

## Manually actuated valve, metric VHEF

**FESTO**



## Characteristics

### At a glance

#### Innovative:

- Small and compact for a wide range of pneumatic applications
- Numerous valve functions can be selected: 3/2-way and 5/2-way functions
- With a flow rate of up to 1200 l/min, the valves offer high pneumatic performance for a wide range of tasks
- Lightweight
- Minimal actuating forces

#### Versatile:

- The flexibility of pneumatic working ports provides a practical way of solving individual requirements
- The 3/2-way valve can be used in normally closed (NC) or in normally open (NO) position
- Circular silencer or ducted exhaust air
- Suitable for vacuum
- Reverse operation possible
- Pressure range from vacuum to 10 bar possible
- Design as pushbutton valve, toggle lever valve, finger lever valve, hand lever valve, hand lever valve sideways, selector valve, selector valve sideways

#### Operationally safe:

- Durable due to proven piston slide and disc seat valves
- Sturdy design: basic valve made of metal, cover made of polymer
- Easy to assemble:
- Can be mounted using mounting holes
- Almost all valves can be mounted on a front panel (not possible with finger lever valve)

#### Common features:

- Mechanical spring
- Vacuum operation possible
- Reversible
- Directly actuated
- Ducted exhaust air

### Product segmentation



#### Festo Core Range

Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery. The Core Range offers you the best value with the expected high Festo quality.

- Quickest delivery, worldwide – wherever, whenever
- Expected high Festo quality
- Easy and fast to select

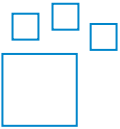
### Valve function

[M32]	3/2-way valve, normally closed or open	[B32]	3/2-way valve, double solenoid/bistable
	Normally open/closed		Normally open/closed
	Non-detenting (monostable) bistable		Detenting (bistable)
[M52]	5/2-way valve, single solenoid/monostable	[B52]	5/2-way valve, double solenoid/bistable
	Resetting		Resetting
	Non-detenting (monostable) bistable		Detenting (bistable)

## Characteristics

[B53C]	5/3-way valve, detenting, mid-position closed	[B53E]	5/3-way valve, detenting, mid-position exhausted
Detenting (bistable)		Mid-position closed detenting Mid-position exhausted	
[P53C]	5/3-way valve, mid-position closed	[P53E]	5/3-way valve, mid-position exhausted
Non-detenting (monostable) bistable		Mid-position closed not detenting Mid-position exhausted	

### Product version



You can order mechanical and manually operated directional control valves using the valve ordering system. Internet: vhef

## Type code

001	Series
VHEF	Manually actuated valve

002	Actuation type
E	Selector switch
ES	Selector switch, on the side
H	Hand lever, top
HS	Hand lever, on the side
L	Finger lever
P	Pushbutton
V	Toggle lever, top

003	Design principle
	Piston spool
T	Poppet valve

004	Type of control
	Directly actuated
C	Indirectly actuated

005	Pilot air
	Internal
Z	External

006	Valve function
B32	3/2-way valve, double solenoid/bistable
B52	5/2-way valve, double solenoid/bistable
B53C	5/3-way valve, detenting, mid-position closed
B53E	5/3-way valve, detenting, mid-position exhausted
M32	3/2-way valve, normally closed or open
M52	5/2-way valve, single solenoid/monostable
P53C	5/3-way valve, mid-position closed
P53E	5/3-way valve, mid-position exhausted

007	Reset method for monostable/single solenoid valves
	None
E	Pneumatic spring, external
M	Mechanical spring

008	Pneumatic connection
G18	G1/8
G14	G1/4

## Datasheet

**General technical data Pushbutton valve**

Design	Piston gate valve, Poppet seat
Construction width	20 mm
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	Front panel mounting, With through-hole, Either:
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. switching frequency	0.5 Hz

**General technical data toggle lever valve**

Design	Piston gate valve, Poppet seat
Construction width	20 mm
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	Front panel mounting, With through-hole, Either:
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. switching frequency	–

**General technical data Finger lever valve**

Design	Piston gate valve, Poppet seat
Construction width	20 mm
Type of piloting	Direct
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	With through-hole
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. switching frequency	0.5 Hz

**General technical data Hand lever valve, lateral**

Design	Piston gate valve, Poppet seat
Construction width	20 mm
Type of piloting	Direct
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	Front panel mounting, With through-hole, Either:
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. force on actuation	200 N
Max. lateral force on actuation	200 N
Max. switching frequency	0.5 Hz

## Datasheet

### General technical data Hand lever valve

Design	Piston gate valve, Poppet seat
Construction width	20 mm
Type of piloting	Direct
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	Front panel mounting, With through-hole, Either:
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. force on actuation	200 N
Max. lateral force on actuation	200 N
Max. switching frequency	0.5 Hz

### General technical data Selector valve, lateral

Design	Piston gate valve, Poppet seat
Construction width	20
Type of piloting	Direct
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	Front panel mounting, With through-hole, Either:
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. force on actuation	200 N
Max. lateral force on actuation	200 N
Max. switching frequency	0.5 Hz

### General technical data Selector valve

Design	Piston gate valve, Poppet seat
Construction width	20
Type of piloting	Direct
Instructions on use	Actuate manually only
Type of actuation	Manual
Type of mounting	Front panel mounting, With through-hole, Either:
Sealing principle	Soft
Flow direction	Reversible
Exhaust-air function	With flow control option
Mounting position	optional
Max. force on actuation	200 N
Max. lateral force on actuation	200 N
Max. switching frequency	0.5 Hz

### Technical data Pushbutton valve, 3/2-way valves, pneumatic connection G1/4

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Type of piloting	Pilot actuated	
Pilot air supply	External, Internal	
Manual override	Detenting	–
Actuating force	20	24.5
Unlocking force	25 N	–
Pilot air port 12	M5	
Nominal size	6 mm	

## Datasheet

**Technical data Pushbutton valve, 3/2-way valves, pneumatic connection G1/8**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Type of piloting	Pilot actuated	
Pilot air supply	External	External, Internal
Manual override	Detenting	–
Actuating force	20	24.5
Unlocking force	25 N	–
Pilot air port 12	M5	
Nominal size	5.6 mm	

**Technical data Pushbutton valve, 5/2-way valves, pneumatic connection G1/4**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Type of piloting	Direct	
Pilot air supply	–	
Manual override	Detenting	–
Actuating force	20	42
Unlocking force	35 N	–
Pilot air port 12	–	
Nominal size	7 mm	

**Technical data Pushbutton valve, 5/2-way valves, pneumatic connection G1/8**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Type of piloting	Direct	
Pilot air supply	–	
Manual override	Detenting	–
Actuating force	20	42
Unlocking force	35 N	–
Pilot air port 12	–	
Nominal size	5.2 mm	

**Technical data Toggle lever valve, 3/2-way valves, pneumatic connection G1/4**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Type of piloting	Direct	
Pilot air supply	–	
Manual override	Detenting	–
Actuating torque	1.9 Nm	0.6 Nm
Unlocking torque	1 Nm	–
Max. force on actuation	200 N	
Max. lateral force on actuation	140 N	
Nominal size	6 mm	

## Datasheet

**Technical data Toggle lever valve, 3/2-way valves, pneumatic connection G1/8**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Type of piloting	Direct	
Pilot air supply	–	
Manual override	Detenting	–
Actuating torque	1.9 Nm	0.6 Nm
Unlocking torque	1 Nm	–
Max. force on actuation	200 N	
Max. lateral force on actuation	140 N	
Nominal size	5.6 mm	

**Technical data Toggle lever valve, 5/2-way valves, pneumatic connection G1/4**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Type of piloting	Direct	
Pilot air supply	–	
Manual override	Detenting	–
Actuating torque	1.1 Nm	0.6 Nm
Unlocking torque	0.6 Nm	–
Max. force on actuation	200 N	
Max. lateral force on actuation	140 N	
Nominal size	7 mm	

**Technical data Toggle lever valve, 5/2-way valves, pneumatic connection G1/8**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Type of piloting	Direct	
Pilot air supply	–	
Manual override	Detenting	–
Actuating torque	1.1 Nm	0.6 Nm
Unlocking torque	0.6 Nm	–
Max. force on actuation	200 N	
Max. lateral force on actuation	140 N	
Nominal size	5.2 mm	

**Technical data finger lever valve, 3/2-way valves, pneumatic connection G1/4**

Valve function	3/2-way, monostable, open/closed	
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	Mechanical spring	
Nominal size	6 mm	
Actuating force	14 N	



## Datasheet

**Technical data finger lever valve, 3/2-way valves, pneumatic connection G1/8**

Valve function	3/2-way, monostable, open/closed	
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	Mechanical spring	
Actuating force	14 N	
Nominal size	5.6 mm	

**Technical data finger lever valve, 5/2-way valves, pneumatic connection G1/4**

Type of reset	Mechanical spring	Pneumatic spring
Valve function	5/2-way, monostable	
lap	Overlap	
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
Actuating force	12 N	14 N
Nominal size	7 mm	

**Technical data finger lever valve, 5/2-way valves, pneumatic connection G1/8**

Type of reset	Mechanical spring	Pneumatic spring
Valve function	5/2-way, monostable	
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Actuating force	10 N	8 N
Nominal size	5.2 mm	

**Technical data Hand lever valve, sideways, 3/2-way valves, pneumatic connection G1/4**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.7 Nm	0.6 Nm
Nominal size	6 mm	

**Technical data Hand lever valve, sideways, 3/2-way valves, pneumatic connection G1/8**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.7 Nm	0.6 Nm
Nominal size	5.6 mm	

**Technical data Hand lever valve, sideways, 5/2-way valves, pneumatic connection G1/4**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.6 Nm	
Nominal size	7 mm	

## Datasheet

**Technical data Hand lever valve, sideways, 5/2-way valves, pneumatic connection G1/8**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.6 Nm	
Nominal size	5.2 mm	

**Technical data Hand lever valve, sideways, 5/3-way valves, pneumatic connection G1/4**

Valve function	5/3 exhausted	5/3 closed
Standard nominal flow rate (standardised to DIN 1343)	900 l/min	1,200 l/min
lap	Overlap	
Type of reset	Mechanical spring	
Manual override	Detenting	
Actuating torque	0.7 Nm	
Nominal size	7 mm	

**Technical data Hand lever valve, sideways, 5/3-way valves, pneumatic connection G1/8**

Valve function	5/3 exhausted	5/3 closed
Standard nominal flow rate (standardised to DIN 1343)	530 l/min	700 l/min
lap	Overlap	
Type of reset	Mechanical spring	
Manual override	Detenting	
Actuating torque	0.7 Nm	
Nominal size	5.2 mm	

**Technical data Hand lever valve, 3/2-way valves, pneumatic connection G1/4**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.7 Nm	0.6 Nm
Nominal size	6 mm	

**Technical data Hand lever valve, 3/2-way valves, pneumatic connection G1/8**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.7 Nm	0.6 Nm
Nominal size	5.6 mm	

**Technical data Hand lever valve, 5/2-way valves, pneumatic connection G1/4**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.6 Nm	
Nominal size	7 mm	

## Datasheet

**Technical data Hand lever valve, 5/2-way valves, pneumatic connection G1/8**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.6 Nm	
Nominal size	5.2 mm	

**Technical data Hand lever valve, 5/3-way valves, pneumatic connection G1/4**

Valve function	5/3 exhausted	5/3 closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	1,200 l/min
lap	Overlap	
Type of reset	Mechanical spring	
Manual override	Detenting	
Actuating torque	0.7 Nm	
Nominal size	7 mm	

**Technical data Hand lever valve, 5/3-way valves, pneumatic connection G1/8**

Valve function	5/3 exhausted	5/3 closed
Standard nominal flow rate (standardised to DIN 1343)	530 l/min	700 l/min
lap	Overlap	
Type of reset	Mechanical spring	
Manual override	Detenting	
Actuating torque	0.7 Nm	
Nominal size	5.2 mm	

**Technical data Selector valve, sideways, 3/2-way valves, pneumatic connection G1/4**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.4 Nm	
Nominal size	6 mm	

**Technical data Selector valve, sideways, 3/2-way valves, pneumatic connection G1/8**

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.4 Nm	
Nominal size	5.6 mm	

**Technical data Selector valve, sideways, 5/2-way valves, pneumatic connection G1/4**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.2 Nm	0.3 Nm
Nominal size	7 mm	

## Datasheet

### Technical data Selector valve, sideways, 5/2-way valves, pneumatic connection G1/8

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.2 Nm	0.3 Nm
Nominal size	5.2 mm	

### Technical data Selector valve, sideways, 5/3-way valves, pneumatic connection G1/4

Valve function	5/3 exhausted	5/3 closed
Actuating torque	0.3 Nm	0.7 Nm
Standard nominal flow rate (standardised to DIN 1343)	900 l/min	1,200 l/min
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Nominal size	7 mm	

### Technical data Selector valve, sideways, 5/3-way valves, pneumatic connection G1/8

Valve function	5/3 exhausted	5/3 closed
Actuating torque	0.3 Nm	0.7 Nm
Standard nominal flow rate (standardised to DIN 1343)	530 l/min	700 l/min
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Nominal size	5.2 mm	

### Technical data Selector valve, 3/2-way valves, pneumatic connection G1/4

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	870 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.7 Nm	0.4 Nm
Nominal size	6 mm	

### Technical data Selector valve, 3/2-way valves, pneumatic connection G1/8

Valve function	3/2 double solenoid	3/2-way, monostable, open/closed
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Zero overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.7 Nm	0.4 Nm
Nominal size	5.6 mm	

### Technical data Selector valve, 5/2-way valves, pneumatic connection G1/4

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	1,200 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.3 Nm	
Nominal size	7 mm	

## Datasheet

**Technical data Selector valve, 5/2-way valves, pneumatic connection G1/8**

Valve function	5/2 double solenoid	5/2-way, monostable
Standard nominal flow rate (standardised to DIN 1343)	750 l/min	
lap	Overlap	
Type of reset	–	Mechanical spring
Manual override	Detenting	–
Actuating torque	0.3 Nm	
Nominal size	5.2 mm	

**Technical data Selector valve, 5/3-way valves, pneumatic connection G1/4**

Valve function	5/3 exhausted	5/3 closed		
Actuating torque	0.4 Nm	0.7 Nm	0.4 Nm	0.7 Nm
Standard nominal flow rate (standardised to DIN 1343)	750 l/min		1,200 l/min	
lap	Overlap			
Type of reset	–	Mechanical spring	–	Mechanical spring
Manual override	Detenting	–	Detenting	–
Nominal size	7 mm			

**Technical data Selector valve, 5/3-way valves, pneumatic connection G1/8**

Valve function	5/3 exhausted	5/3 closed		
Actuating torque	0.4 Nm	0.7 Nm	0.4 Nm	0.7 Nm
Standard nominal flow rate (standardised to DIN 1343)	530 l/min		700 l/min	
lap	Overlap			
Type of reset	–	Mechanical spring	–	Mechanical spring
Manual override	Detenting	–	Detenting	–
Nominal size	5.2 mm			

**Operating and ambient conditions, pushbutton valve**

Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	-0.95 ... 10 bar
Operating pressure	-0.095 ... 1 MPa
Pilot pressure	3 ... 10 bar
Media temperature	-10 ... 60°C
Ambient temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress

1) Corrosion resistance class CRC 1 according to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the interior areas that are not visible, or parts that are covered in the application (e.g. drive trunnions).

**Operating and ambient conditions, toggle lever valve**

Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	-0.95 ... 10 bar
Operating pressure	-0.095 ... 1 MPa
Pilot pressure	–
Media temperature	-10 ... 60°C
Ambient temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress

1) Corrosion resistance class CRC 1 according to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the interior areas that are not visible, or parts that are covered in the application (e.g. drive trunnions).

## Datasheet

### Operating and ambient conditions, finger lever valve

Operating medium	Compressed air to ISO 8573-1:2010 [7:-:]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	-0.95 ... 10 bar
Operating pressure	-0.095 ... 1 MPa
Pilot pressure	–
Media temperature	-10 ... 60°C
Ambient temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress

1) Corrosion resistance class CRC 1 according to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the interior areas that are not visible, or parts that are covered in the application (e.g. drive trunnions).

### Operating and ambient conditions, hand lever valve

Operating medium	Compressed air to ISO 8573-1:2010 [7:-:]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	-0.95 ... 10 bar
Operating pressure	-0.095 ... 1 MPa
Pilot pressure	–
Media temperature	-10 ... 60°C
Ambient temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress

1) Corrosion resistance class CRC 1 according to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the interior areas that are not visible, or parts that are covered in the application (e.g. drive trunnions).

### Operating and ambient conditions, selector valve

Operating medium	Compressed air to ISO 8573-1:2010 [7:-:]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	-0.95 ... 10 bar
Operating pressure	-0.095 ... 1 MPa
Pilot pressure	–
Media temperature	-10 ... 60°C
Ambient temperature	-10 ... 60°C
Corrosion resistance class CRC <sup>1)</sup>	1 - Low corrosion stress

1) Corrosion resistance class CRC 1 according to Festo standard FN 940070. Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the interior areas that are not visible, or parts that are covered in the application (e.g. drive trunnions).

### Materials, pushbutton valve

Material housing	Anodised wrought aluminium alloy
Material cover	PA-reinforced
Material lever	–
Material seals	NBR
Note on materials	RoHS-compliant

### Materials, toggle lever valve

Material housing	Anodised wrought aluminium alloy
Material cover	PA-reinforced
Material lever	PA-reinforced
Material seals	NBR
Note on materials	RoHS-compliant

## Datasheet

## Materials, finger lever valve

Material housing	Anodised wrought aluminium alloy
Material cover	PA-reinforced
Material lever	PA-reinforced
Material seals	NBR
Note on materials	RoHS-compliant

## Materials, hand lever valve

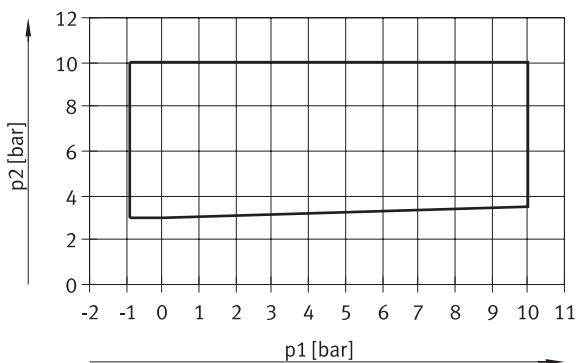
Material housing	Anodised wrought aluminium alloy
Material cover	PA-reinforced
Material lever	PA-reinforced
Material seals	NBR
Note on materials	RoHS-compliant

## Materials, selector valve

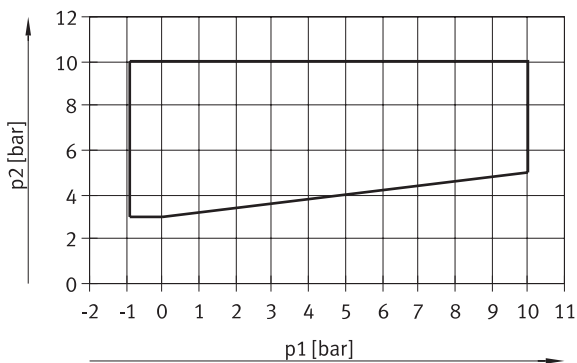
Material housing	Anodised wrought aluminium alloy
Material cover	PA-reinforced
Material lever	PA-reinforced
Material seals	NBR
Note on materials	RoHS-compliant

Pilot pressure  $p_2$  as a function of working pressure  $p_1$ , for poppet seat valves VMEF-...-M32... (normally closed, NC)

VMEF

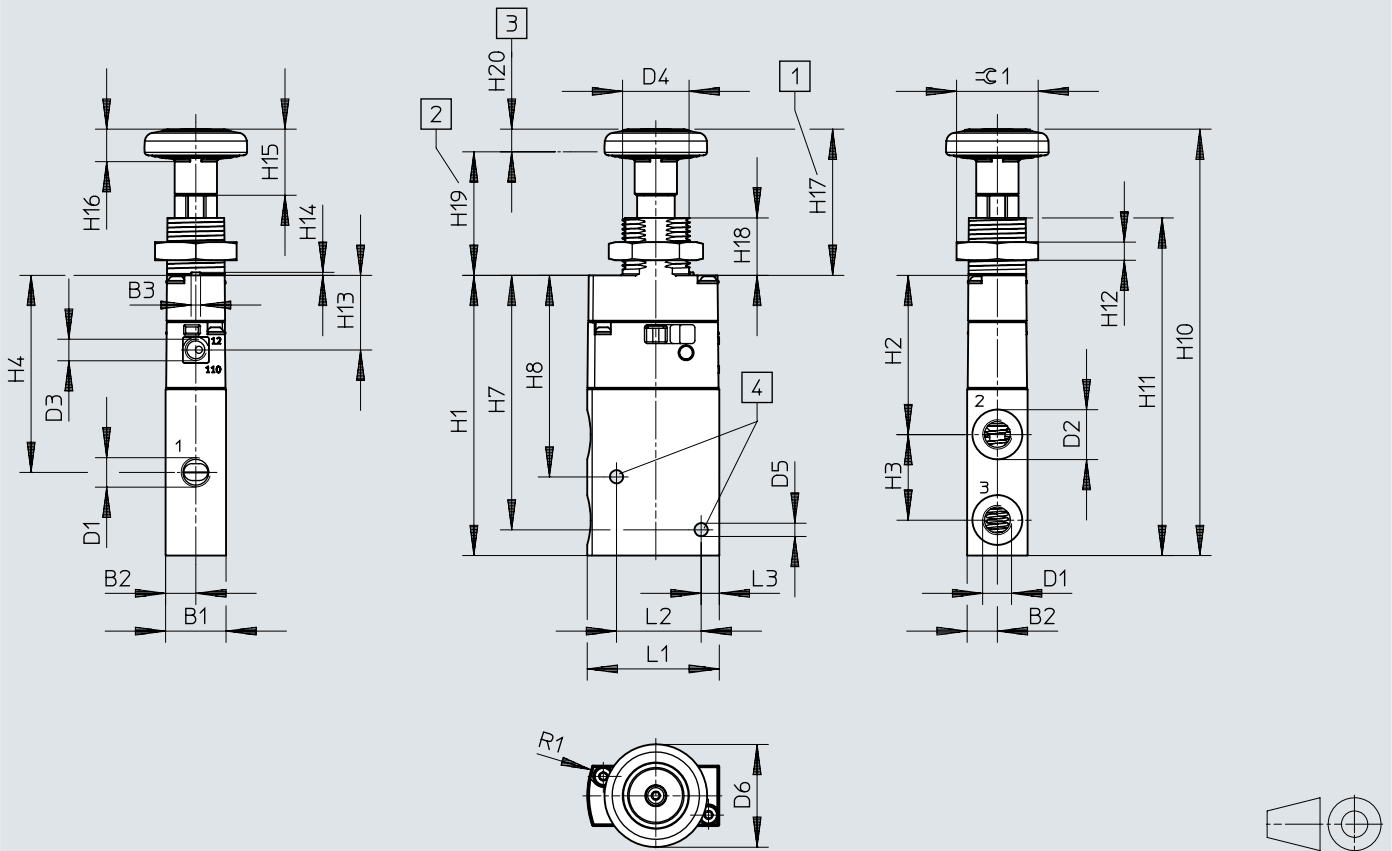
Pilot pressure  $p_2$  as a function of working pressure  $p_1$ , for poppet seat valves VMEF-...-M32... (normally open, NO)

VMEF-G18/G14



Dimensions

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



- [1] Rest position
- [2] Actuated position
- [3] Valve stroke
- [4] Mounting holes for M4 screws

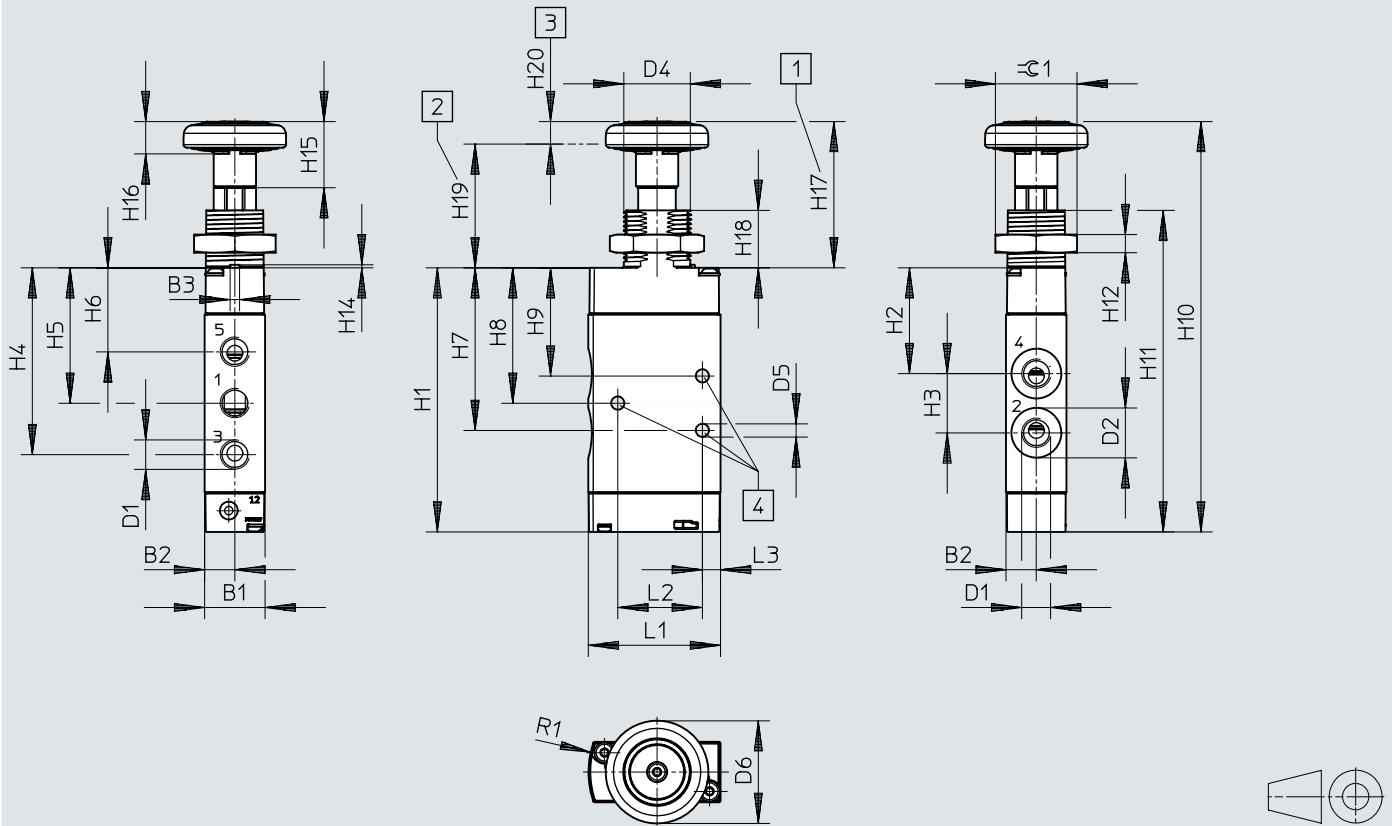
	B1	B2	B3	D1	D2 ∅	D3 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H7	H8	H10
VHEF-PTC-...32-...-G18	20	10	3,1	G1/8	16,5	-	M22x1,5	4,4	34	92,7	52,7	28,3	65,2	84,2	66,7	141,1
VHEF-PTCZ-...32-...-G18						M5										
VHEF-PTC-...32-...-G14				G1/4	22	-										
VHEF-PTCZ-...32-...-G14						M5										

	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	L1	L2	L3	R1	≈∅ 1
VHEF-PTC-...32-...-G18	111,7	6	24,7	1	21,9	10,7	48,4	19	40,9	7,5	43,7	28	6	30	27
VHEF-PTCZ-...32-...-G18															
VHEF-PTC-...32-...-G14															
VHEF-PTCZ-...32-...-G14															



Dimensions

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



- [1] Rest position
- [2] Actuated position
- [3] Valve stroke
- [4] Mounting holes for M4 screws

	B1	B2	B3	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H5	H6	H7	H8
VHEF-P-M52-M-G18	20	10	3,1	G1/8	16,5	M22x1,5	4,4	34	87,4	35,1	19,6	61,9	44,9	27,9	53,9	44,9
VHEF-P-B52-G18																

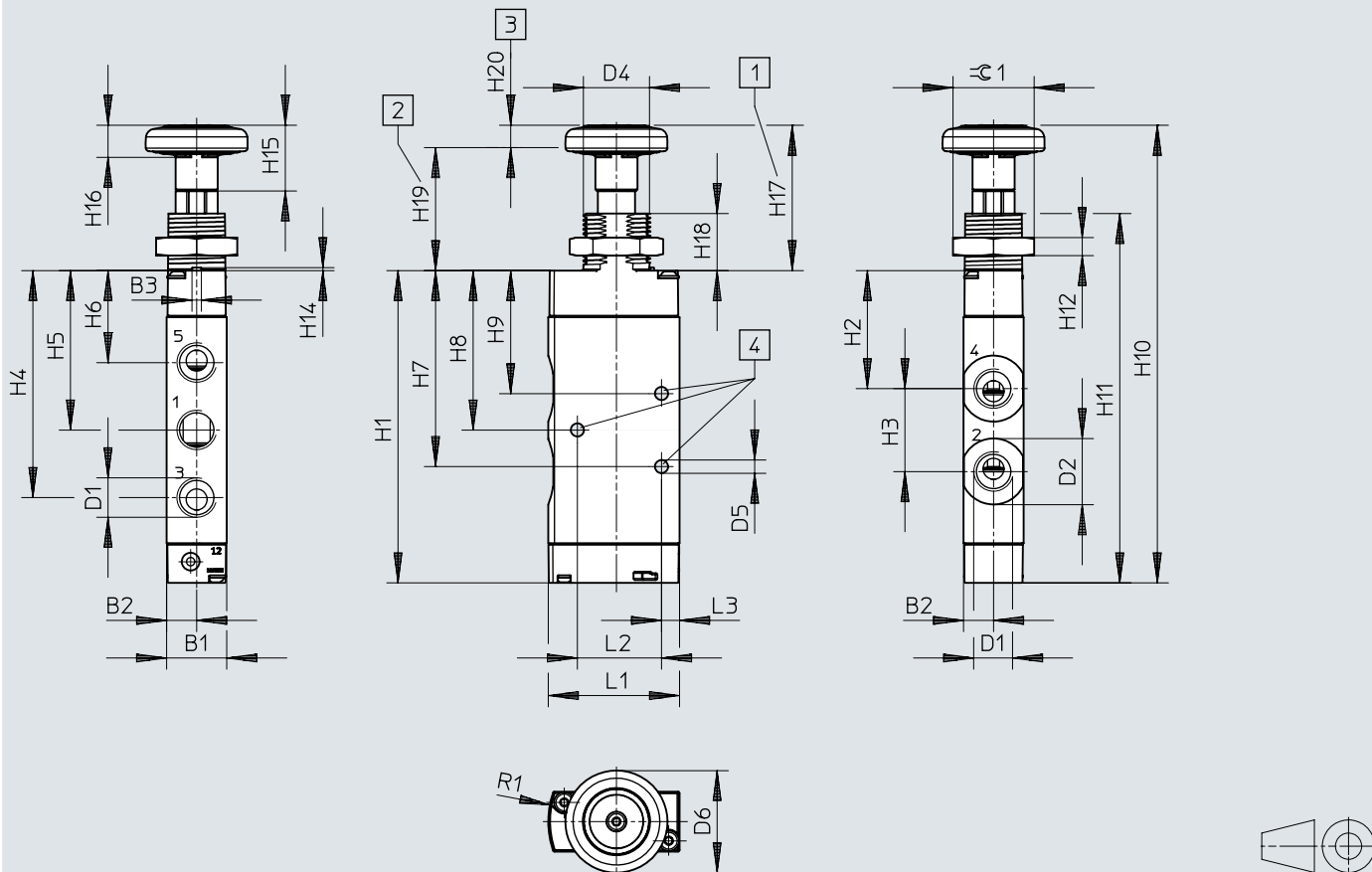
  

	H9	H10	H11	H12	H14	H15	H16	H17	H18	H19	H20	L1	L2	L3	R1	≈∅ 1
VHEF-P-M52-M-G18	35,9	135,8	106,4	6	1	21,9	10,7	48,4	19	40,9	7,5	43,7	28	6	30	27
VHEF-P-B52-G18																

## Dimensions

Dimensions – 5/2-way valve, pushbutton valve, pneumatic connection G1/4

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- [1] Rest position
- [2] Actuated position
- [3] Valve stroke
- [4] Mounting holes for M4 screws

	B1	B2	B3	D1	D2 ø	D4	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7	H8
VHEF-P-M52-M-G14	20	10	3,1	G1/4	22	M22x1,5	4,4	34	103,9	39,3	27,6	75,6	53,1	30,7	65,3	53,1
VHEF-P-B52-G14																

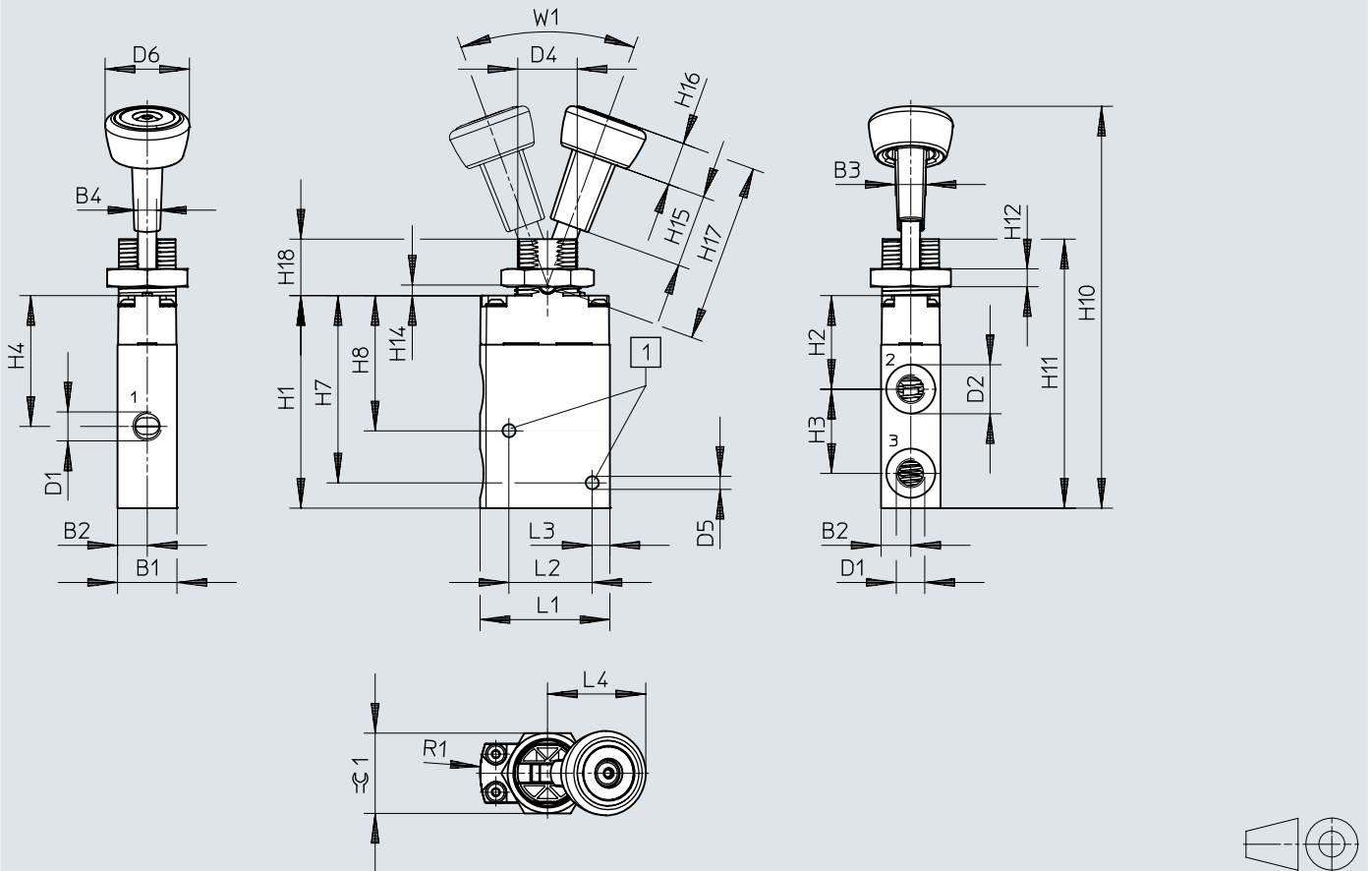
  

	H9	H10	H11	H12	H14	H15	H16	H17	H18	H19	H20	L1	L2	L3	R1	≈ 1
VHEF-P-M52-M-G14	41	152,3	122,9	6	1	21,9	10,7	48,4	19	40,9	7,5	43,7	28	6	30	27
VHEF-P-B52-G14																

## Dimensions

Dimensions – 3/2-way valve, toggle lever valve

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[1] Mounting holes for M4 screws

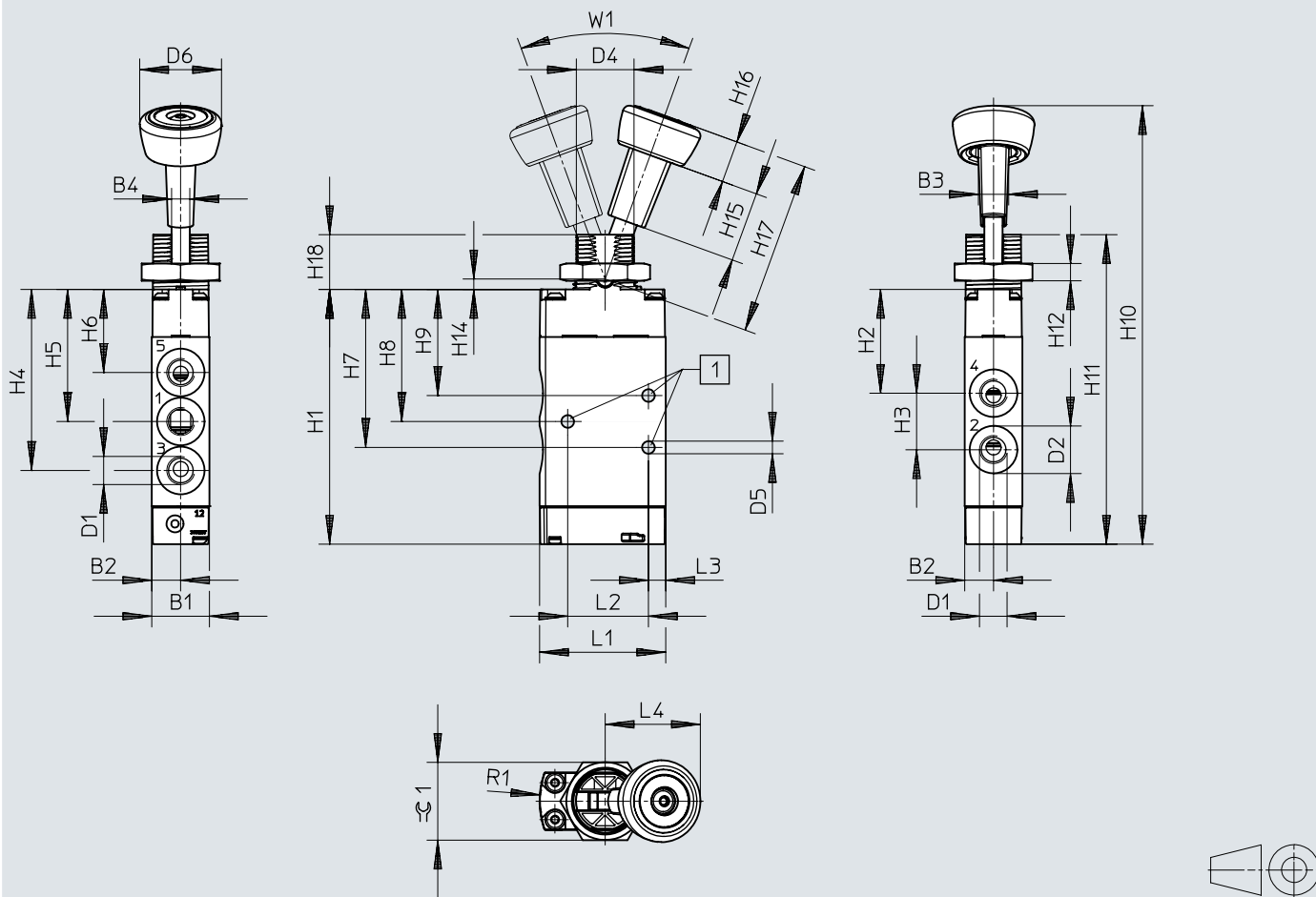
	B1	B2	B3	B4	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H7	H8	H10
VHEF-VT...M32...-G18	20	10	10,5	6,3	G1/8	16,5	M22x1,5	4,4	28,4	71,4	31,5	28,3	44	63	45,5	135,2
VHEF-VT...M32...-G14					G1/4	22										
VHEF-VT...B32...-G18					G1/8	16,5										
VHEF-VT...B32...-G14					G1/4	22										

	H11	H12	H14	H15	H16	H17	H18	L1	L2	L3	L4	R1	W1	±1
VHEF-VT...M32...-G18	90,5	6	3,6	24,4	14,6	60	19	43,7	28	6	33	30	40°	27
VHEF-VT...M32...-G14														
VHEF-VT...B32...-G18														
VHEF-VT...B32...-G14														

## Dimensions

Dimensions – 5/2-way valve, toggle lever valve, pneumatic connection G1/8

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



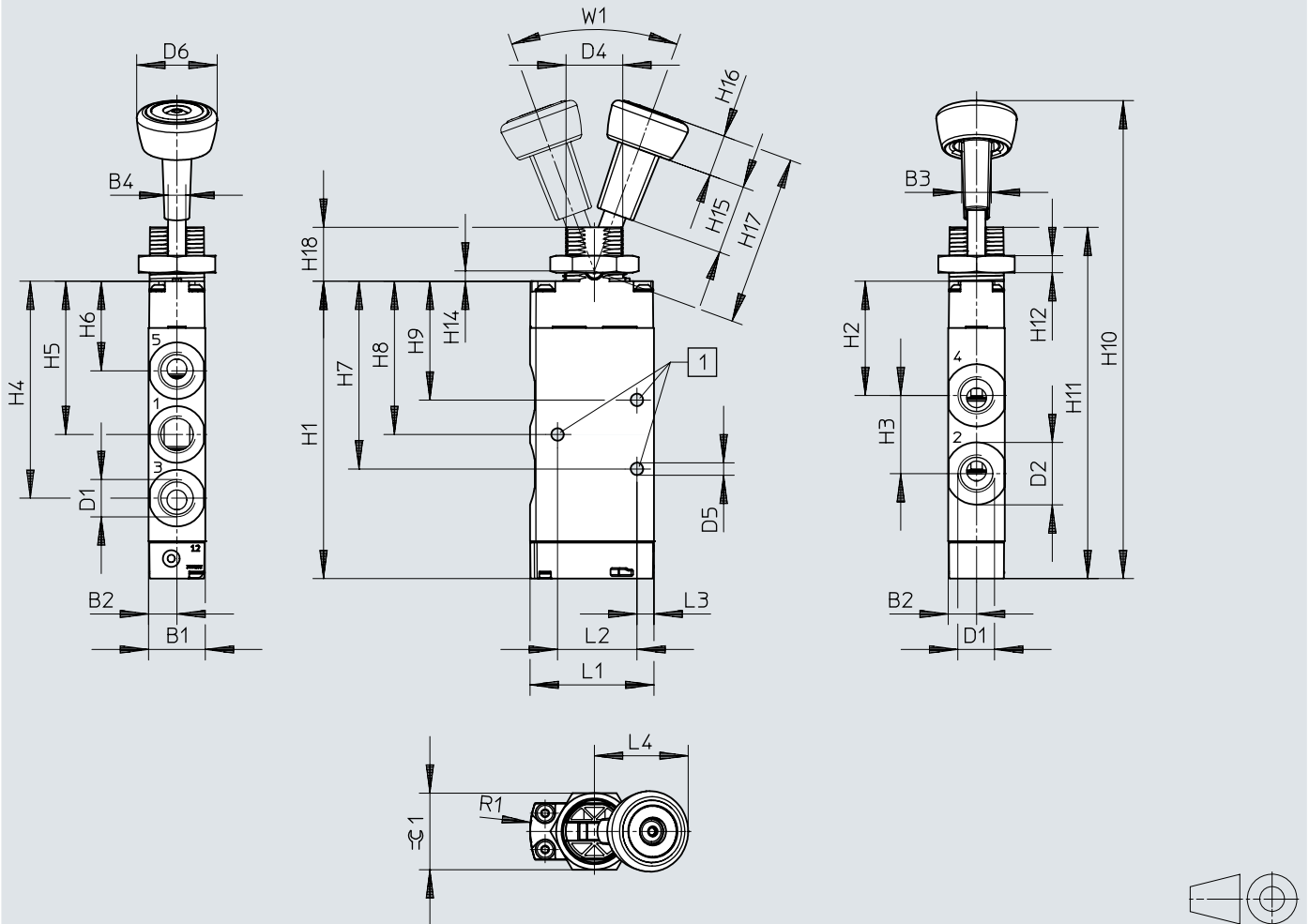
[1] Mounting holes for M4 screws

	B1	B2	B3	B4	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H5	H6	H7	
VHEF-V-M52-M-G18	20	10	10,5	6,3	G1/8	16,5	M22x1,5	4,4	28,4	88,4	36,1	19,6	62,9	45,9	28,9	54,9	
VHEF-V-B52-G18																	
	H8	H9	H10	H11	H12	H14	H15	H16	H17	H18	L1	L2	L3	L4	R1	W1	≈ 1
VHEF-V-M52-M-G18	45,9	36,9	152,1	107,4	6	3,6	24,4	14,6	60	19	43,7	28	6	33	30	40°	27
VHEF-V-B52-G18																	

## Dimensions

Dimensions – 5/2-way valve, toggle lever valve, pneumatic connection G1/4

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[1] Mounting holes for M4 screws

	B1	B2	B3	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H5	H6	H7	H8
VHEF-V-M52-M-G14	20	10	10,5	G1/4	22	M22x1,5	4,4	28,4	104,9	40,3	27,6	76,6	54,1	31,7	66,3	54,1
VHEF-V-B52-G14																

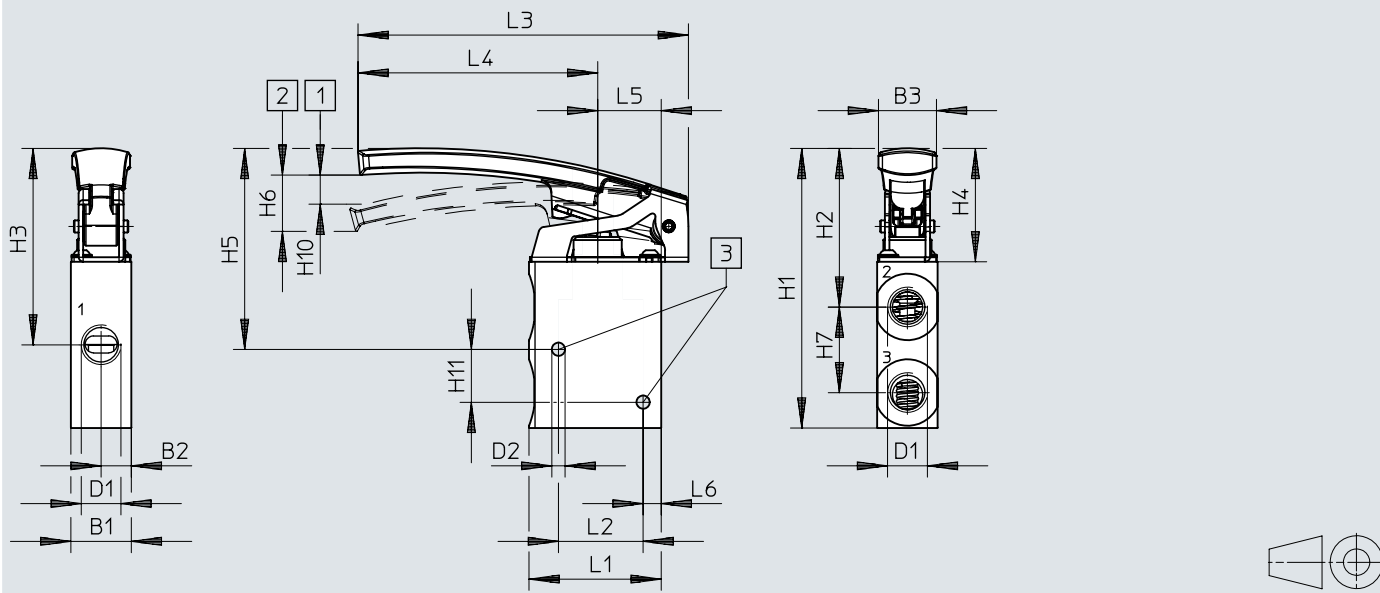
  

	H9	H10	H11	H12	H14	H15	H16	H17	H18	L1	L2	L3	L4	R1	W1	≈ 1
VHEF-V-M52-M-G14	42	168,6	123,9	6	3,6	24,4	14,6	60	19	43,7	28	6	33	30	40°	27
VHEF-V-B52-G14																

## Dimensions

Dimensions – 3/2-way valve, finger lever valve

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



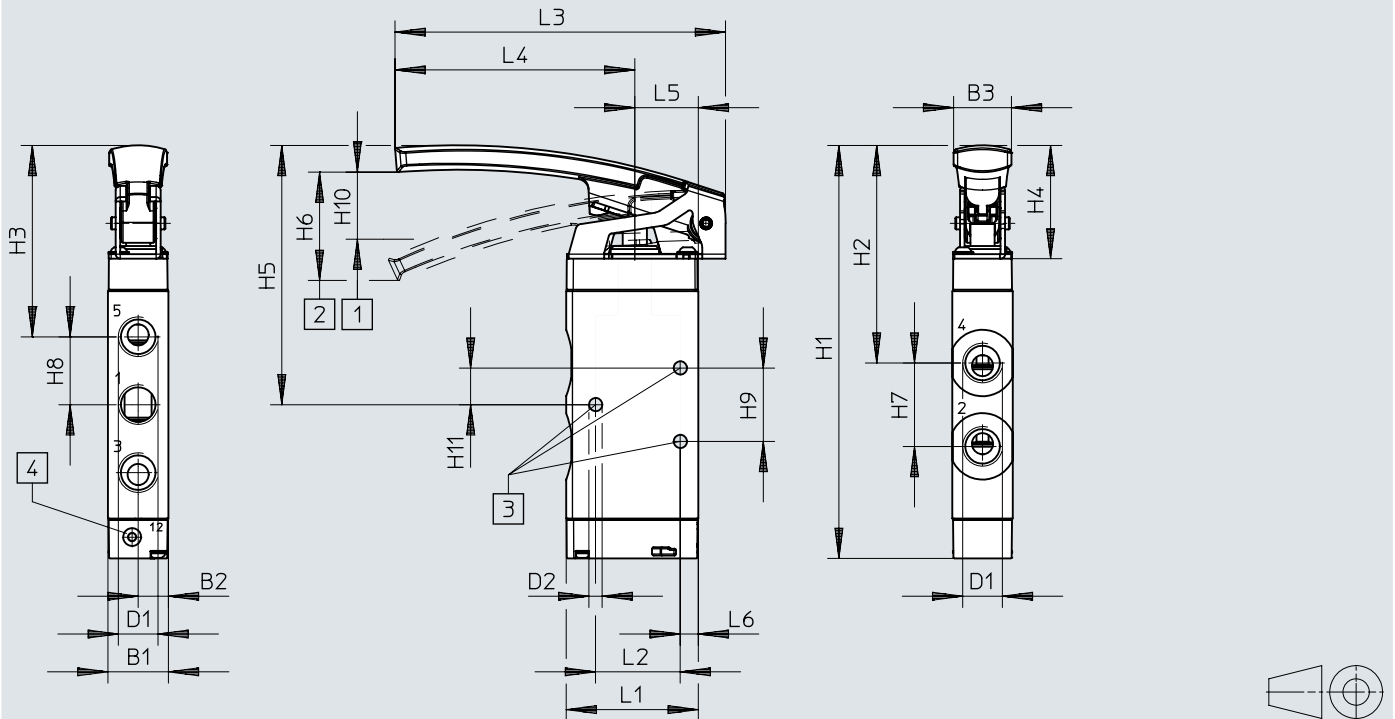
- [1] Start of opening
- [2] Maximum stroke
- [3] Mounting holes for M4 screws

	B1	B2	B3	D1	D2 ∅	L1	L2	L3	L4	L5
VHEF-LT-M32-M-G14	20	10	19,1	G1/4	4,4	43,7	28	109,3	79,3	21
VHEF-LT-M32-M-G18				G1/8						
	L6	H1	H2	H3	H4	H5	H6	H7	H10	H11
VHEF-LT-M32-M-G14	6	92,5	52,5	65	37,5	66,5	18,6	28,3	6,3	17,5
VHEF-LT-M32-M-G18										

## Dimensions

Dimensions – 5/2-way valve, finger lever valve

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



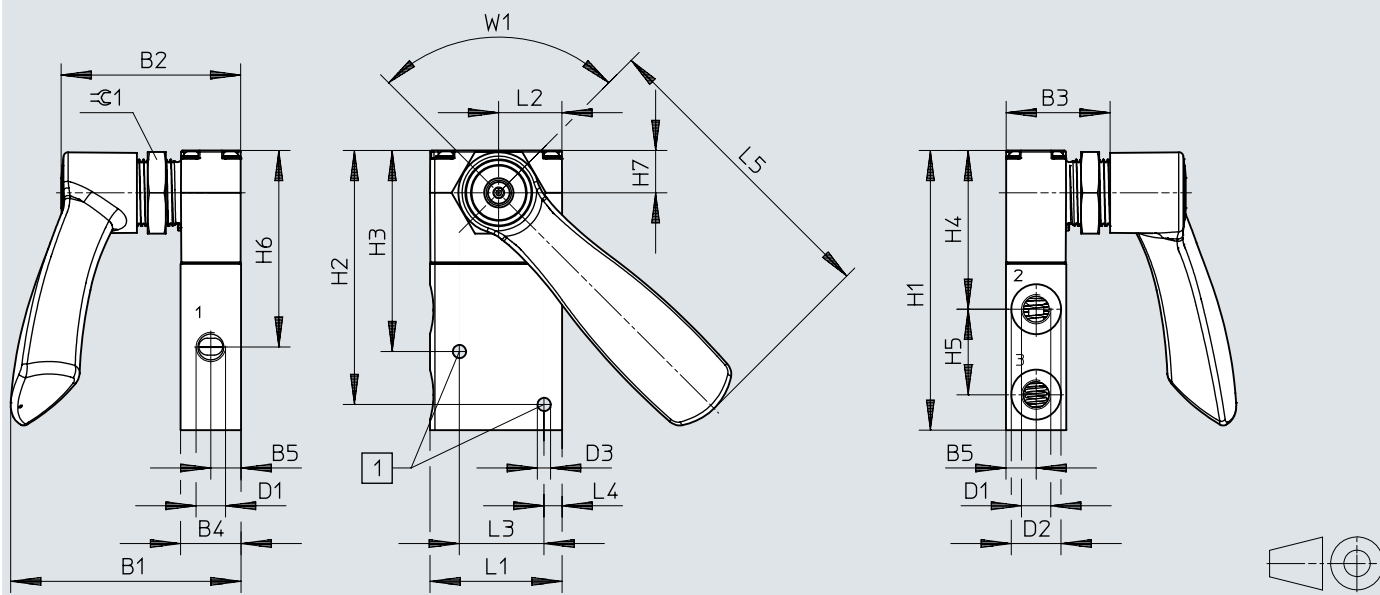
- [1] Start of opening
- [2] Maximum stroke
- [3] Mounting holes for M4 screws
- [4] Port 12: pneumatic spring, M5 (for VHEF-L-M52-E-...)

	B1	B2	B3	D1	D2 ∅	L1	L2	L3	L4	L5	L6
VHEF-L-M52-M-G18	20	10	19,1	G1/8	4,4	43,7	28	109,3	79,3	21	6
VHEF-L-M52-E-G18				G1/8							
VHEF-L-M52-M-G14				G1/4							
VHEF-L-M52-E-G14				G1/4							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11
VHEF-L-M52-M-G18	120	67,7	60,5	37,5	77,5	35,8	19,6	17	18	13,2	9
VHEF-L-M52-E-G18					85,8						
VHEF-L-M52-M-G14	136,6	72	63,3		85,8		27,6	22,5	24,3	22,2	12,2
VHEF-L-M52-E-G14											

## Dimensions

Dimensions – 3/2-way valve, hand lever valve, lateral

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[1] Mounting holes for M4 screws

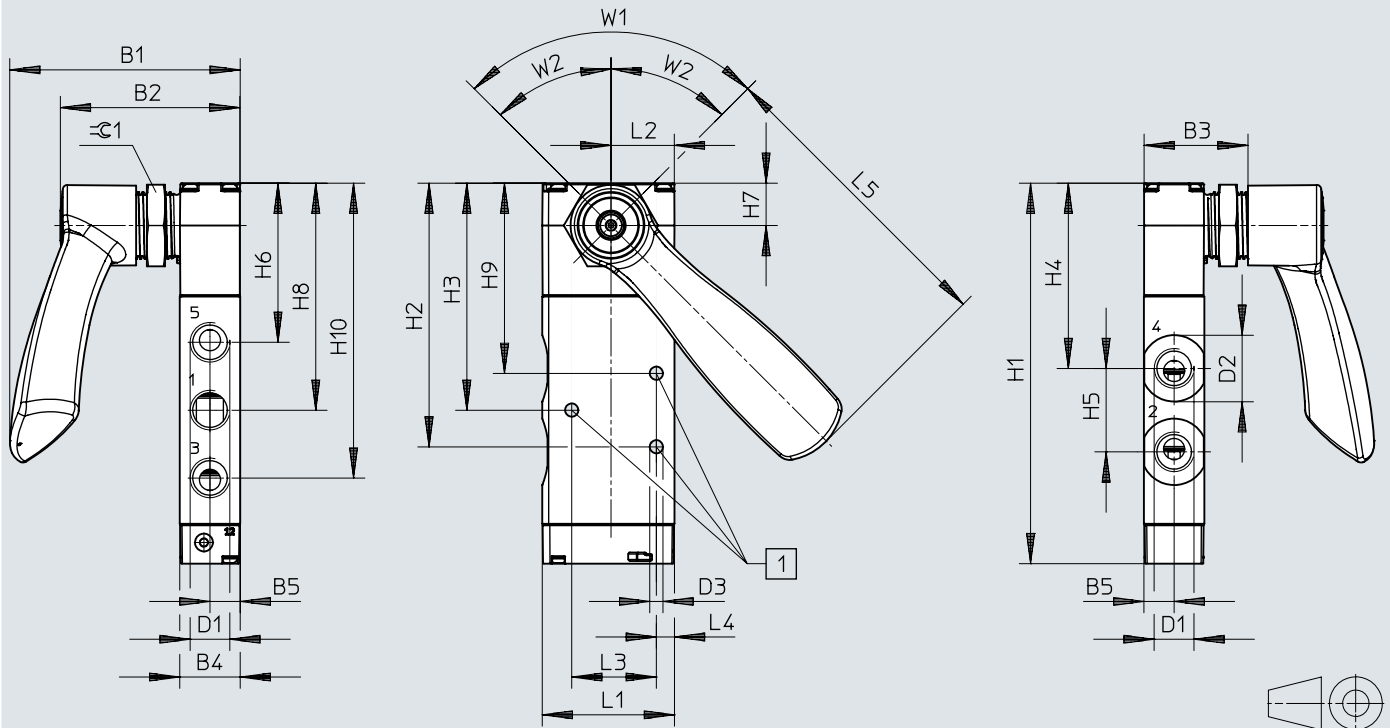
	B1	B2	B3	B4	B5	D1	D2 ∅	D3 ∅	H1	H2	H3
VHEF-HST...32...-G18	76,2	59,5	34,5	20	10	G1/8	16,5	4,4	92,5	84	66,5
VHEF-HST...32...-G14						G1/4	22				
	H4	H5	H6	H7	L1	L2	L3	L4	L5	W1	⊕ 1
VHEF-HST...32...-G18	52,5	28,3	65	14	43,7	20,9	28	6	100,8	90°	SW27
VHEF-HST...32...-G14											



## Dimensions

Dimensions – 5/2- and 5/3-way valve, hand lever valve, sideways

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- [1] Mounting holes for M4 screws
- [2] W1 angle 90° for 5/2-way valves (2 switching positions)
- [3] W2 angle 2x45° for 5/3-way valves (3 switching positions)

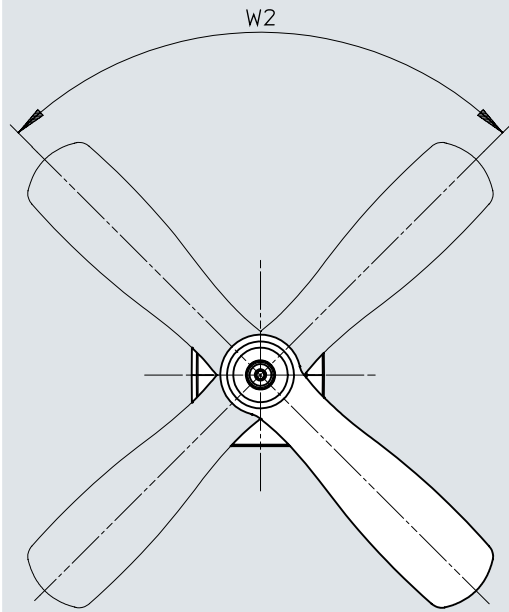
	B1	B2	B3	B4	B5	D1	D2 ∅	D3 ∅	H1	H2	H3	H4				
VHEF-HS...52...-G18	76,2	59,5	34,5	20	10	G1/8	16,5	4,4	109,4	75,9	66,9	57,1				
VHEF-HS...53...-G18						G1/8										
VHEF-HS...52...-G14						G1/4	22						125,9	87,3	75,1	61,3
VHEF-HS...53...-G14						G1/4										

	H5	H6	H7	H8	H9	H10	L1	L2	L3	L4	W1	W2	≅1
VHEF-HS...52...-G18	19,6	49,9	14	66,9	57,9	83,9	43,7	20,9	28	6	90°	-	SW27
VHEF-HS...53...-G18				-	45°								
VHEF-HS...52...-G14	26,7	52,7		75,1	63	97,6					90°	-	
VHEF-HS...53...-G14				-	45°								

## Dimensions

Dimensions – VHEF-HST.../VHEF-HS...

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

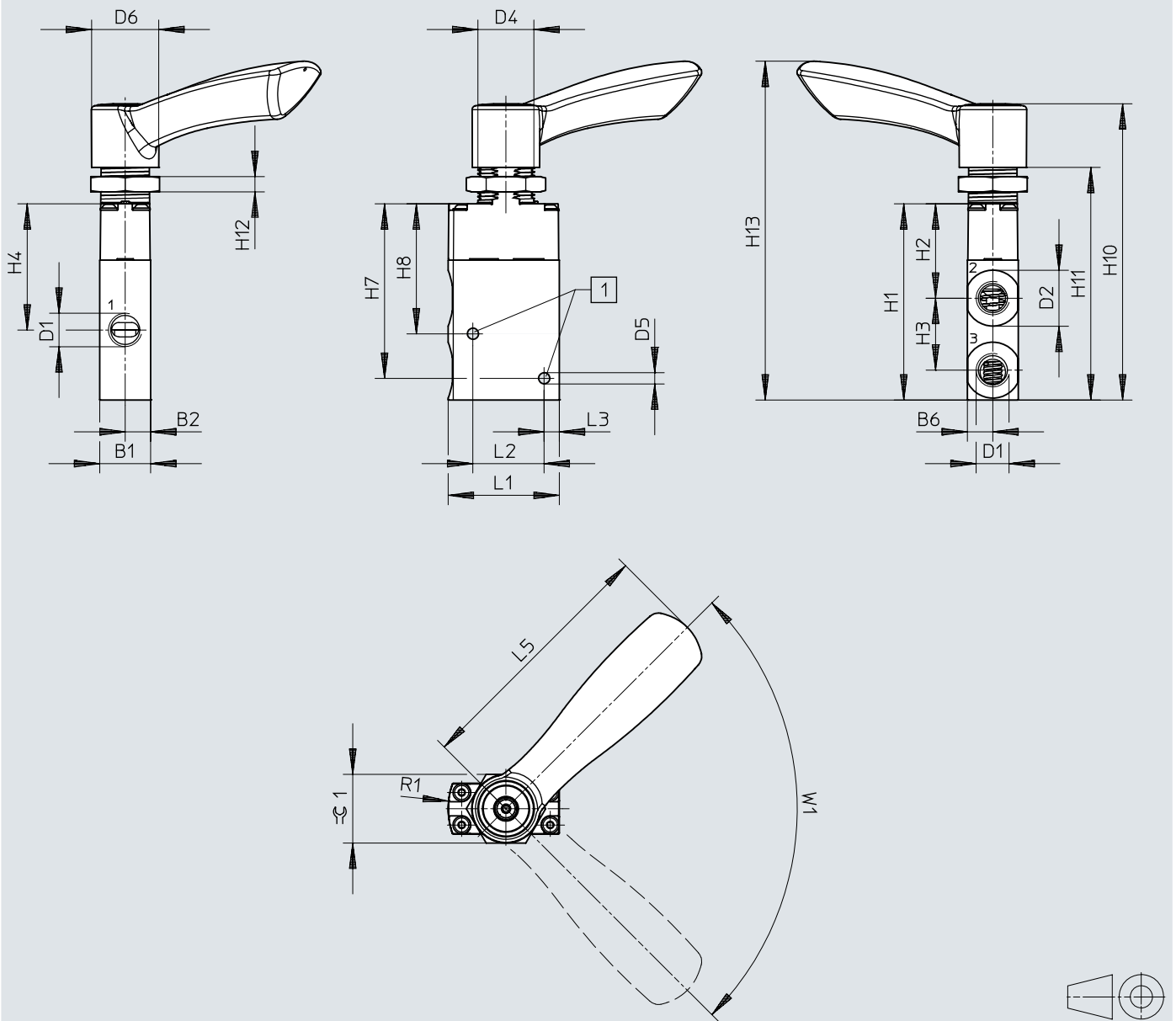


	W2
VHEF-HST...	90°
VHEF-HS...	

## Dimensions

Dimensions – 3/2-way valve, hand lever valve

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[1] Mounting holes for M4 screws

	B1	B2	B6	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H7
VHEF-HT...32...-G18	20	10	10	G1/8	16,5	M22x1,5	4,4	26,4	77,1	37,1	28,3	49,6	68,6
VHEF-HT...32...-G14				G1/4	22								

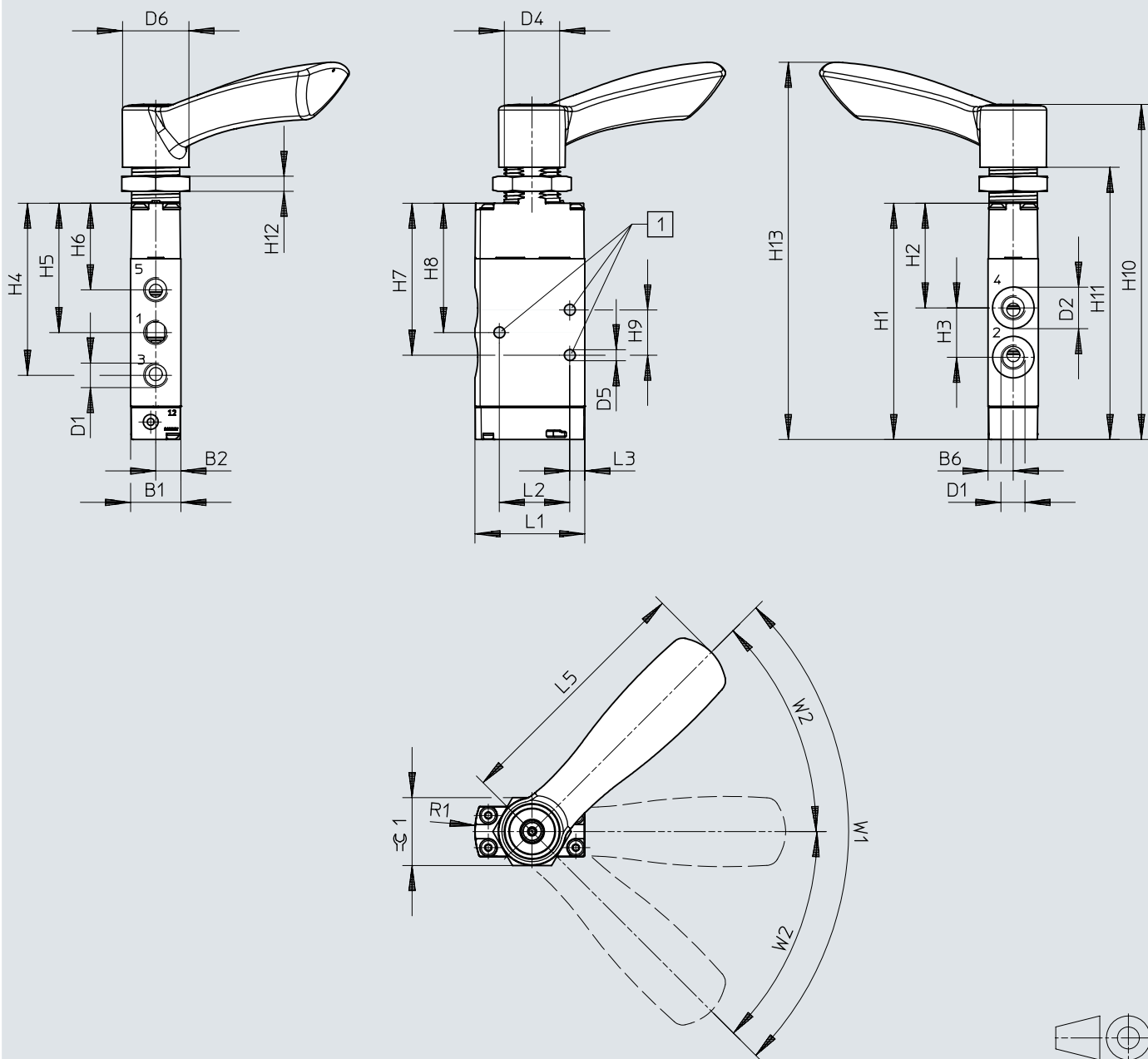
  

	H8	H10	H11	H12	H13	L1	L2	L3	L5	R1	W1	≈ 1
VHEF-HT...32...-G18	51,1	116,4	91,4	6	133,1	43,7	28	6	100,9	30	90°	SW27
VHEF-HT...32...-G14												

## Dimensions

Dimensions – 5/2- and 5/3-way valve, hand lever valve

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- [1] Mounting holes for M4 screws
- [2]  $W1$  angle  $90^\circ$  for 5/2-way valves (2 switching positions)
- [3]  $W2$  angle  $2 \times 45^\circ$  for 5/3-way valves (3 switching positions)

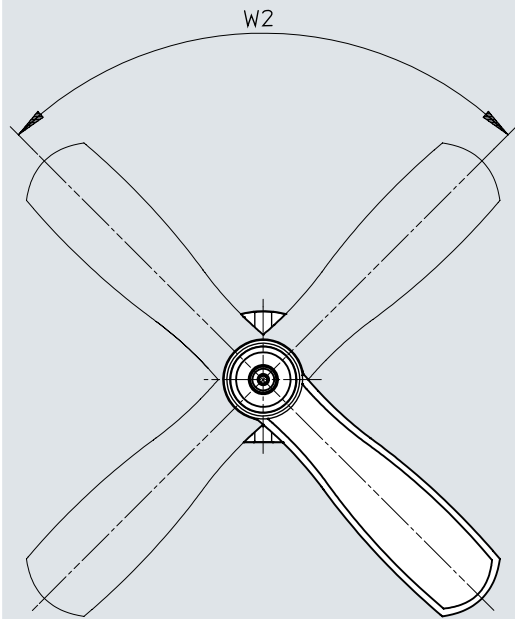
## Dimensions

	B1	B2	B6	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H5	H6	
VHEF-H...52...-G18	20	10	10	G1/8	16,5	M22x1,5	4,4	26,4	94	41,7	19,6	68,5	51,5	34,5	
VHEF-H...53...-G18				G1/8											
VHEF-H...52...-G14				G1/4	22				110,5	45,9	27,6	82,2	59,7	37,3	
VHEF-H...53...-G14															G1/4
	H7	H8	H9	H10	H11	H12	H13	L1	L2	L3	L5	R1	W1	W2	≈ 1
VHEF-HS...52...-G18	60,5	51,5	18	133,3	108,3	6	150	43,7	28	6	100,9	30	90°	-	SW27
VHEF-HS...53...-G18													-	45°	
VHEF-HS...52...-G14	71,9	59,7	24,3	149,8	124,8	6	166,5						90°	-	
VHEF-HS...53...-G14													-	45°	

## Dimensions

Dimensions – VHEF-HT.../VHEF-HS...

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

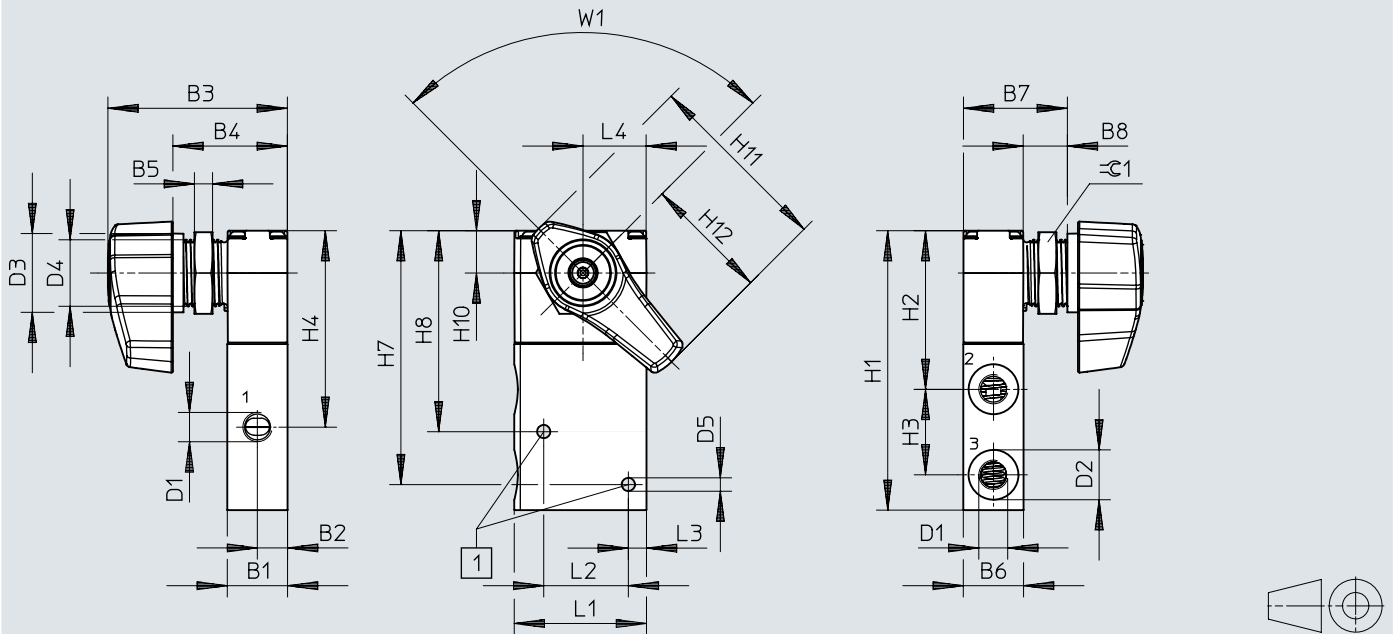


	W2
VHEF-HT...	90°
VHEF-HS...	

## Dimensions

Dimensions – 3/2-way valve, selector valve, sideways

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



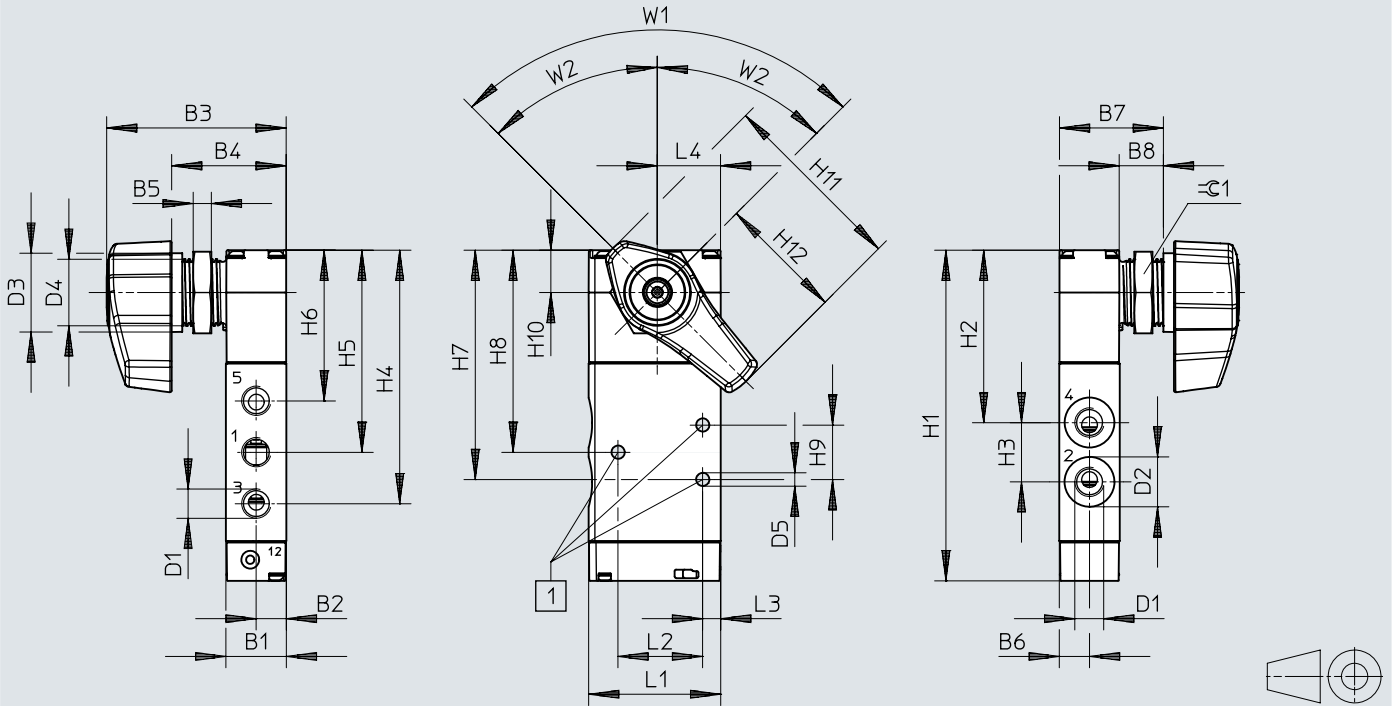
[1] Mounting holes for M4 screws

	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2 ∅	D3 ∅	D4	D5 ∅	H1
VHEF-EST...32...G18	20	10	59,4	38	6	10	34,5	14,6	G1/8	16,5	26	M22x1,5	4,4	92,5
VHEF-EST...32...G14									G1/4	22				
	H2	H3	H4	H7	H8	H10	H11	H12	L1	L2	L3	L4	W1	⊖ 1
VHEF-EST...32...G18	52,5	28,3	65	84	66,5	14	62,2	41,5	43,7	28	6	20,9	90°	SW27
VHEF-EST...32...G14														

## Dimensions

Dimensions – 5/2- and 5/3-way valve, selector valve, lateral

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- [1] Mounting holes for M4 screws
- [2] W1 angle 90° for 5/2-way valves (2 switching positions)
- [3] W2 angle 2x45° for 5/3-way valves (3 switching positions)

	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2 ∅	D3 ∅	D4	D5 ∅	H1	H2	H3
VHEF-ES...52...-G18	20	10	59,4	38	6	10	34,5	14,6	G1/8	16,5	26	M22x1,5	4,4	109,4	57,1	19,6
VHEF-ES...53...-G18									G1/8							
VHEF-ES...52...-G14									G1/4	22						
VHEF-ES...53...-G14									G1/4							

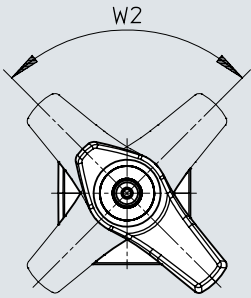
	H4	H5	H6	H7	H8	H9	H10	H11	H12	L1	L2	L3	L4	W1	W2	⊖1
VHEF-ES...52...-G18	83,9	66,9	49,9	75,9	66,9	18	14	62,2	41,5	43,7	28	6	20,9	90°	–	SW27
VHEF-ES...53...-G18														–	45°	
VHEF-ES...52...-G14														90°	–	
VHEF-ES...53...-G14														–	45°	



## Dimensions

Dimensions – VHEF-EST.../VHEF-ES...

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

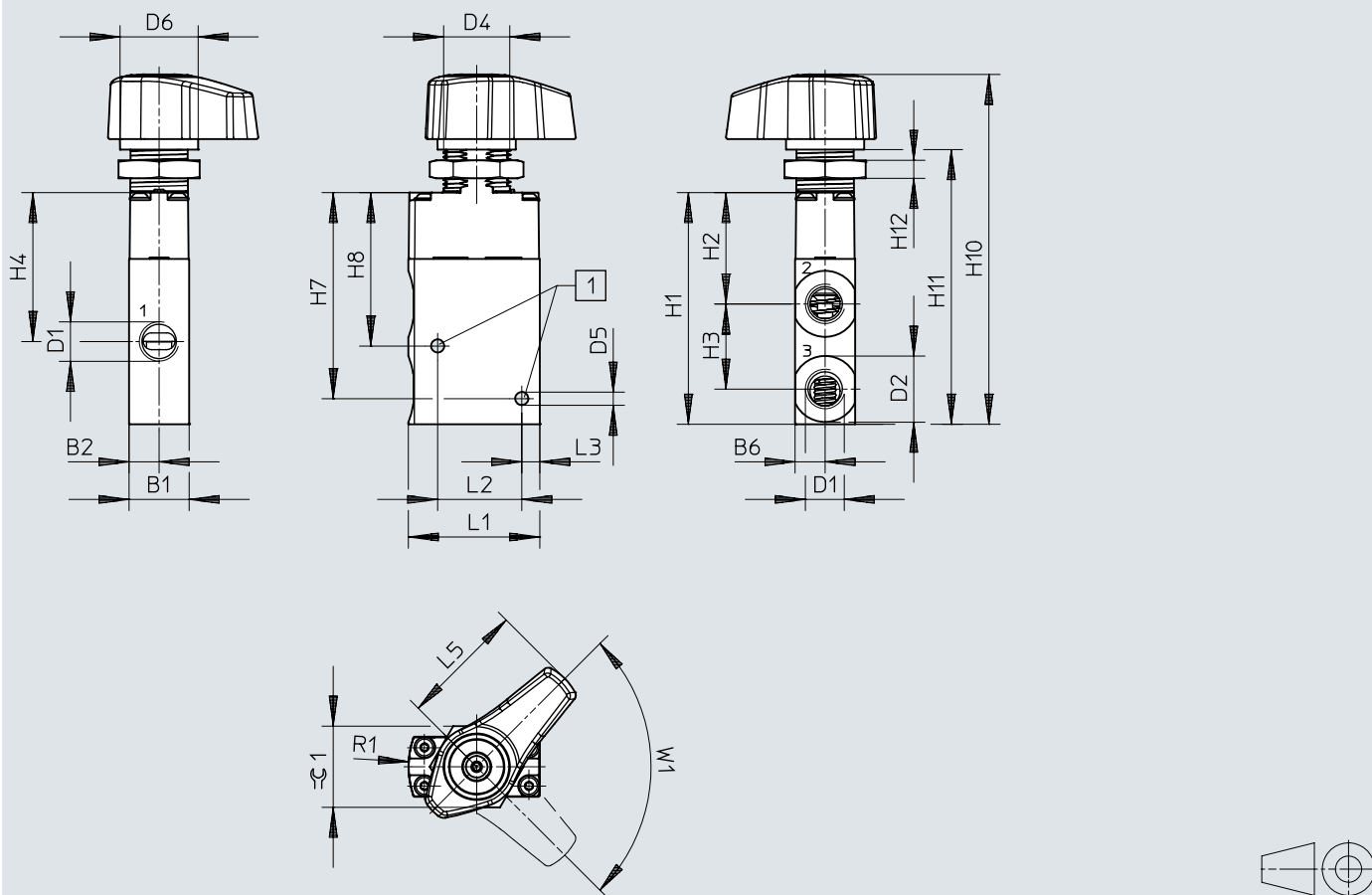


	W2
VHEF-EST...	90°

## Dimensions

Dimensions – 3/2-way valve, selector valve

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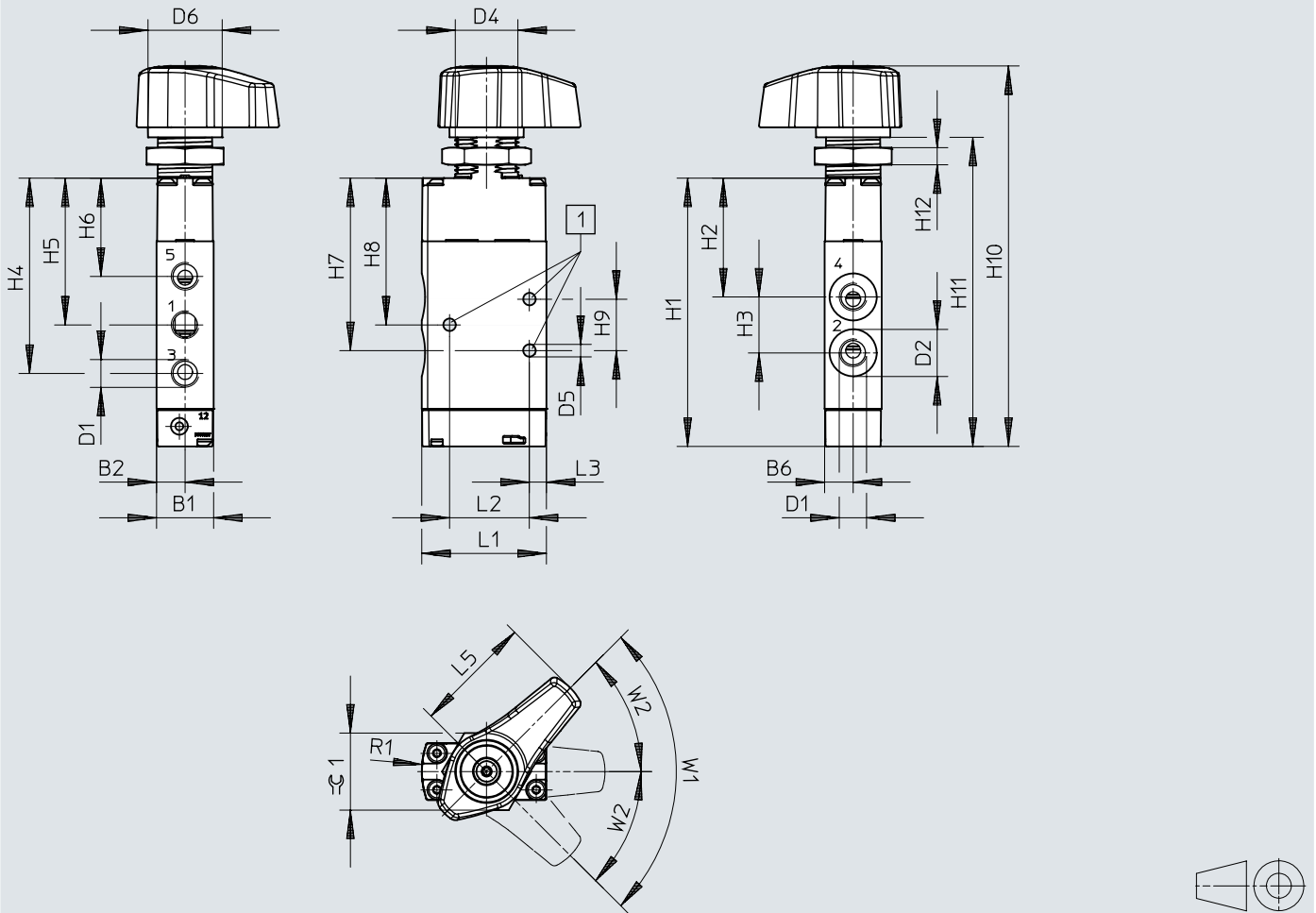
[1] Mounting holes for M4 screws

	B1	B2	B6	D1	D2 ø	D4	D5 ø	D6 ø	H1	H2	H3	H4
VHEF-ET...32...G18	20	10	10	G1/8	16,5	M22x1,5	4,4	26	77,1	37,1	28,3	49,6
VHEF-ET...32...G14				G1/4	22							
	H7	H8	H10	H11	H12	L1	L2	L3	L5	R1	W1	±1
VHEF-ET...32...G18	68,6	51,1	116,5	91,5	6	43,7	28	6	41,5	30	90°	SW27
VHEF-ET...32...G14												

## Dimensions

Dimensions – 5/2- and 5/3-way valve, selector valve

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- [1] Mounting holes for M4 screws
- [2] W1 angle 90° for 5/2-way valves (2 switching positions)
- [3] W2 angle 2x45° for 5/3-way valves (3 switching positions)

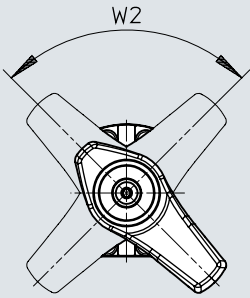
	B1	B2	B6	D1	D2 ∅	D4	D5 ∅	D6 ∅	H1	H2	H3	H4	H5	H6						
VHEF-E...52...-G18	20	10	10	G1/8	16,5	M22x1,5	4,4	26	94	41,7	19,6	68,5	51,5	34,5						
VHEF-E...53...-G18				G1/8																
VHEF-E...52...-G14				G1/4	22										110,5	45,9	27,6	82,2	59,7	37,3
VHEF-E...53...-G14				G1/4																

	H7	H8	H9	H10	H11	H12	L1	L2	L3	L5	R1	W1	W2	$\approx \text{C} 1$
VHEF-E...52...-G18	60,5	51,5	18	133,3	108,3	6	43,7	28	6	41,5	30	90°	–	SW27
VHEF-E...53...-G18												–	45°	
VHEF-E...52...-G14	71,9	59,7	24,3	149,8	124,8							90°	–	
VHEF-E...53...-G14														

## Dimensions

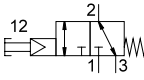
Dimensions – VHEF-ET.../VHEF-E..

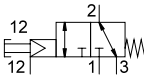
Download CAD data [www.festo.com](http://www.festo.com)

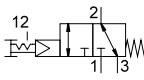


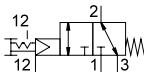
	W2
VHEF-ET...	90°
VHEF-E...	

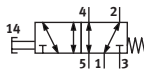
## Ordering data

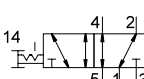
Pushbutton valve, 3/2-way valve, monostable, normally closed or open, reset via mechanical spring, pneumatically pilot controlled, internal pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2-way, monostable, open/closed	750 l/min	Internal	168 g	★ 5299705	VHEF-PTC-M32-M-G18
		870 l/min		161 g	★ 5299711	VHEF-PTC-M32-M-G14

Pushbutton valve, 3/2-way valve, monostable, normally closed or open, reset via mechanical spring, vacuum compatible, pneumatically pilot controlled, external pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2-way, monostable, open/closed	750 l/min	External	168 g	5299706	VHEF-PTC-M32-M-G18
		870 l/min		161 g	5299712	VHEF-PTC-M32-M-G14

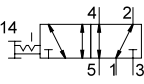
Pushbutton valve, 3/2-way valve, bistable, normally closed or open, reset via mechanical spring, pneumatically pilot controlled, internal pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2 double solenoid	750 l/min	Internal	168 g	★ 5299707	VHEF-PTC-B32-G18
		870 l/min		161 g	★ 5299713	VHEF-PTC-B32-G14

Pushbutton valve, 3/2-way valve, bistable, normally closed or open, reset via mechanical spring, vacuum compatible, pneumatically pilot operated, external pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2 double solenoid	750 l/min	External	168 g	★ 5299708	VHEF-PTCZ-B32-G18
		870 l/min		161 g	5299714	VHEF-PTCZ-B32-G14

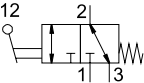
Pushbutton valve, 5/2-way valve, monostable, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2-way, monostable	750 l/min	Internal	182 g	★ 5299709	VHEF-P-M52-M-G18
		1,200 l/min		215 g	★ 5299715	VHEF-P-M52-M-G14

Pushbutton valve, 5/2-way valve, bistable, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2 double solenoid	750 l/min	Internal	182 g	★ 5299710	VHEF-P-B52-G18

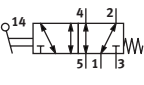
## Ordering data

Pushbutton valve, 5/2-way valve, bistable, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2 double solenoid	1,200 l/min	Internal	215 g	★ 5299716	VHEF-P-B52-G14

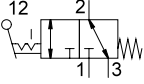
  

Toggle lever valve, 3/2-way valve, monostable, normally closed or open, reset via mechanical spring, vacuum compatible, pneumatically pilot controlled, internal pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2-way, monostable, open/closed	750 l/min	Internal	174 g	5300036	VHEF-VT-M32-M-G18
		870 l/min		181 g	5300038	VHEF-VT-M32-M-G14

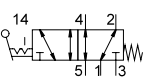
  

Toggle lever valve, 5/2-way valve, monostable, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2-way, monostable	750 l/min	Internal	208 g	5300032	VHEF-V-M52-M-G18
		1,200 l/min		240 g	5300034	VHEF-V-M52-M-G14

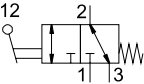
  

Toggle lever valve, 3/2-way valve, bistable, normally closed or open, reset via mechanical spring, vacuum compatible, pneumatically pilot controlled, internal pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2 double solenoid	750 l/min	Internal	174 g	★ 5300037	VHEF-VT-B32-G18
		870 l/min		181 g	5300039	VHEF-VT-B32-G14

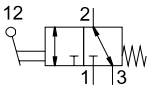
  

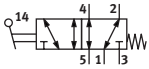
Toggle lever valve, 5/2-way valve, bistable, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2 double solenoid	750 l/min	Internal	208 g	★ 5300033	VHEF-V-B52-G18
		1,200 l/min		240 g	★ 5300035	VHEF-V-B52-G14

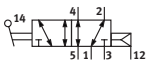
  

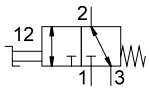
Finger lever valve, 3/2-way valve, monostable, normally closed or open, reset via mechanical spring, vacuum compatible, pneumatically pilot controlled, internal pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2-way, monostable, open/closed	750 l/min	Internal	156 g	★ 4500009	VHEF-LT-M32-M-G18

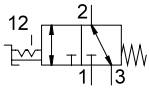
Ordering data

Finger lever valve, 3/2-way valve, monostable, normally closed or open, reset via mechanical spring, vacuum compatible, pneumatically pilot controlled, internal pilot air						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2-way, monostable, open/closed	870 l/min	Internal	150 g	★ 4500008	VHEF-LT-M32-M-G14

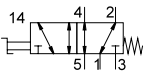
Finger lever valve, 5/2-way valve, monostable, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2-way, monostable	750 l/min	Internal	185 g	★ 4500001	VHEF-L-M52-M-G18
		1,200 l/min		218 g	4500000	VHEF-L-M52-M-G14

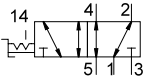
Finger lever valve, 5/2-way valve, monostable, reset via pneumatic spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2-way, monostable	750 l/min	Internal	184 g	4500005	VHEF-L-M52-E-G18
		1,200 l/min		217 g	4500004	VHEF-L-M52-E-G14

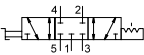
Hand lever valve, selector valve, 3/2-way valve, monostable, normally closed or open, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2-way, monostable, open/closed	750 l/min	Internal	206 g	4106806	VHEF-EST-M32-M-G18
				236 g	4165853	VHEF-HST-M32-M-G18
				8080936	VHEF-HT-M32-M-G18	
		870 l/min		200 g	4106807	VHEF-EST-M32-M-G14
				230 g	4165854	VHEF-HST-M32-M-G14
				★ 8081000	VHEF-HT-M32-M-G14	

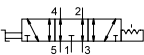
Hand lever valve, selector valve, 3/2-way valve, bistable, normally closed or open, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	3/2 double solenoid	750 l/min	Internal	206 g	★ 4106814	VHEF-EST-B32-G18
					★ 8080964	VHEF-ET-B32-G18
				236 g	★ 8080940	VHEF-HT-B32-G18
					★ 4165861	VHEF-HST-B32-G18
		870 l/min		200 g	★ 4106815	VHEF-EST-B32-G14
					★ 8080963	VHEF-ET-B32-G14
				230 g	★ 4165862	VHEF-HST-B32-G14
					★ 8080939	VHEF-HT-B32-G14

## Ordering data

Hand lever valve, selector valve, 5/2-way valve, monostable, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2-way, monostable	750 l/min	Internal	235 g	8080972	VHEF-E-M52-M-G18
					4106808	VHEF-ES-M52-M-G18
		265 g		4165855	VHEF-HS-M52-M-G18	
				8081001	VHEF-H-M52-M-G18	
		268 g		8080971	VHEF-E-M52-M-G14	
				4106809	VHEF-ES-M52-M-G14	
		298 g		★ 4165856	VHEF-HS-M52-M-G14	
	8081006	VHEF-H-M52-M-G14				

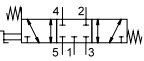
Hand lever valve, selector valve, 5/2-way valve, bistable, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/2 double solenoid	750 l/min	Internal	235 g	★ 4106816	VHEF-ES-B52-G18
					★ 8080960	VHEF-E-B52-G18
		265 g		★ 8080932	VHEF-H-B52-G18	
				★ 4165863	VHEF-HS-B52-G18	
		268 g		★ 8080959	VHEF-E-B52-G14	
				★ 4106817	VHEF-ES-B52-G14	
		298 g		★ 8080931	VHEF-H-B52-G14	
				★ 4165864	VHEF-HS-B52-G14	

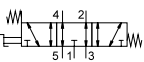
Hand lever valve, selector valve, 5/3-way valve, mid-position closed, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/3 closed	700 l/min	Internal	235 g	8080976	VHEF-E-B53C-G18
					★ 4106818	VHEF-ES-B53C-G18
		265 g		8080945	VHEF-H-B53C-G18	
				★ 4165865	VHEF-HS-B53C-G18	
		268 g		★ 4106819	VHEF-ES-B53C-G14	
				8080975	VHEF-E-B53C-G14	
		298 g		8080943	VHEF-H-B53C-G14	
				★ 4165866	VHEF-HS-B53C-G14	

Hand lever valve, selector valve, 5/3-way valve, mid-position pressurised (exhausted), vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/3 exhausted	530 l/min	Internal	235 g	8080980	VHEF-E-B53E-G18
					★ 4106820	VHEF-ES-B53E-G18
		265 g		★ 8080948	VHEF-H-B53E-G18	
				4165867	VHEF-HS-B53E-G18	
		268 g		8080979	VHEF-E-B53E-G14	
		298 g		8080947	VHEF-H-B53E-G14	
		268 g		4106821	VHEF-ES-B53E-G14	
		298 g		4165868	VHEF-HS-B53E-G14	



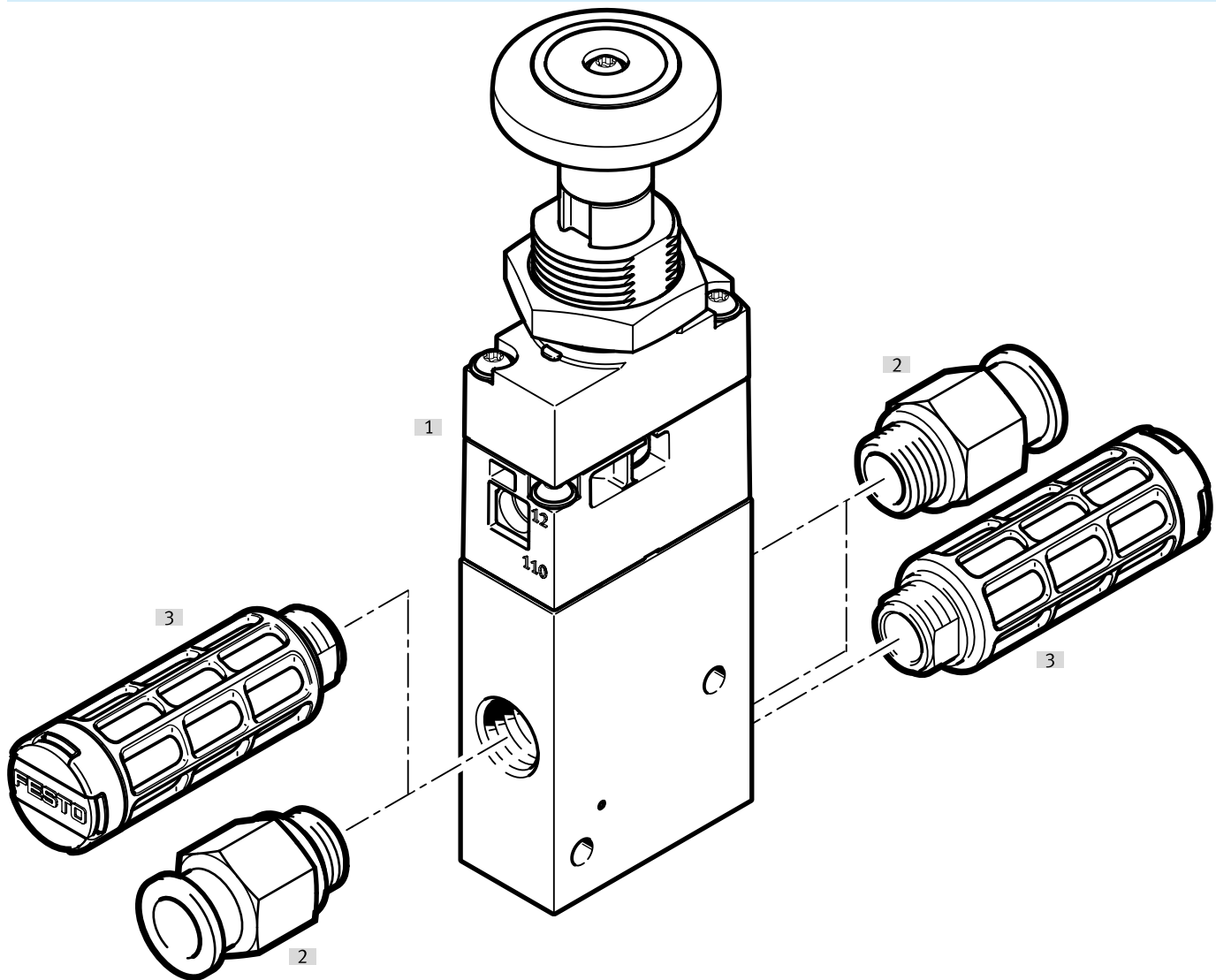
## Ordering data

Hand lever valve, selector valve, 5/3-way valve, mid-position closed, reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/3 closed	700 l/min	Internal	235 g	8080984	VHEF-E-P53C-M-G18
					4106810	VHEF-ES-P53C-M-G18
		265 g		4165857	VHEF-HS-P53C-M-G18	
				8080952	VHEF-H-P53C-M-G18	
		268 g		8080983	VHEF-E-P53C-M-G14	
				★ 4106811	VHEF-ES-P53C-M-G14	
		298 g		8080951	VHEF-H-P53C-M-G14	
	★ 4165858	VHEF-HS-P53C-M-G14				
		1,200 l/min				

Hand lever valve, selector valve, 5/3-way valve, mid-position pressurised (exhausted), reset via mechanical spring, vacuum compatible						
	Valve function	Standard nominal flow rate (standardised to DIN 1343)	Pilot air	Product weight	Part no.	Type
	5/3 exhausted	530 l/min	Internal	235 g	8080988	VHEF-E-P53E-M-G18
					4106812	VHEF-ES-P53E-M-G18
				265 g	8080956	VHEF-H-P53E-M-G18
				★ 4165859	VHEF-HS-P53E-M-G18	
		268 g		8080987	VHEF-E-P53E-M-G14	
		298 g		8080955	VHEF-H-P53E-M-G14	
		268 g		★ 4106813	VHEF-ES-P53E-M-G14	
		298 g		★ 4165860	VHEF-HS-P53E-M-G14	
					750 l/min	
		900 l/min				

## Peripherals

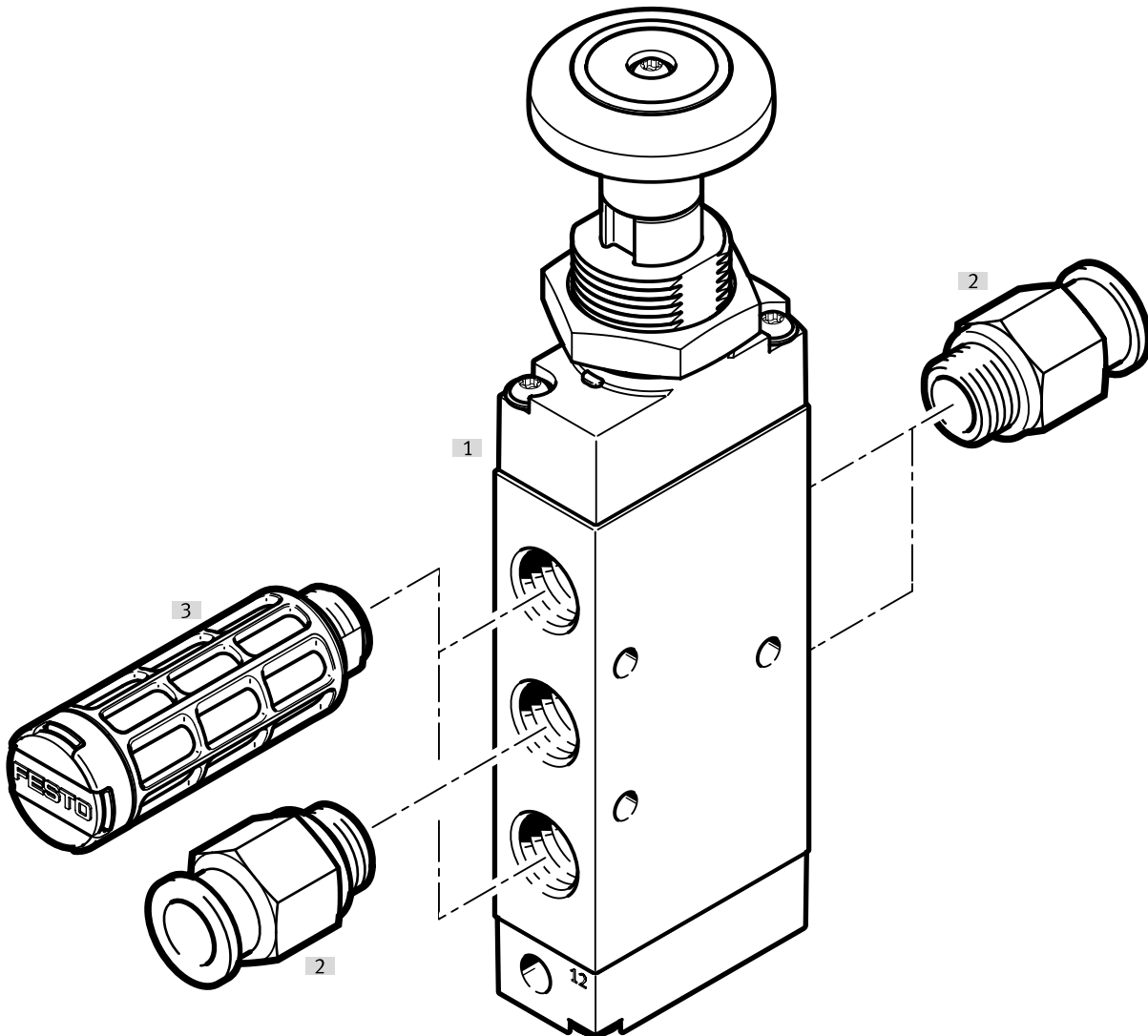
### Peripherals overview for pushbutton valve, manually operated 3/2



Accessories			→ Link
Type/order code	Description		
[1] 3/2-way valve	VHEF-PTC-M32..., VHEF-PTCZ-M32...		
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)		
[3] Silencer	For exhaust air connections (3, 5)		<a href="#">56</a>

## Peripherals

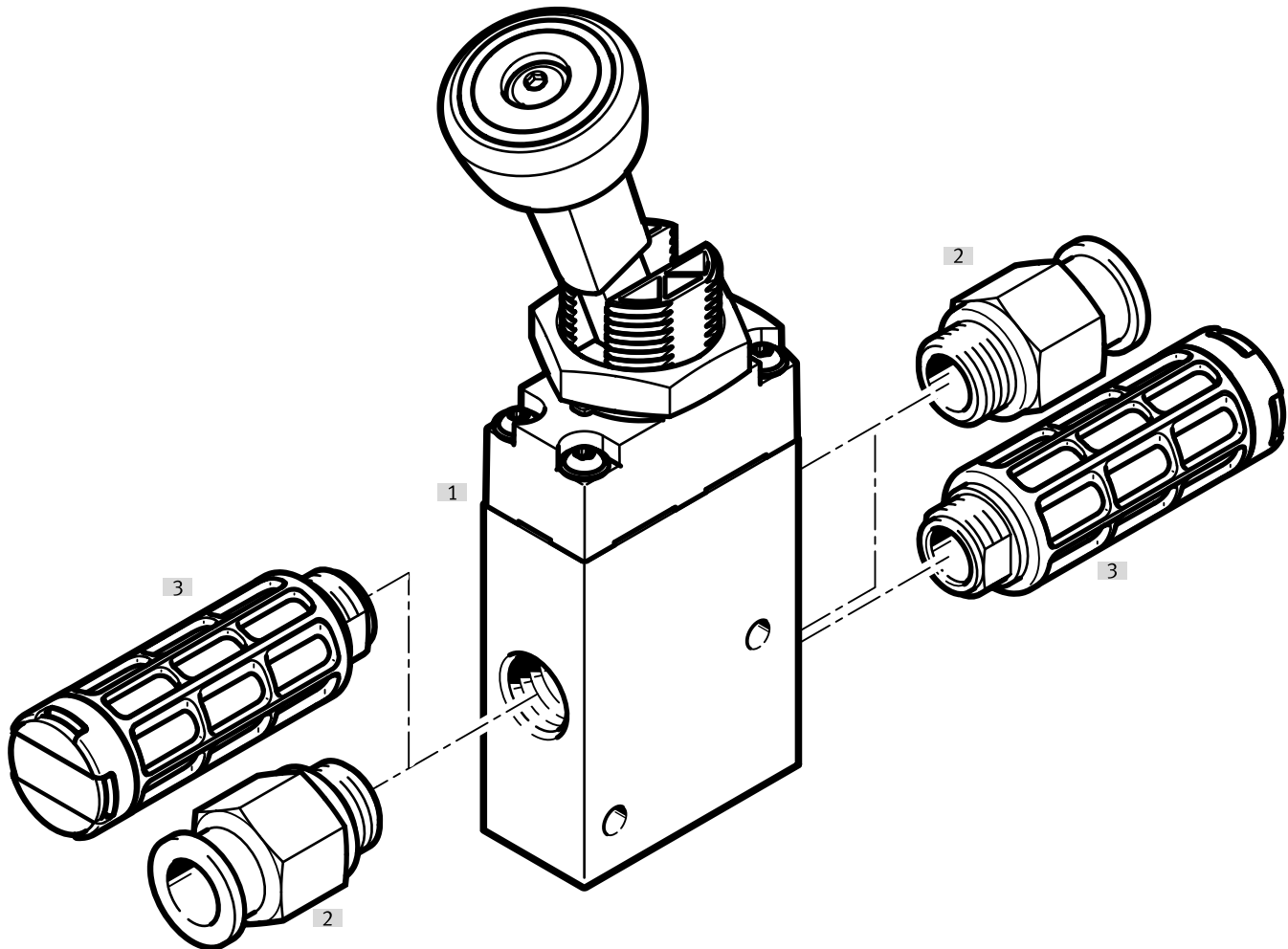
## Peripherals overview for pushbutton valve, manually operated 5/2



Accessories		→ Link
Type/order code	Description	
[1] 5/2-way valve	VHEF-P-M52...	
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3] Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

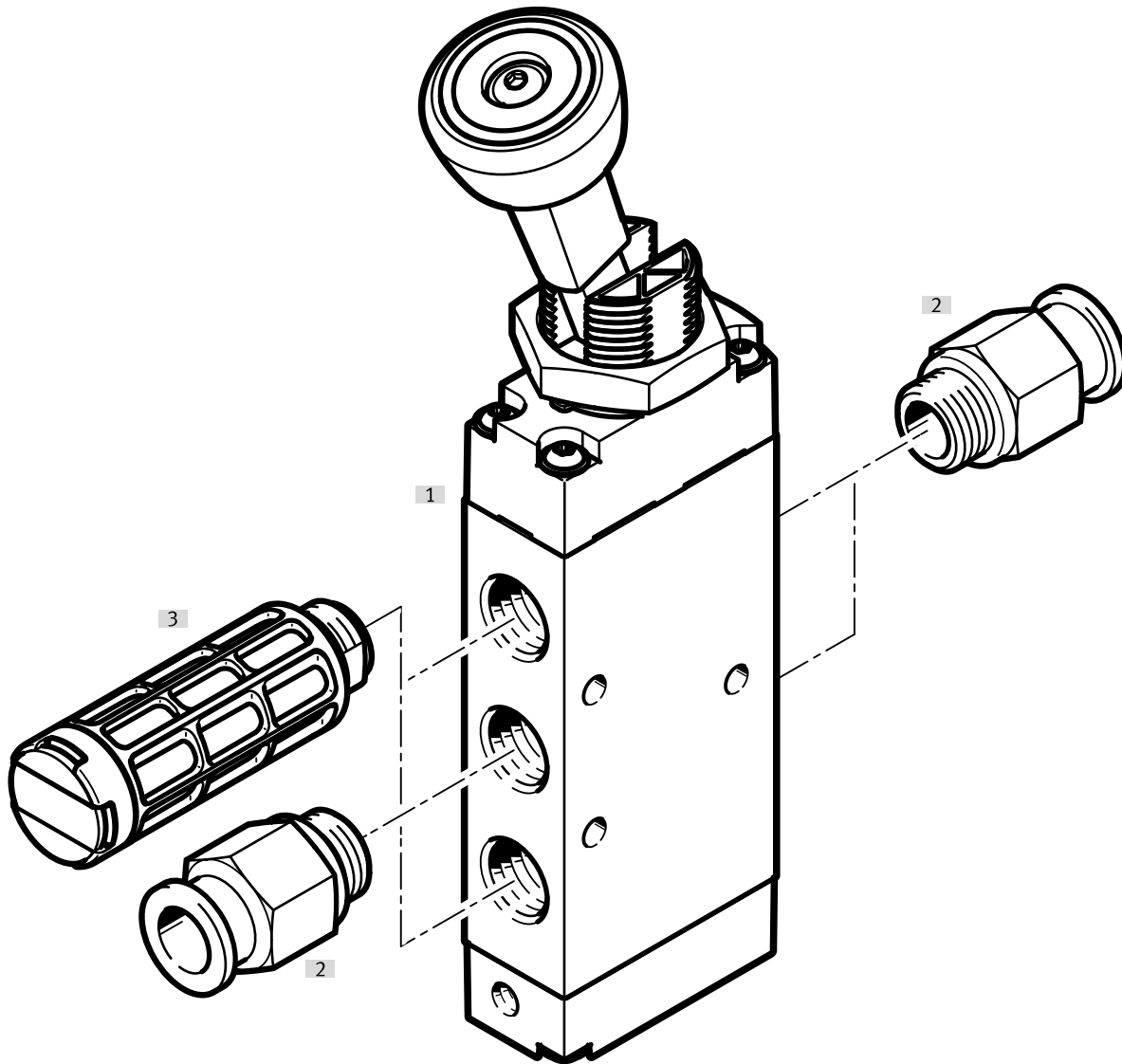
### Peripherals overview for toggle lever valve, manually operated 3/2



Accessories		→ Link
Type/order code	Description	
[1] 3/2-way valve	VHEF-VT-M32... , VHEF-VT-B32...	
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3] Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

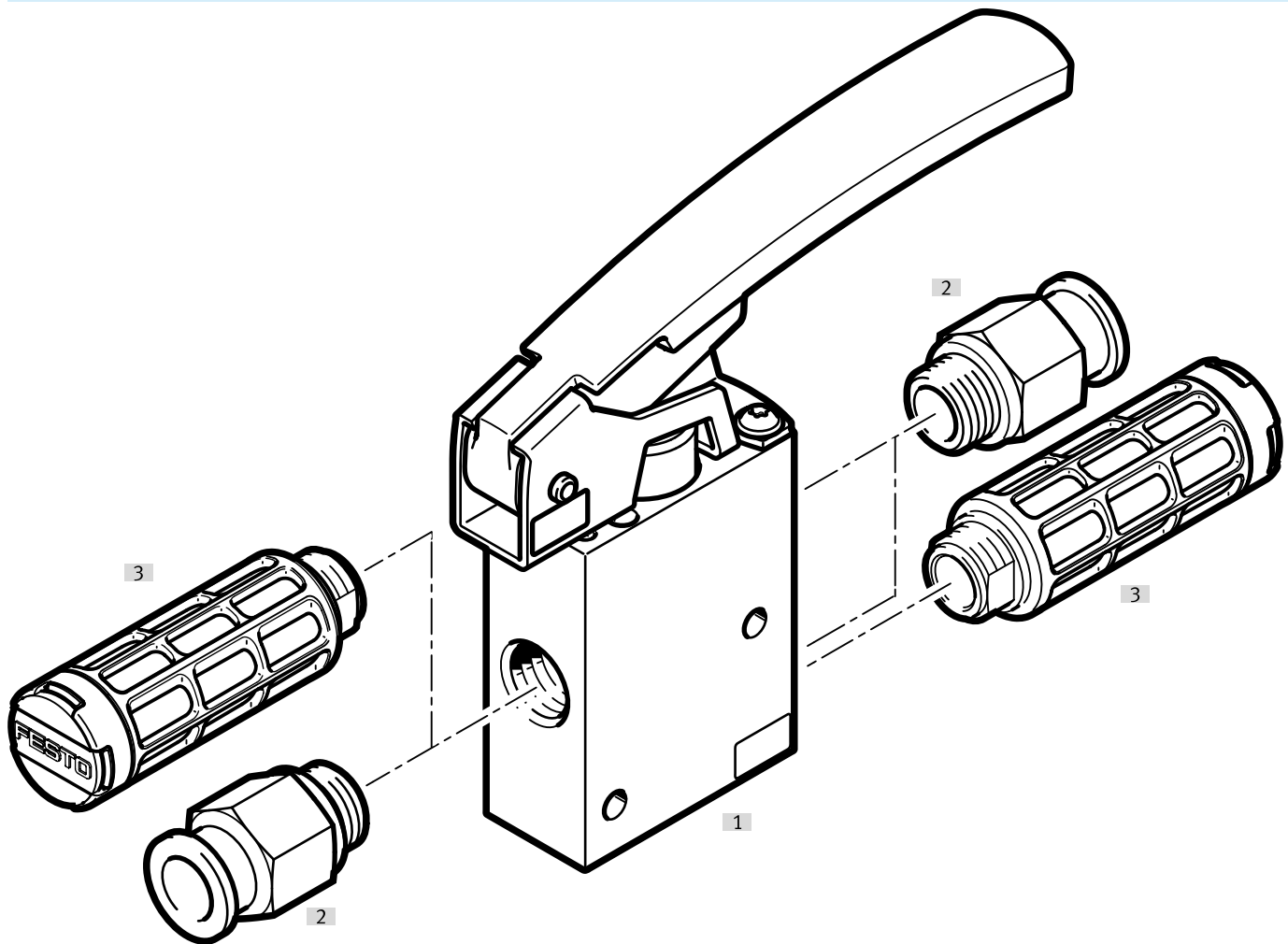
### Peripherals overview for toggle lever valve, manually operated 5/2



Accessories			→ Link
Type/order code	Description		
[1] 5/2-way valve	VHEF-V-M52... , VHEF-V-B52...		
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)		
[3] Silencer	For exhaust air connections (3, 5)		<a href="#">56</a>

## Peripherals

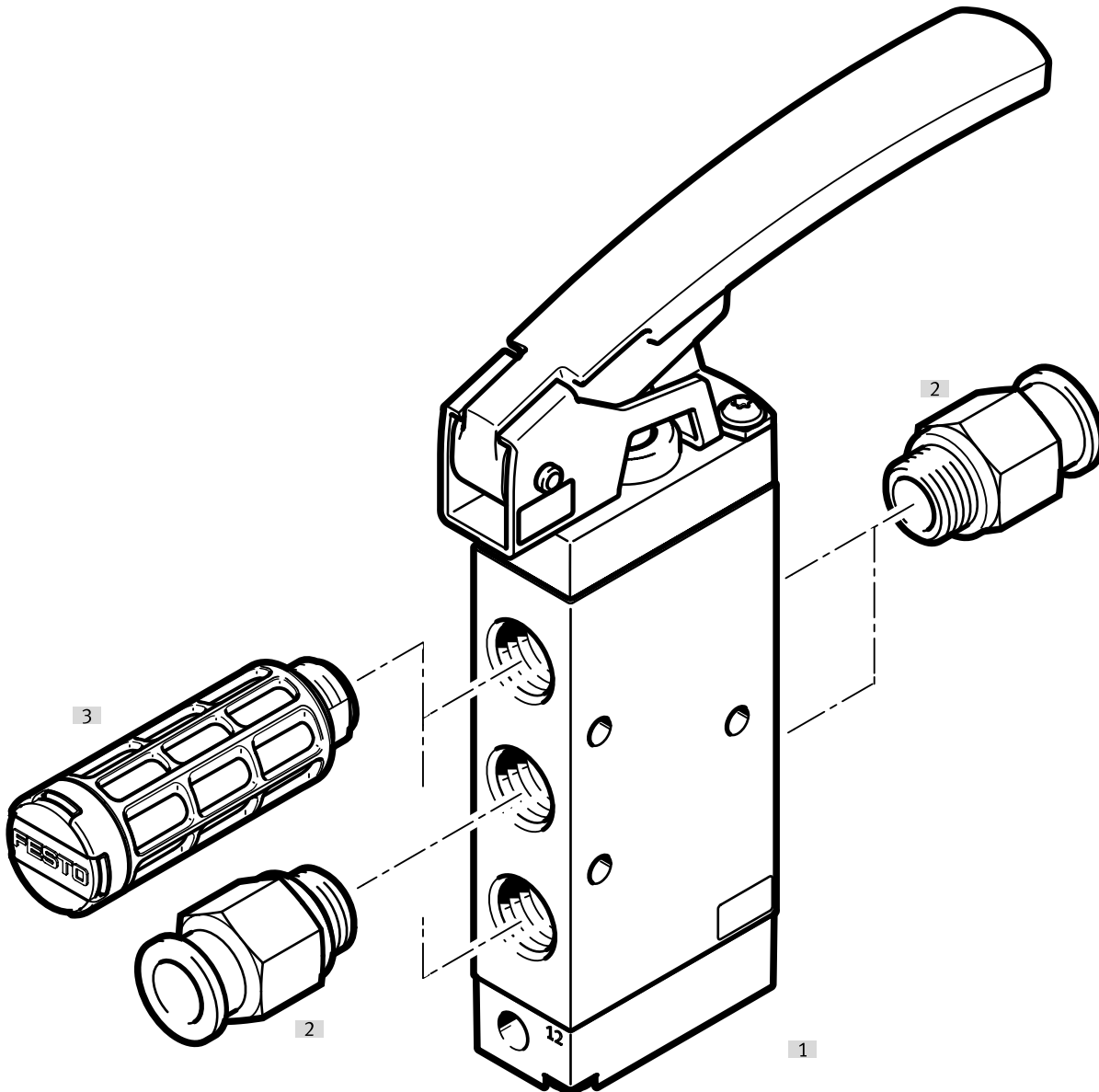
### Peripherals overview for finger lever valve, manually operated 3/2



Accessories			→ Link
Type/order code	Description		
[1]	3/2-way valve	VHEF-LT-M32...	
[2]	Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3]	Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

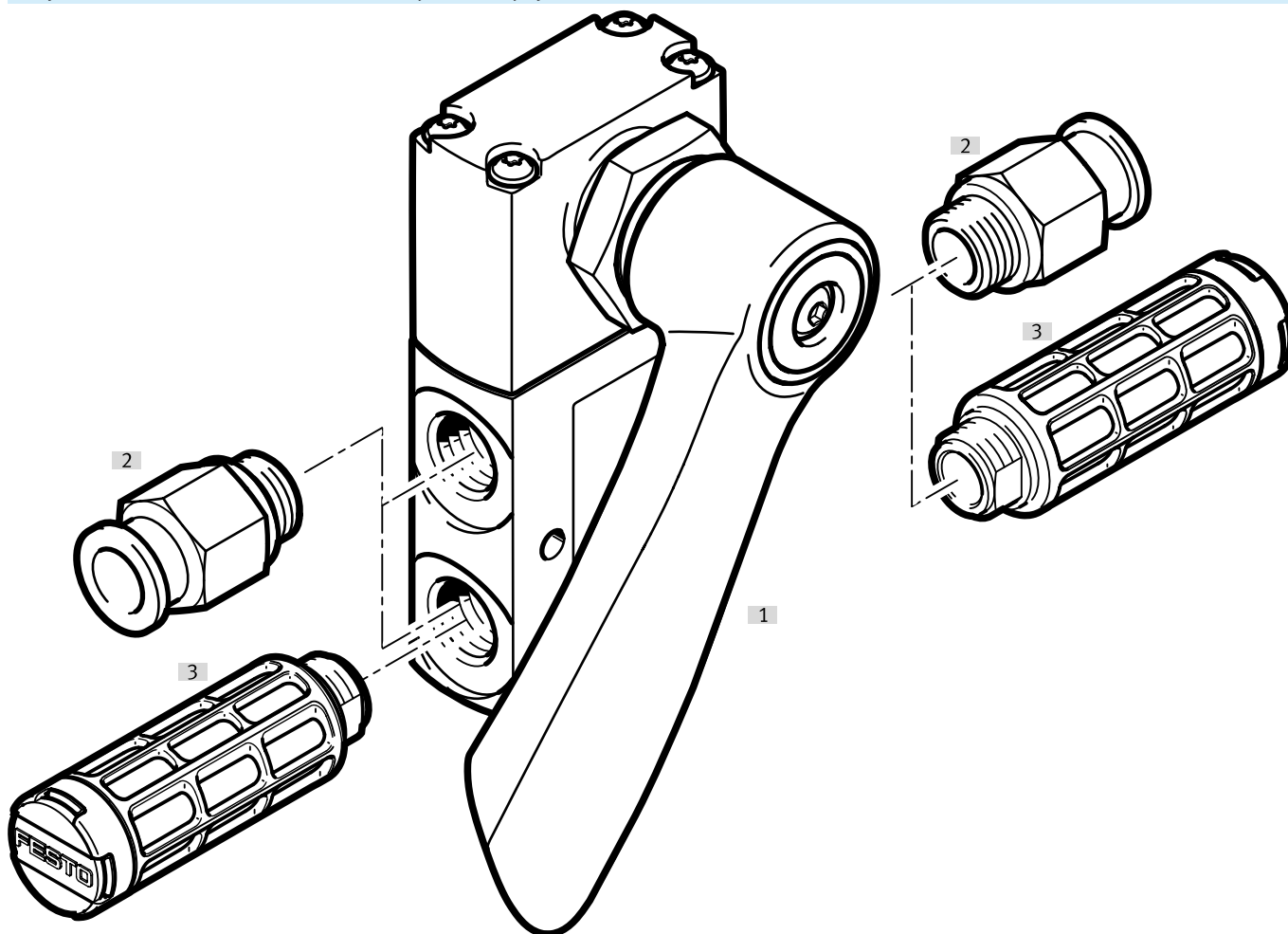
### Peripherals overview for finger lever valve, manually operated 5/2



Accessories			→ Link
Type/order code	Description		
[1] 5/2-way valve	VHEF-L-M52...		
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)		
[3] Silencer	For exhaust air connections (3, 5)		<a href="#">56</a>

## Peripherals

Peripherals overview for hand lever valve, sideways, manually operated 3/2

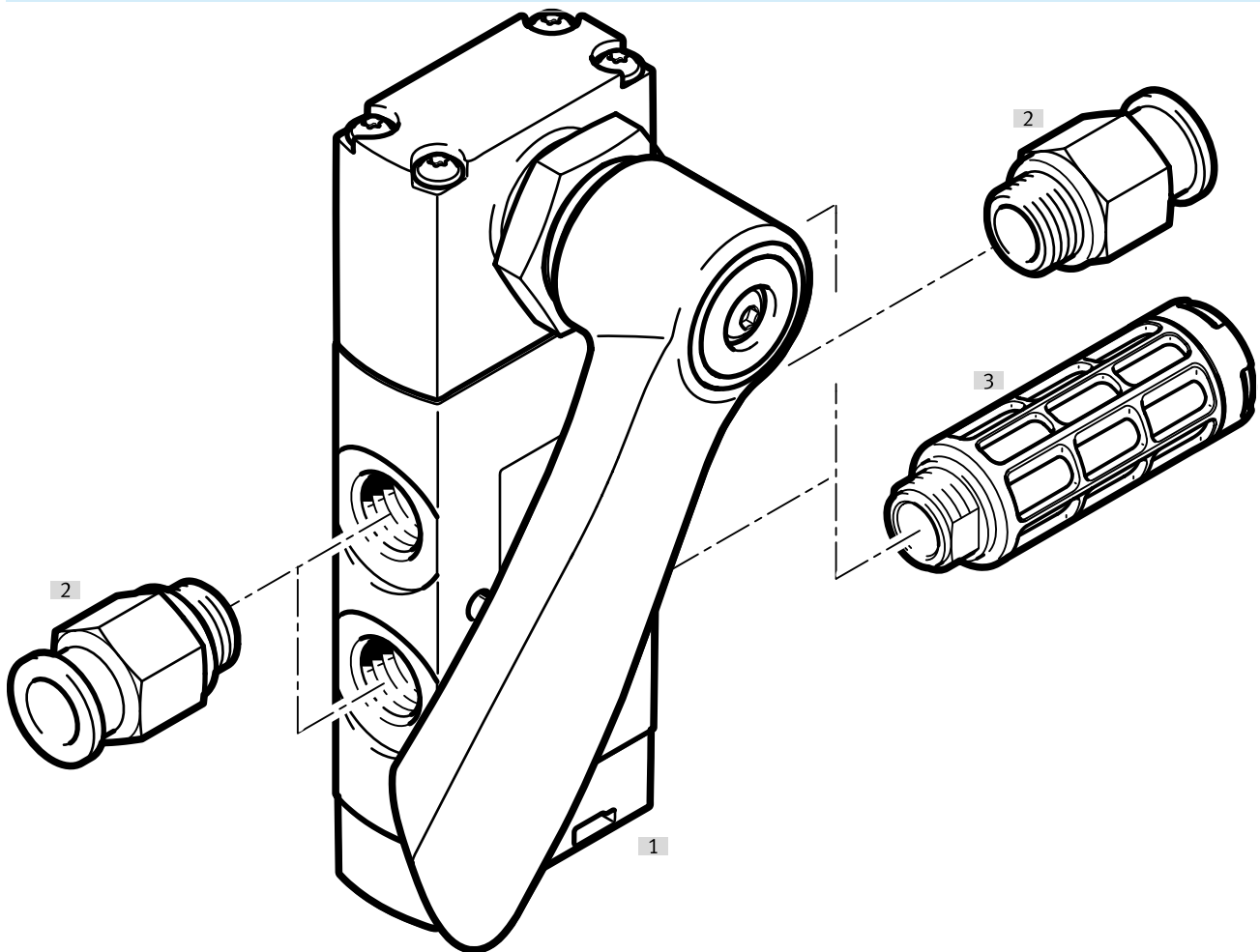


Accessories			→ Link
Type/order code	Description		
[1] 3/2-way valve	VHEF-HST...32		
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)		
[3] Silencer	For exhaust air connections (3, 5)		<a href="#">56</a>



## Peripherals

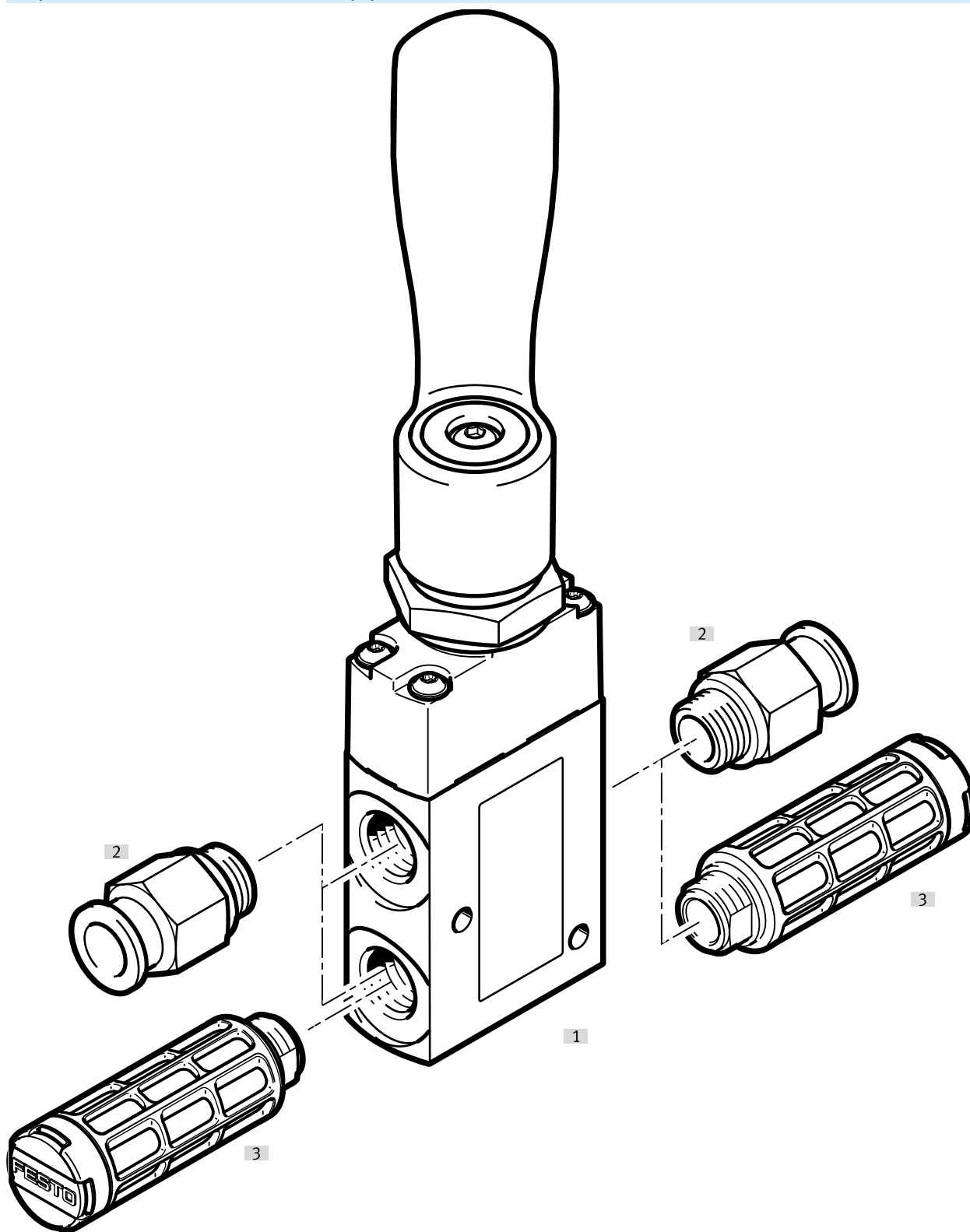
## Peripherals overview for hand lever valve, sideways, manually operated 5/2



Accessories			→ Link
Type/order code	Description		
[1]	5/2- or 5/3-way valve	VHEF-HS...52... , VHEF-HS...53...	
[2]	Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3]	Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

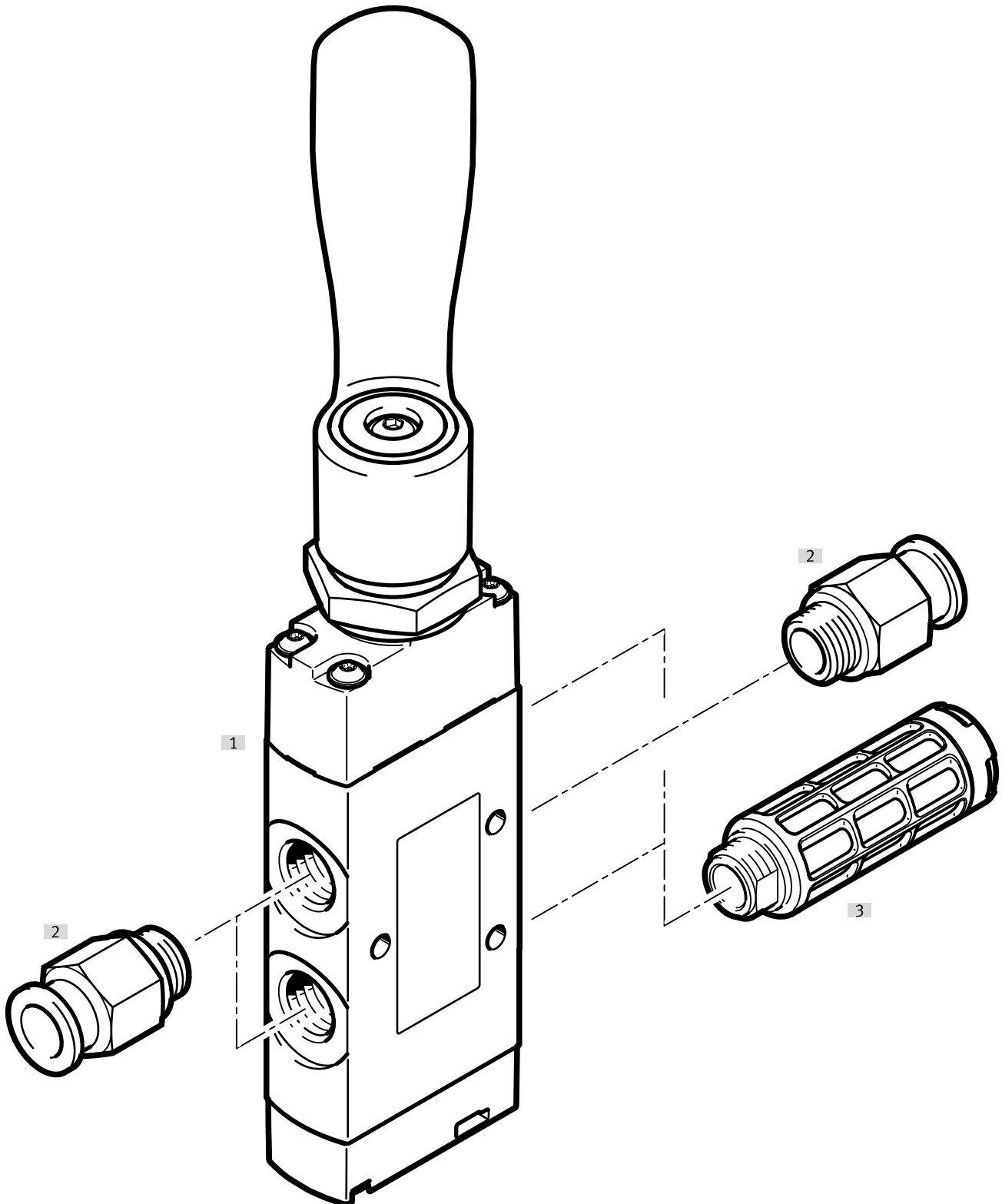
### Peripherals overview for hand lever valve, manually operated 3/2



Accessories		→ Link
Type/order code	Description	
[1] 3/2-way valve	VHEF-HT...32...	
[2] Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>
[3] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	

## Peripherals

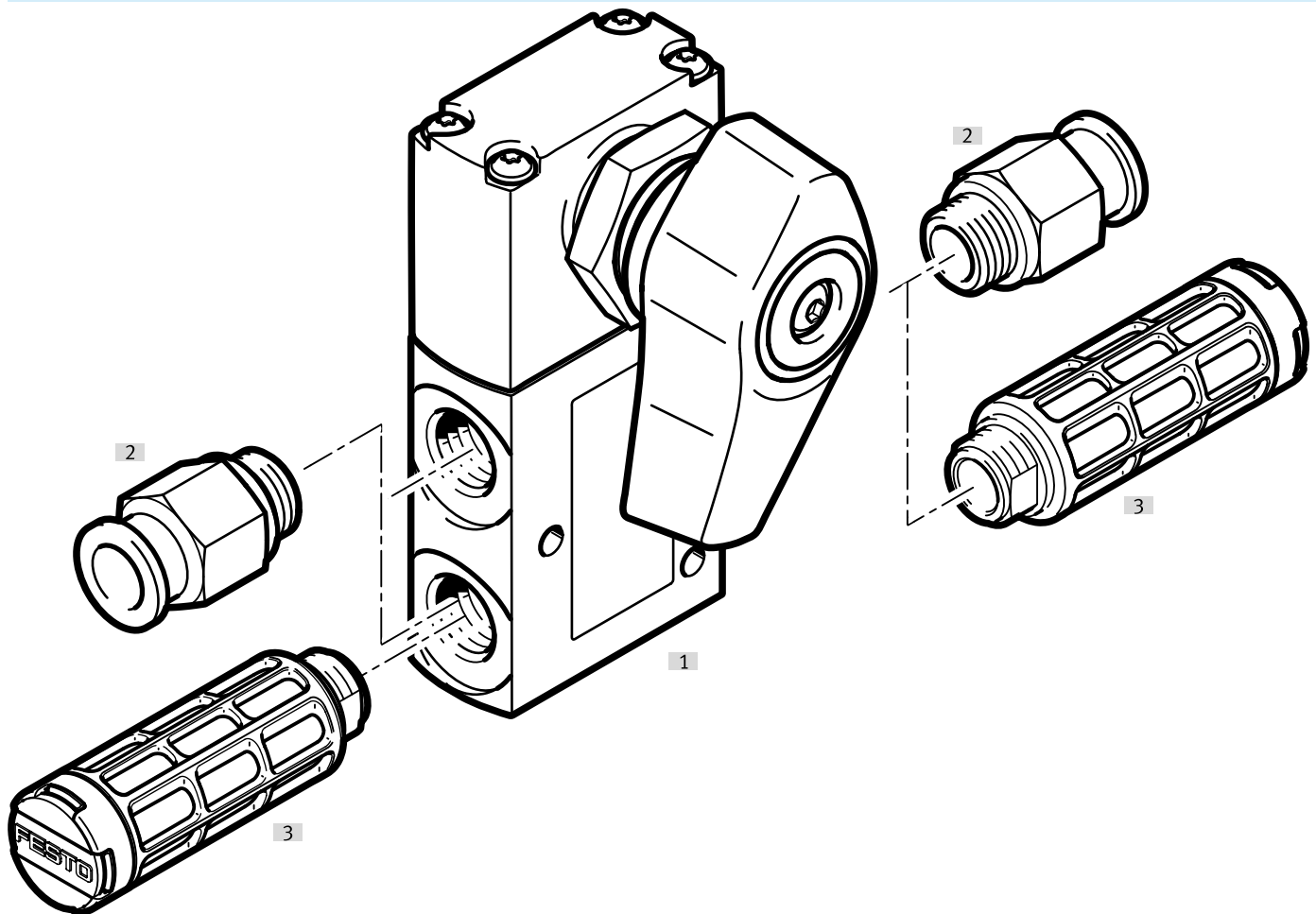
## Peripherals overview for hand lever valve, manually operated 5/2



Accessories		→ Link
Type/order code	Description	
[1] 5/2- or 5/3-way valve	VHEF-H...52... , VHEF-H...53...	
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3] Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

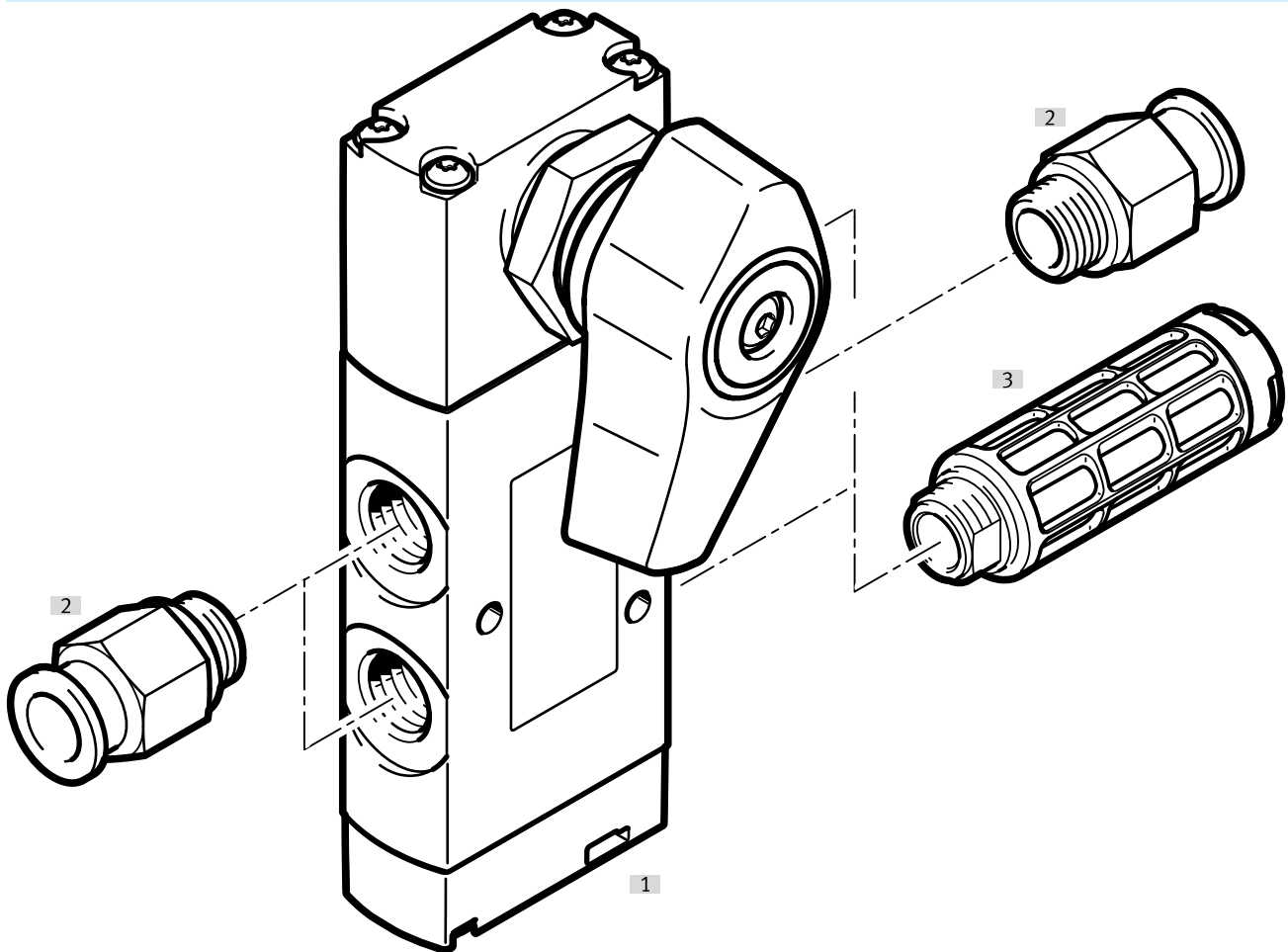
Peripherals overview for selector valve, sideways, manually operated 3/2



Accessories		→ Link
Type/order code	Description	
[1] 3/2-way valve	VHEF-EST...32...	
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3] Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

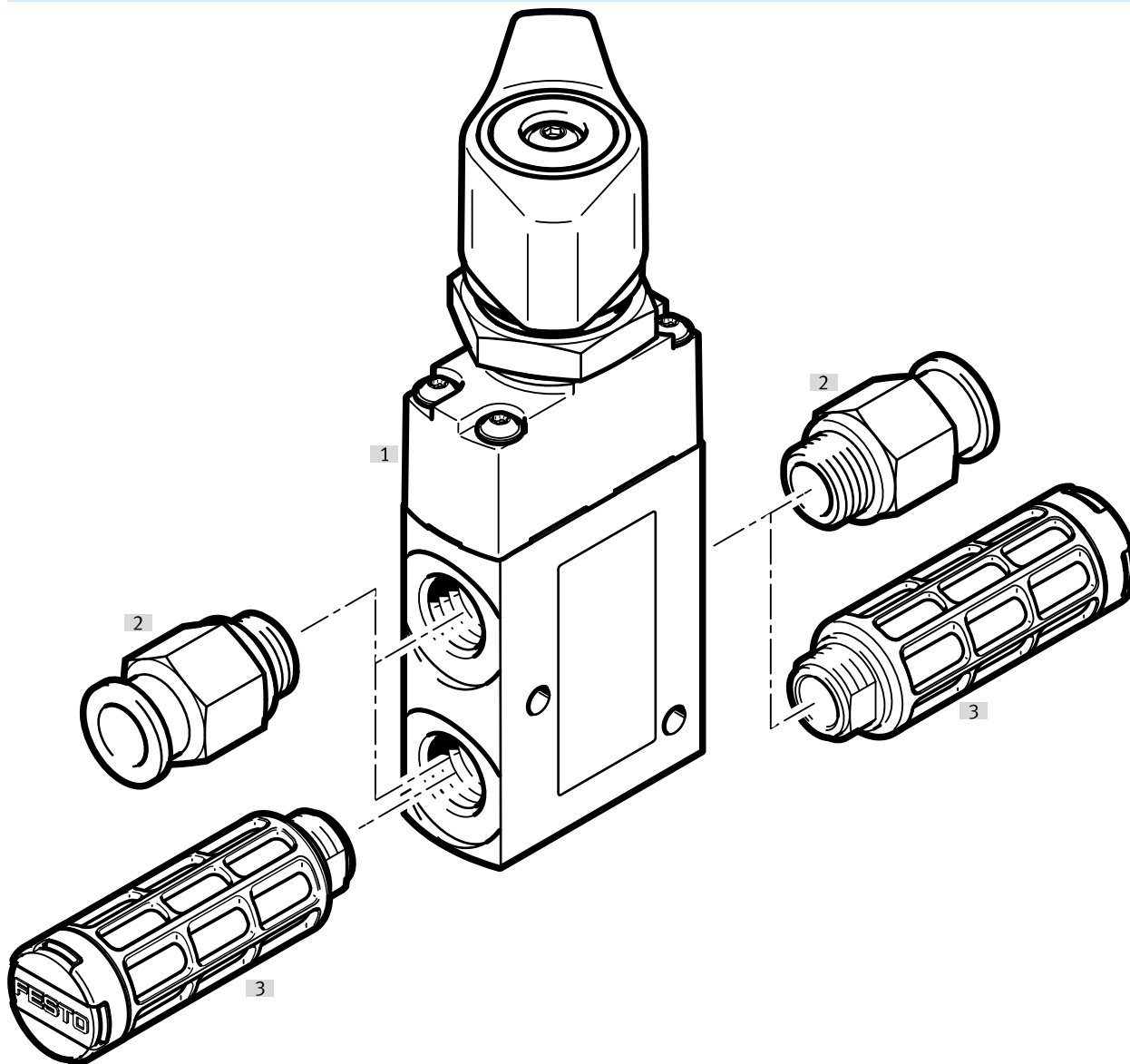
## Peripherals overview for selector valve, side, manually operated 5/2



Accessories		→ Link
Type/order code	Description	
[1] 5/2- or 5/3-way valve	VHEF-ES...52..., VHEF-ES...53...	
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3] Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Peripherals

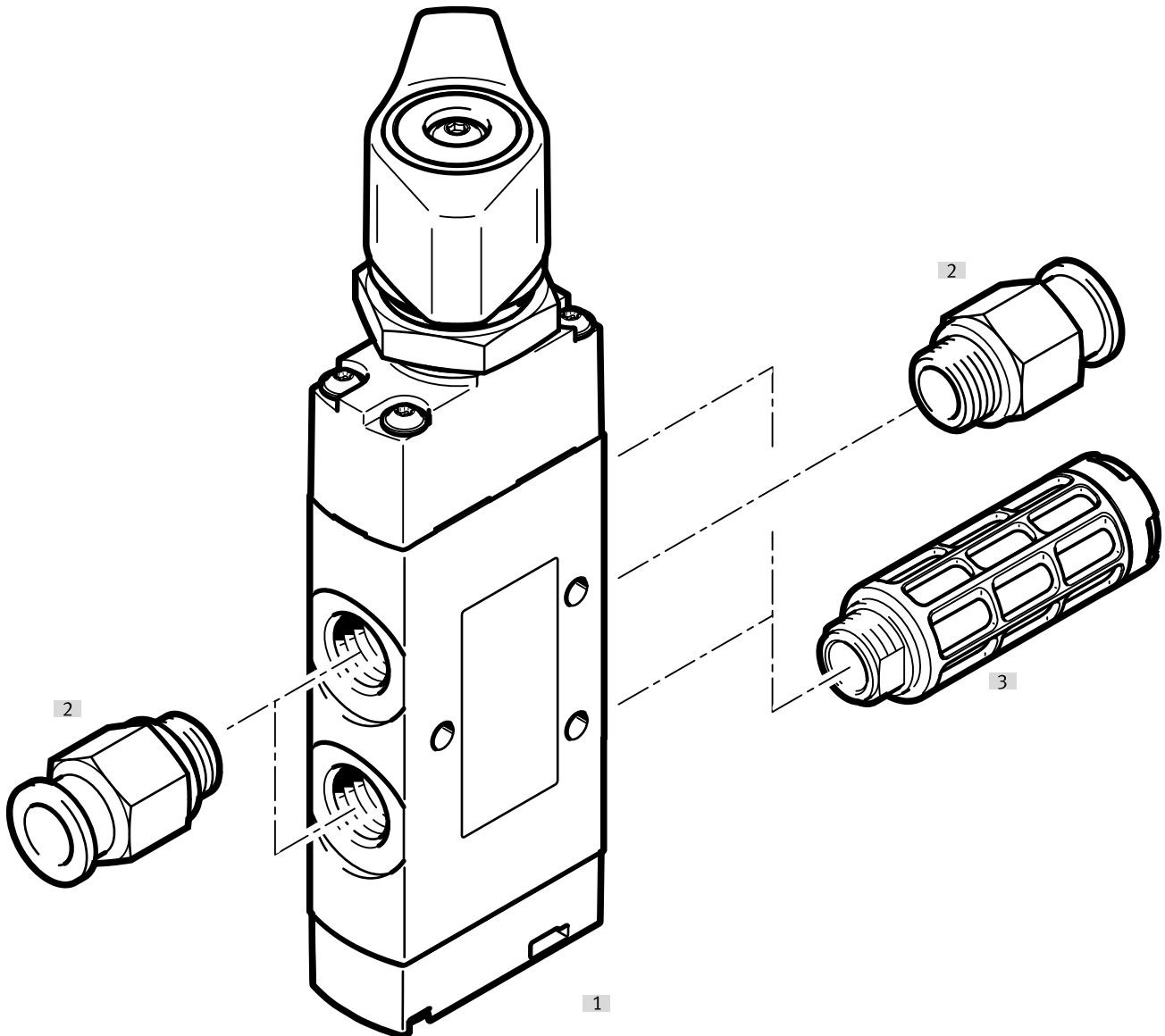
### Peripherals overview for selector valve, manually operated 3/2



Accessories			→ Link
Type/order code	Description		
[1] 3/2-way valve	VHEF-ET...32...		
[2] Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)		
[3] Silencer	For exhaust air connections (3, 5)		<a href="#">56</a>

## Peripherals


### Peripherals overview for selector valve, manually operated 5/2




Accessories			→ Link
Type/order code	Description		
[1]	5/2- or 5/3-way valve	VHEF-E...52..., VHEF-E...53...	
[2]	Fitting	For working air/exhaust air connections (1, 3, 5) and working connections (2, 4)	
[3]	Silencer	For exhaust air connections (3, 5)	<a href="#">56</a>

## Accessories


### Push-in fitting, straight, with external hexagon

	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread G1/4	For tubing outer diameter of 12 mm	10	★ 186350	QS-G1/4-12

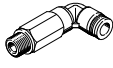
### Push-in fitting, straight, with internal hexagon

	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread M5	For tubing outside diameter of 4 mm	10	★ 153315	QSM-M5-4-I
	Male thread G1/8		100	★ 186106	QS-G1/8-4-I
	Male thread G1/8	For tubing outside diameter of 6 mm	10	★ 186107	QS-G1/8-6-I
			100	★ 133008	QS-G1/8-6-I-100
		For tubing outside diameter of 8 mm	10	★ 186109	QS-G1/8-8-I
			100	★ 133010	QS-G1/8-8-I-100
	Male thread G1/4	For tubing outside diameter of 10 mm	10	★ 186110	QS-G1/4-8-I
			100	★ 186112	QS-G1/4-10-I

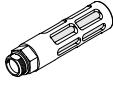
### Push-in fitting, angled, with external hexagon

	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread G1/8	For tubing outside diameter of 4 mm	10	★ 186116	QSL-G1/8-4
			100	★ 132048	QSL-G1/8-4-100
		For tubing outside diameter of 6 mm	10	★ 186117	QSL-G1/8-6
			100	★ 132049	QSL-G1/8-6-100
		For tubing outside diameter of 8 mm	10	★ 186119	QSL-G1/8-8
			50	★ 132050	QSL-G1/8-8-50
	Male thread G1/4	For tubing outside diameter of 8 mm	10	★ 186120	QSL-G1/4-8
			50	★ 132052	QSL-G1/4-8-50
		For tubing outside diameter of 10 mm	10	★ 186122	QSL-G1/4-10
			50	★ 132053	QSL-G1/4-10-50
For tubing outer diameter of 12 mm	10	★ 186351	QSL-G1/4-12		
	20	★ 132054	QSL-G1/4-12-20		

### Push-in fitting, angled, long, with external hex, connection thread G1/8


	Pneumatic connection, port 1	Pneumatic connection, port 2	Packaging unit [units]	Part no.	Type
	Male thread G1/8	For tubing outside diameter of 4 mm	10	★ 186127	QSL-G1/8-4
			100	★ 133015	QSL-G1/8-4-100
		For tubing outside diameter of 6 mm	10	★ 186128	QSL-G1/8-6
			100	★ 133016	QSL-G1/8-6-100
		For tubing outside diameter of 8 mm	10	★ 186130	QSL-G1/8-8
			100	★ 133017	QSL-G1/8-8-100

### Silencer, polymer

	Pneumatic connection	Product weight	Part no.	Type
	G1/8	2.3 g	★ 2307	U-1/8
			★ 534222	U-1/8-50
	G1/4	7.7 g	★ 2316	U-1/4
			★ 534223	U-1/4-20



## Accessories

Silencer, metal				
	Pneumatic connection	Product weight	Part no.	Type
	G1/8	8 g	6841	U-1/8-B
	G1/4	17 g	6842	U-1/4-B