

**Hand lever valves VHER**




# Hand lever valves VHER

Key features

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## Powerful

-  - Flow  
170 ... 3800 l/min

## Flexible

- 4/3-way valve  
mid-position closed  
mid-position exhausted  
mid-position pressurised
- Connections: M5, G1/8, G1/4, G1/2
- 3/3-way valve  
Hand lever valves VHER can be used as 3/3-way valves by sealing port 2

## Practical

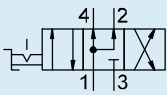
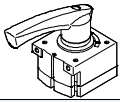
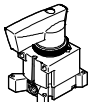
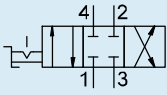
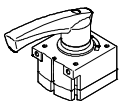
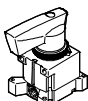
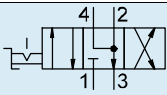
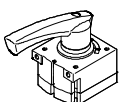
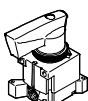
With these valves it is possible to stop single-acting cylinders (3/3-way valve) or double-acting cylinders (4/3-way valve) within the stroke range.

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).

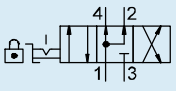
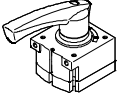
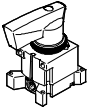
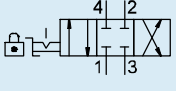
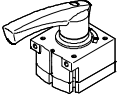
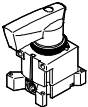
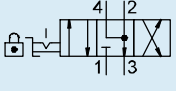
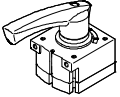
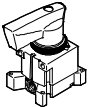
# Hand lever valves VHER-B43

Product range overview

Function	Feature	Type	Nominal flow rate [l/min.]	Hand lever		→ Page/ Internet
	<b>Port underneath, mid-position pressurised</b>					
		VHER-H-B43U-B-G18	800	Metal	Without lock	8
		VHER-H-B43U-B-G14	1500			
		VHER-H-B43U-B-G12	3800			
	<b>Port at side, mid-position pressurised</b>					
		VHER-H-B43U-G18	600	Metal	Without lock	8
VHER-H-B43U-G14		1150				
VHER-H-B43U-G12		3200				
	<b>Port underneath, mid-position closed</b>					
		VHER-H-B43C-B-G18	800	Metal	Without lock	8
		VHER-H-B43C-B-G14	1500			
		VHER-H-B43C-B-G12	3800			
	<b>Port at side, mid-position closed</b>					
		VHER-H-B43C-G18	600	Metal	Without lock	8
VHER-H-B43C-G14		1150				
VHER-H-B43C-G12		3200				
	<b>Port underneath, mid-position exhausted</b>					
		VHER-H-B43E-B-G18	800	Metal	Without lock	8
		VHER-H-B43E-B-G14	1500			
		VHER-H-B43E-B-G12	3800			
	<b>Port at side, mid-position exhausted</b>					
		VHER-H-B43E-G18	600	Metal	Without lock	8
VHER-H-B43E-G14		1150				
VHER-H-B43E-G12		3200				

# Hand lever valves VHER-B43

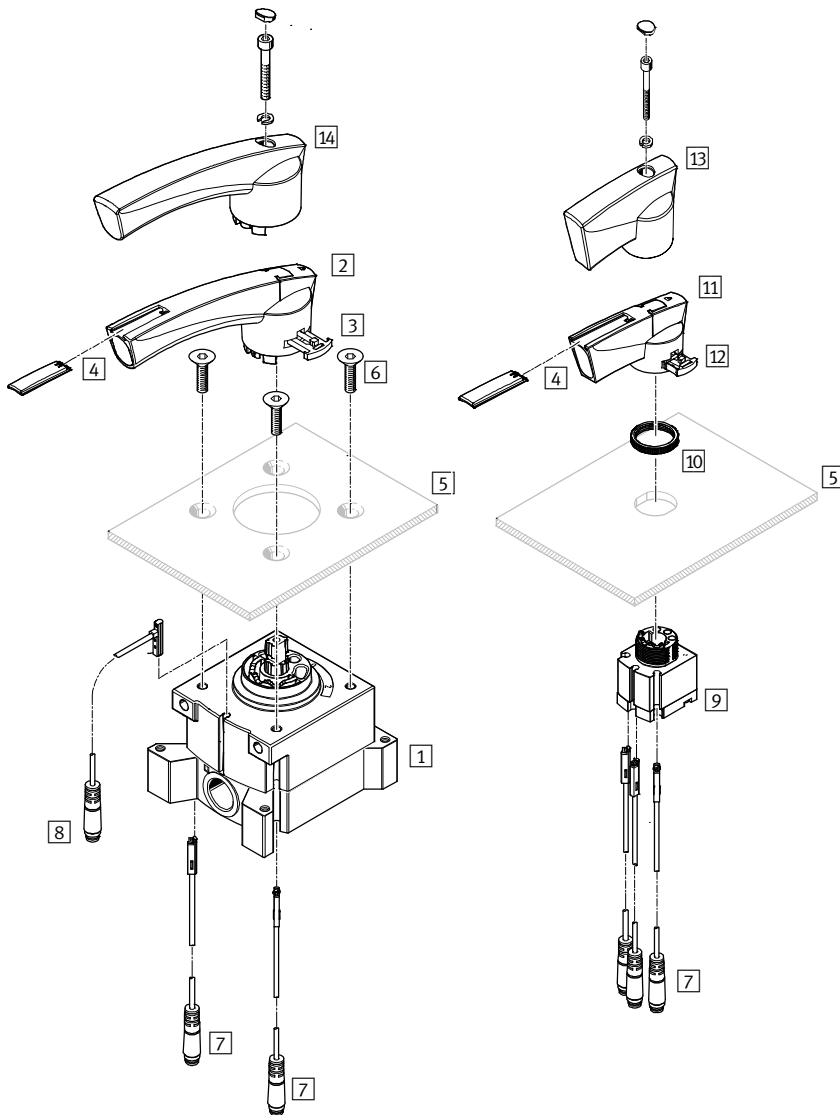
Product range overview

Function	Feature	Type	Nominal flow rate [l/min.]	Hand lever		→ Page/ Internet
	<b>Port underneath, mid-position pressurised</b>					
		VHER-P-H-B43U-B-M5	260	Polymer	With lock	20
		VHER-P-H-B43U-B-G18	800			
		VHER-P-H-B43U-B-G14	1500			
		VHER-P-H-B43U-B-G12	3800			
	<b>Port at side, mid-position pressurised</b>					
		VHER-P-H-B43U-M5	170	Polymer	With lock	20
		VHER-P-H-B43U-G18	600			
VHER-P-H-B43U-G14		1150				
VHER-P-H-B43U-G12		3200				
	<b>Port underneath, mid-position closed</b>					
		VHER-P-H-B43C-B-M5	260	Polymer	With lock	20
		VHER-P-H-B43C-B-G18	800			
		VHER-P-H-B43C-B-G14	1500			
		VHER-P-H-B43C-B-G12	3800			
	<b>Port at side, mid-position closed</b>					
		VHER-P-H-B43C-M5	170	Polymer	With lock	20
		VHER-P-H-B43C-G18	600			
VHER-P-H-B43C-G14		1150				
VHER-P-H-B43C-G12		3200				
	<b>Port underneath, mid-position exhausted</b>					
		VHER-P-H-B43E-B-M5	260	Polymer	With lock	20
		VHER-P-H-B43E-B-G18	800			
		VHER-P-H-B43E-B-G14	1500			
		VHER-P-H-B43E-B-G12	3800			
	<b>Port at side, mid-position exhausted</b>					
		VHER-P-H-B43E-M5	170	Polymer	With lock	20
		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 valve VHER	Connection size M5, G1/8, G1/4, G1/2 (lateral pneumatic connections)	8, 20
2 Actuating lever	Large, polymer	-
3 Lever mounting clip	Large	-
4 Inscription label	-	-
5 Control panel	Not included in the scope of delivery	-
6 Mounting screws <sup>1)</sup>	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)	19, 33
8 Proximity sensor SM...-10-... -Q-...	Not included in the scope of delivery (electrical connection, lateral outlet)	19, 33
9 Hand lever valve VHER	Connection size M5, G1/8, G1/4, G1/2 (pneumatic connections underneath)	8, 20
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	-

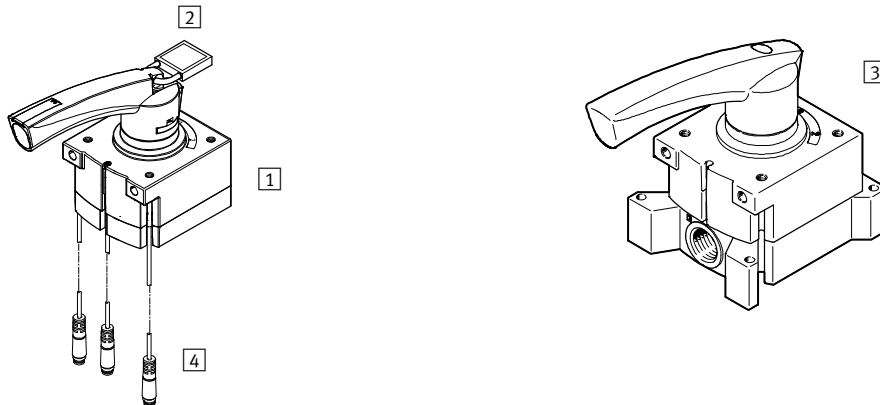
1) For design reasons, it is not possible for every valve spool VHER to be screwed to a control panel on the lever side using mounting screws.

# Hand lever valves VHER

Peripherals overview

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## Mounted valves with accessories



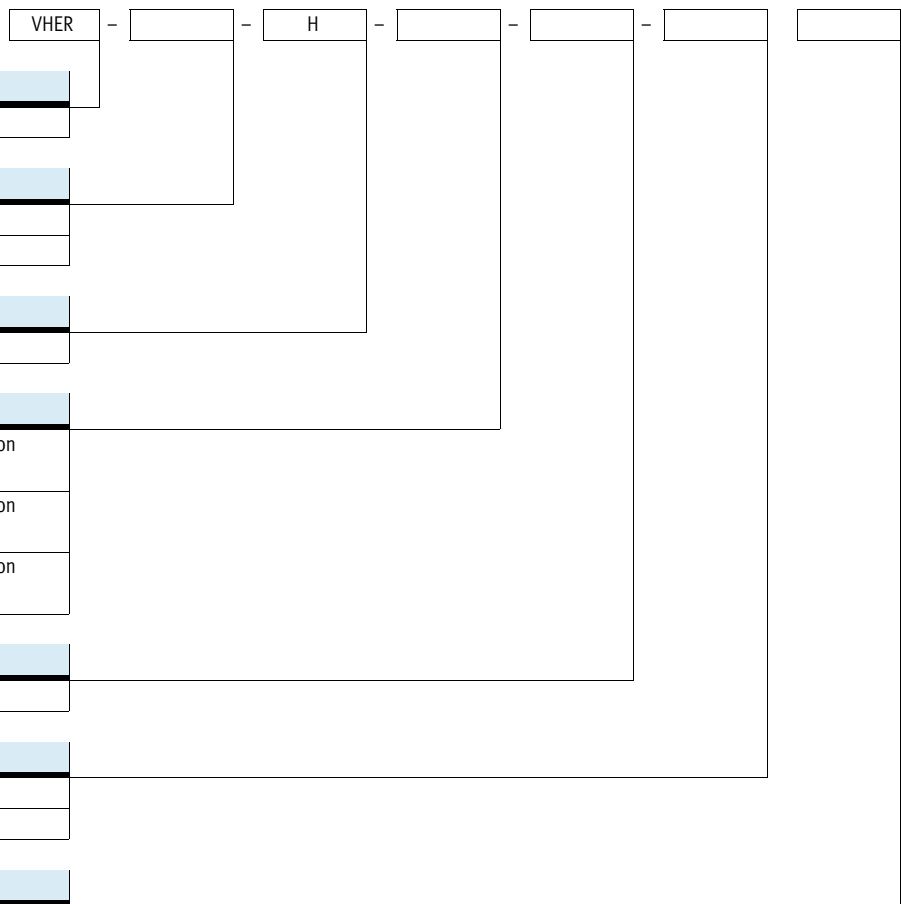
Component parts and accessories	Brief description	→ Page/ Internet
1 Hand lever valve VHER-P-H...	Connection size M5, G1/8, G1/4, G1/2 with polymer lever, large (pneumatic connections underneath)	20
2 Lock	Not included in the scope of delivery	-
3 Hand lever valve VHER-H...	Connection size G1/8, G1/4, G1/2 with metal lever, large (lateral pneumatic connections)	8
4 Proximity sensor SM...-10-... -L-...	Not included in the scope of delivery (electrical connection, in-line outlet)	19, 33
Proximity sensor SM...-10-... -Q-...	Not included in the scope of delivery (electrical connection, lateral outlet)	19, 33

-  - Note

For design reasons, it is not possible for every valve spool VHER to be screwed to a control panel on the lever side using mounting screws.

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

Type codes



Type	
VHER	Hand lever valve with detent

Design	
-	Hand lever, metal version
P	Hand lever, polymer version

Type of actuation	
H	Hand lever, top

Valve function	
B43C	4/3-way valve, detenting, mid-position closed
B43E	4/3-way valve, detenting, mid-position open
B43U	4/3-way valve, detenting, mid-position pressurised

Direction of flow	
-	Non-reversible




Connection direction, pneumatic connection	
-	At the side
B	Underneath

Connection size, pneumatic connection	
M5	M5
G18	G1/8
G14	G1/4
G12	G1/2

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

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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 <sup>1)</sup>			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-...	SME-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 the VHER-B43 valves is clearly defined and cannot be reversed.

The vacuum may only be connected to port 3 to maintain the direction of flow.

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).

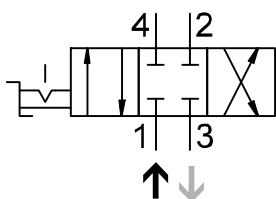
 Note

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

 Note

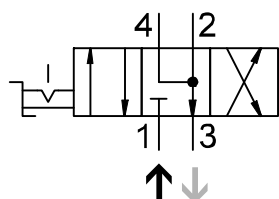
Vacuum must not be connected to port 1.

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



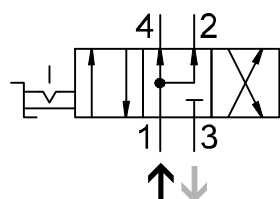
(During normal operation: mid-position closed VHER-...-B43C-...)

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

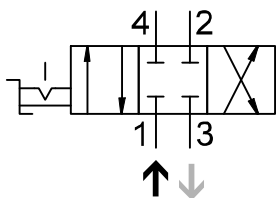
Valves VHER-B43 are suitable for dual-pressure operation.

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

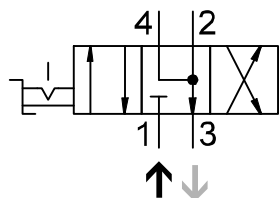
 Note

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

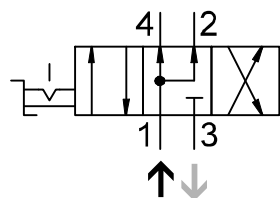
Mid-position closed  
VHER-...-B43C-...



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



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



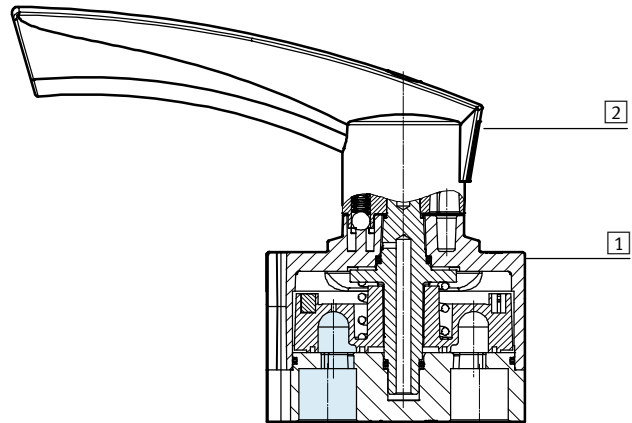
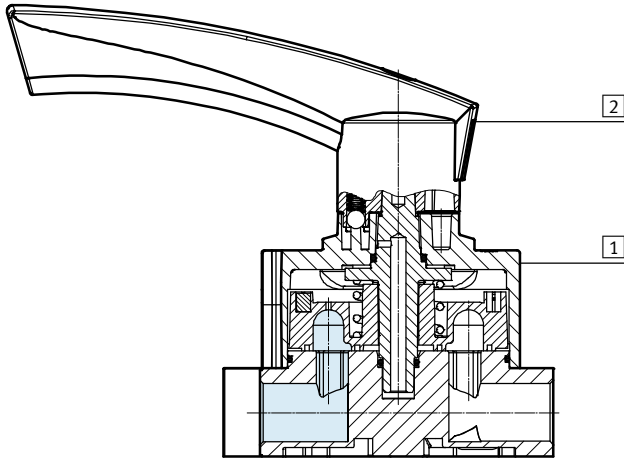
Connections with dual-pressure operation:

- 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

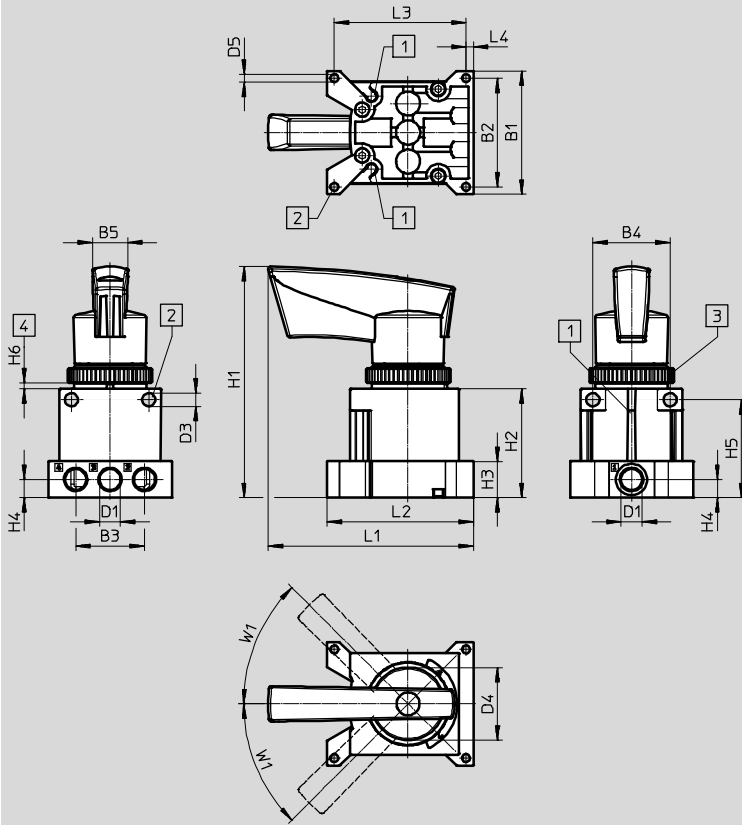
# Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

**Dimensions**

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

Pneumatic connection G1/8 at side



- 1 Slot for proximity sensor SM...-10...
- 2 Mounting hole
- 3 Knurled nut M30
- 4 Control panel

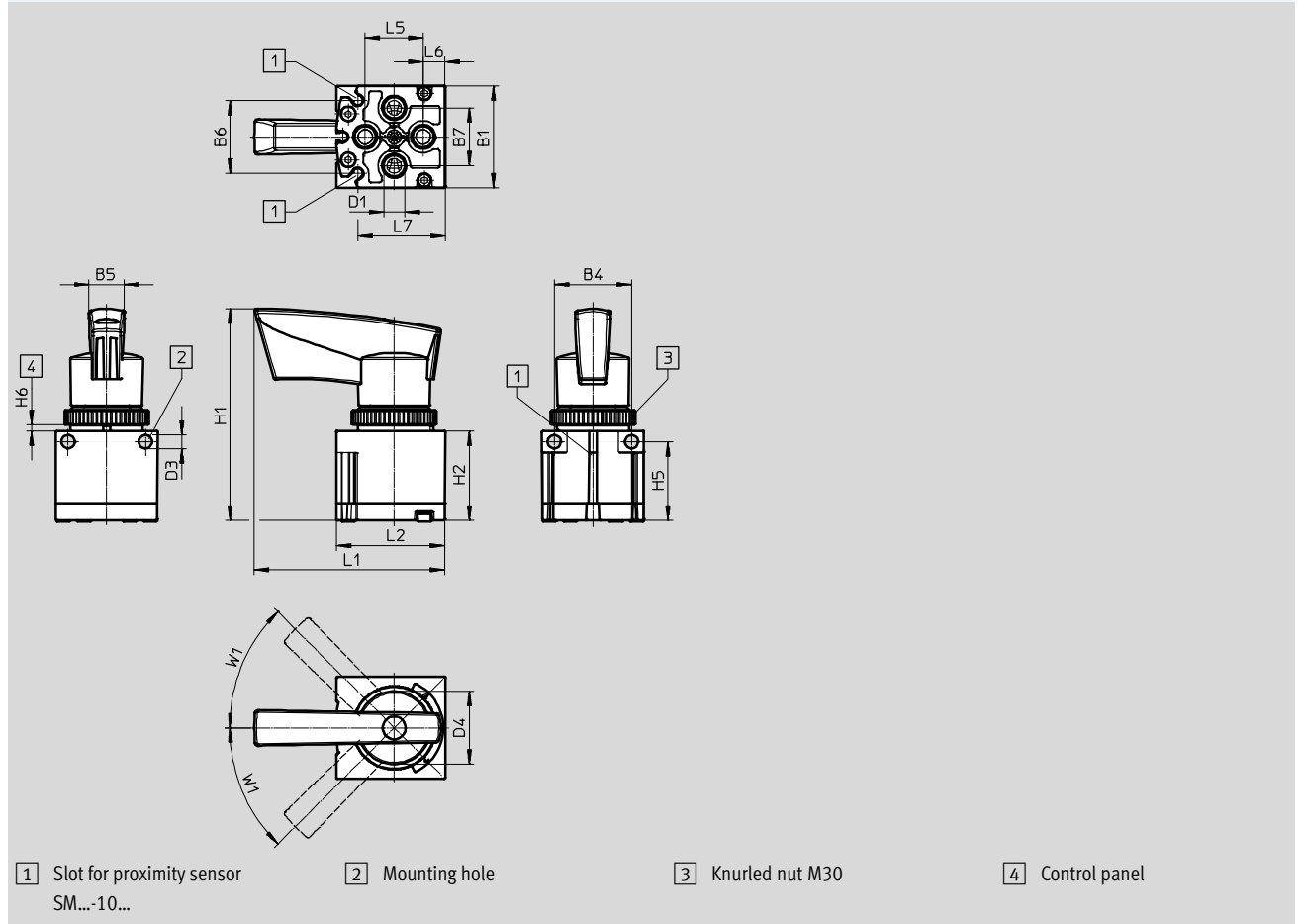
Type	B1	B2	B3	B4	B5	D1	D3	D4	D5
VHER-H-B43...-G18	51	45	28.5	32	14.6	G1/8	∅ 5.5	∅ 30.2	∅ 3.3

Type	H1	H2	H3	H4	H5	H6		L1	L2	L3	L4	W1
						min.	max.					
VHER-H-B43...-G18	95.6	45	15	7.5	40.5	2	4	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](http://www.festo.com)  
 Pneumatic connection G1/8 underneath



Type	B1	B4	B5	B6	B7	D1	D3 ∅	D4 ∅
VHER-H-B43...-B-G18	42.2	32	14.6	30.4	24	G1/8	5.5	30.2

Type	H1	H2	H5	H6		L1	L2	L5	L6	L7	W1
				min.	max.						
VHER-H-B43...-B-G18	87.6	37	32.5	2	4	78.6	44.9	24	9	36.2	45°

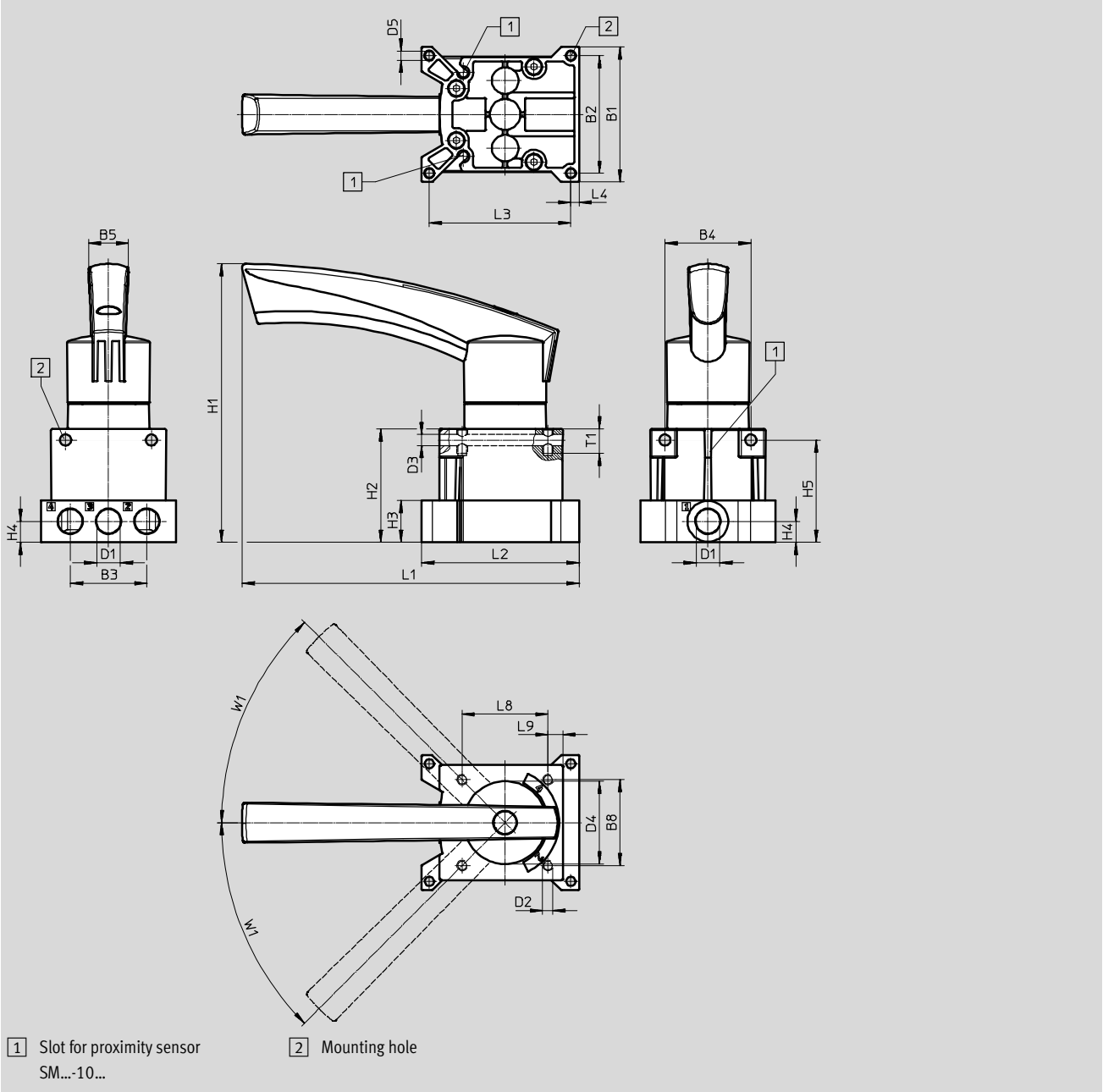
# Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

**Dimensions**

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

Pneumatic connection G1/4 at side



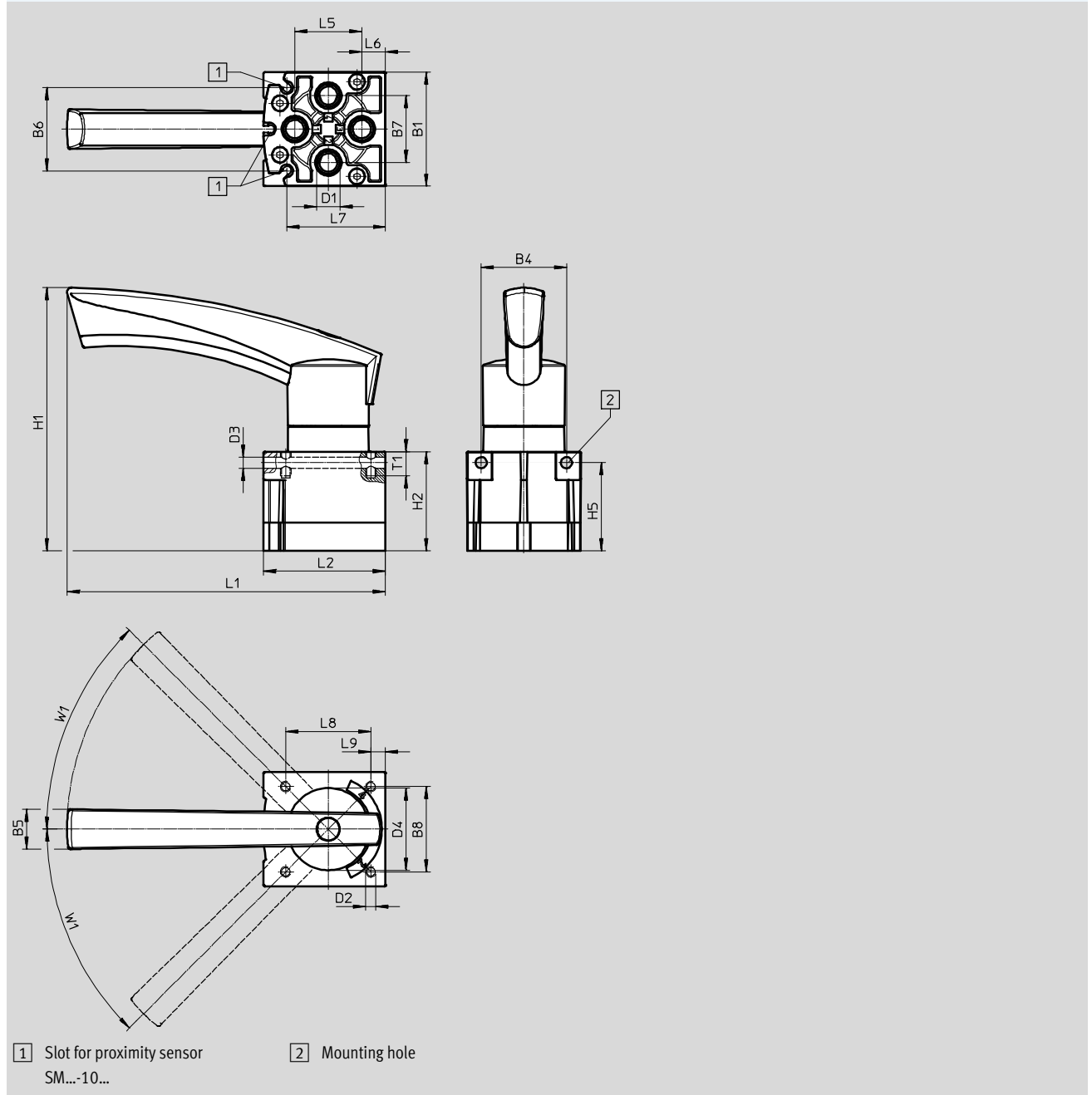
Type	B1	B2	B3	B4	B5	B8	D1	D2	D3 ∅	D4 ∅	D5 ∅
VHER-H-B43...-G14	66	57.5	37.5	42	19.5	42	G1/4	M5	5.5	40.5	4.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L8	L9	T1	W1
VHER-H-B43...-G14	136.3	55.5	20.5	10.3	50	164.8	77	69.2	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](http://www.festo.com)  
 Pneumatic connection G1/4 underneath



Type	B1	B4	B5	B6	B7	B8	D1	D2	D3	D4
VHER-H-B43...-B-G14	56.3	42	19.5	40.4	33	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	48.2	42	12	45°

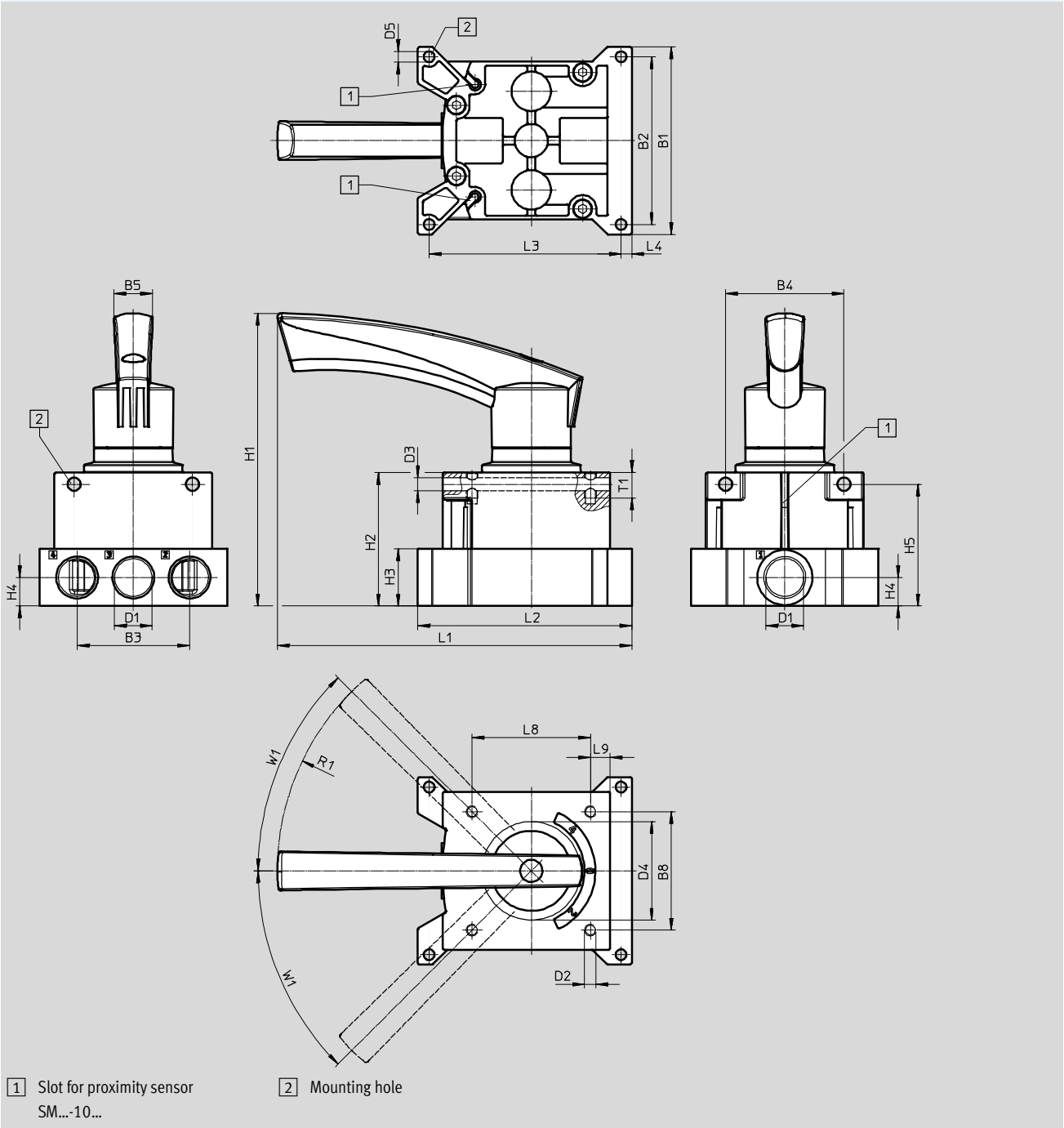
# Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

**Dimensions**

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

Pneumatic connection G1/2 at side



Type	B1	B2	B3	B4	B5	B8	D1	D2	D3	D4	D5
VHER-H-B43...-G12	95	85	57	60	19.5	60	G1/2	M5	6.6	51	5.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L8	L9	R1	T1	W1
VHER-H-B43...-G12	149	68	29	14.5	61.8	180	108.8	97.3	5.5	60	10	128	13	45°

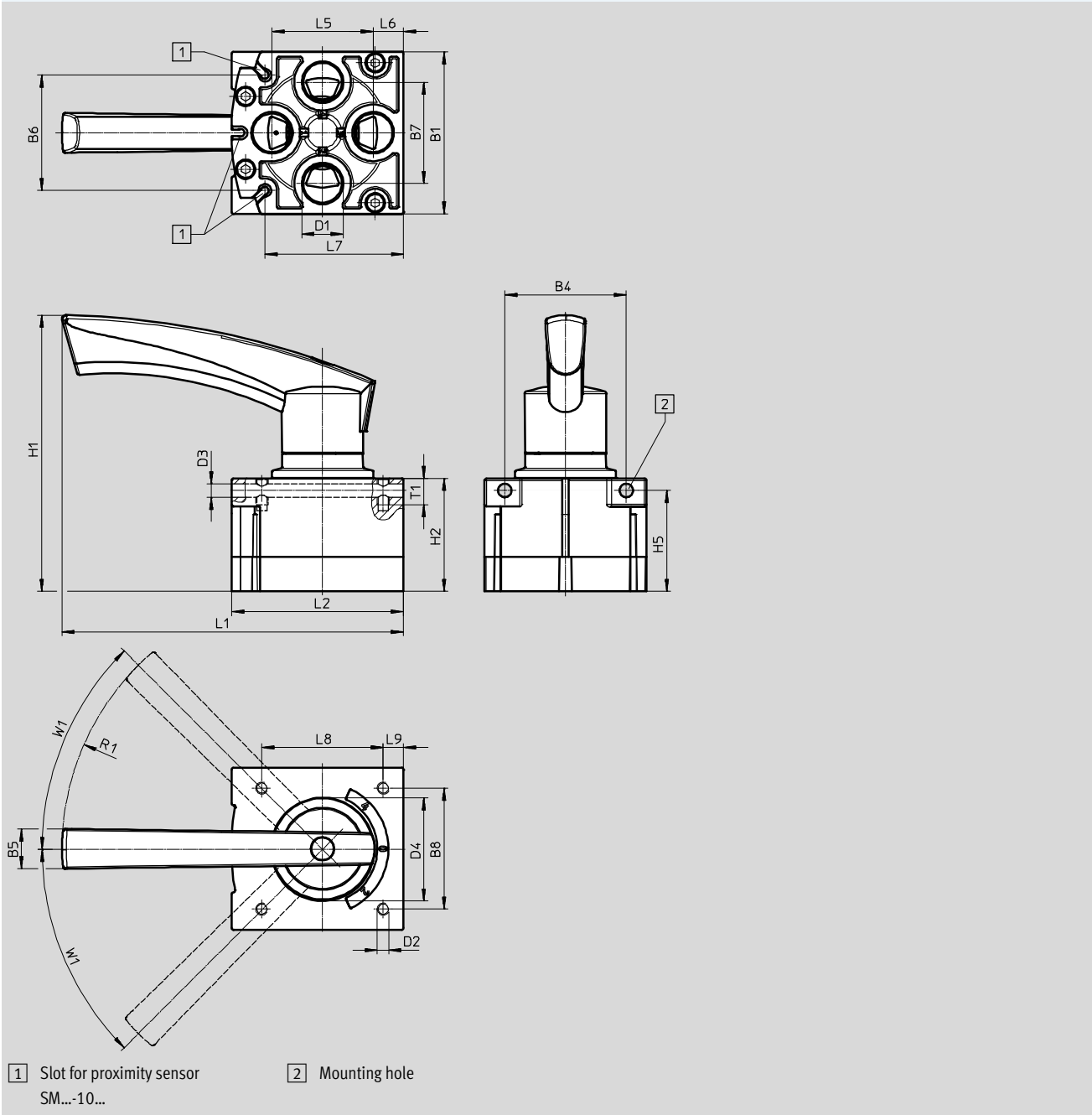
# Hand lever valves, VHER-H-B43, non-reversible, metal lever

Technical data VHER-H-B43

**Dimensions**

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

Pneumatic connection G1/2 underneath



Type	B1	B4	B5	B6	B7	B8	D1	D2	D3	D4
VHER-H-B43-...-B-G12	80	60	19.5	56.9	50	60	G1/2	M5	6.6	51

Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	L9	R1	T1	W1
VHER-H-B43-...-B-G12	136.5	55.8	49.8	168.8	84.8	50	15	68.5	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 <sup>1)</sup>								
	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 <sup>1)</sup>	
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-G1/2-12	1
			Tubing O.D. 16 mm	186105	QS-G1/2-16	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-G1/2-12-I	1

1) Packaging unit






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

FESTO

Accessories

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

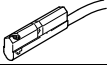
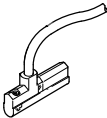
1) Packaging unit

Ordering data – Silencers							
Description	Connection	Materials			Part No.	Type	PU <sup>1)</sup>
		Stud end connector	Silencer	Housing			
Pneumatic connection: underneath							
	G1/8	PE	PE	–	<b>161419</b>	<b>UC-1/8</b>	1
	G1/4	PE	PE	–	<b>165004</b>	<b>UC-1/4</b>	1
	G1/8	Die-cast aluminium	PE	Die-cast aluminium	<b>6841</b>	<b>U-1/8-B</b>	1
	G1/8	PA	PE	PA	<b>2307</b>	<b>U-1/8</b>	1
	G1/4	Die-cast aluminium	PE	Die-cast aluminium	<b>6842</b>	<b>U-1/4-B</b>	1
	G1/4	PA	PE	PA	<b>2316</b>	<b>U-1/4</b>	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	<b>6844</b>	<b>U-1/2-B</b>	1
Pneumatic connection: at side							
	G1/8	PE	PE	–	<b>161419</b>	<b>UC-1/8</b>	1
	G1/4	PE	PE	–	<b>165004</b>	<b>UC-1/4</b>	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	<b>6844</b>	<b>U-1/2-B</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 <sup>1)</sup>
N/O contact								
	In-line	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	<b>173210</b>	<b>SME-10-KL-LED-24</b>	1
				Plug M8x1, 3-pin	0.3	<b>173212</b>	<b>SME-10-SL-LED-24</b>	1
	Lateral	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	<b>173211</b>	<b>SME-10-KQ-LED-24</b>	1
				Plug M8x1, 3-pin	0.3	<b>173213</b>	<b>SME-10-SQ-LED-24</b>	1

1) Packaging unit




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

1) Packaging unit

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

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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 <sup>1)</sup>			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-...	SME-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

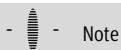
## Operation with different pressures

### Vacuum operation

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

The vacuum may only be connected to port 3 to maintain the direction of flow.

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.

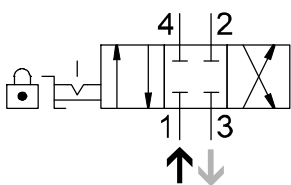


Note

Vacuum must not be connected to port 1.

During vacuum operation:

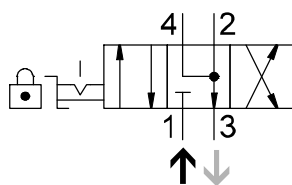
Mid-position closed  
(VHER-...-B43C-...)



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

During vacuum operation:

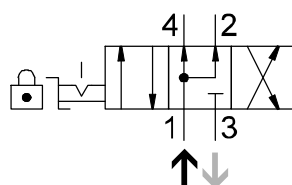
Mid-position pressurised  
(VHER-...-B43U-...)



(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.

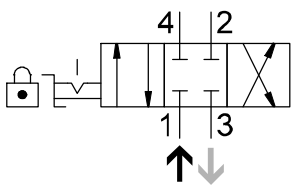
Please note that for design reasons compressed air may only be applied to port 1 and 3.



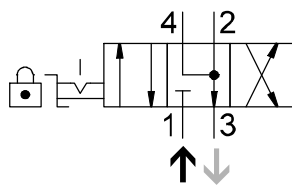
Note

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

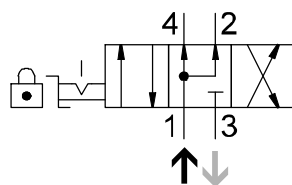
Mid-position closed  
VHER-...-B43C-...



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)

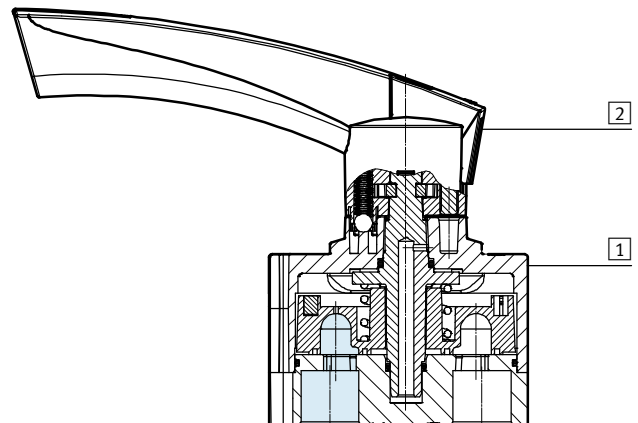
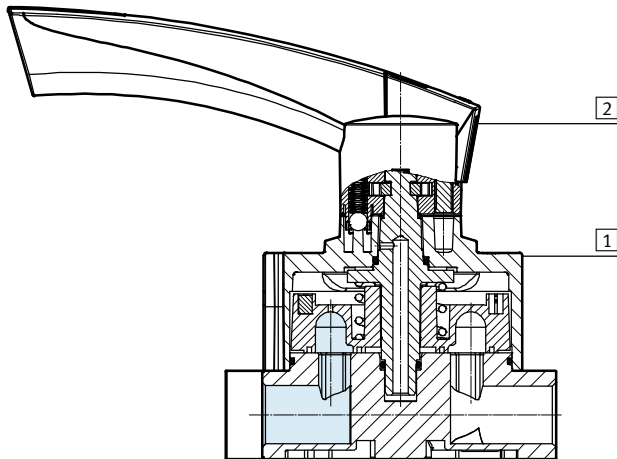
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

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			

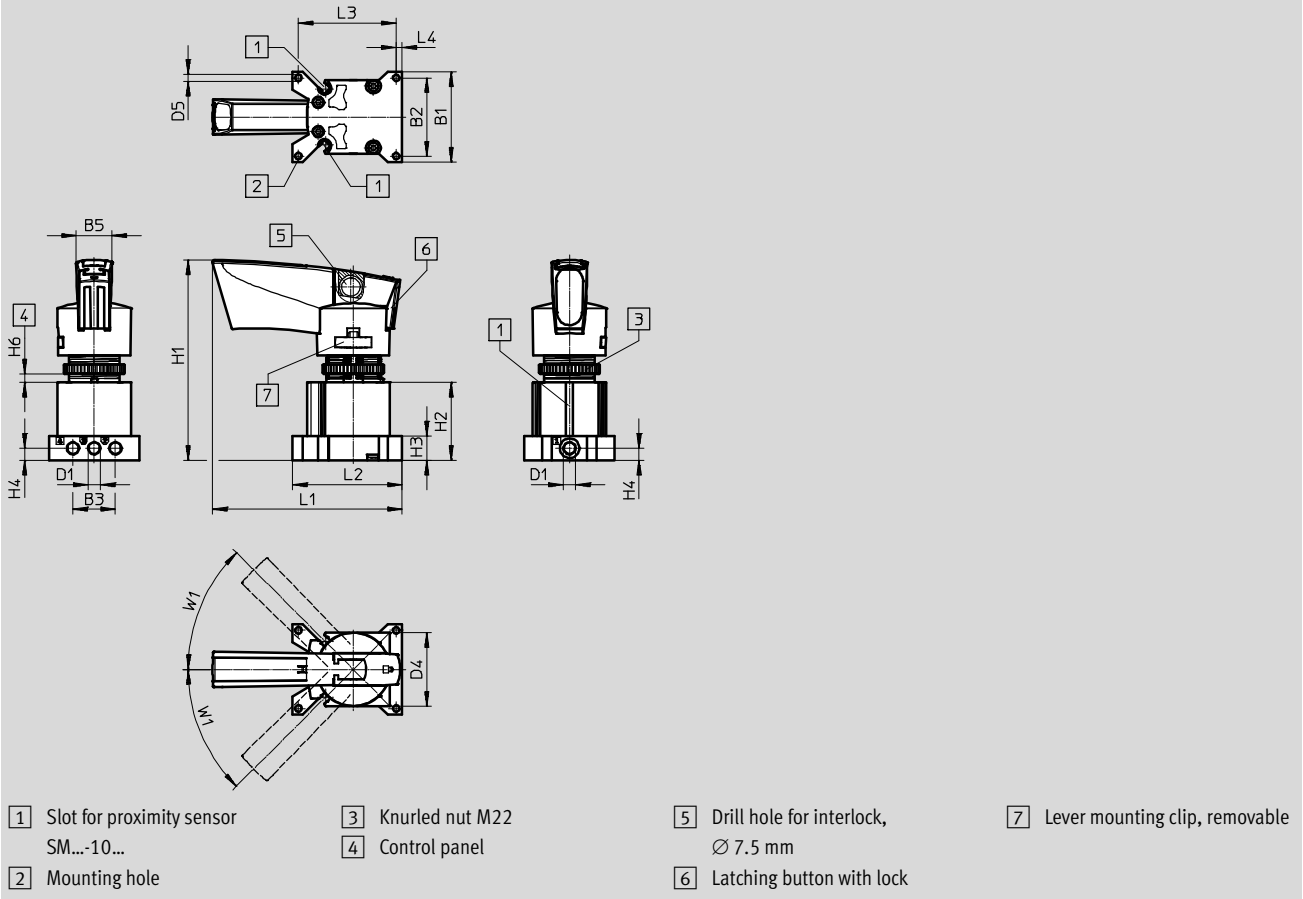
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

**Dimensions**

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

Pneumatic connection M5 at side



Type	B1	B2	B3	B5	D1	D4	D5
VHER-P-H-B43...-M5	37	32	17.4	14.6	M5	30.2 Ø	2.7 Ø

Type	H1	H2	H3	H4	H6		L1	L2	L3	L4	W1
					min.	max.					
VHER-P-H-B43...-M5	82.1	32	10	5	1.5	5.5	77.6	45	40	2.5	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](http://www.festo.com)

Pneumatic connection M5 underneath

1 Slot for proximity sensor SM...-10...  
 2 Control panel  
 3 Knurled nut M22  
 4 Drill hole for interlock, Ø 7.5 mm  
 5 Latching button with lock  
 6 Lever mounting clip, removable  
 7 Control panel

Type	B1	B5	B6	B7	D1	D4 Ø
VHER-P-H-B43...-M5	30	14.6	23.7	17	M5	30.2

Type	H1	H2	H6		L1	L2	L5	L6	L7	W1
			min.	max.						
VHER-P-H-B43...-M5	78.7	28.6	1.5	5.5	72.6	33.8	17	6.5	26.8	45°



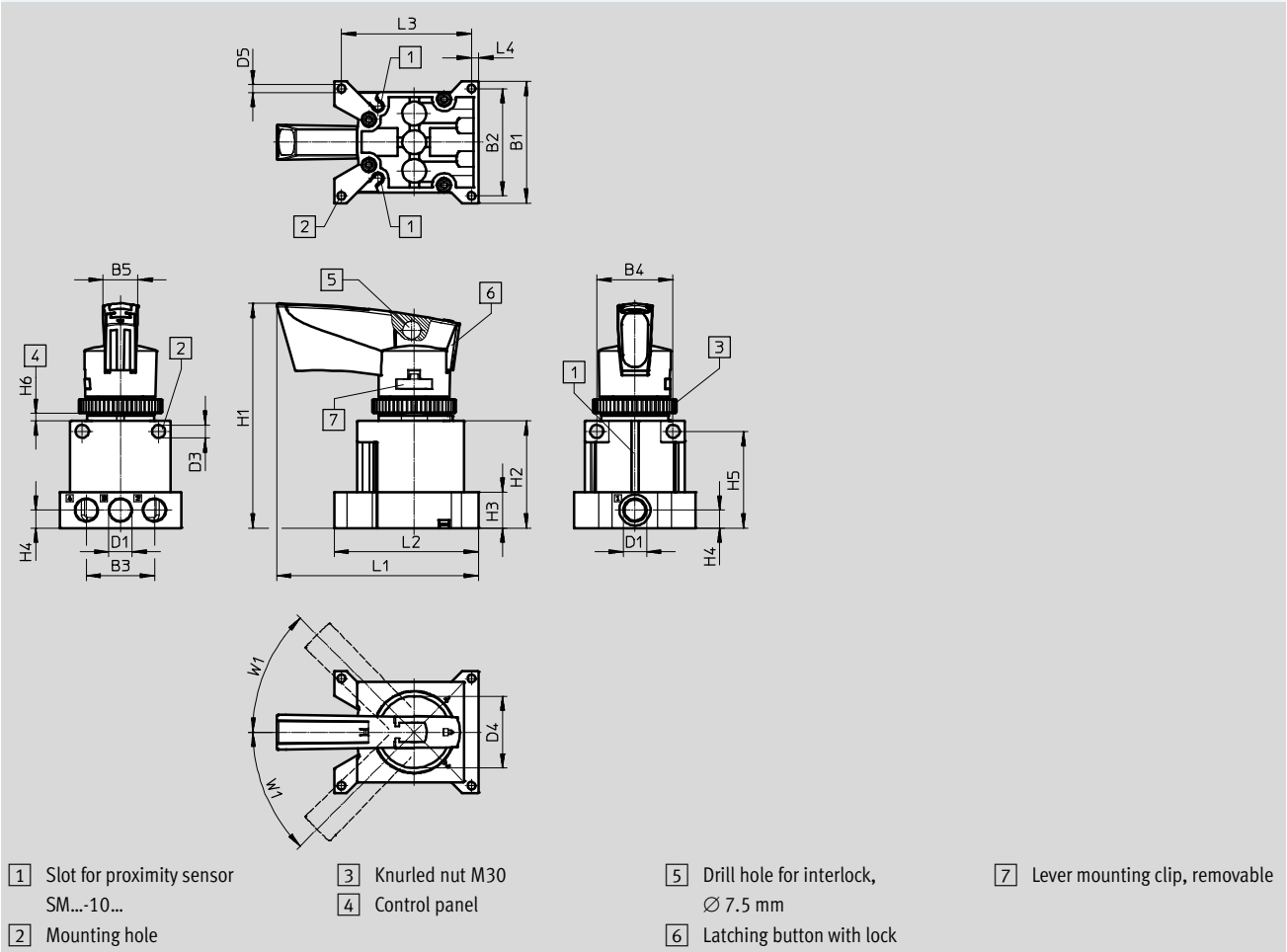
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

## Dimensions

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

Pneumatic connection G1/8 at side



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

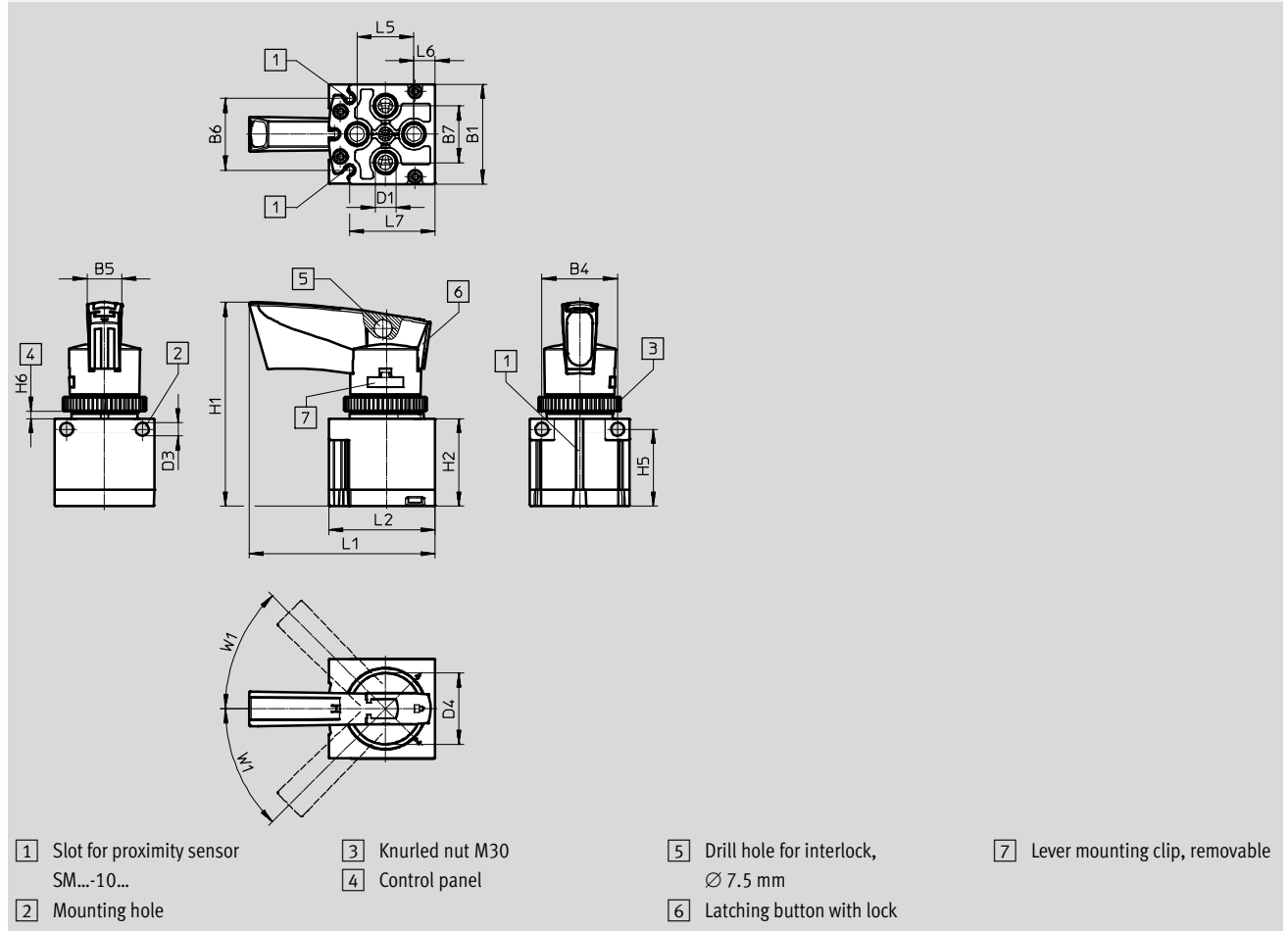
Type	H1	H2	H3	H4	H5	H6		L1	L2	L3	L4	W1
						min.	max.					
VHER-P-H-B43...-G18	94	45	15	7.5	40.5	2	4	84.6	60.5	54.5	3	45°

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

Technical data VHER-P-H-B43

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

Pneumatic connection G1/8 underneath



Type	B1	B4	B5	B6	B7	D1	D3	D4
VHER-P-H-B43...-B-G18	42	32	14.6	30.4	24	G1/8	5.5	30.2

Type	H1	H2	H5	H6		L1	L2	L5	L6	L7	W1
				min.	max.						
VHER-P-H-B43...-B-G18	86	37	32.5	2	4	78.6	45	24	9	36.2	45°

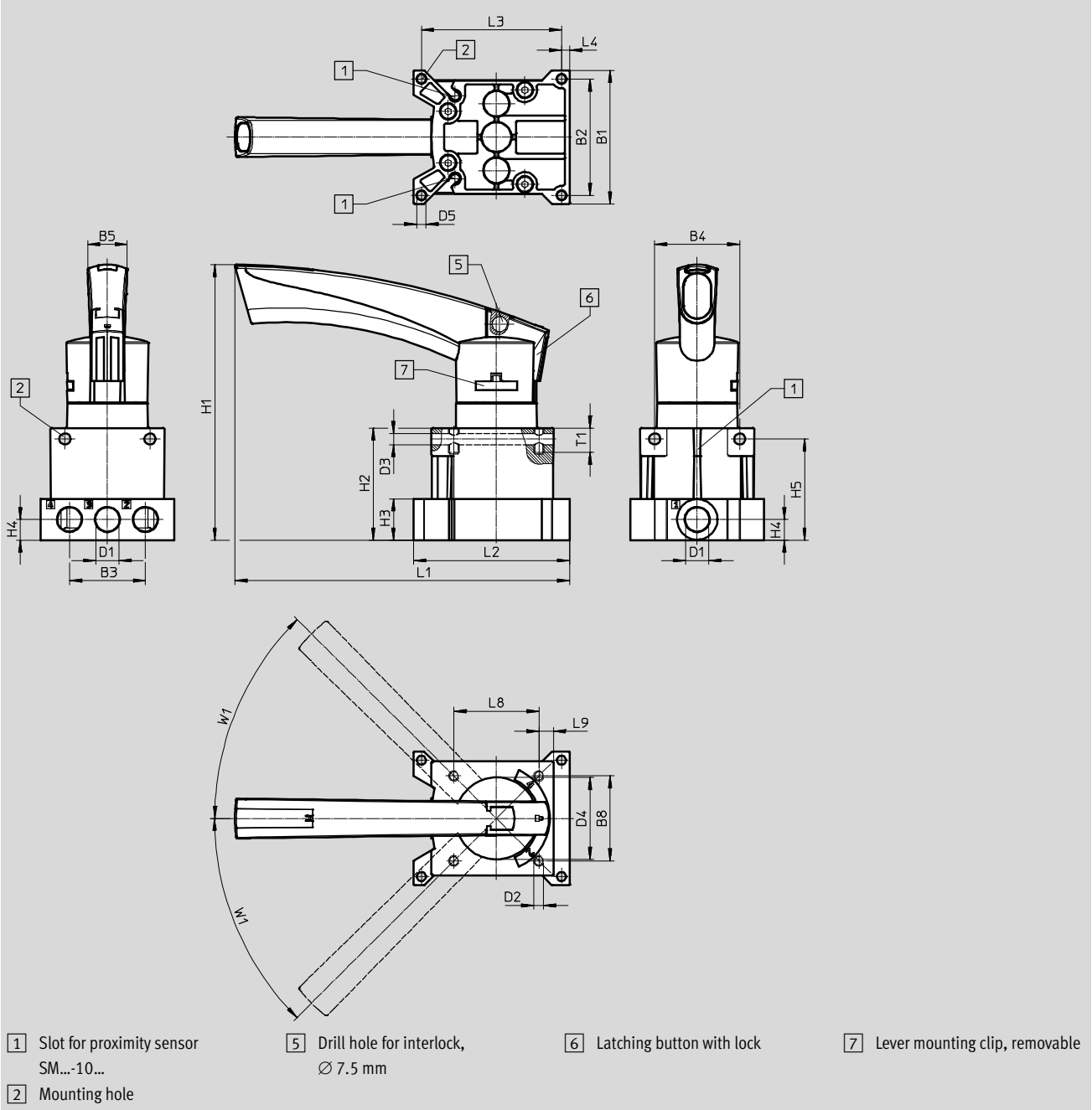
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

**Dimensions**

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

Pneumatic connection G1/4 at side



Type	B1	B2	B3	B4	B5	B8	D1	D2 Ø	D3 Ø	D4 Ø	D5 Ø
VHER-P-H-B43...-G14	66	57.5	37.5	42	19.5	42	G1/4	M5	5.5	40.5	4.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L8	L9	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°

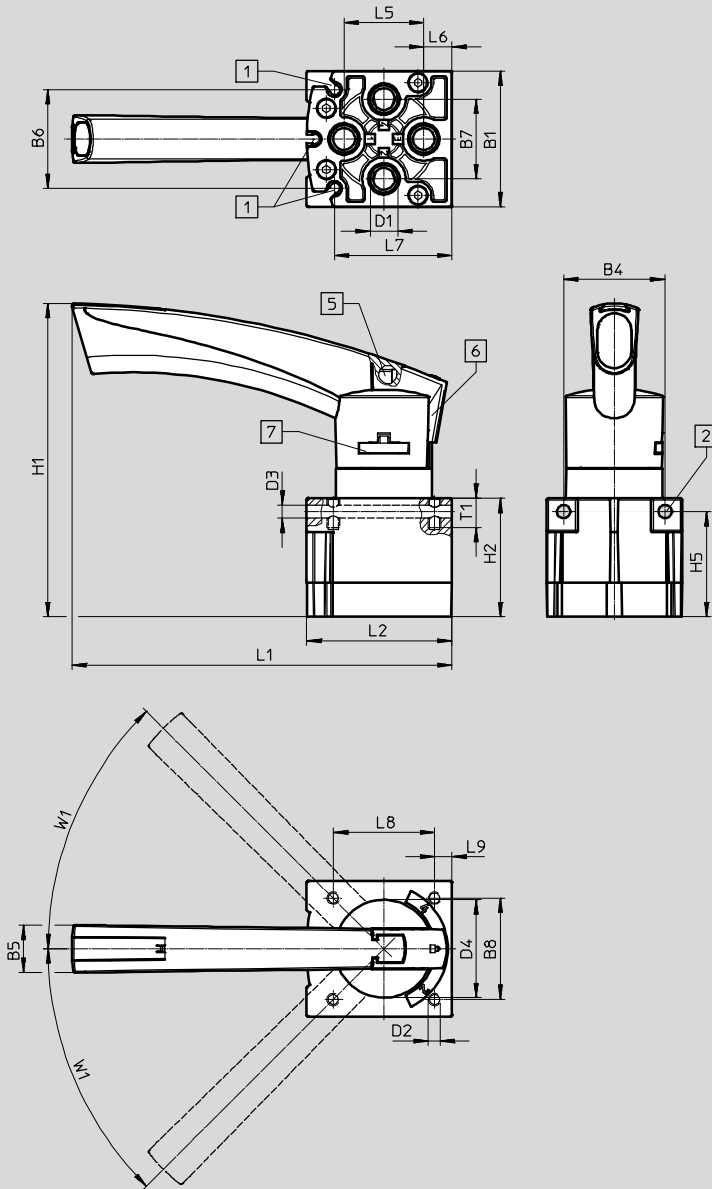
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

## Dimensions

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

Pneumatic connection G1/4 underneath



- 1 Slot for proximity sensor SM...-10...
- 2 Mounting hole
- 5 Drill hole for interlock,  $\varnothing$  7.5 mm
- 6 Latching button with lock
- 7 Lever mounting clip, removable

Type	B1	B4	B5	B6	B7	B8	D1	D2 $\varnothing$	D3 $\varnothing$	D4 $\varnothing$
VHER-P-H-B43...-B-G14	56.3	42	19.5	41	33	42	G1/4	M5	5.5	40.5

Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	L9	T1	W1
VHER-P-H-B43...-B-G14	129.2	49	43.5	157	60.2	33	11.5	48.7	42	7.2	12	45°

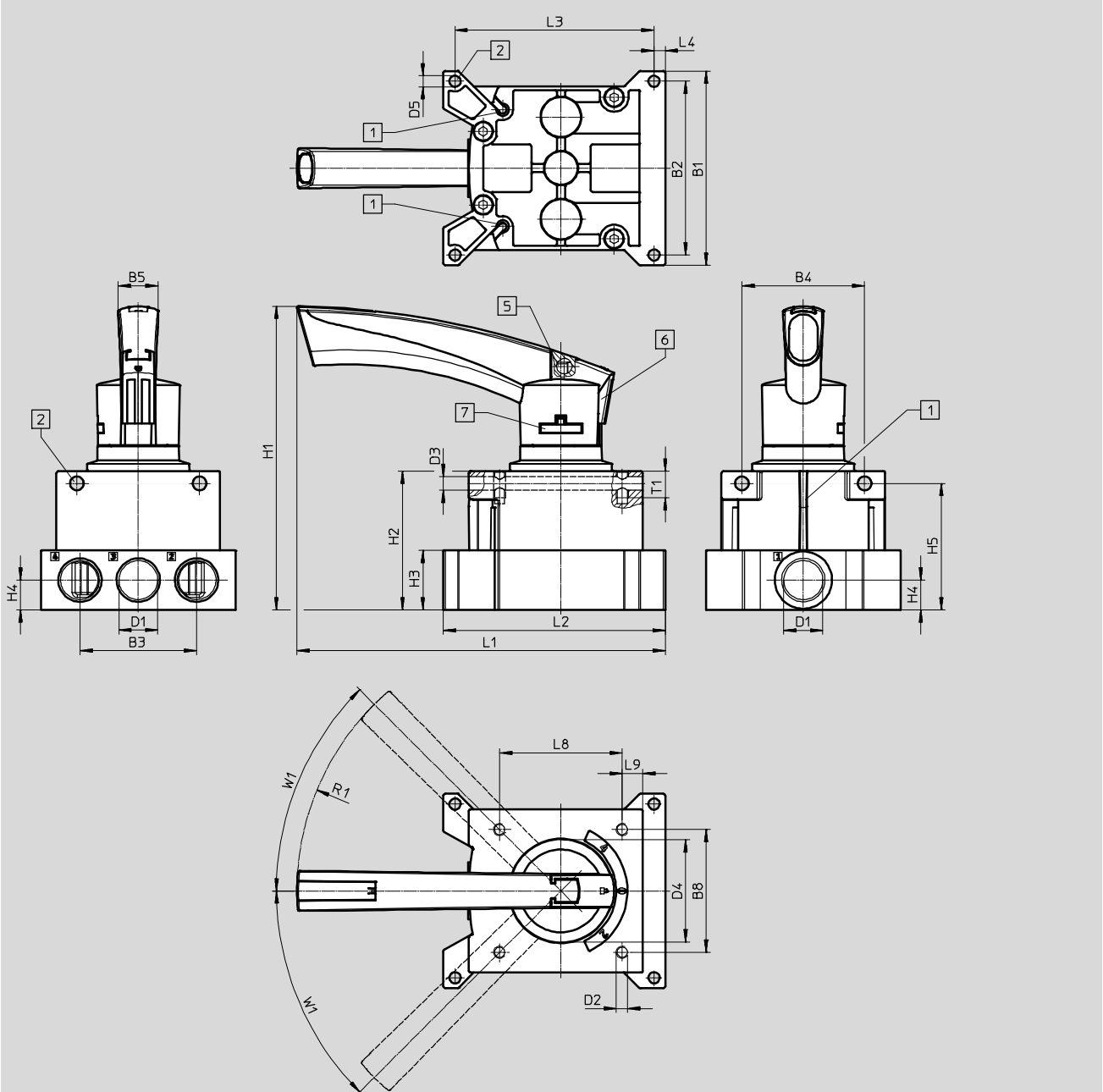
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

**Dimensions**

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

Pneumatic connection G1/2 at side



- 1 Slot for proximity sensor SM...-10...      5 Drill hole for interlock, Ø 7.5 mm      6 Latching button with lock      7 Lever mounting clip, removable
- 2 Mounting hole

Type	B1	B2	B3	B4	B5	B8	D1	D2	D3	D4	D5
VHER-P-H-B43-...-G12	95	85	57	60	19.5	60	G1/2	M5	6.6	51	5.5

Type	H1	H2	H3	H4	H5	L1	L2	L3	L4	L8	L9	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°

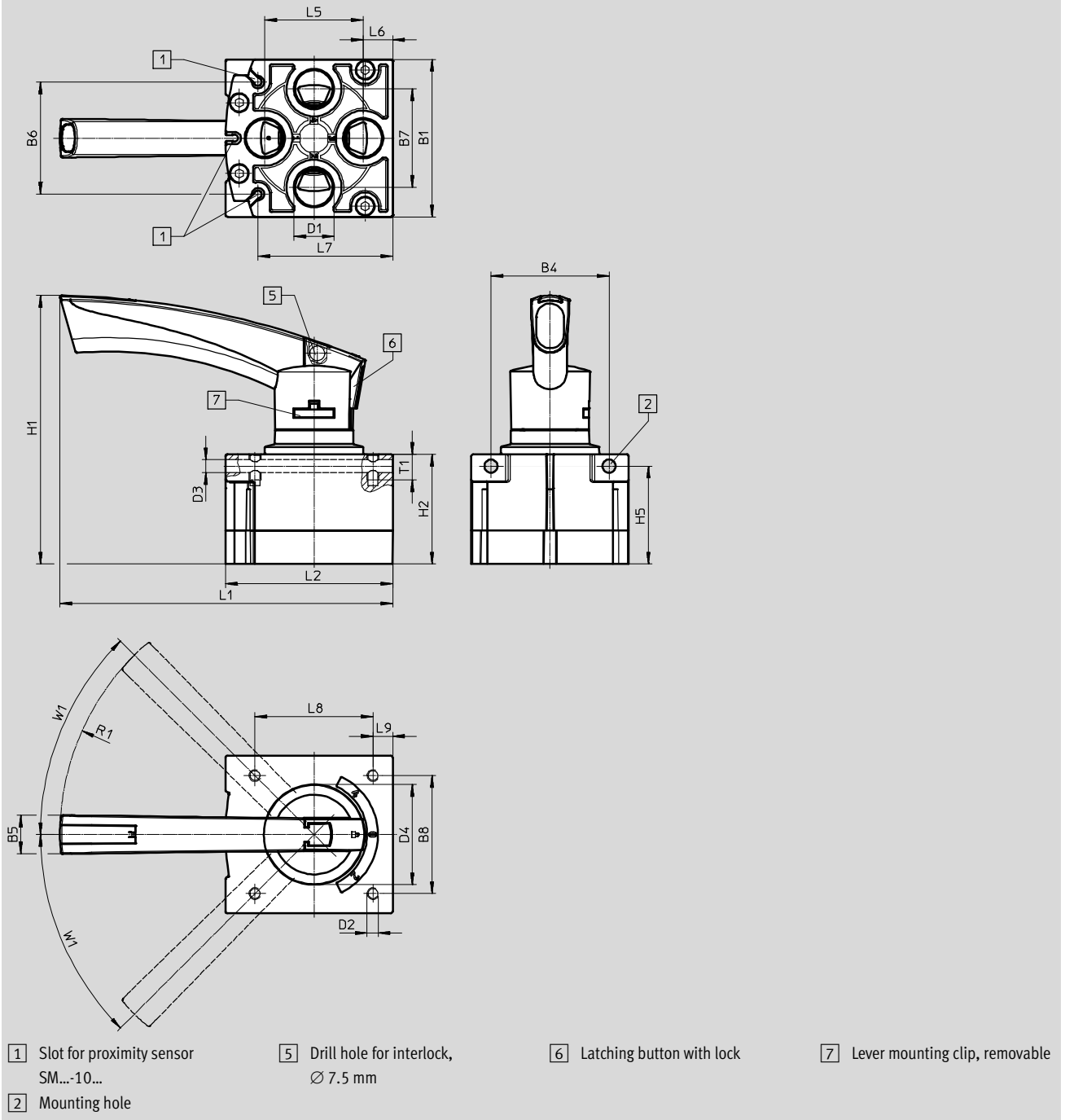
# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever

Technical data VHER-P-H-B43

**Dimensions**

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

Pneumatic connection G1/2 underneath



Type	B1	B4	B5	B6	B7	B8	D1	D2	D3	D4
VHER-P-H-B43-...-B-G12	80	60	19.5	56.9	50	60	G1/2	M5	6.6	51

Type	H1	H2	H5	L1	L2	L5	L6	L7	L8	L9	R1	T1	W1
VHER-P-H-B43-...-B-G12	137	55.8	49.8	169	84.8	50	15	68.5	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 <sup>1)</sup>												
	Mid-position pressurised	Polymer	Lockable using accessories	Underneath	80	30	<b>3410684</b>	<b>VHER-P-H-B43U-B-M5</b>				
					125	42	<b>3488217</b>	<b>VHER-P-H-B43U-B-G18</b>				
					375	56	<b>3515683</b>	<b>VHER-P-H-B43U-B-G14</b>				
					740	80	<b>3192084</b>	<b>VHER-P-H-B43U-B-G12</b>				
					At the side				95	37	<b>3410683</b>	<b>VHER-P-H-B43U-M5</b>
								165	51	<b>3488216</b>	<b>VHER-P-H-B43U-G18</b>	
								435	66	<b>3515573</b>	<b>VHER-P-H-B43U-G14</b>	
								900	95	<b>3192082</b>	<b>VHER-P-H-B43U-G12</b>	
					Mid-position closed	Polymer	Lockable using accessories	Underneath	80	30	<b>3410680</b>	<b>VHER-P-H-B43C-B-M5</b>
									125	42	<b>3488209</b>	<b>VHER-P-H-B43C-B-G18</b>
375	56	<b>3515601</b>	<b>VHER-P-H-B43C-B-G14</b>									
740	80	<b>3192075</b>	<b>VHER-P-H-B43C-B-G12</b>									
At the side									95	37	<b>3410679</b>	<b>VHER-P-H-B43C-M5</b>
								165	51	<b>3488208</b>	<b>VHER-P-H-B43C-G18</b>	
								435	66	<b>3515361</b>	<b>VHER-P-H-B43C-G14</b>	
								900	95	<b>3192074</b>	<b>VHER-P-H-B43C-G12</b>	
	Mid-position exhausted	Polymer	Lockable using accessories					Underneath	80	30	<b>3410682</b>	<b>VHER-P-H-B43E-B-M5</b>
									125	42	<b>3488211</b>	<b>VHER-P-H-B43E-B-G18</b>
				375	56	<b>3515640</b>	<b>VHER-P-H-B43E-B-G14</b>					
				740	80	<b>3192077</b>	<b>VHER-P-H-B43E-B-G12</b>					
				At the side					95	37	<b>3410681</b>	<b>VHER-P-H-B43E-M5</b>
								165	51	<b>3488210</b>	<b>VHER-P-H-B43E-G18</b>	
								435	66	<b>3515542</b>	<b>VHER-P-H-B43E-G14</b>	
								900	95	<b>3192076</b>	<b>VHER-P-H-B43E-G12</b>	

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

FESTO

Accessories



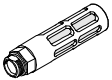

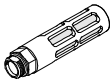
Ordering data – Push-in fittings-						
Description	Connection			Part No.	Type	PU <sup>1)</sup>
Pneumatic connection: underneath, external hexagon						
	M5	Metric thread with sealing ring for (short design)	Tubing O.D. 3 mm	153302	QSM-M5-3	10
			Tubing O.D. 4 mm	153304	QSM-M5-4	10
			Tubing O.D. 6 mm	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

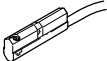
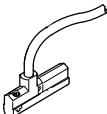


# Hand lever valves, VHER-P-H-B43, non-reversible, polymer lever



Accessories

Ordering data – Silencers-							
Description	Connection	Materials			Part No.	Type	PU <sup>1)</sup>
		Stud end connector	Silencer	Housing			
Pneumatic connection: underneath							
	M5	PE	PE	–	<b>165003</b>	<b>UC-M5</b>	1
	G1/8	PE	PE	–	<b>161419</b>	<b>UC-1/8</b>	1
	G1/4	PE	PE	–	<b>165004</b>	<b>UC-1/4</b>	1
	G1/8	Die-cast aluminium	PE	Die-cast aluminium	<b>6841</b>	<b>U-1/8-B</b>	1
	G1/8	PA	PE	PA	<b>2307</b>	<b>U-1/8</b>	1
	G1/4	Die-cast aluminium	PE	Die-cast aluminium	<b>6842</b>	<b>U-1/4-B</b>	1
	G1/4	PA	PE	PA	<b>2316</b>	<b>U-1/4</b>	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	<b>6844</b>	<b>U-1/2-B</b>	1
Pneumatic connection: at side							
	M5	PE	PE	–	<b>165003</b>	<b>UC-M5</b>	1
	G1/8	PE	PE	–	<b>161419</b>	<b>UC-1/8</b>	1
	G1/4	PE	PE	–	<b>165004</b>	<b>UC-1/4</b>	1
	G1/2	Die-cast aluminium	PE	Die-cast aluminium	<b>6844</b>	<b>U-1/2-B</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 <sup>1)</sup>
	In-line	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	<b>173210</b>	<b>SME-10-KL-LED-24</b>	1
				Plug M8x1, 3-pin	0.3	<b>173212</b>	<b>SME-10-SL-LED-24</b>	1
	Lateral	Magnetic reed	Contacting, bipolar	Cable, 3-wire	2.5	<b>173211</b>	<b>SME-10-KQ-LED-24</b>	1
				Plug M8x1, 3-pin	0.3	<b>173213</b>	<b>SME-10-SQ-LED-24</b>	1

1) Packaging unit

Ordering data							
Description	Connection	Part No.	Type	PU <sup>1)</sup>			
Blanking plug							
	M5	<b>3843</b>	<b>B-M5</b>	10			
		<b>534212</b>	<b>B-M5-100</b>	100			
	G1/8	<b>3568</b>	<b>B-1/8</b>	10			
		<b>534213</b>	<b>B-1/8-100</b>	100			
	G1/4	<b>3569</b>	<b>B-1/4</b>	10			
		<b>534214</b>	<b>B-1/4-50</b>	50			
	G1/2	<b>3571</b>	<b>B-1/2</b>	10			
		<b>534216</b>	<b>B-1/2-20</b>	20			

1) Packaging unit