


Hand lever valves VHER/HS

Key features

FESTO



Powerful

 Flow rate
130 ... 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 and HS can be used as 3/3-way valves by sealing port 2.

Practical

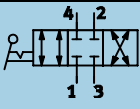
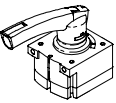

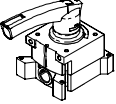

With these valves it is possible to stop single-acting cylinders (3/3-way valve) or double-acting cylinders (4/3-way valve) within the stroke range.

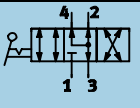
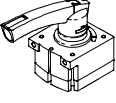

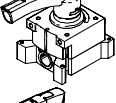

In mid-position closed, the drive piston moves until the forces are balanced.

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		Metal large	Connection				→ Page
				Plastic small	large		M5	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{2}$	
	Ports underneath										
		VHER-BH-M04C-M05-UD	260	■			■				2 / 4.6-7
		VHER-BH-M04C-M18-UD	800	■				■			
		VHER-BH-M04C-M14-UD	1,500		■				■		
		VHER-BH-M04C-M12-UD	4,300		■					■	
	Ports at side										
		VHER-BH-M04C-M05-LD	170	■			■				2 / 4.6-7
		VHER-BH-M04C-M18-LD	600	■				■			
	VHER-BH-M04C-M14-LD	1,150		■				■			
	VHER-BH-M04C-M12-LD	3,500		■					■		

Function	Version	Type	Nominal flow rate [l/min]	Lever		Metal large	Connection				→ Page
				Plastic small	large		M5	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{2}$	
	Ports underneath										
		VHER-BH-M04E-M05-UD	260	■			■				2 / 4.6-7
		VHER-BH-M04E-M18-UD	800	■				■			
		VHER-BH-M04E-M14-UD	1,500		■				■		
		VHER-BH-M04E-M12-UD	4,300		■					■	
	Ports at side										
		VHER-BH-M04E-M05-LD	170	■			■				2 / 4.6-7
		VHER-BH-M04E-M18-LD	600	■				■			
	VHER-BH-M04E-M14-LD	1,150		■				■			
	VHER-BH-M04E-M12-LD	3,500		■					■		

Hand lever valves HS/HSO

Product range overview

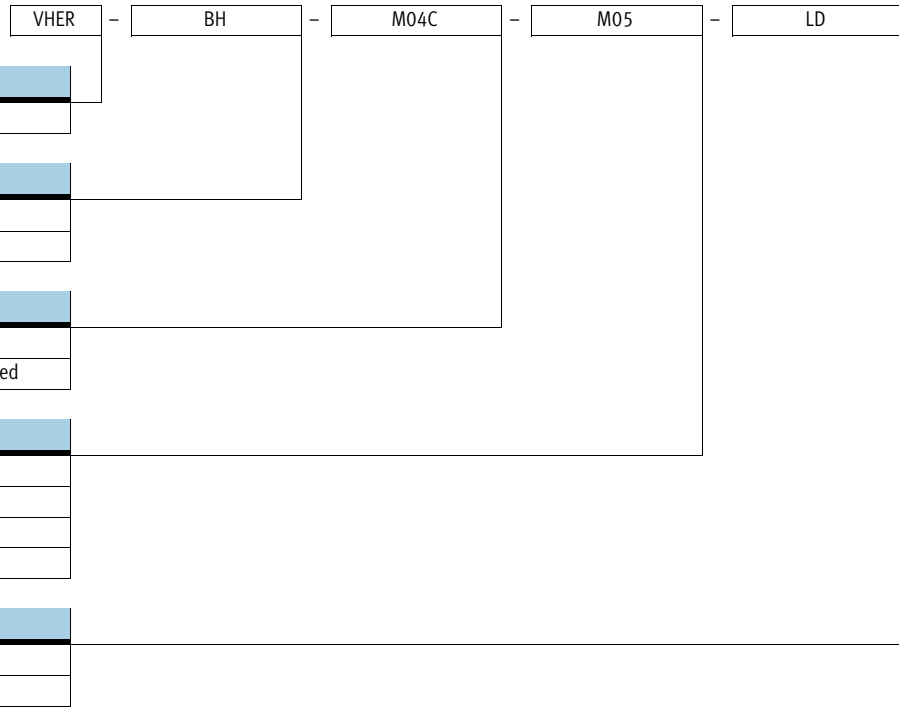


Function	Version	Type	Nominal flow rate [l/min]	Lever		Metal large	Connection				→ Page
				Plastic small	large		M5	G1/8	G1/4	G1/2	
	Ports underneath										
		HS-4/3-M5	130	■			■				2 / 4.6-14
		HS-4/3-1/8-B	700	■				■			
		HS-4/3-1/4	1,200		■				■		
		HS-4/3-1/2-B	3,500			■				■	

Function	Version	Type	Nominal flow rate [l/min]	Lever		Metal large	Connection				→ Page
				Plastic small	large		M5	G1/8	G1/4	G1/2	
	Ports underneath										
		HSO-4/3-M5	130	■			■				2 / 4.6-14
		HSO-4/3-1/8-B	700	■				■			
		HSO-4/3-1/4	1,200		■				■		
		HSO-4/3-1/2-B	3,500			■				■	

Hand lever valves VHER

Type codes

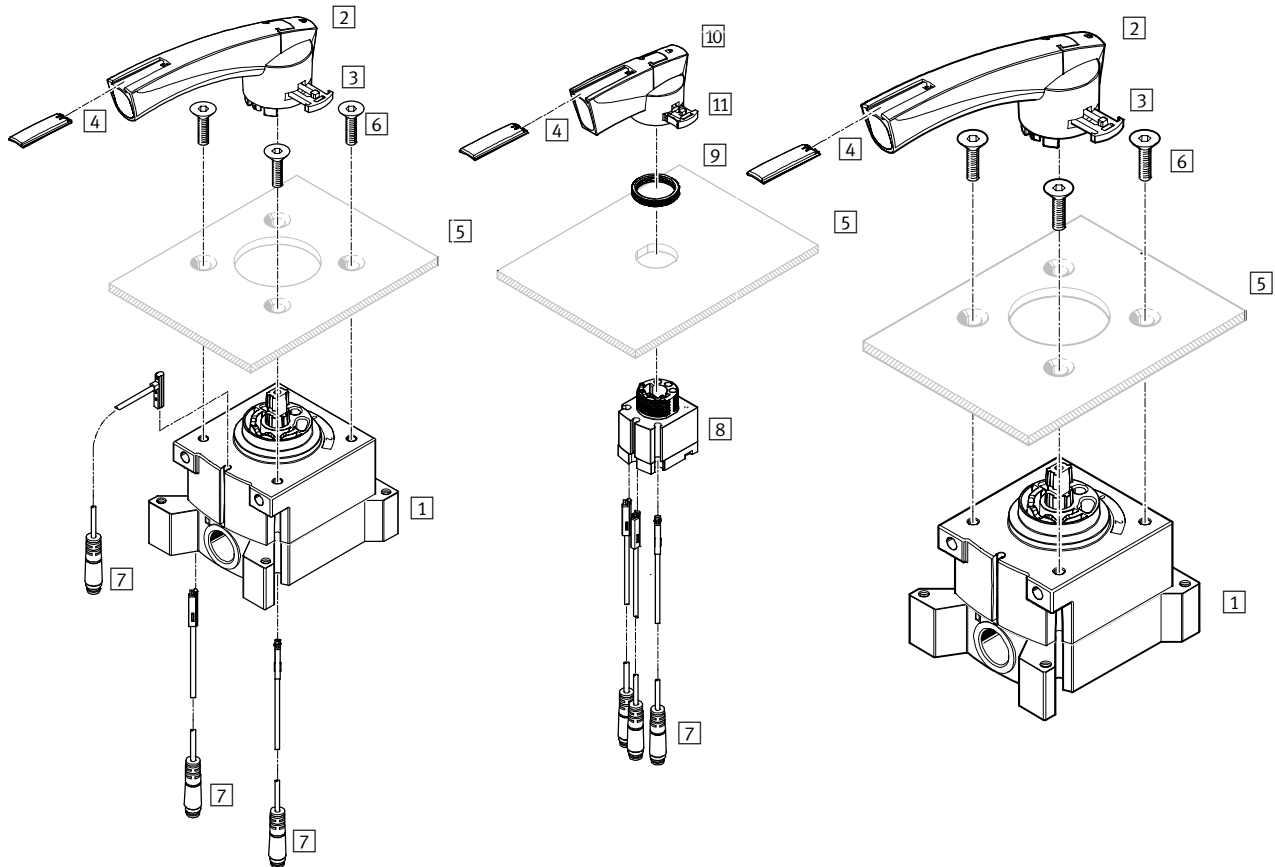


Hand lever valves VHER

Peripherals overview

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Control panel installation



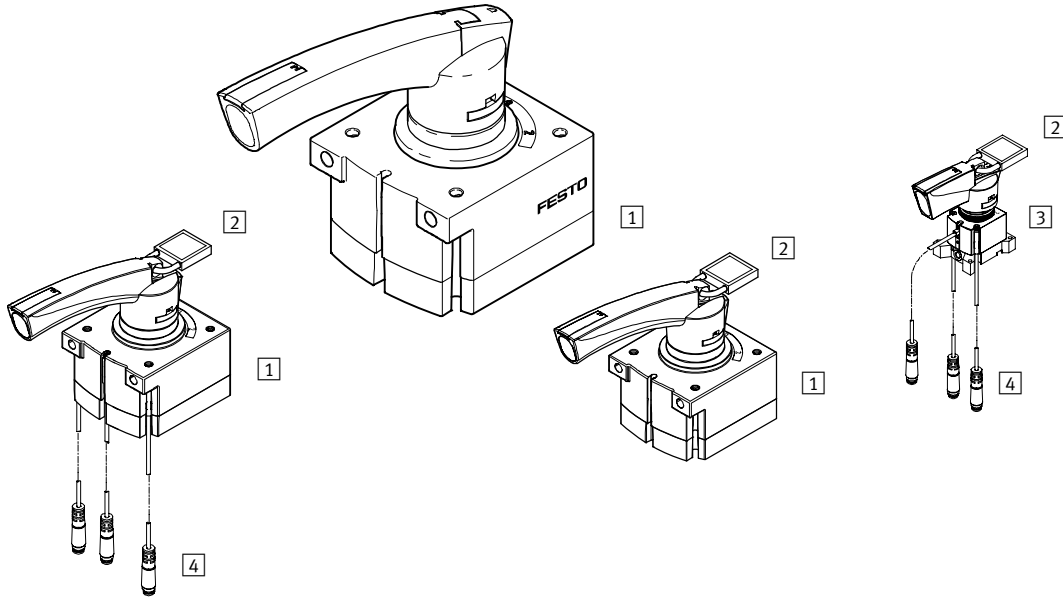
Component parts and accessories		Brief description	→ Page
1	Hand lever valve VHER	Connection size G $\frac{1}{4}$ and G $\frac{1}{2}$	2 / 4.6-7 www.festo.com
2	Actuating attachment	Large	-
3	Lever attachment	-	- www.festo.com
4	Inscription label	-	-
5	Control panel	Not included in scope of delivery	-
6	Mounting screws	Not included in scope of delivery	-
7	Proximity sensor SME-10-L, SME-10-Q	Not included in scope of delivery	→ Volume 4
8	Hand lever valve VHER	Connection size M5 and G $\frac{3}{8}$	2 / 4.6-7
9	Knurled nut	Control panel mounting	-
10	Actuating attachment	Small	-
11	Lever attachment	-	-

Hand lever valves VHER

Peripherals overview



Assembled valves with accessories






Accessories		Brief description	→ Page
1	Hand lever valve VHER	Connection size G $\frac{1}{4}$ and G- $\frac{1}{2}$	2 / 4.6-7 www.festo.com
2	Padlock	Not included in scope of delivery	- www.festo.com
3	Hand lever valve VHER	Connection size M5 and G $\frac{1}{8}$	2 / 4.6-7
4	Proximity sensor SME-10-L, SME-10-Q	Not included in scope of delivery	→ Volume 4

Hand lever valves VHER

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Technical data

-  - Flow rate
260 ... 4,300 l/min
-  - Pressure
-0.95 ... +10 bar
-  - Temperature range
-20 ... +80°C



General technical data						
Pneumatic connection			M5	G1/8	G1/4	G1/2
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			
Actuator security			Lockable with accessories			
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]	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	G1/8	G1/4	G-1/2
Actuating torque at 6 bar		[Nm]	0.6	1.1	2.8	5
Temperature range		[°C]	-20 ... +80			

Operating and environmental conditions		
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm
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-10-L	SME-10-Q
M5	Underneath (UD)	■	■
	Side (LD)	-	■
G1/8	Underneath	■	■
	Side	-	■
G1/4	Underneath	■	■
	Side	-	■
G-1/2	Underneath	■	■
	Side	-	■

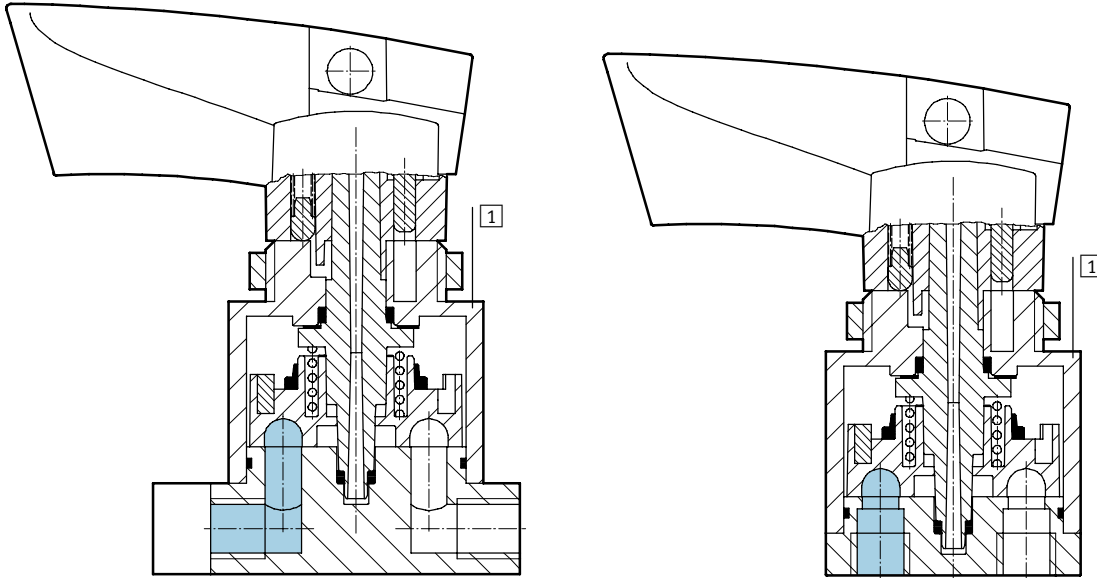
Hand lever valves VHER

Technical data

FESTO

Materials

Sectional view



1	Housing	Reinforced PA or die-cast aluminium
-	Seals	Nitrile rubber
-		Contains PWIS
-		Free of copper and PTFE

Hand lever valves VHER

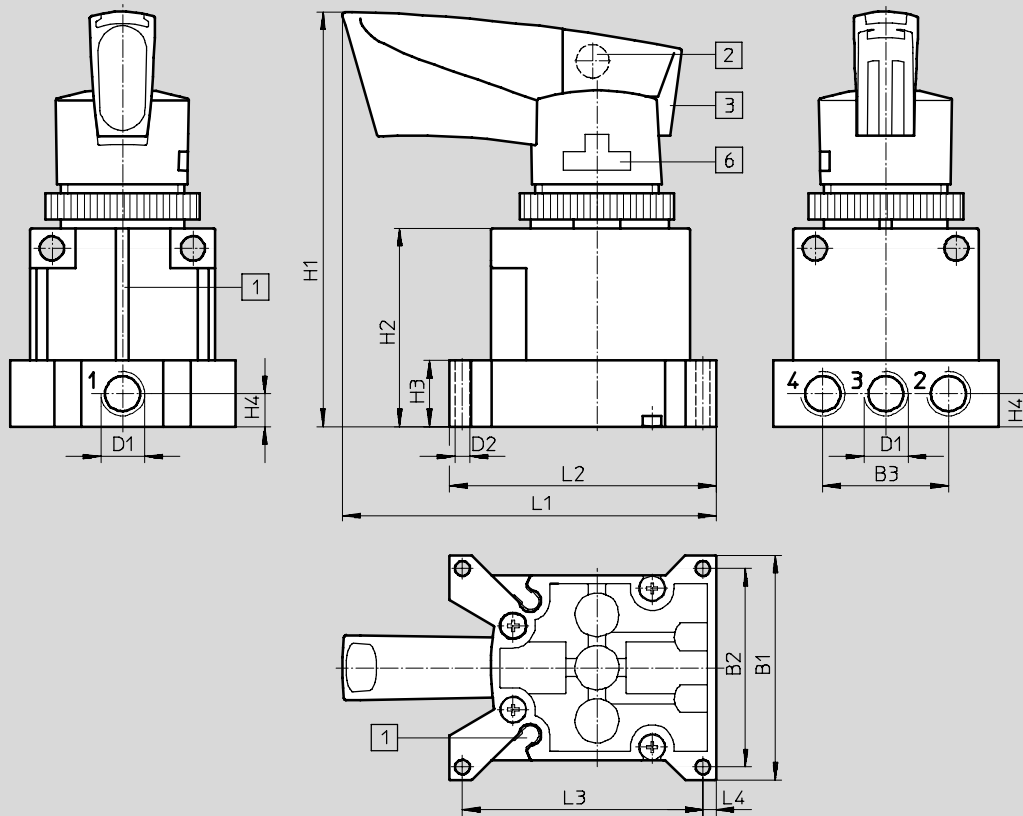
Technical data

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Dimensions

Download CAD data → www.festo.com/en/engineering

Ports M5 and G1/8, side



1 Sensor slot for SME-10-...

2 Hole for padlock, dia. 7.5

3 Locking button, lockable

6 Lever attachment, detachable

Type	B1	B2	B3	D1	D2 Ø	H1	H2	H3	H4	L1	L2	L3	L4
VHER-...-M5-LD	37	32	17.4	M5	2.7	82	32	10	5	78	45	40	2.5
VHER-...-M18-LD	51	45	28.5	G1/8	3.3	94	45	15	7.5	85	60.5	54.5	6

Hand lever valves VHER

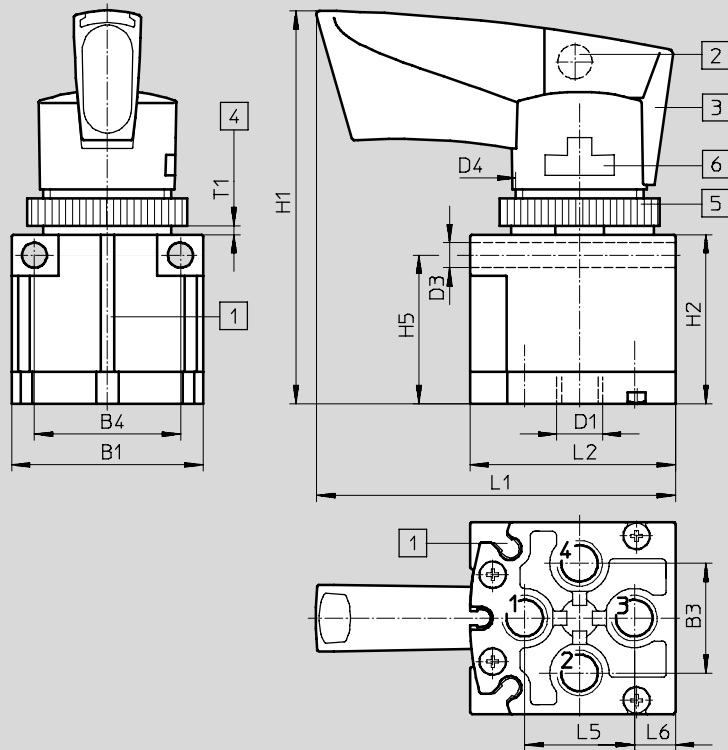
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

Ports M5 and G¹/₈, underneath



- 1 Sensor slot for SME-10-...
- 2 Hole for locking clip, dia. 7.5
- 3 Locking button, lockable
- 4 Wall thickness for control panel installation
- 5 Knurled nut
- 6 Lever attachment, detachable

Type	B1	B3	B4	D1	D3 Ø	D4	H1	H2	H5	L1	L2	L5	L6	T1
VHER-...-M5-UD	30	17	-	M5	-	M22	79	28.6	-	73	33.8	17	6.5	2...4
VHER-...-M18-UD	42	24	32	G ¹ / ₈	5.5	M30	86	37	2.5	79	45	24	9	1.5...5.5

Hand lever valves VHER

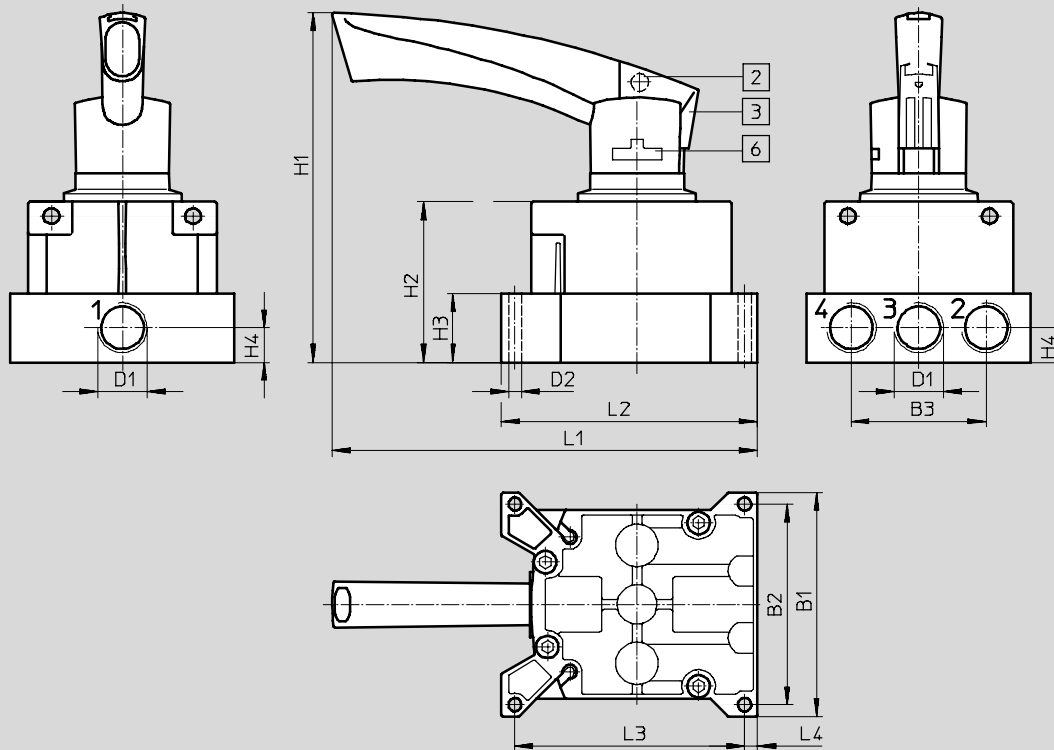
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

Ports G¼ and G½, side



2 Hole for locking clip, dia. 7.5

3 Locking button, lockable

6 Lever attachment, detachable

Type	B1	B2	B3	D1	D2 Ø	H1	H2	H3	H4	L1	L2	L3	L4
VHER-...M14-LD	66	57.5	37.5	G¼	4.5	136	55.5	20.5	10.25	166	77	69.2	4
VHER-...M12-LD	95	85	57	G½	5.5	148	67.8	29	14.5	180	108.5	97.3	5.5

Hand lever valves VHER

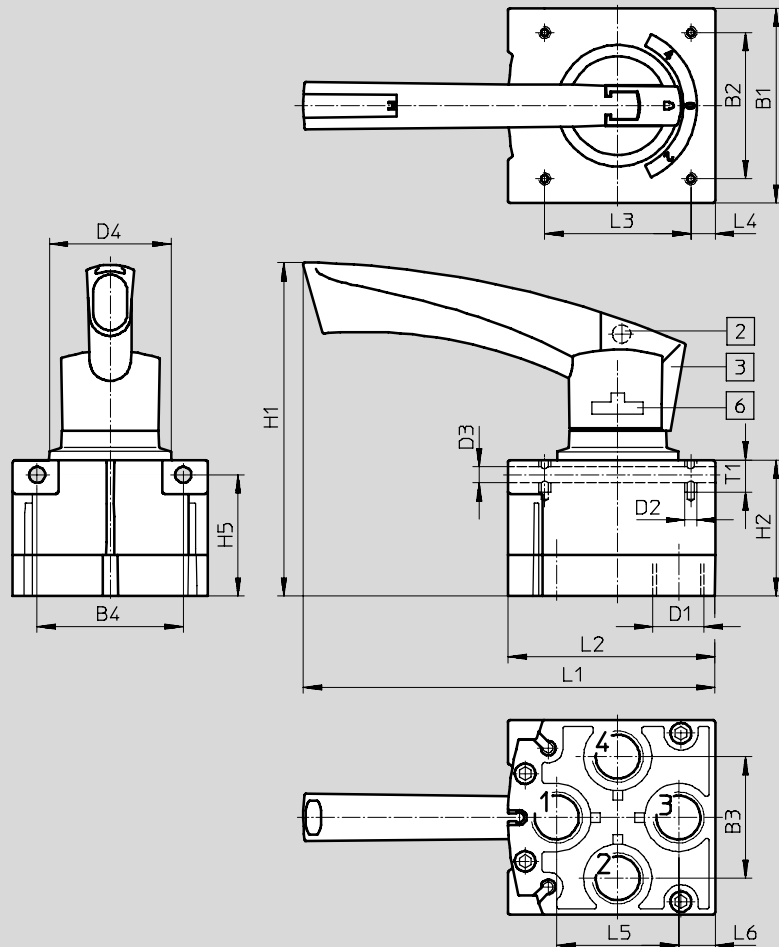
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

Ports G¼ and G½, underneath



2 Hole for locking clip, dia. 7.5

3 Locking button, lockable

6 Lever attachment, detachable

Manually and mechanically actuated valves
Hand lever valves

4.6

Type	B1	B3	B4	D1	D2	D3 Ø	D4	H1	H2	H5	L1	L2	L5	L6	T1
VHER-...-M14-UD	56.3	42	33	42	G¼	5.5	40.5	129	49	43.5	157	60.2	42	11.7	12
VHER-...-M12-UD	80	60	50	60	G½	6.6	51	137	55.8	49.8	169	84.8	60	15	13

Hand lever valves VHER

Technical data




Ordering data						
Circuit symbol	Description	Weight [gr]	Connection direction	Pneumatic connection	Part No.	Type
4/3-way valve ¹⁾						
	Mid-position closed	95	Side	M5	538 190	VHER-BH-M04C-M05-LD
		165		G $\frac{1}{8}$	538 192	VHER-BH-M04C-M18-LD
		435		G $\frac{1}{4}$	538 194	VHER-BH-M04C-M14-LD
		900		G $\frac{1}{2}$	538 196	VHER-BH-M04C-M12-LD
		80	Underneath	M5	538 191	VHER-BH-M04C-M05-UD
		125		G $\frac{1}{8}$	538 193	VHER-BH-M04C-M18-UD
		375		G $\frac{1}{4}$	538 195	VHER-BH-M04C-M14-UD
		740		G $\frac{1}{2}$	538 197	VHER-BH-M04C-M12-UD
	Mid-position exhausted	95	Side	M5	538 198	VHER-BH-M04E-M05-LD
		165		G $\frac{1}{8}$	538 200	VHER-BH-M04E-M18-LD
		435		G $\frac{1}{4}$	538 202	VHER-BH-M04E-M14-LD
		900		G $\frac{1}{2}$	538 204	VHER-BH-M04E-M12-LD
		80	Underneath	M5	538 199	VHER-BH-M04E-M05-UD
		125		G $\frac{1}{8}$	538 201	VHER-BH-M04E-M18-UD
		375		G $\frac{1}{4}$	538 203	VHER-BH-M04E-M14-UD
		740		G $\frac{1}{2}$	538 205	VHER-BH-M04E-M12-UD

1) The hand lever valve can be used as a 3/3-way valve by sealing port 2, blanking plugs → 2 / 4.6-18

Hand lever valves HS/HSO

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Technical data

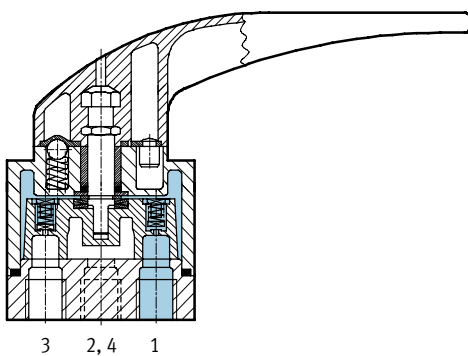
-  - Flow rate
130 ... 3,500 l/min
-  - Pressure
-0.95 ... +10 bar
-  - Temperature range
-10 ... +80°C



General technical data					
Pneumatic connection		M5	G1/8	G1/4	G1/2
Operating medium	Filtered compressed air, lubricated or unlubricated Vacuum ¹⁾				
Design	Flat slide valve				
Type of mounting	Front panel mounting	Front panel mounting, mounting holes	Front panel mounting		
Nominal size	[mm]	3.6	6	8	12
Standard nominal flow rate 1 → 4	[l/min]	130	700	1,200	3,500
Operating pressure range	[bar]	-0.95 ... +10 bar			
Actuating force at 6 bar	[N]	-	-	12	26
Actuating torque at 6 bar	[Nm]	0.3	1	-	-
Temperature range	[°C]	-20 ... +80			
Materials	Housing	Die-cast aluminium, plastic			
	Seals	Nitrile rubber			
Weight	[g]	35	120	390	1,350

1) M5: vacuum at ports 1 and 3
G1/8: vacuum at port 3
G1/4: vacuum at ports 1 and 3
G1/2: vacuum at port 3

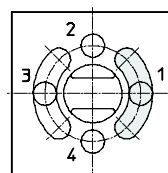
HS...-...-1/4



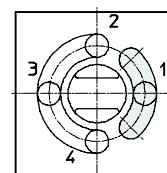
- 1 = Supply port
- 4, 2 = Working or outlet lines
- 3 = Exhaust

Ports underneath

HS



HSO



Hand lever valves HS/HSO

Technical data



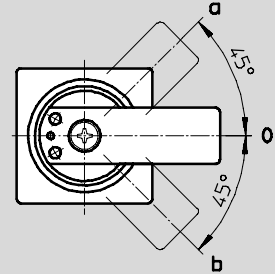
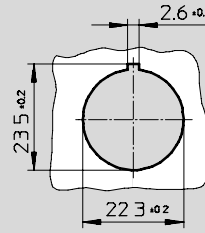
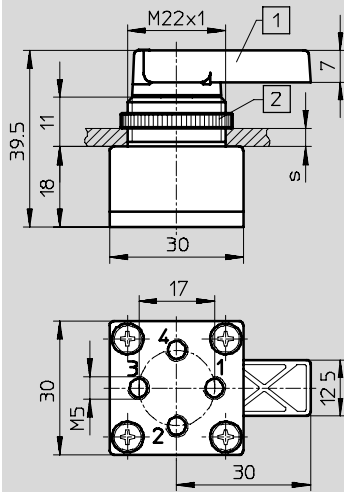
Dimensions

Download CAD data → www.festo.com/en/engineering

Port M5

Mounting aperture

Lever position



- 1 Lever can be repositioned by 180°
- 2 Max. tightening torque: 3 Nm

s = Front panel thickness
1.5 ... 6 mm

Hand lever valves HS/HSO

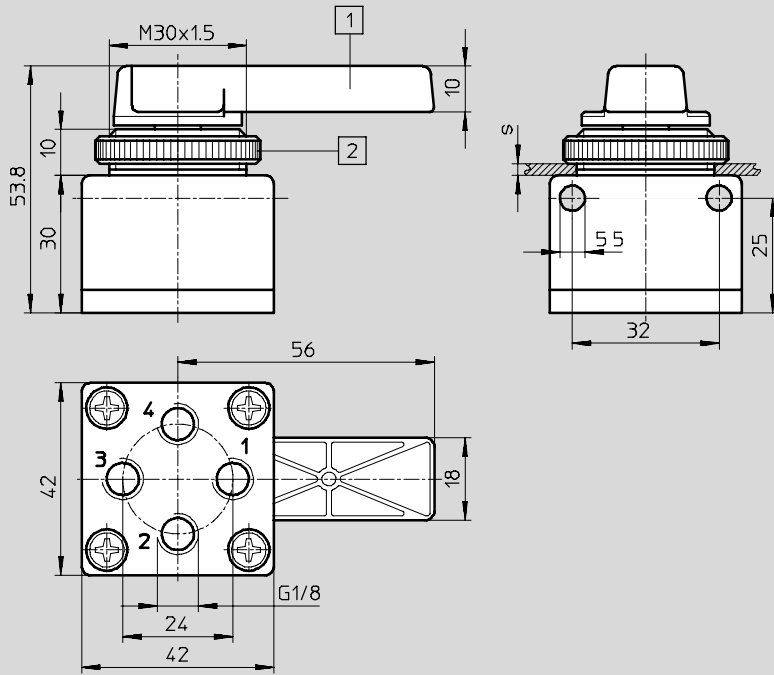
Technical data

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Dimensions

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Port G1/8

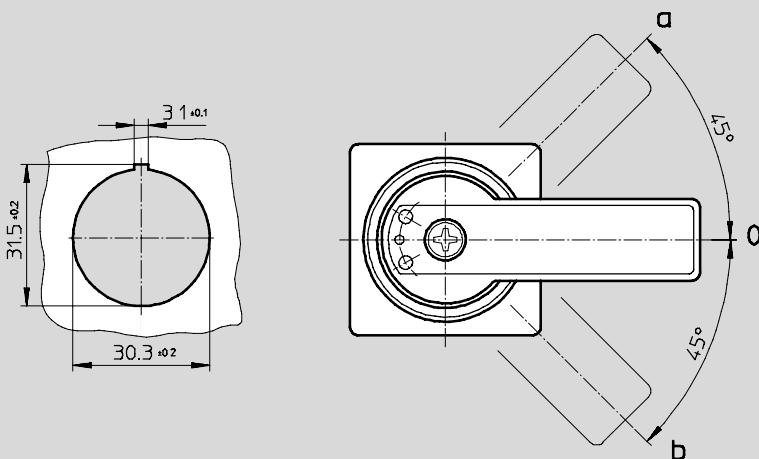


- 1 Lever can be repositioned by 180°
- 2 Max. tightening torque: 3 Nm

s = Front panel thickness
2 ... 5 mm

Mounting aperture

Lever position



Hand lever valves HS/HSO

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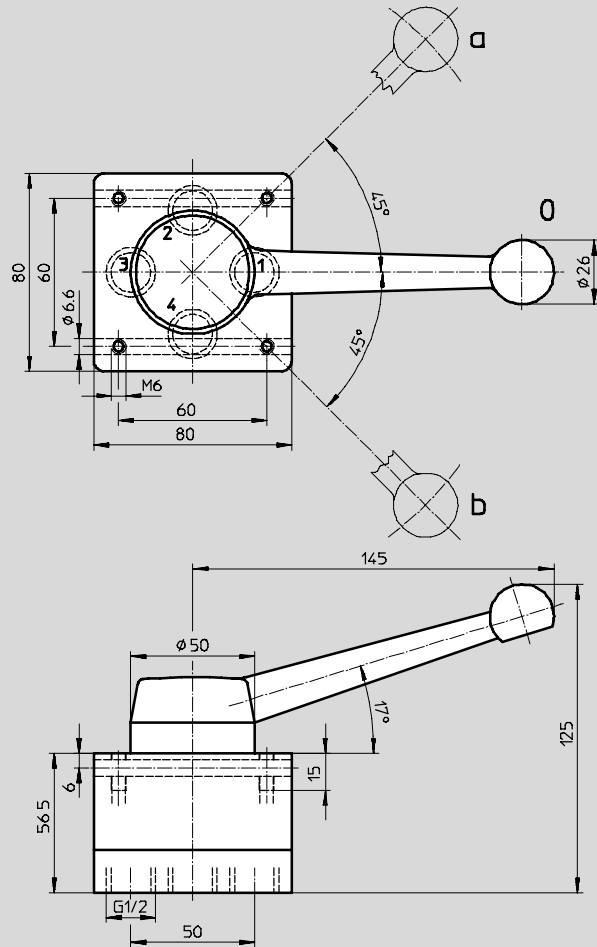
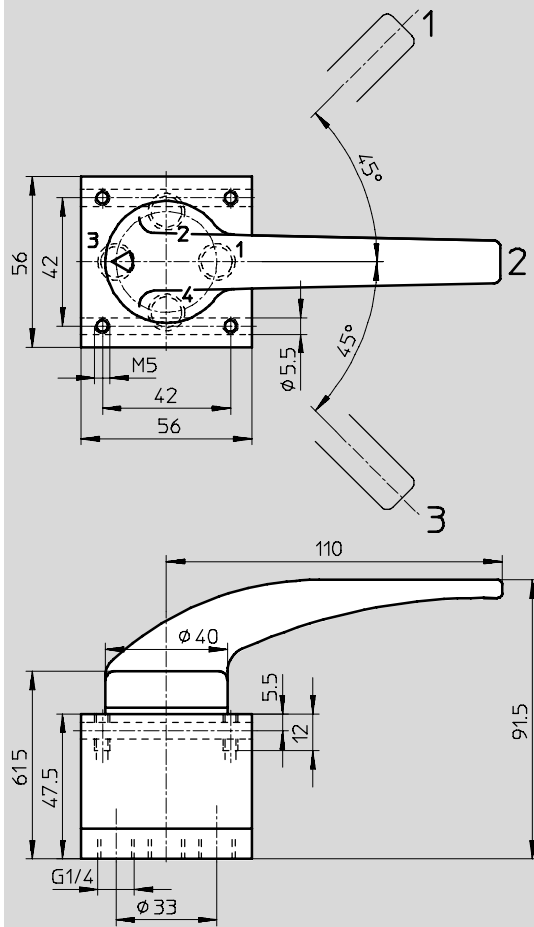
Technical data

Dimensions

Download CAD data → www.festo.com/en/engineering

Port G $\frac{1}{4}$

Port G $\frac{1}{2}$



Ordering data




Circuit symbol	Description	Pneumatic connection	Part No.	Type
4/3-way valve¹⁾				
	Mid-position closed	M5	34 639	HS-4/3-M5
		G $\frac{1}{8}$	151 842	HS-4/3- $\frac{1}{8}$ -B
		G $\frac{1}{4}$	9 339	HS-4/3- $\frac{1}{4}$
		G $\frac{1}{2}$	9 784	HS-4/3- $\frac{1}{2}$ -B
	Mid-position exhausted	M5	34 539	HSO-4/3-M5
		G $\frac{1}{8}$	151 843	HSO-4/3- $\frac{1}{8}$ -B
		G $\frac{1}{4}$	9 340	HSO-4/3- $\frac{1}{4}$
		G $\frac{1}{2}$	9 785	HSO-4/3- $\frac{1}{2}$ -B

1) The hand lever valve HS can be used as a 3/3-way valve by sealing port 2, blanking plugs → 2 / 4.6-18

Hand lever valves HS/HSO/VHER

Accessories

FESTO

Ordering data				
	Description	Pneumatic connection	Part No.	Type
Blanking plugs				
	For sealing ports	M5	3 843	B-M5¹⁾
		G ¹ / ₈	3 568	B-¹/₈¹⁾
		G ¹ / ₄	3 569	B-¹/₄¹⁾
		G ¹ / ₂	3 571	B-¹/₂¹⁾
Silencers				
	For fitting in exhaust ports	-	→ Volume 3	
Push-in fittings QS				
	For connecting compressed air tubing with standard O.D. to CETOP RP 54 P	-	→ Volume 3 → www.festo.com	

1) Scope of delivery 10 pieces