

Hand lever valves VHER




Hand lever valves VHER

Key features

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Powerful

-  - Flow rate
170 ... 4,300 l/min

Versatile

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

Practical

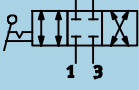
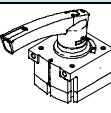
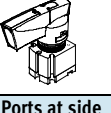
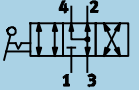
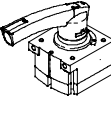
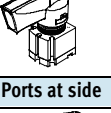
With these valves it is possible to stop single-acting cylinders (3/3-way valve) or double-acting cylinders (4/3-way valve) within the stroke range.

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.

Hand lever valves VHER

Product range overview

Function	Version	Type	Nominal flow rate [l/min]	Lever				Connection				→ Page/ Internet
				Plastic		Metal		M5	G1/8	G1/4	G1/2	
				small	large	small	large					
	Ports underneath 	VHER-AH-M04C-G18-UD	800	-	-	■	-	-	■	-	-	7
		VHER-AH-M04C-G14-UD	1,500	-	-	-	■	-	-	■	-	
		VHER-AH-M04C-G12-UD	4,300	-	-	-	■	-	-	-	■	
		VHER-BH-M04C-M05-UD	260	■	-	-	-	■	-	-	-	14
		VHER-BH-M04C-G18-UD	800	■	-	-	-	■	-	-	-	
		VHER-BH-M04C-G14-UD	1,500	-	■	-	-	-	-	■	-	
		VHER-BH-M04C-G12-UD	4,300	-	■	-	-	-	-	-	■	
	Ports at side 	VHER-AH-M04C-G18-LD	600	-	-	■	-	-	■	-	-	7
		VHER-AH-M04C-G14-LD	1,150	-	-	-	■	-	-	■	-	
		VHER-AH-M04C-G12-LD	3,500	-	-	-	■	-	-	-	■	
		VHER-BH-M04C-M05-LD	170	■	-	-	-	■	-	-	-	14
		VHER-BH-M04C-G18-LD	600	■	-	-	-	■	-	-	-	
		VHER-BH-M04C-G14-LD	1,150	-	■	-	-	-	-	■	-	
		VHER-BH-M04C-G12-LD	3,500	-	■	-	-	-	-	-	■	
	Ports underneath 	VHER-AH-M04E-G18-UD	800	-	-	■	-	-	■	-	-	7
		VHER-AH-M04E-G14-UD	1,500	-	-	-	■	-	-	■	-	
		VHER-AH-M04E-G12-UD	4,300	-	-	-	■	-	-	-	■	
		VHER-BH-M04E-M05-UD	260	■	-	-	-	■	-	-	-	14
		VHER-BH-M04E-G18-UD	800	■	-	-	-	■	-	-	-	
		VHER-BH-M04E-G14-UD	1,500	-	■	-	-	-	-	■	-	
		VHER-BH-M04E-G12-UD	4,300	-	■	-	-	-	-	-	■	
	Ports at side 	VHER-AH-M04E-G18-LD	600	-	-	■	-	-	■	-	-	7
		VHER-AH-M04E-G14-LD	1,150	-	-	-	■	-	-	■	-	
		VHER-AH-M04E-G12-LD	3,500	-	-	-	■	-	-	-	■	
		VHER-BH-M04E-M05-LD	170	■	-	-	-	■	-	-	-	14
		VHER-BH-M04E-G18-LD	600	■	-	-	-	■	-	-	-	
		VHER-BH-M04E-G14-LD	1,150	-	■	-	-	-	-	■	-	
		VHER-BH-M04E-G12-LD	3,500	-	■	-	-	-	-	-	■	

Hand lever valves VHER

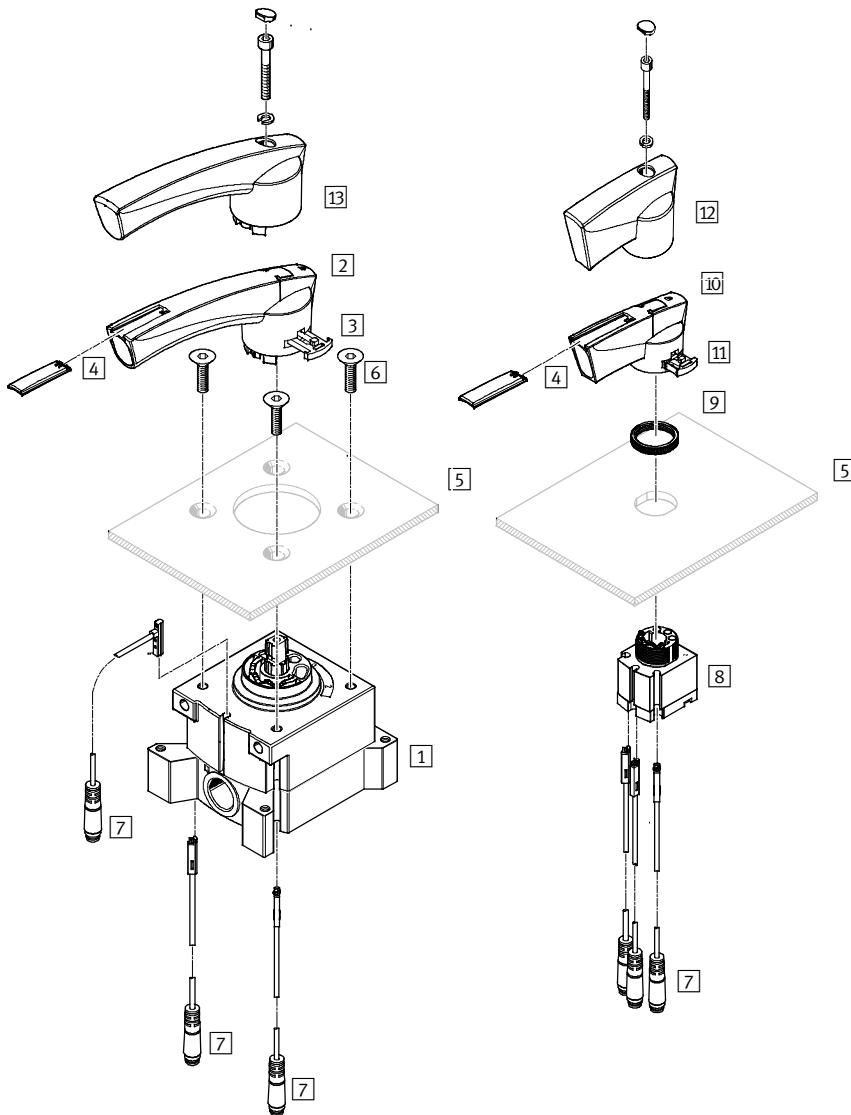
Type codes

VHER		BH		M04C		M05		LD	
Type									
VHER	Hand lever valve with detent								
Construction									
AH	Lever in metal version								
BH	Lever in polymer version								
Valve function									
M04C	4/3-way valve, mid-position closed								
M04E	4/3-way valve, mid-position exhausted								
Connection									
M05	M5 (polymer version only)								
G18	G $\frac{1}{8}$								
G14	G $\frac{1}{4}$								
G12	G $\frac{1}{2}$								
Connection type									
LD	To the side								
UD	Underneath								

Hand lever valves VHER

Peripherals overview

Control panel installation



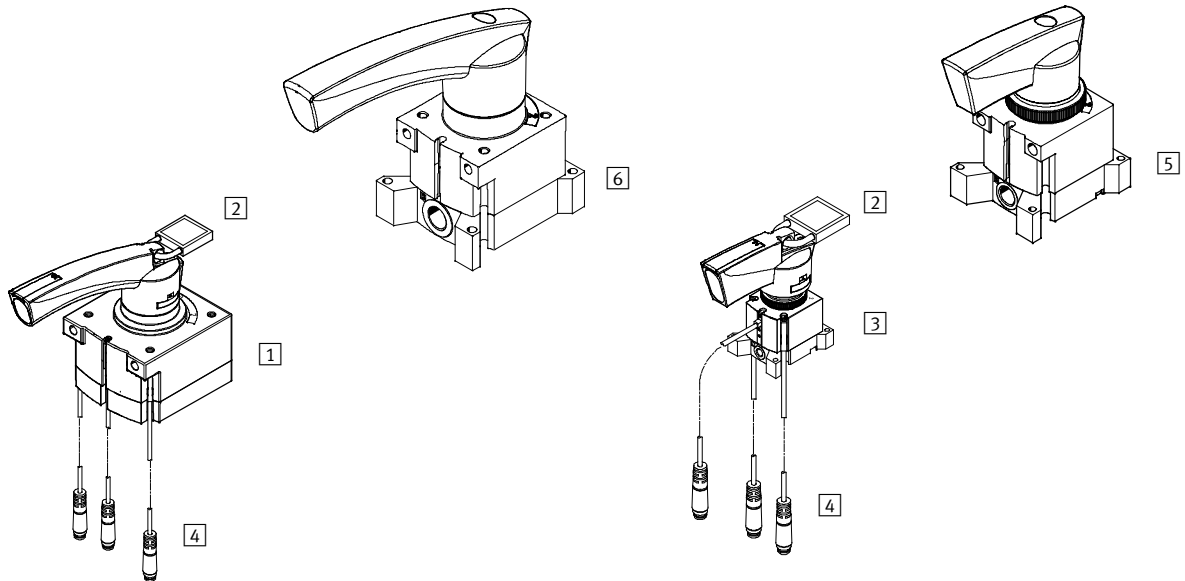
Component parts and accessories	Brief description	→ Page/Internet
1 Hand lever valves VHER	Connection size G1/8 and G1/2	7
2 Actuating lever	Large, polymer	-
3 Lever securing clip	Large	-
4 Inscription label		-
5 Control panel	Not included in scope of delivery	-
6 Mounting screws	Not included in scope of delivery	-
7 Proximity sensor SME-10-L, SME-10-Q	Not included in scope of delivery	sme
8 Hand lever valves VHER	Connection size M5 and G1/8	7
9 Knurled nut	Control panel mounting	-
10 Actuating lever	Small, polymer	-
11 Lever securing clip	Small	-
12 Actuating lever	Small, metal	-
13 Actuating lever	Large, metal	-

Hand lever valves VHER

Peripherals overview

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Assembled valves with accessories



Component parts and accessories	Brief description	→ Page/Internet
1 Hand lever valves VHER	Connection size G $\frac{1}{4}$ and G $\frac{1}{2}$ with polymer lever	14
2 Padlock	Not included in scope of delivery	-
3 Hand lever valves VHER	Connection size M5 and G $\frac{1}{8}$ with polymer lever	14
4 Proximity sensor SME-10F-... L-... , SME-10F-... Q-...	Not included in scope of delivery	sme
5 Hand lever valves VHER	Connection size G $\frac{1}{8}$ with metal lever	7
6 Hand lever valves VHER	Connection size G $\frac{1}{4}$ and G $\frac{1}{2}$ with metal lever	7

Hand lever valves VHER-AH

Technical data VHER with metal lever

-  Flow rate
600 ... 4,300 l/min
-  Pressure
-0.95 ... +10 bar
-  Temperature range
-20 ... +80 °C



General technical data					
Pneumatic connection		G1/8	G1/4	G1/2	
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				
Pilot control mode	Direct				
Actuation type	Manual				
Actuating lever	Metal				
Switching position display	Via accessories				
Assembly position	Any				
Direction of flow	Reversible				
Non-overlapping	Yes				
Exhaust function	Flow control				
Standard nominal flow rate	Ports at side	[l/min]	600	1,150	3,500
	Ports underneath	[l/min]	800	1,500	4,300
Nominal size		[mm]	6	8	12
Pneumatic connection 1,2,3,4			G1/8	G1/4	G1/2
Actuating torque at 10 bar		[Nm]	1.1	2.8	5

Operating and environmental conditions	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Operation with lubricated medium 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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Proximity sensors for switching position display			
Pneumatic connection	Connection direction	Type	
		SME-10F-... L-...	SME-10F-... Q-...
G1/8	Underneath (UD)	■	■
	Side (LD)	-	■
G1/4	Underneath	■	■
	Side	-	■
G1/2	Underneath	■	■
	Side	-	■

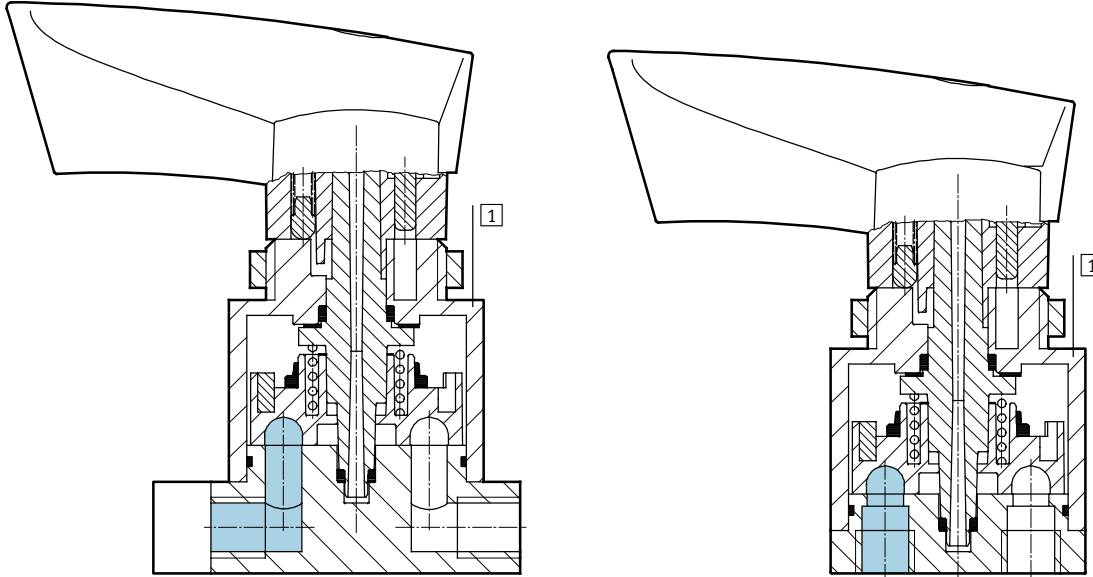
Hand lever valves VHER-AH

Technical data VHER with metal lever

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Sectional view

Hand lever valves VHER-AH...



Materials

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

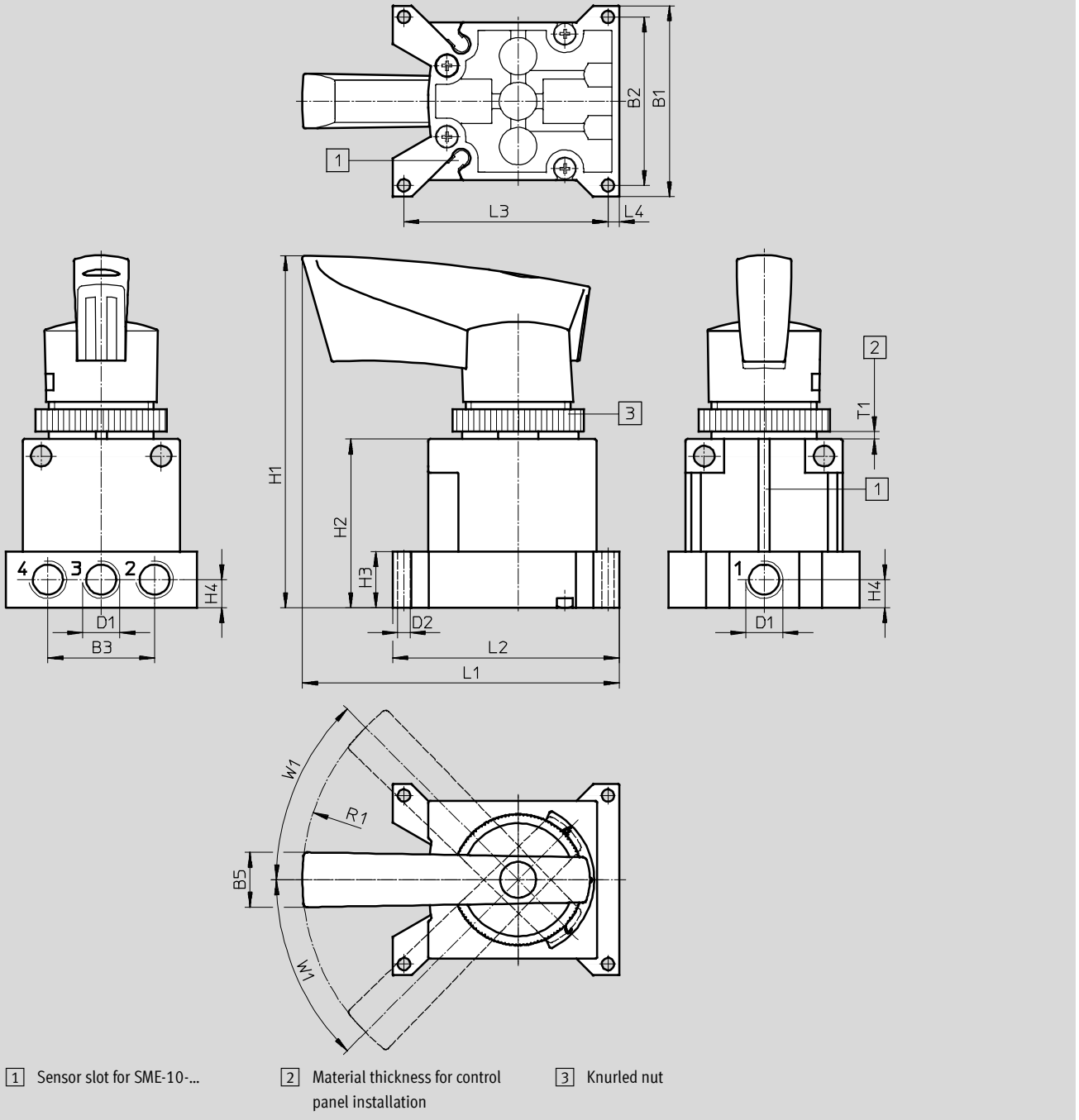
Hand lever valves VHER-AH

Technical data VHER with metal lever

Dimensions

Download CAD data → www.festo.com

Ports G¹/₈, 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°

Hand lever valves VHER-AH

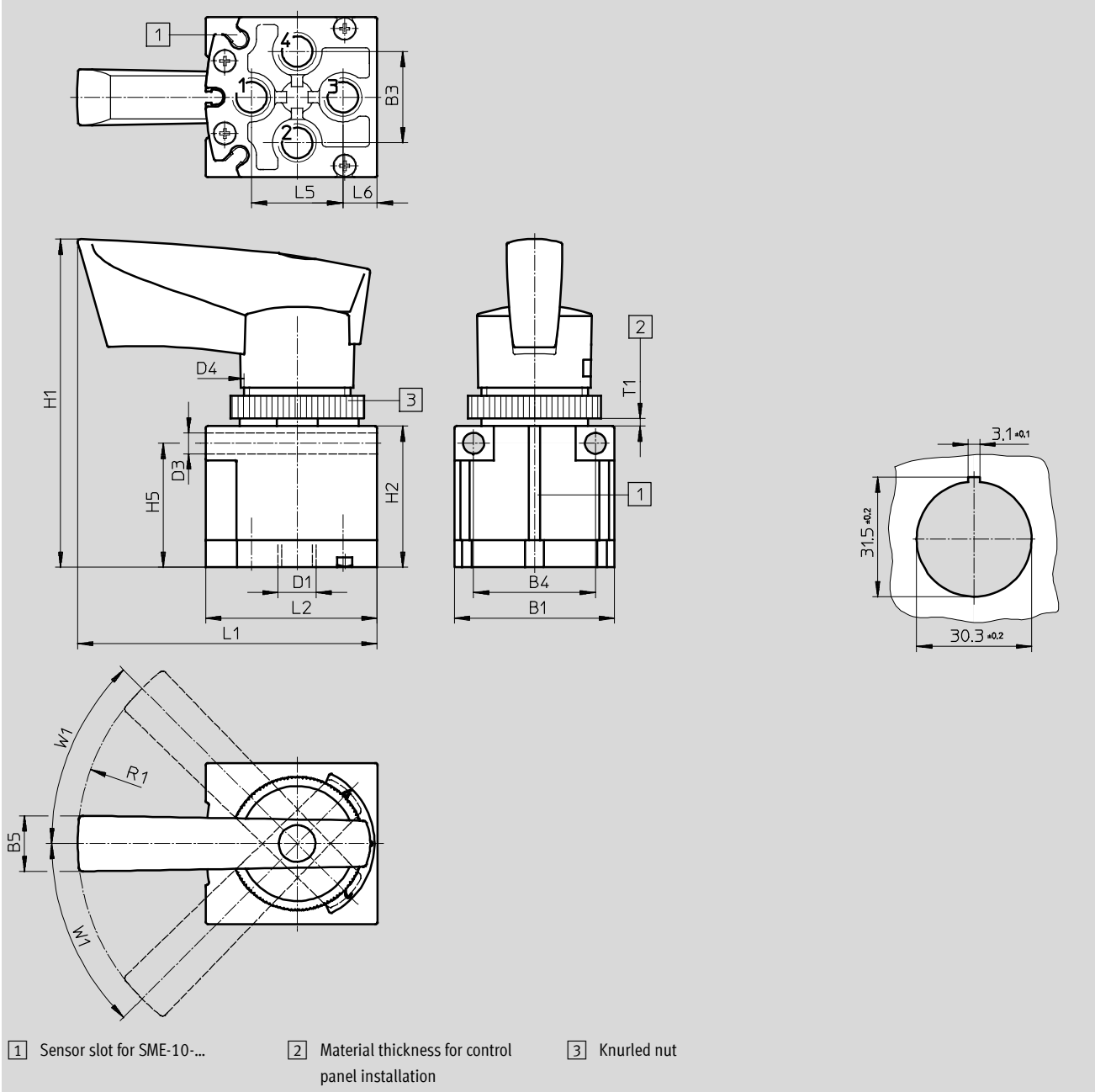
Technical data VHER with metal lever

Dimensions

Download CAD data → www.festo.com

Ports G¹/₈, underneath

Mounting aperture



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

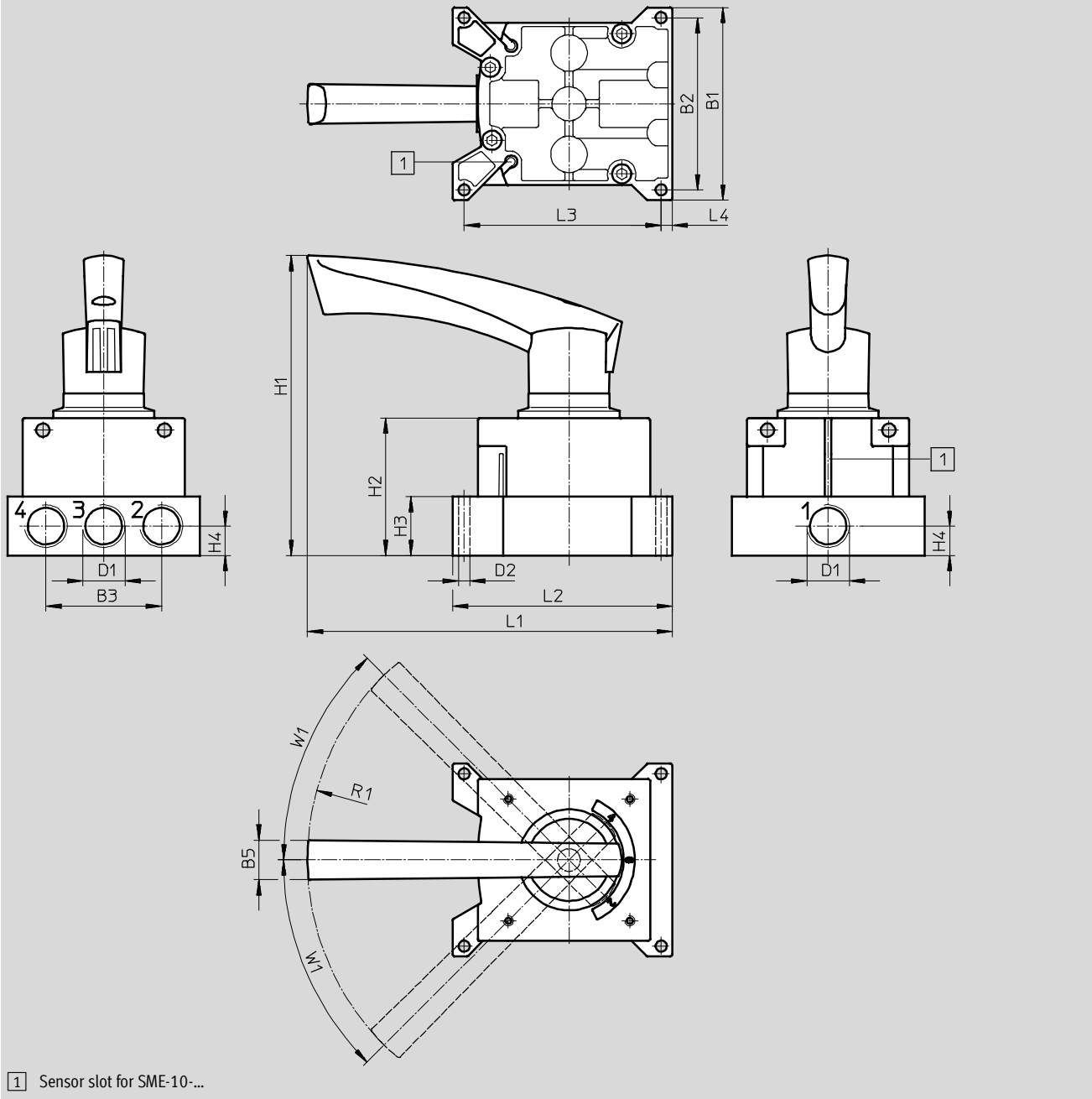
Hand lever valves VHER-AH

Technical data VHER with metal lever

Dimensions

Download CAD data → www.festo.com

Ports G¹/₄ and G¹/₂, 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 ¹ / ₄	4.5	136	56	20.5	10.3	165	77	69.2	4	128.7	45°
VHER-AH-...-G12-LD	95	85	57	19.5	G ¹ / ₂	5.5	149	68	29	14.5	180	108.5	97.3	5.5	128.7	

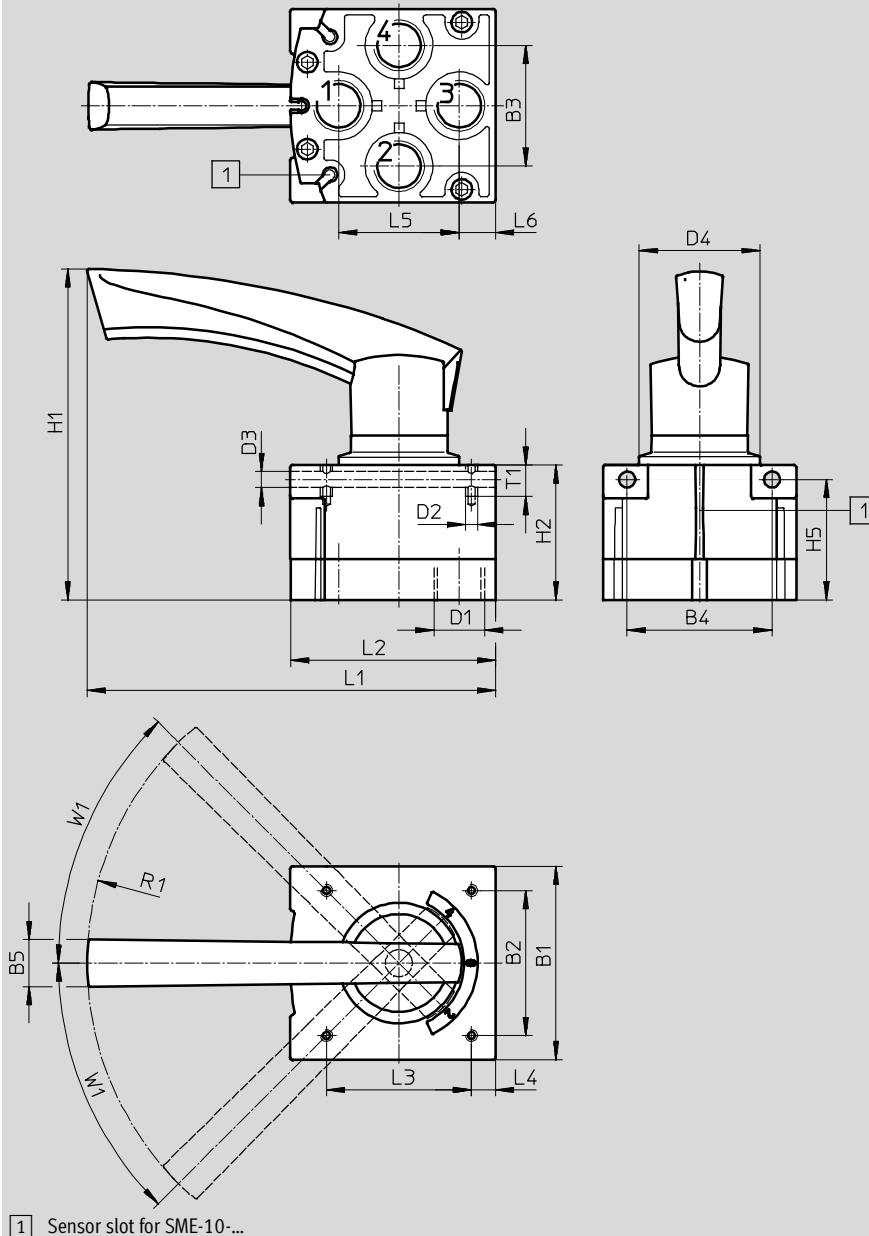
Hand lever valves VHER-AH

Technical data VHER with metal lever

Dimensions

Download CAD data → www.festo.com

Ports G $\frac{1}{4}$ and G $\frac{1}{2}$, underneath



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°
VHER-AH-...-G12-UD	80	60	50	60	19.5	G $\frac{1}{2}$	M6	6.6	51	137	55.8	49.8	169	85	60	10	50	15	128.7	13	

Hand lever valves VHER-AH

Technical data VHER with metal lever




Ordering data						
Circuit symbol	Description	Weight [g]	Connection direction	Pneumatic connection	Part No.	Type
4/3-way valve ¹⁾						
	Mid-position closed	260	Side	G $\frac{1}{8}$	538178	VHER-AH-M04C-G18-LD
		560		G $\frac{1}{4}$	538180	VHER-AH-M04C-G14-LD
		1,010		G $\frac{1}{2}$	538182	VHER-AH-M04C-G12-LD
		220	Underneath	G $\frac{1}{8}$	538179	VHER-AH-M04C-G18-UD
		510		G $\frac{1}{4}$	538181	VHER-AH-M04C-G14-UD
		860		G $\frac{1}{2}$	538183	VHER-AH-M04C-G12-UD
	Mid-position exhausted	260	Side	G $\frac{1}{8}$	538184	VHER-AH-M04E-G18-LD
		560		G $\frac{1}{4}$	538186	VHER-AH-M04E-G14-LD
		1,010		G $\frac{1}{2}$	538188	VHER-AH-M04E-G12-LD
		220	Underneath	G $\frac{1}{8}$	538185	VHER-AH-M04E-G18-UD
		510		G $\frac{1}{4}$	538187	VHER-AH-M04E-G14-UD
		860		G $\frac{1}{2}$	538189	VHER-AH-M04E-G12-UD

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

Hand lever valves VHER-BH

Technical data VHER with plastic lever

FESTO

-  Flow rate
170 ... 4,300 l/min
-  Pressure
-0.95 ... +10 bar
-  Temperature range
-20 ... +80 °C



General technical data						
Pneumatic connection			M5	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{2}$
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			
Pilot control mode		Direct				
Actuation type		Manual				
Actuating lever		Polymer				
Actuator lock		Lockable with accessories				
Switching position display		Via accessories				
Assembly position		Any				
Direction of flow		Reversible				
Standard nominal flow rate	Ports at side	[l/min]	170	600	1,150	3,500
	Ports underneath	[l/min]	260	800	1,500	4,300
Nominal size		[mm]	4	6	8	12
Pneumatic connection 1,2,3,4			M5	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{2}$
Actuating force at 6 bar		[N]				
Actuating torque at 10 bar		[Nm]	0.6	1.1	2.8	-

Operating and environmental conditions		
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium		Operation with lubricated medium 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 requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

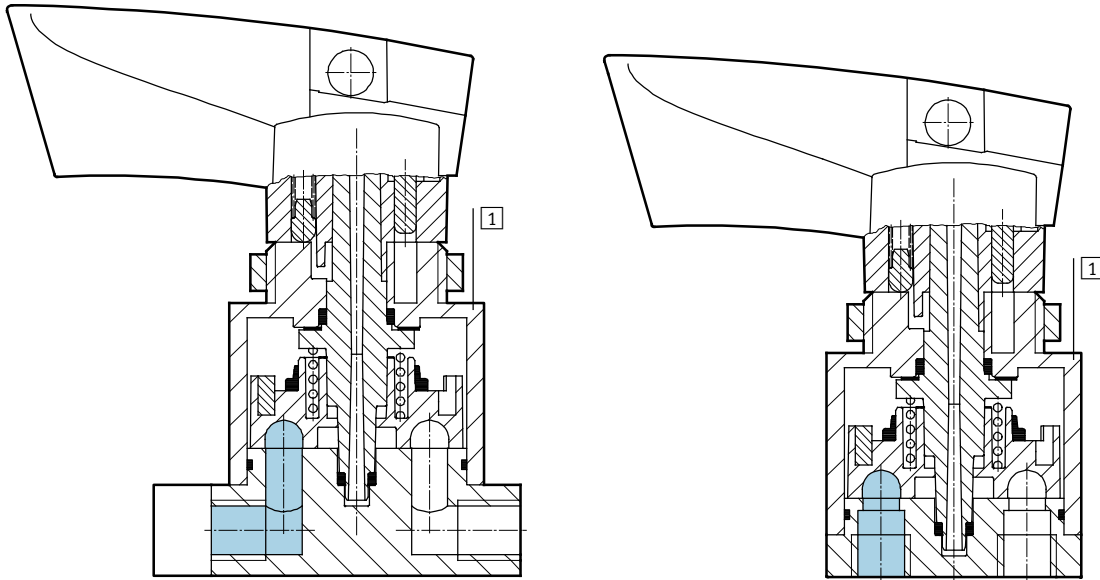
Proximity sensors for switching position display			
Pneumatic connection	Connection direction	Type	
		SME-10F-... L-...	SME-10F-... Q-...
M5	Underneath (UD)	■	■
	Side (LD)	-	■
G $\frac{1}{8}$	Underneath	■	■
	Side	-	■
G $\frac{1}{4}$	Underneath	■	■
	Side	-	■
G $\frac{1}{2}$	Underneath	■	■
	Side	-	■

Hand lever valves VHER-BH

Technical data VHER with plastic lever

Sectional view

Hand lever valves VHER-BH...



Materials				
Pneumatic connection	M5	G1/8	G1/4	G1/2
1 Housing	Reinforced PA	Reinforced PA	Die-cast aluminium	Die-cast aluminium
- Seals	Nitrile rubber			
-	Contains PWIS			
-	Free of copper and PTFE			

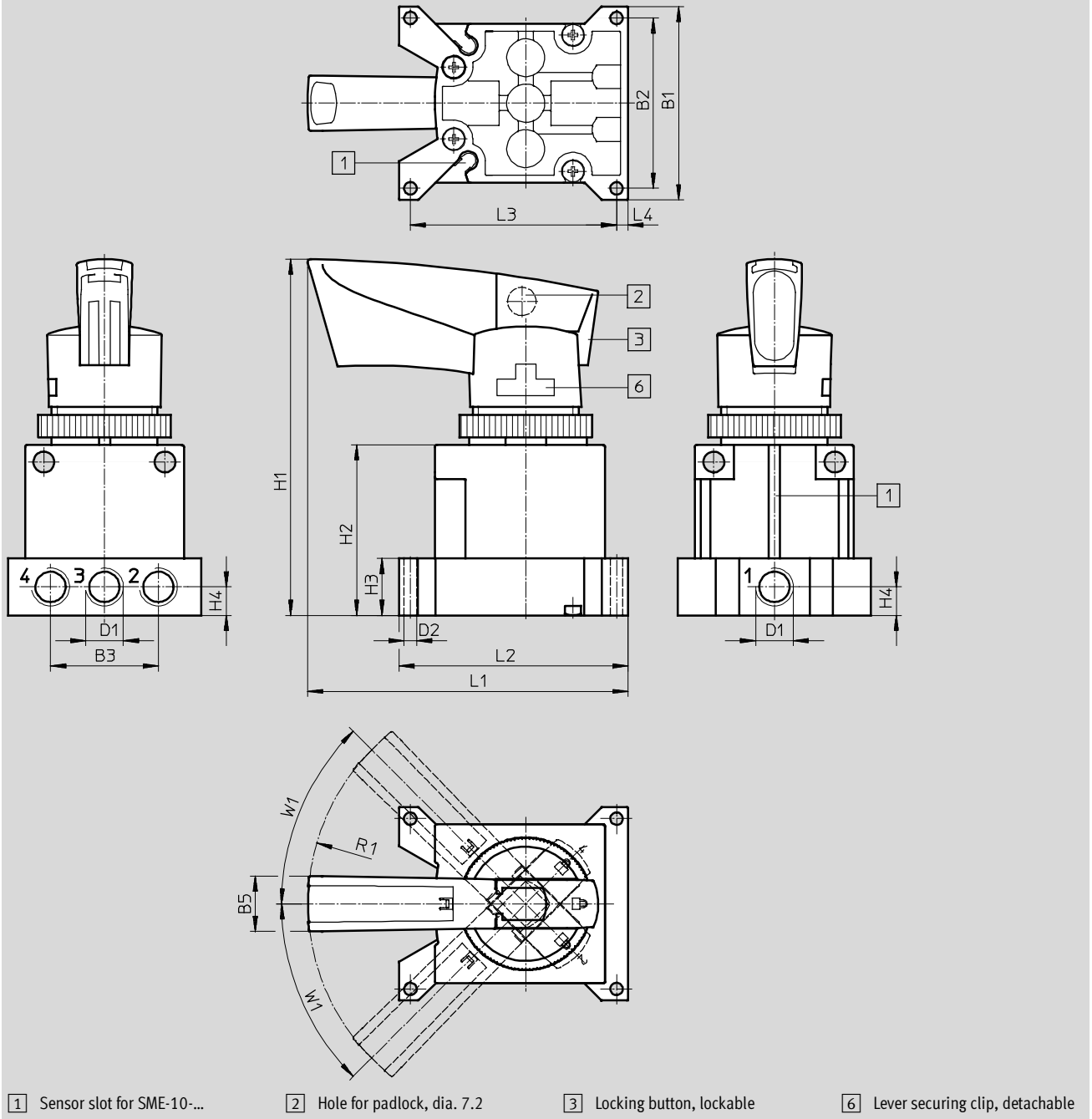
Hand lever valves VHER-BH

Technical data VHER with plastic lever

Dimensions

Download CAD data → www.festo.com

Ports M5 and G $\frac{1}{8}$, side



1 Sensor slot for SME-10-... 2 Hole for padlock, dia. 7.2 3 Locking button, lockable 6 Lever securing clip, detachable

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	G $\frac{1}{8}$	3.3	94	45	15	7.5	85	60.5	54.5	6	57.9	

Hand lever valves VHER-BH

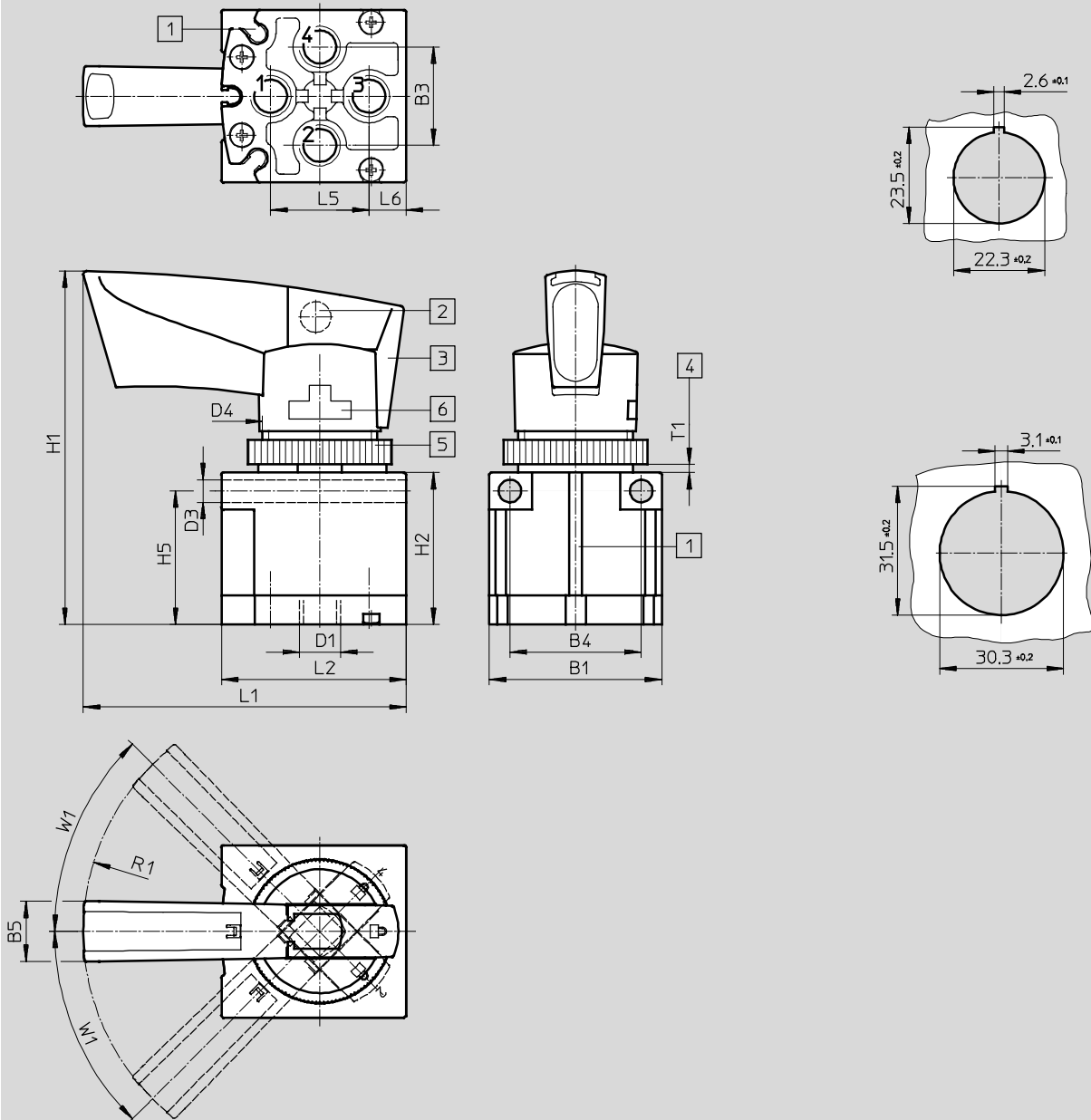
Technical data VHER with plastic lever

Dimensions

Ports M5 and G $\frac{1}{8}$, underneath

Download CAD data → www.festo.com

Mounting aperture for M5 and G $\frac{1}{8}$



- 1 Sensor slot for SME-10-...
- 2 Hole for padlock, dia. 7.2
- 3 Locking button, lockable
- 4 Material thickness for control panel installation
- 5 Knurled nut
- 6 Lever securing clip, detachable

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	G $\frac{1}{8}$	5.5	M30	86	37	32.5	79	45	24	9	57.9	1.5 ... 5.5	

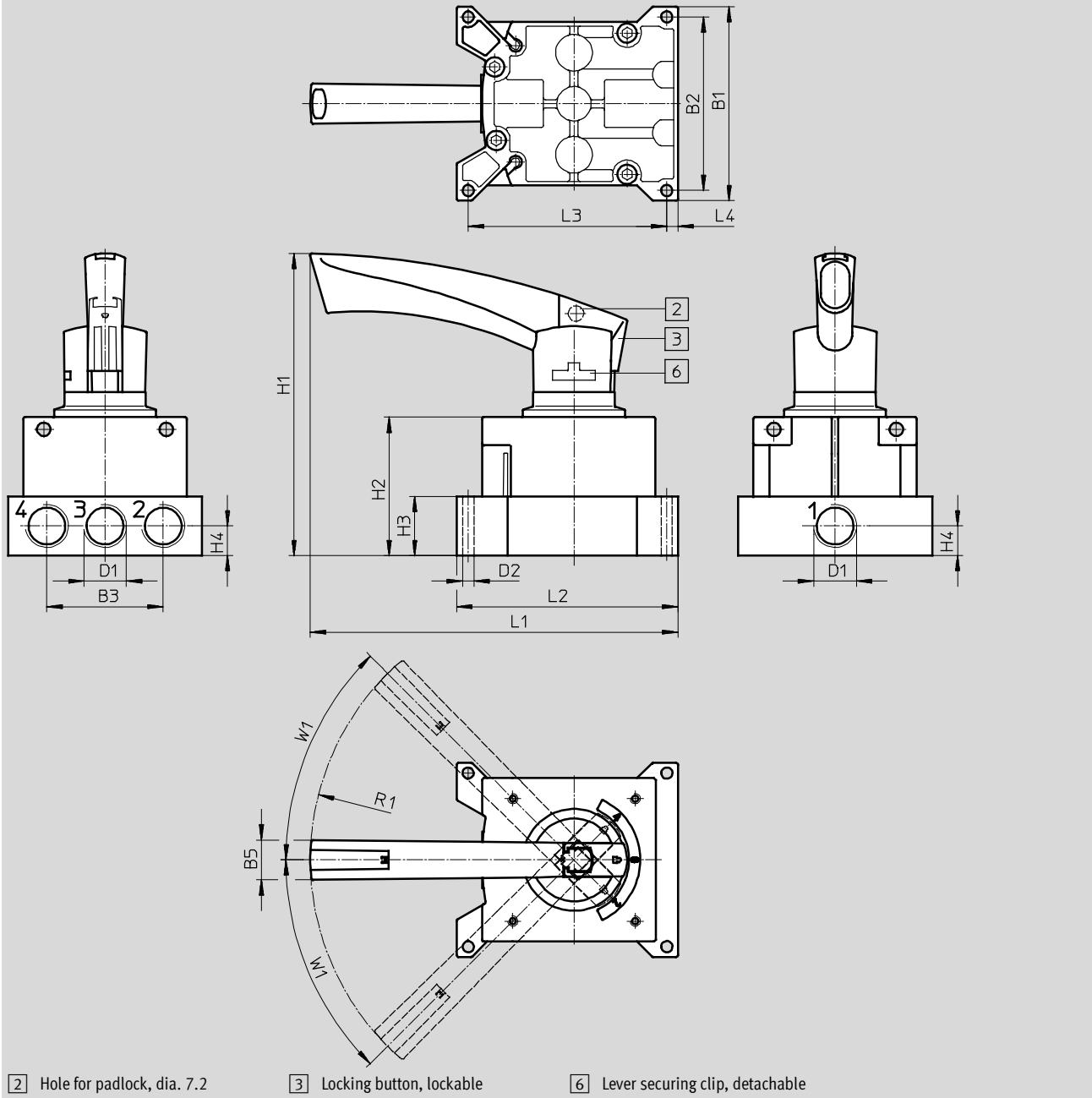
Hand lever valves VHER-BH

Technical data VHER with plastic lever

Dimensions

Download CAD data → www.festo.com

Ports G $\frac{1}{4}$ and G $\frac{1}{2}$, side



Type	B1	B2	B3	B5	D1	D2 ∅	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°
VHER-BH-...-G12-LD	95	85	57	19.5	G $\frac{1}{2}$	5.5	148	67.8	29	14.5	180	108.5	97.3	5.5	128.7	

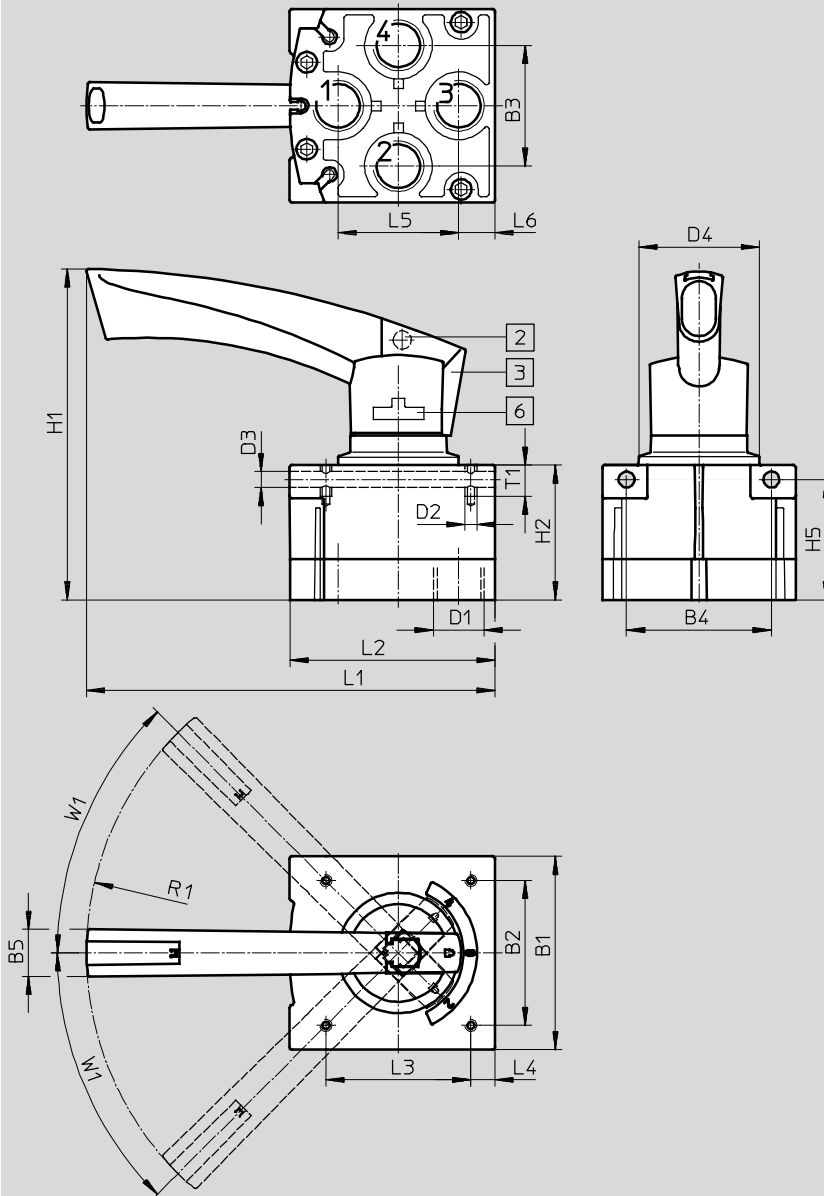
Hand lever valves VHER-BH

Technical data VHER with plastic lever

Dimensions

Download CAD data → www.festo.com

Ports G $\frac{1}{4}$ and G $\frac{1}{2}$, underneath



2 Hole for padlock, dia. 7.2

3 Locking button, lockable

6 Lever securing clip, detachable

Type	B1	B2	B3	B4	B5	D1	D2	D3 Ø	D4
VHER-BH-...-G14-UD	56.3	42	33	42	19.5	G $\frac{1}{4}$	M5	5.5	40.5
VHER-BH-...-G12-UD	80	60	50	60	19.5	G $\frac{1}{2}$	M6	6.6	51

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°
VHER-BH-...-G12-UD	137	55.8	49.8	169	84.8	60	10	50	15	128.7	13	

Hand lever valves VHER-BH

Technical data VHER with plastic lever




Ordering data						
Circuit symbol	Description	Weight [g]	Connection direction	Pneumatic connection	Part No.	Type
4/3-way valve ¹⁾						
	Mid-position closed	95	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
		900		G $\frac{1}{2}$	538196	VHER-BH-M04C-G12-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
		740		G $\frac{1}{2}$	538197	VHER-BH-M04C-G12-UD
	Mid-position exhausted	95	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
		900		G $\frac{1}{2}$	538204	VHER-BH-M04E-G12-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
		740		G $\frac{1}{2}$	538205	VHER-BH-M04E-G12-UD

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

Hand lever valves VHER

Accessories

FESTO

Ordering data				
	Description	Pneumatic connection	Part No.	Type
Blanking plugs				
	For sealing ports	M5	3843	B-M5 ¹⁾
		G ¹ / ₈	3568	B- ¹ / ₈
		G ¹ / ₄	3569	B- ¹ / ₄
		G ¹ / ₂	3571	B- ¹ / ₂
Silencers				
	For fitting in exhaust ports	-	→ Internet: u	
Push-in fittings QS				
	For connecting compressed air tubing with standard O.D.	-	→ Internet: quick star	

Permissible QS fittings ¹⁾ for VHER							
Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type
VHER-...-M05-UD		VHER-...-M05-LD		VHER-...-G18-UD		VHER-...-G18-LD	
153302	QSM-M5-3	153313	QSM-M5-3-I	186264	QSM-G ¹ / ₈ -4	186266	QSM-G ¹ / ₈ -4-I
153304	QSM-M5-4	153315	QSM-M5-4-I	186265	QSM-G ¹ / ₈ -6	186267	QSM-G ¹ / ₈ -6-I
153306	QSM-M5-6			186266	QSM-G ¹ / ₈ -4-I	186106	QS-G ¹ / ₈ -4-I
153313	QSM-M5-3-I			186267	QSM-G ¹ / ₈ -6-I	186107	QS-G ¹ / ₈ -6-I
153315	QSM-M5-4-I			186095	QS-G ¹ / ₈ -4	186109	QS-G ¹ / ₈ -8-I
153317	QSM-M5-6-I			186096	QS-G ¹ / ₈ -6		
				186098	QS-G ¹ / ₈ -8		
				186106	QS-G ¹ / ₈ -4-I		
				186107	QS-G ¹ / ₈ -6-I		
				186109	QS-G ¹ / ₈ -8-I		
VHER-...-G14-UD		VHER-...-G14-LD		VHER-...-G12-UD		VHER-...-G12-LD	
186097	QS-G ¹ / ₄ -6	186108	QS-G ¹ / ₄ -6-I	186104	QS-G ¹ / ₂ -12	186115	QS-G ¹ / ₂ -12-I
186099	QS-G ¹ / ₄ -8	186110	QS-G ¹ / ₄ -8-I	186105	QS-G ¹ / ₂ -16		
186101	QS-G ¹ / ₄ -10	186112	QS-G ¹ / ₄ -10-I	186115	QS-G ¹ / ₂ -12-I		
186108	QS-G ¹ / ₄ -6-I						
186110	QS-G ¹ / ₄ -8-I						
186112	QS-G ¹ / ₄ -10-I						

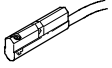
1) Scope of delivery 10 pieces

Permissible silencers for VHER							
Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type
VHER-...-M05-UD		VHER-...-M05-LD		VHER-...-G18-UD		VHER-...-G18-LD	
4645	U-M5	4645	U-M5	6841	U- ¹ / ₈ -B	161419	UC- ¹ / ₈
165003	UC-M5	165003	UC-M5	161419	UC- ¹ / ₈		
				2307	U- ¹ / ₈		
VHER-...-G14-UD		VHER-...-G14-LD		VHER-...-G12-UD		VHER-...-G12-LD	
6842	U- ¹ / ₄ -B	165004	UC- ¹ / ₄	6844	U- ¹ / ₂ -B	6844	U- ¹ / ₂ -B
165004	UC- ¹ / ₄						
2316	U- ¹ / ₄						

Hand lever valves VHER

Accessories

FESTO

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