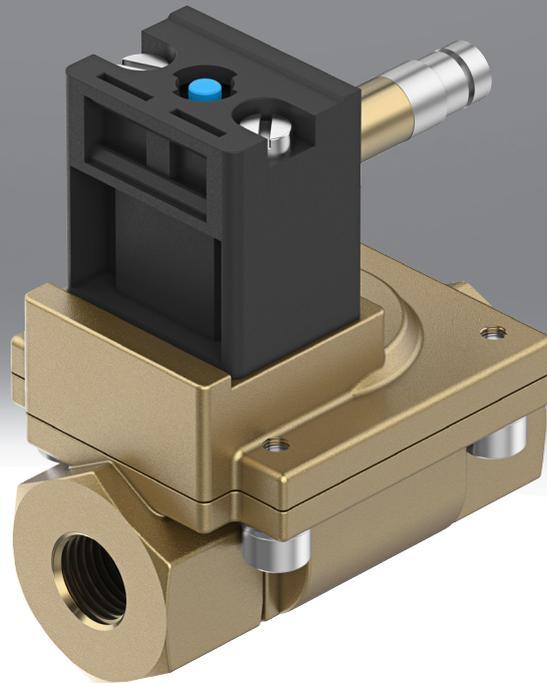


## Solenoid valve, metric MN1H

**FESTO**

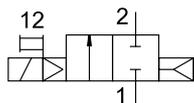


## Characteristics

### At a glance

- Pilot-operated diaphragm valve
- Brass version
- Can only be used for gaseous media
- Adjustable closing cushioning, in-line mounting or through-hole
- Operating voltage 24 V DC, 110/230 V AC (50 ... 60 Hz)
- When switching on the voltage, the solenoid is energised and the valve is reversed

### Function



## Type code

001	Series
<b>MN1H</b>	Valve with armature tube for solenoid coil MSN, single solenoid MN1H

002	Valve function
<b>2</b>	2/2-way valve

003	Process valve connection
<b>1/4</b>	G1/4
<b>3/8</b>	G3/8
<b>1/2</b>	G1/2
<b>3/4</b>	G3/4
<b>1</b>	G1
<b>1 1/2</b>	G1 1/2

004	Housing material
<b>MS</b>	Brass

## Datasheet

**General technical data**

Connection Process valve	G1/4	G3/8	G1/2	G3/4	G1	G1 1/2
Valve function	2/2-way, closed, monostable					
Design	Diaphragm valve					
Sealing principle	Soft					
Type of actuation	Electric					
Type of reset	Pneumatic spring					
Type of piloting	Pilot actuated					
Flow direction	Non-reversible					
Exhaust-air function	Without flow control option					
Manual override	Detenting via accessory, Non-detenting					
Type of mounting	In-line installation					
Mounting position	optional					
Nominal size	13 mm		20 mm		25 mm	
Standard nominal flow rate (standardised to DIN 1343)	2,000 l/min	2,900 l/min	3,100 l/min	10,000 l/min	11,500 l/min	30,500 l/min
Product weight	450 g		400 g	1,100 g	1,000 g	2,600 g

**Operating and environmental conditions**

Medium	Filtered compressed air, grade of filtration 200 µm
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Medium pressure	0.5 ... 10 bar
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C

**Valve switching times**

Connection Process valve	G1/4	G3/8	G1/2	G3/4	G1	G1 1/2
Switching time on	30 ms			120 ms		230 ... 440 ms
Switching time off	100 ms			180 ms		300 ... 1,000 ms

**Materials**

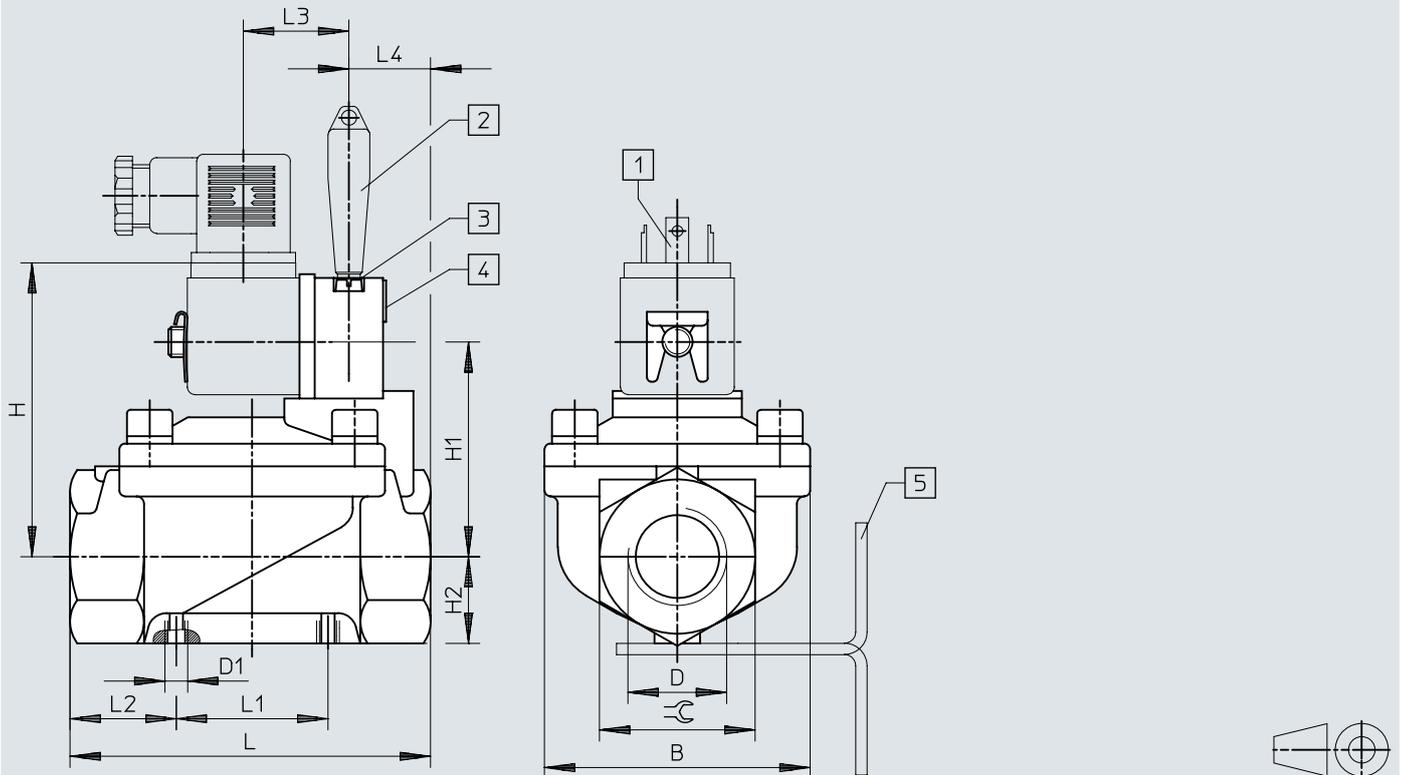
Material housing	Brass
Material number housing	–
Material screws	High-alloy stainless steel
Material number screw	1.4301

**Electrical data**

Electrical connection	Type A, Plugs, To DIN EN 175301-803, Square design
Characteristic coil data	110 V AC: 50 Hz, pick-up power 5.0 VA, holding power 3.7 VA, 110 V AC: 60 Hz, pick-up power 5.0 VA, holding power 3.7 VA, 230 V AC: 50 Hz, pick-up power 5.0 VA, holding power 3.7 VA, 230 V AC: 60 Hz, pick-up power 5.0 VA, holding power 3.7 VA, 24 V DC: 2.5 W
Degree of protection	IP65, With plug socket

## Dimensions

## Dimensions – 2/2-way valve

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

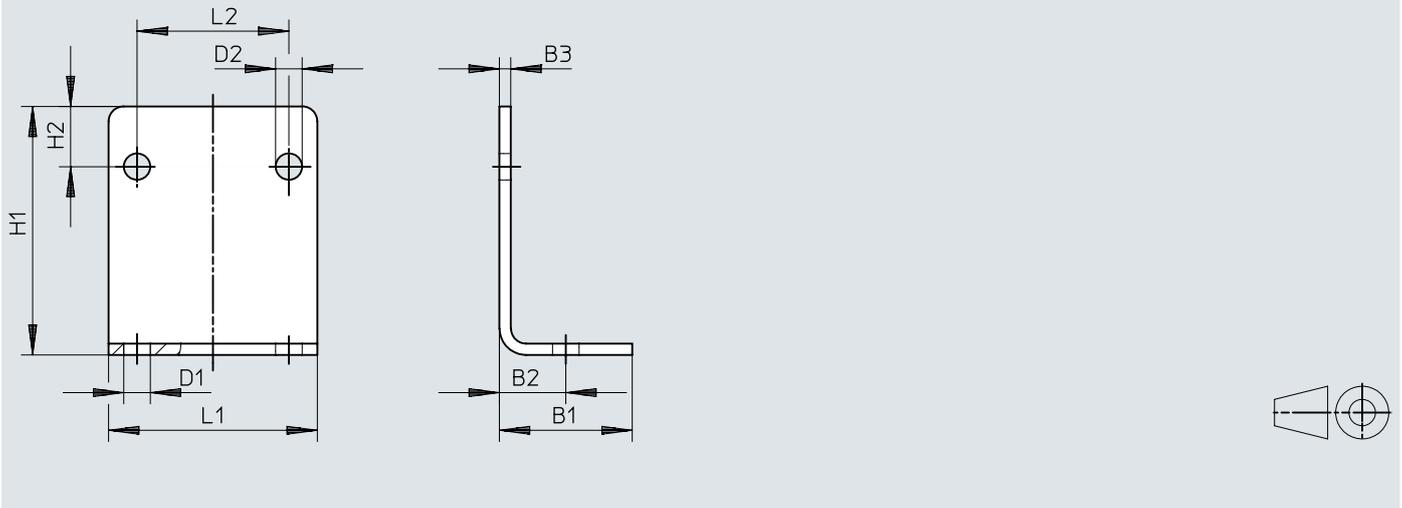
- [1] Connection for plug socket to EN 175301-803, Form A  
 [2] Manual override, detenting  
 [3] Manual override, resetting  
 [4] Location for inscription label type IBS-9x20  
 [5] Retaining bracket HRM-...

	D	B	D1	H	H1	H2	L	L1	L2	L3	L4	⊕
MN1H-2-1/4-MS	G1/4	48	M4	67	46	15	67	25	21	26,5	20	27
MN1H-2-3/8-MS	G3/8	48	M4	67	46	15	67	25	21	26,5	20	27
MN1H-2-1/2-MS	G1/2	48	M4	67	46	15	67	25	21	26,5	20	27
MN1H-2-3/4-MS	G3/4	70	M6	78	57	23	95	40	27,5	26,5	21,5	41
MN1H-2-1-MS	G1	70	M6	78	57	23	95	40	27,5	26,5	21,5	41
MN1H-2-1 1/2-MS	G1 1/2	96	M6	91,5	70,5	31,5	140	59,5	38,3	26,5	30	58

## Dimensions

### Dimensions – Retaining bracket HRM

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

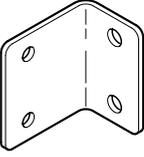


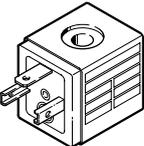
	B1	B2	B3	D1 ø	D2 ø	H1	H2	L1	L2 ±0,1
HRM-1	25	12,5	2	6	5	37	10	40	25
HRM-2	35	17,5	3	7	7	66	16	55	40
HRM-3	47	23,5	3	9	7	87	23	75	59,5

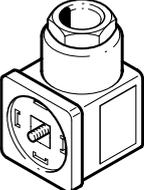
## Ordering data

Ordering data			
	Connection Process valve	Part no.	Type
	G1/4	161725	MN1H-2-1/4-MS
	G3/8	161727	MN1H-2-3/8-MS
	G1/2	161728	MN1H-2-1/2-MS
	G3/4	161731	MN1H-2-3/4-MS
	G1	161732	MN1H-2-1-MS
	G1 1/2	161734	MN1H-2-1 1/2-MS

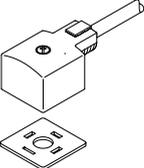
## Accessories

Retaining bracket HRM				
	Size	Product weight	Part no.	Type
	Size 1	39 g	9769	HRM-1
	Size 2	130 g	9770	HRM-2
	Size 3	246 g	9771	HRM-3

Solenoid coils				
	Characteristic coil data	Part no.	Type	
	110 V AC: 50 Hz, pick-up power 7.5 VA, holding power 5.0 VA, 110 V AC: 60 Hz, pick-up power 5.0 VA, holding power 3.7 VA, 120 V AC: 60 Hz, pick-up power 5.0 VA, holding power 3.7 VA	123061	MSN1W-110AC-OD	
	230 V AC: 50 Hz, pick-up power 7.5 VA, holding power 5.0 VA, 230 V AC: 60 Hz, pick-up power 5.0 VA, holding power 3.7 VA	123062	MSN1W-230AC-OD	
	24 V DC: 2.5 W	123060	MSN1G-24DC-OD	

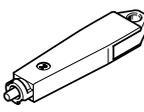
Plug socket without cable				
	Electrical connection	Part no.	Type	
	3-pin, Angled socket, Type A, To DIN EN 175301-803, Square design MSC, Square design MSN1	34583	MSSD-C	

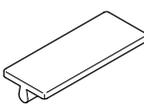
Plug socket without cable with insulation displacement technology				
	Electrical connection	Part no.	Type	
	3-pin, Angled socket, Type A, To DIN EN 175301-803, Square design	539709	MSSD-C-M16	

Connecting cables						
	Nominal operating voltage DC	Cable length	Switching status indication	Part no.	Type	
		2.5 m		30932	KMC-1-230AC-2,5	
		5 m		30934	KMC-1-230AC-5	
	24 V	2.5 m	LED	30931	KMC-1-24DC-2,5-LED	
		5 m		30933	KMC-1-24DC-5-LED	
		10 m			193459	KMC-1-24-10-LED

## Accessories

Illuminating seal			
	Operational voltage range DC	Part no.	Type
	12 ... 24 V	19145	MC-LD-12-24DC

Manual override			
	Description	Part no.	Type
	for N1 coils	157651	AHB-MD/MF/MV

Inscription labels			
	Description	Part no.	Type
	Scope of delivery: 20 pieces in frames	18182	IBS-9X20