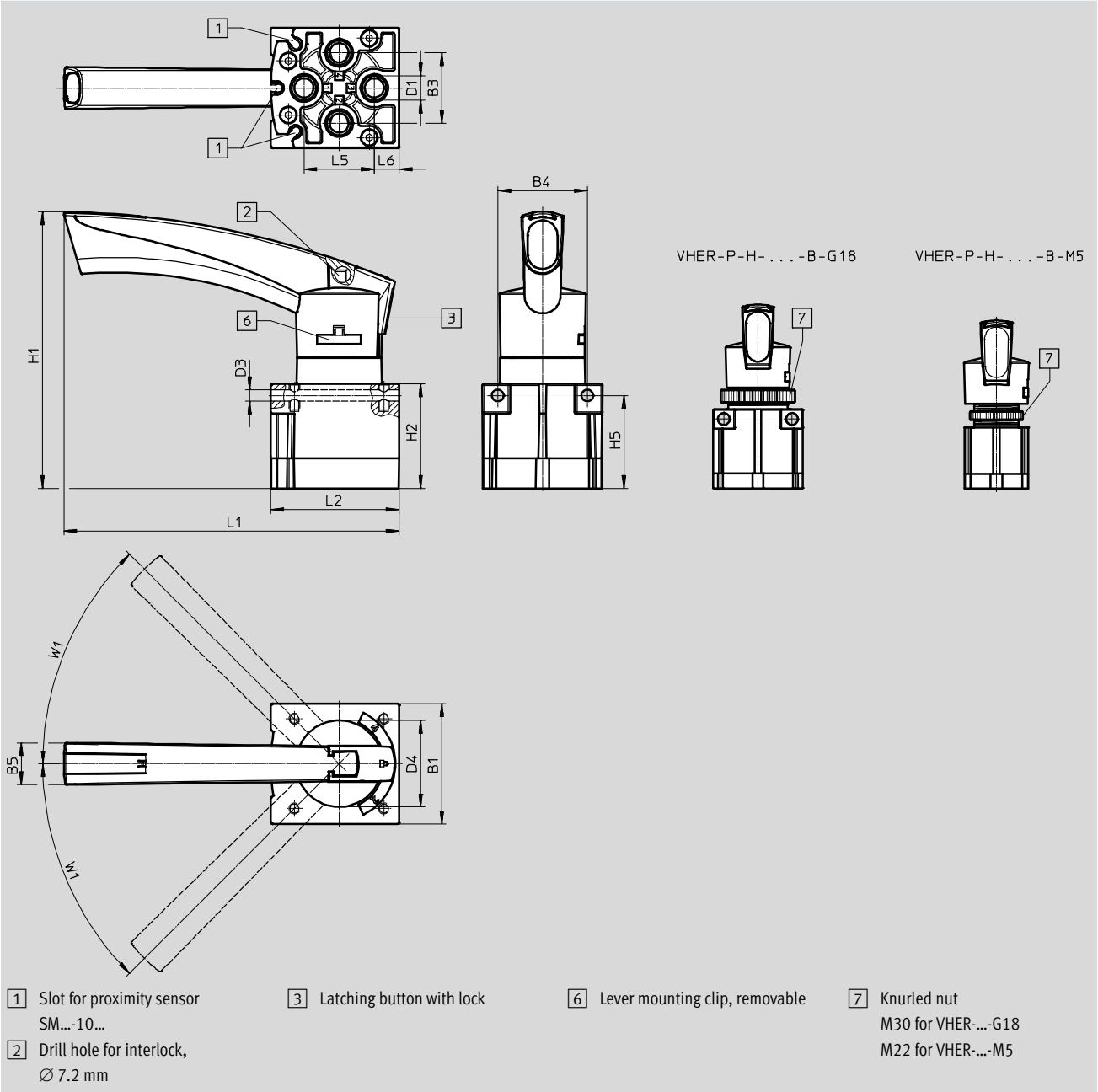
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connections M5 and G¹/₈ underneath



Type	B1	B3	B4	B5	D1	D3	D4
VHER-P-H-B43...-B-M5	30	17	-	14.6	M5	Ø	30.2
VHER-P-H-B43...-B-G18	42	24	32	14.6	G ¹ / ₈	5.5	30.2

Type	H1	H2	H5	L1	L2	L5	L6	W1
VHER-P-H-B43...-B-M5	78.7	28.6	-	72.6	33.8	17	6.5	45°
VHER-P-H-B43...-B-G18	86	37	32.5	78.6	45	24	9	45°

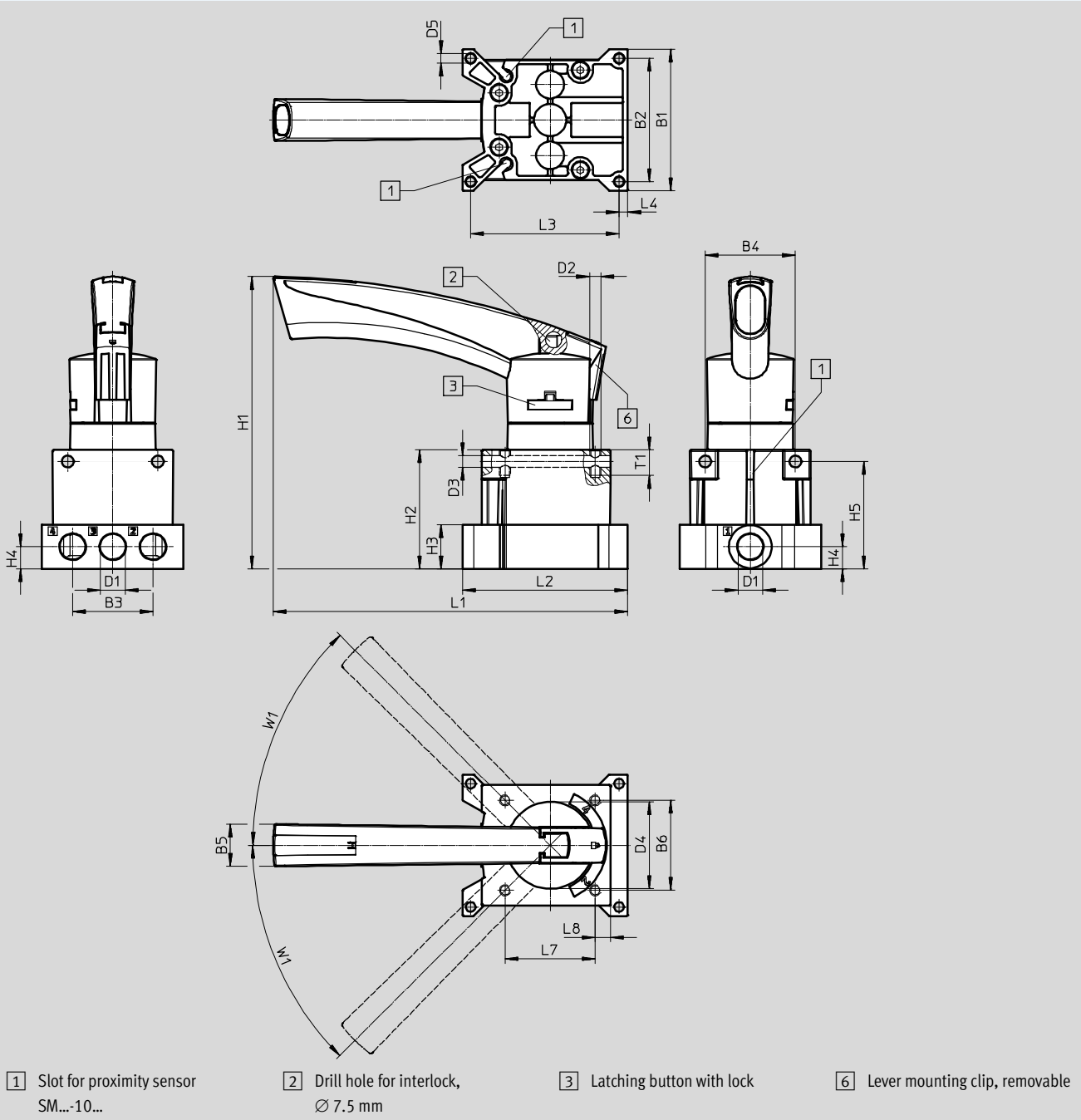
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{4}$ at side



Type	B1	B2	B3	B4	B5	B6	D1	D2	D3	D4	D5
VHER-P-H-B43...-G14	66	57.5	37.5	42	19.5	42	G $\frac{1}{4}$	M5	5.5	40.5	4.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L7	L8	T1	W1
VHER-P-H-B43...-G14	135.7	55.5	20.5	10.3	50	165.3	77	69.2	4	42	7.2	12	45°

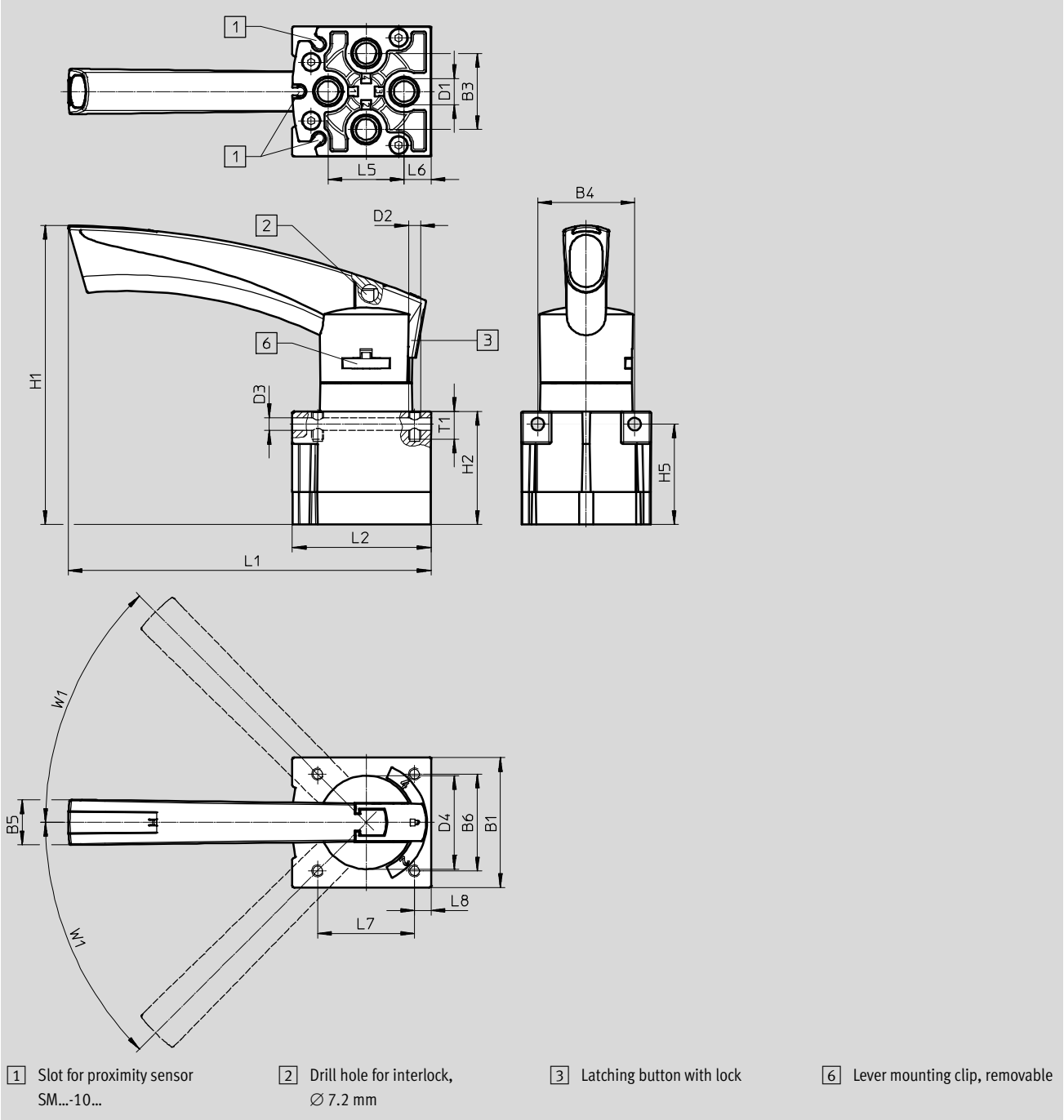
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G1/4 underneath



Type	B1	B3	B4	B5	B6	D1	D2	D3	D4
VHER-P-H-B43...-B-G14	56.3	33	42	19.2	42	G1/4	M5	5.5	40.5

Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	T1	W1
VHER-P-H-B43...-B-G14	129.2	49	43.5	157	60.2	33	11.5	42	7.2	12	45°

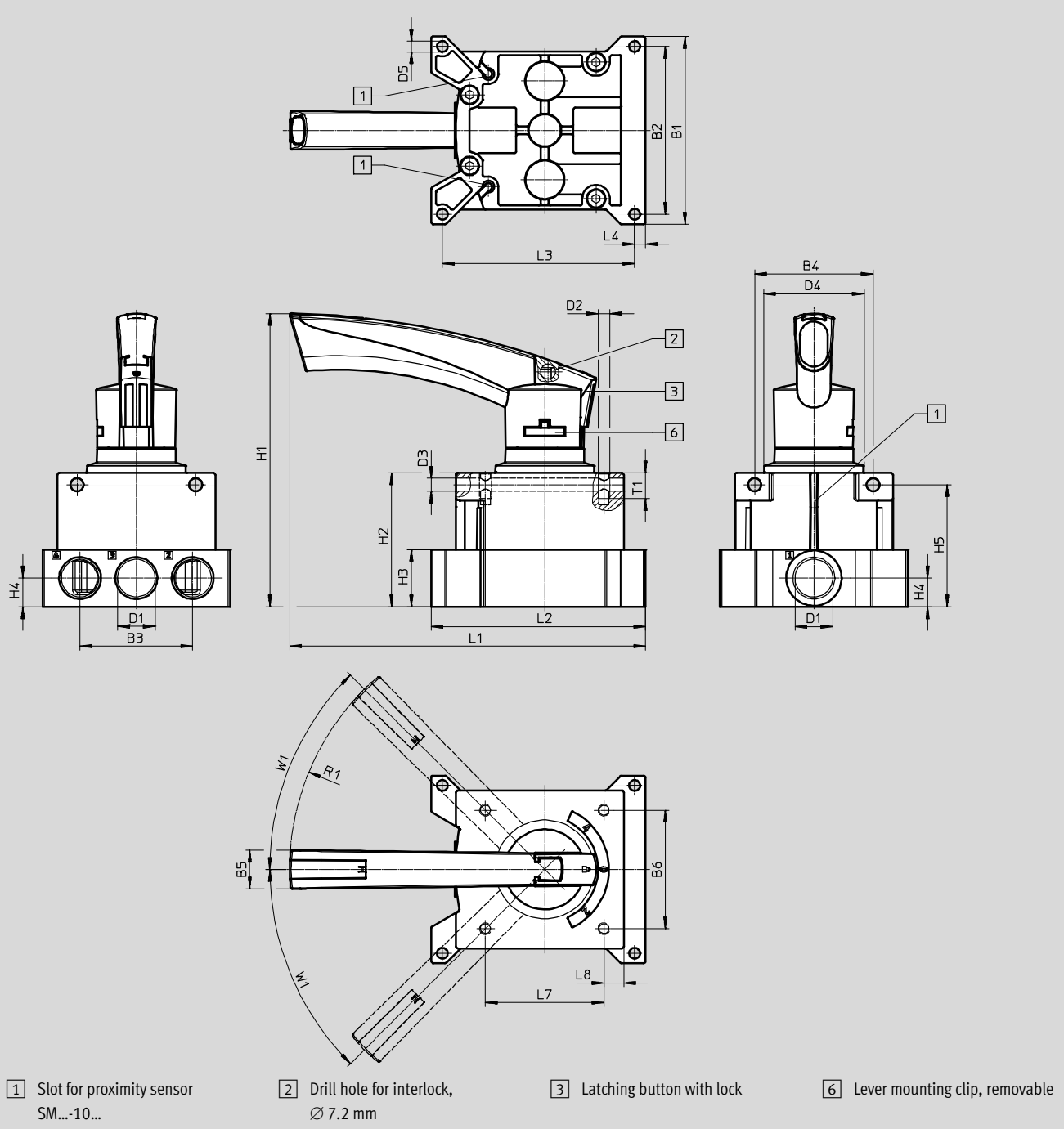
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{2}$ at side



Type	B1	B2	B3	B5	B6	D1	D2	D3	D4	D5
VHER-P-H-B43-...-G12	95	85	57	19.5	60	G $\frac{1}{2}$	M5	6.6	51	5.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L7	L8	R1	T1	W1
VHER-P-H-B43-...-G12	148	67.8	29	14.5	61.8	180.1	108.5	97.3	5.5	60	10	128	13	45°

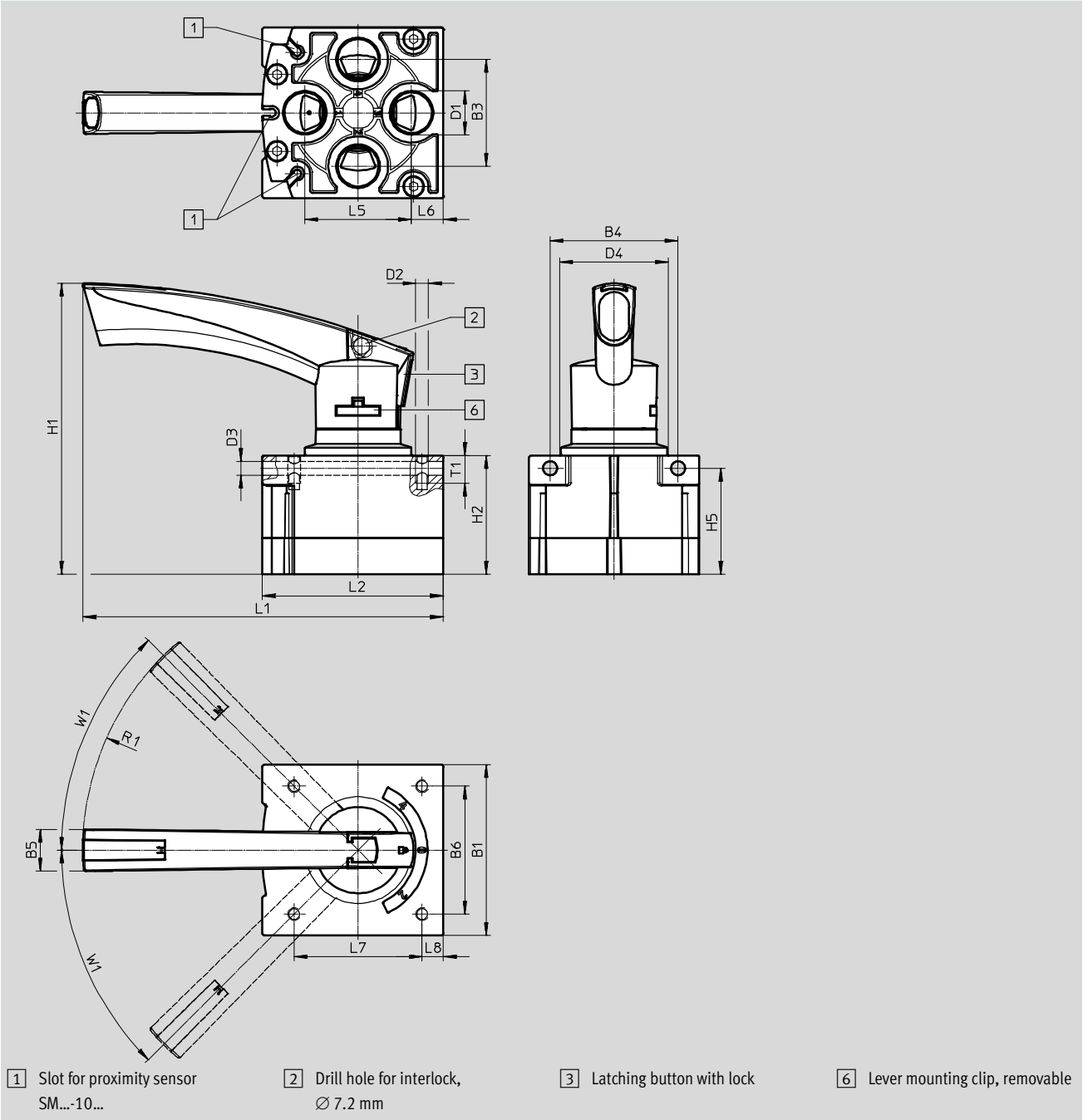
Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

Dimensions

Download CAD data → www.festo.com

Pneumatic connection G $\frac{1}{2}$ underneath

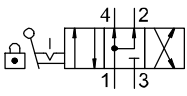






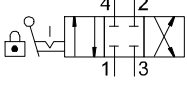






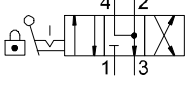








Type	B1	B3	B4	B5	B6	D1	D2	D3 \varnothing	D4 \varnothing
VHER-P-H-B43-...-B-G12	80	50	60	19.5	60	G $\frac{1}{2}$	M5	6.6	51

Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	R1	T1	W1
VHER-P-H-B43-...-B-G12	137	55.8	49.8	169	84.8	50	15	60	10	128	13	45°

Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Ordering data

Ordering data – Hand lever valves-													
Circuit symbol	Description	Actuating lever	Actuator lock	Pneumatic connection	Weight [g]	Width [mm]	Part No.	Type					
4/3-way valve ¹⁾													
	Mid-position pressurised	Polymer	Lockable using accessories	Underneath	80	30	3410684	VHER-P-H-B43U-B-M5 					
					125	42	3488217	VHER-P-H-B43U-B-G18 					
					375	56	3515683	VHER-P-H-B43U-B-G14 					
					740	80	3192084	VHER-P-H-B43U-B-G12					
				At the side	95	37	3410683	VHER-P-H-B43U-M5 					
					165	51	3488216	VHER-P-H-B43U-G18 					
					435	66	3515573	VHER-P-H-B43U-G14 					
					900	95	3192082	VHER-P-H-B43U-G12					
					<hr/>								
						Mid-position closed	Polymer	Lockable using accessories	Underneath	80	30	3410680	VHER-P-H-B43C-B-M5 
125	42	3488209	VHER-P-H-B43C-B-G18 										
375	56	3515601	VHER-P-H-B43C-B-G14 										
740	80	3192075	VHER-P-H-B43C-B-G12										
At the side	95	37	3410679	VHER-P-H-B43C-M5 									
	165	51	3488208	VHER-P-H-B43C-G18 									
	435	66	3515361	VHER-P-H-B43C-G14 									
	900	95	3192074	VHER-P-H-B43C-G12									
	<hr/>												
		Mid-position exhausted	Polymer	Lockable using accessories					Underneath	80	30	3410682	VHER-P-H-B43E-B-M5 
125					42	3488211	VHER-P-H-B43E-B-G18 						
375					56	3515640	VHER-P-H-B43E-B-G14 						
740					80	3192077	VHER-P-H-B43E-B-G12						
At the side					95	37	3410681	VHER-P-H-B43E-M5 					
					165	51	3488210	VHER-P-H-B43E-G18 					
					435	66	3515542	VHER-P-H-B43E-G14 					
					900	95	3192076	VHER-P-H-B43E-G12					

1) The hand lever valve can be used as a 3/3-way valve by sealing port 2.

Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever



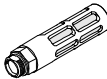

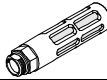
Accessories

Ordering data – Push-in fittings-						
Description	Connection			Part No.	Type	PU ¹⁾
Pneumatic connection: underneath, external hexagon						
	M5	Metric thread with sealing ring for (short design)	Tubing O.D. 3 mm	153302	QSM-M5-3	10
			Tubing O.D. 4 mm	153304	QSM-M5-4	10
			Tubing O.D. 6 mm	153306	QSM-M5-6	10
	G1/8	G thread with sealing ring for (short design)	Tubing O.D. 4 mm	186264	QSM-G1/8-4	10
			Tubing O.D. 6 mm	186265	QSM-G1/8-6	10
	G1/8	G thread with sealing ring for	Tubing O.D. 4 mm	186095	QS-G1/8-4	10
			Tubing O.D. 6 mm	186096	QS-G1/8-6	10
			Tubing O.D. 8 mm	186098	QS-G1/8-8	10
	G1/4	G thread with sealing ring for	Tubing O.D. 6 mm	186097	QS-G1/4-6	10
			Tubing O.D. 8 mm	186098	QS-G1/4-8	10
			Tubing O.D. 10 mm	186101	QS-G1/4-10	10
	G1/2	G thread with sealing ring for	Tubing O.D. 12 mm	186104	QS-G1/2-12	1
			Tubing O.D. 16 mm	186105	QS-G1/2-16	1
Pneumatic connection: underneath, internal hexagon						
	M5	Metric thread with sealing ring for (short design)	Tubing O.D. 3 mm	153313	QSM-M5-3-I	10
			Tubing O.D. 4 mm	153315	QSM-M5-4-I	10
			Tubing O.D. 6 mm	153317	QSM-M5-6-I	10
	G1/8	G thread with sealing ring for (short design)	Tubing O.D. 4 mm	186266	QSM-G1/8-4-I	10
			Tubing O.D. 6 mm	186267	QSM-G1/8-6-I	10
	G1/8	G thread with sealing ring for	Tubing O.D. 4 mm	186106	QS-G1/8-4-I	10
			Tubing O.D. 6 mm	186107	QS-G1/8-6-I	10
			Tubing O.D. 8 mm	186109	QS-G1/8-8-I	10
	G1/4	G thread with sealing ring for	Tubing O.D. 6 mm	186108	QS-G1/4-6-I	10
			Tubing O.D. 8 mm	186110	QS-G1/4-8-I	10
			Tubing O.D. 10 mm	186112	QS-G1/4-10-I	10
	G1/2	G thread with sealing ring for	Tubing O.D. 12 mm	186115	QS-G1/2-12-I	1
Pneumatic connection: at the side, internal hexagon						
	M5	Metric thread with sealing ring for (short design)	Tubing O.D. 3 mm	153313	QSM-M5-3-I	10
			Tubing O.D. 4 mm	153315	QSM-M5-4-I	10
	G1/8	G thread with sealing ring for (short design)	Tubing O.D. 4 mm	186266	QSM-G1/8-4-I	10
			Tubing O.D. 6 mm	186267	QSM-G1/8-6-I	10
	G1/8	G thread with sealing ring for	Tubing O.D. 4 mm	186106	QS-G1/8-4-I	10
			Tubing O.D. 6 mm	186107	QS-G1/8-6-I	10
			Tubing O.D. 8 mm	186109	QS-G1/8-8-I	10
	G1/4	G thread with sealing ring for	Tubing O.D. 6 mm	186108	QS-G1/4-6-I	10
			Tubing O.D. 8 mm	186110	QS-G1/4-8-I	10
			Tubing O.D. 10 mm	186112	QS-G1/4-10-I	10
	G1/2	G thread with sealing ring for	Tubing O.D. 12 mm	186115	QS-G1/2-12-I	1

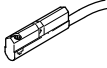
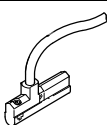
1) Packaging unit

Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Accessories

Ordering data – Silencers-							
Description	Connection	Materials			Part No.	Type	PU ¹⁾
		Stud end connector	Silencer	Housing			
Pneumatic connection: underneath							
	M5	PE	PE	–	165003	UC-M5	1
	G1/8	PE	PE	–	161419	UC-1/8	1
	G1/4	PE	PE	–	165004	UC-1/4	1
	G1/8	Die-cast aluminium	PE	Die-cast aluminium	6841	U-1/8-B	1
	G1/8	PA	PE	PA	2307	U-1/8	1
	G1/4	Die-cast aluminium	PE	Die-cast aluminium	6842	U-1/4-B	1
	G1/4	PA	PE	PA	2316	U-1/4	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	6844	U-1/2-B	1
Pneumatic connection: at side							
	M5	PE	PE	–	165003	UC-M5	1
	G1/8	PE	PE	–	161419	UC-1/8	1
	G1/4	PE	PE	–	165004	UC-1/4	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	6844	U-1/2-B	1

1) Packaging unit



Ordering data – Proximity sensors								
Description	Connection outlet direction	Measuring principle	Switching output	Electrical connection	Cable length [m]	Part No.	Type	PU ¹⁾
	In-line	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	173210	SME-10-KL-LED-24	1
						551365	SME-10M-DS-24V-E-2,5-L-OE ²⁾	1
				Plug M8x1, 3-pin	0.3	173212	SME-10-SL-LED-24	1
						551367	SME-10M-DS-24V-E-0,3-L-M8D ²⁾	1
				Cable, 2-wire	2.5	551369	SME-10M-ZS-24V-E-2,5-L-OE ²⁾	1
		Magneto-resistive	PNP	Cable, 3-wire	2.5	551373	SMT-10M-PS-24V-E-2,5-L-OE ²⁾	1
						551375	SMT-10M-PS-24V-E-0,3-L-M8D ²⁾	1
			NPN	Cable, 3-wire	2.5	551377	SMT-10M-NS-24V-E-2,5-L-OE ²⁾	1
						551379	SMT-10M-NS-24V-E-0,3-L-M8D ²⁾	1
			Non-contacting, 2-wire	Cable, 2-wire	2.5	551382	SMT-10M-ZS-24V-E-2,5-L-OE ²⁾	1
	Lateral	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	173211	SME-10-KQ-LED-24	1
						551366	SME-10M-DS-24V-E-2,5-Q-OE ²⁾	1
				Plug M8x1, 3-pin	0.3	173213	SME-10-SQ-LED-24	1
						551368	SME-10M-DS-24V-E-0,3-Q-M8D ²⁾	1
				Cable, 2-wire	2.5	551370	SME-10M-ZS-24V-E-2,5-Q-OE ²⁾	1
				Magneto-resistive	PNP	Cable, 3-wire	2.5	551374
		551376	SMT-10M-PS-24V-E-0,3-Q-M8D ²⁾					1
		NPN	Cable, 3-wire		2.5	551378	SMT-10M-NS-24V-E-2,5-Q-OE ²⁾	1
						551380	SMT-10M-NS-24V-E-0,3-Q-M8D ²⁾	1
		Non-contacting, 2-wire	Cable, 2-wire		2.5	551383	SMT-10M-ZS-24V-E-2,5-Q-OE ²⁾	1

1) Packaging unit

2) Oil-resistant, halogen-free, ROHS compliant

Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Accessories

Ordering data					
	Description	Connection	Part No.	Type	PU ¹⁾
Blanking plug					
	With sealing ring, external hexagon, for sealing ports	M5	3843	B-M5	10
			534212	B-M5-100	100
	With sealing ring, internal hexagon, for sealing ports	G1/8	3568	B-1/8	10
			534213	B-1/8-100	100
		G1/4	3569	B-1/4	10
			534214	B-1/4-50	50
		G1/2	3571	B-1/2	10
			534216	B-1/2-20	20

1) Packaging unit