

# Namur Valves

FESTO



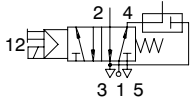
# Namur Valves

Data sheet

## NAMUR valve

NVF3-MOH-5/2K-1/4

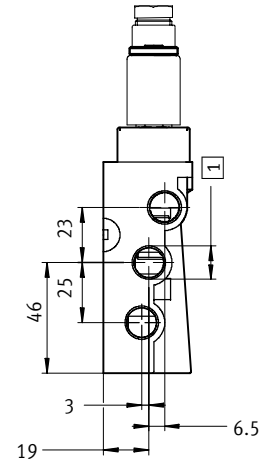
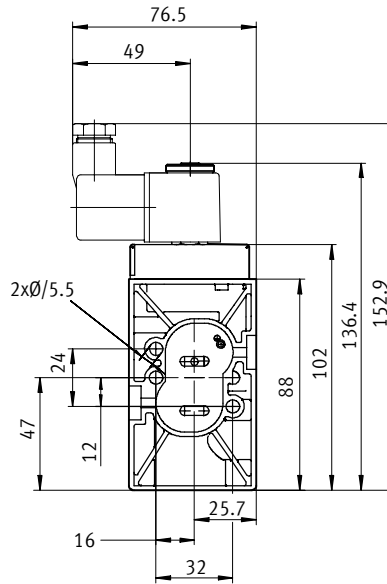
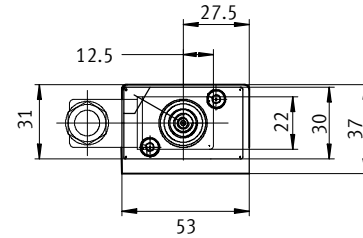
NVF3-MOH-5/2K-1/4NPT



Materials:

Housing: Al, anodized, St-A2, POM

Seal: NBR



1 3 x G $\frac{1}{4}$  or  $\frac{1}{4}$ NPT

Note: Coil is not included in scope of delivery.

Ordering Information		196 982	196 983
Part No.		196 982	196 983
Type		NVF3-MOH-5/2K-1/4	NVF3-MOH-5/2K-1/4NPT
Design		Piston spool valve with sealing cartridge, rotatable sealing plate for optional 5/2 or 3/2-way valve function with exhaust air feedback.	
Type of mounting		2 through holes in housing	
Connection threads	1,3,5 2,4	G $\frac{1}{4}$ ,	$\frac{1}{4}$ NPT
Nominal size		7 mm	
Standard flow rate	5/2 function	1 → 2	900 l/min
		1 → 4	900 l/min
		2 → 3	900 l/min
		4 → 5	900 l/min
	3/2 function	1 → 2	900 l/min
		2 → 3	900 l/min
Operating pressure range		2 ... 10 bar	
Response time at 6 bar [ms]		On: 50/Off: 100	
Temperature range [ambient]		-10 ... +60° C	
Temperature range [medium]		-10 ... +60° C	
Weight [without coil]		260 g	
Degree of protection to DIN 40 050		IP65	

Solenoid coil data → page 5.

Conversion factors → page 7.

# Namur Valves

Data sheet

**NAMUR valve**  
**NVF3-MOH-5/2K-1/4**  
**NVF3-MOH-5/2K-1/4NPT**

Electrical data, F-solenoid	DC	AC	
Voltages	Standard	24, 24 VDC	
	Special	12 to 230 VDC	
Permissible voltage fluctuation	±10 %	± 10 % for nominal frequency	
Permissible frequency fluctuation	–	± 5 % for nominal voltage	
Power consumption for standard voltages [for special voltages on request]	4.1W at 12V	Pick-up 7.5 VA	Pick-up: 50 Hz: 12 VA
	4.5W at 24V	Hold: 6 VA	Pick-up: 60 Hz: 10 VA Hold: 50Hz: 9 VA Hold: 60 Hz: 7.5 VA
Duty cycle	100 %		
Degree of protection to DIN 40 050	IP 65		
Cable conduit fitting	PG 9		
Temperature range [ambient]	-5 ... +40° C		
Temperature range [medium]	-10 ... +60° C		
Min. pick-up time	10 ms		
Power factor $\varphi_1$	–	0.7	

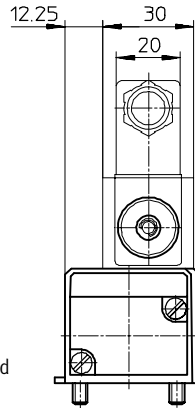
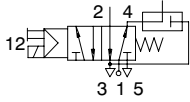
Valve technical data → page 4

Conversion factors → page 7.

# Namur Valves

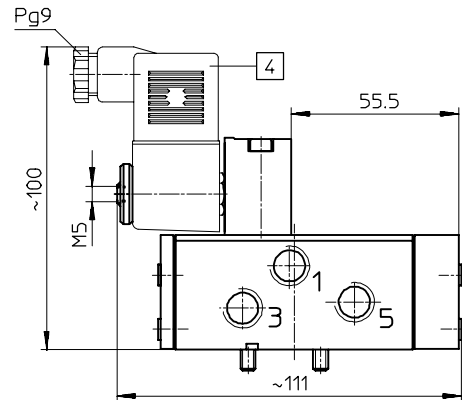
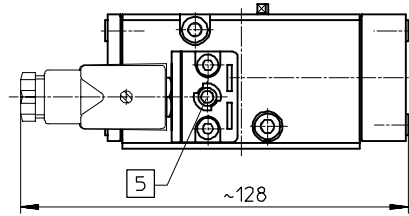
Data sheet

## NAMUR valve MFH-5/2K-FR-NA



- 4 Plug can be repositioned by 180°
- 5 Manual override

Note: Coil is not included in scope of delivery.



Part No.	Type	DC	AC
183 973	MFH-5/2K-FR-NA + voltage		
Electrical data, F-solenoid			
Voltages	Standard	12, 24 VDC	24, 42, 110, 230 VAC / 50 to 60 Hz
	Special	12 to 230 VDC	12 to 240 VAC / 50 to 60 Hz
Permissible voltage fluctuation		±10 %	± 10 % for nominal frequency
Permissible frequency fluctuation		–	± 5 % for nominal voltage
Power consumption for standard voltages [for special voltages on request]		4.1W at 12V	Pick-up: 7.5 VA
		4.5W at 24V	Hold: 6 VA
			Pick-up: 50 Hz: 12 VA Pick-up: 60 Hz: 10 VA Hold: 50Hz: 9 VA Hold: 60 Hz: 7.5 VA
Duty cycle		100 %	
Degree of protection to DIN 40 050		IP 65	
Cable conduit fitting		PG 9	
Temperature range [ambient]		-5 ... +40° C	
Temperature range [medium]		-10 ... +60° C	
Min. pick-up time		10 ms	
Power factor $\varphi_1$		–	0.7

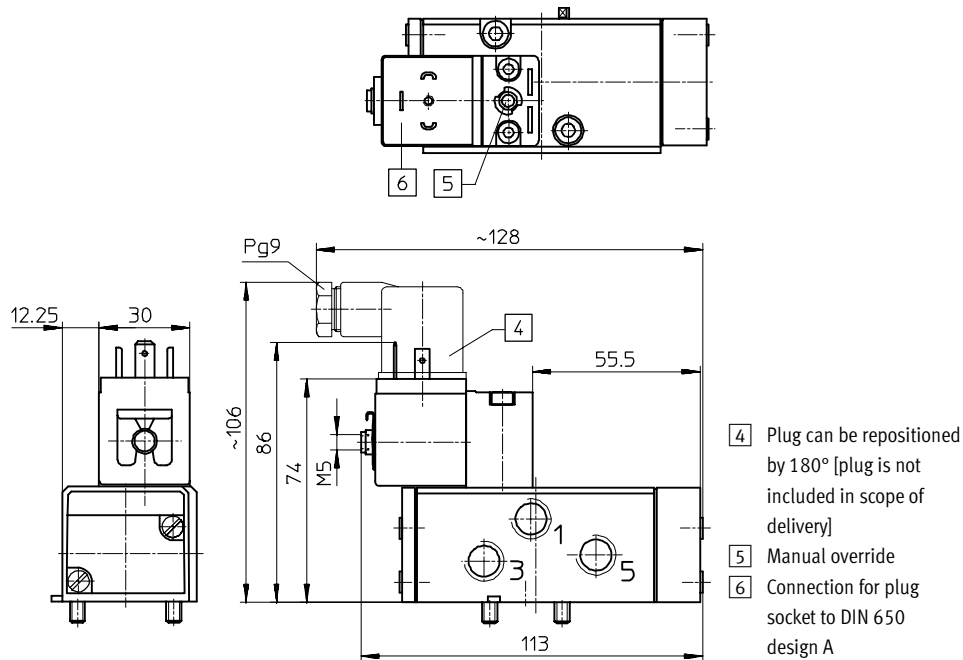
Valve technical data → page 4

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# Namur Valves

Data sheet

**NAMUR valve**  
**MN1H-5/2K-FR-NA**



- 4 Plug can be repositioned by 180° [plug is not included in scope of delivery]
- 5 Manual override
- 6 Connection for plug socket to DIN 650 design A

Part No.	Type	DC	AC
183 974	MN1H-5/2K-FR-NA + voltage		
<b>Electrical data, N1 solenoid</b>			
Voltages	24V	110V / 50 to 60 Hz 120V / 60 Hz	230V / 50 to 60 Hz
Permissible voltage fluctuation	-10 % +10 %	50 Hz: 99 to 121V 60 Hz: 99 to 132V	207 to 235V
Permissible frequency fluctuation	–	± 5 % for nominal voltage	
Power consumption for standard voltages	2.5 W	Pick-up 5 VA Hold: 3.7 VA	
Duty cycle	100 %		
Degree of protection to DIN 40 050	IP 65 with plug socket		
Electrical connection	Plug pins with connection pattern to DIN 43 650 Design A		
Temperature range [Ambient]	-10 ... +50° C		
Temperature range [medium]	-10 ... +50° C		
Power factor $\varphi_1$	–	0.7	

Valve technical data → page 4

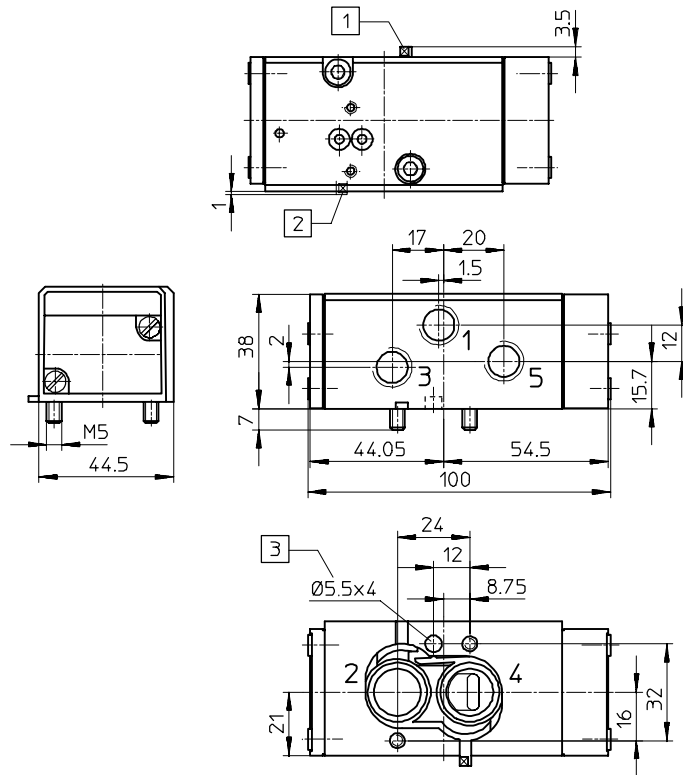
Conversion factors → page 7.

# Namur Valves

Data sheet

## NAMUR valve Basic

Materials:  
Housing, Al, anodized, St-A2, POM  
Seal: NBR



- 1 Sealing plate set to 5/2-valve function
- 2 Sealing plate set to 3/2-valve function
- 3 Hole for coding pin

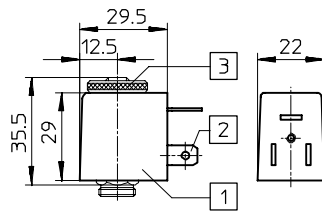
Basic Namur valve body		
Medium		Compressed air, filtered [lubricated or unlubricated]
Design		Spool valve with sealing ring cartridge and convertible sealing plate [NAMUR hole pattern] for either 5/2-way or 3/2-way valve function with exhaust air return.
Type of mounting		2 holes in housing to VDI/VDE 3845, NAMUR DIN 228/1 with 2 cheesehead screws M5x40 DIN 912 A2
Connection threads	1, 3, 5 2, 4	G¼ NAMUR hole pattern
Nominal width		8 mm
Standard flow rate	5/2-function 1 ↔ 2 1 ↔ 4 1 ↔ 3 1 ↔ 5 3/2-function 1 ↔ 2 1 ↔ 3 1 ↔ 5	800 l/min 800 l/min 950 l/min 950 l/min 800 l/min 950 l/min 140 l/min
Operating pressure		2 to 10 bar for F-, N1- and XM coils; 2 to 8 bar for TB-, XD- and XIA coils
Temperature range [ambient]		-10 ... +50° C
Temperature range [medium]		-10 ... +50° C
Corrosion protection		CRC2 to FN 940 070 [Festo standard]*

\* Paint-wetting impairment substances can cause pitting [localized funnel-shaped depressions] in paint finishes applied to the surfaces.  
Conversion factors → page 7.

# Namur Valves

Data sheet

## Accessories



- 1 The solenoid coil can be rotated on the armature tube.
- 2 Plug pins
- 3 Tightening torque for the securing nut: min. 100 Ncm, max. 150 Ncm



Can only be operated on aluminum valves with following valve body dimensions:  $\geq 26 \times 16 \times 14$  mm

CSA approval upon request, only in combination with certain valves

## F-solenoid coils

MSFG-...

MSFW-...

Materials:

Steel, Cu, Duroplast

	Part No.	Type	
Solenoid coil without plug-socket			for mounting to the following valves
12 V DC	34 410	MSFG-12-OD	MFH, MOFH, MUFH, MFXMH, JMFH
24 V DC	34 411	MSFG-24/42-50/60-OD	
42 V DC	34 413	MSFG-42-OD	Scope of delivery: 1 solenoid coil, 1 spring washer, 1 knurled nut
48 V DC	34 414	MSFG-48-OD	
24 V/50 ... 60 Hz AC	34 415	MSFW-24-50/60-OD	
42 V/50 ... 60 Hz AC	34 411	MSFG-24/42-50/60-OD	
48 V/50 ... 60 Hz AC	34 418	MSFW-48-50/60-OD	
110 V/50 ... 60 Hz AC	34 420	MSFW-110-50/60-OD	
230 V/50 ... 60 Hz AC	34 422	MSFW-230-50/60-OD	
240 V/50 ... 60 Hz AC	34 424	MSFW-240-50/60-OD	
<b>Accessories</b>			
Plug-socket	34 431	MSSD-F	
Plug-socket with PVC cable			
for 24 V DC, 2.5 m	30 935	KMF-1-24-2,5-LED	
for 0 ... 240 V, 2.5 m	30 936	KMF-1-230-2,5	
for 24 V DC, 5 m	30 937	KMF-1-24-5-LED	
for 0 ... 240 V, 5 m	30 938	KMF-1-230-5	
Luminescent seal			
for 12 ... 24 V DC/AC	19 143	MF-LD-12...24	
for 0 ... 240 V DC/AC	19 144	MF-LD-220/230-50	
Identification plate (scope of delivery 35 pieces)	33 362	KMC/F/V-BZ-35X	

	MSFG-...	MSFW-...
Voltages	12, 24, 42, 48 V DC	24, 42, 48, 110, 230, 240 V AC/50...60 Hz
Permissible voltage fluctuation	$\pm 10\%$	$\pm 10\%$
Permissible frequency fluctuation	-	$\pm 5\%$
Power consumption	4.1 W at 12 V DC 4.5 W at 24, 42, 48 V DC	Pull: 7.5 VA Hold: 6 VA
Duty cycle	100%	
Degree of protection per EN 60 529	IP 65 with plug-socket	
Electrical connection	Plug pins as per Festo standard connection diagram	
Temperature range [ambient]	-5 ... +40 °C	
Temperature range [medium]	-10 ... +60 °C	
Min. pickup time	10 ms	
Power factor: $\cos\varphi$	-	0.7
Weights	0.065 kg	0.055 kg

Conversion factors → page 7.

# Namur Valves

Data sheet

Accessories

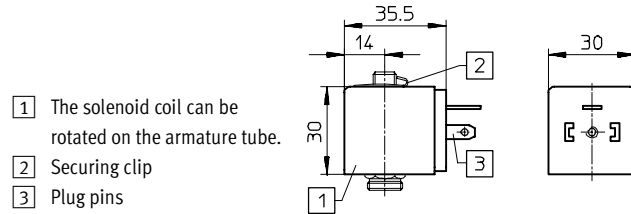
## N1 solenoid coils

MSN1G-...

MSN1W-...

Materials:

Thermoplastic, steel, Cu



- 1 The solenoid coil can be rotated on the armature tube.
- 2 Securing clip
- 3 Plug pins

	MSN1G-24-...	MSN1W-110-...	MSN1W-230-...
Voltages	24 V	110 V/50 ... 60 Hz 120 V/60 Hz	230 V/50 ... 60 Hz
Permissible voltage fluctuation	-15% +10%	50 Hz: ±10% 60 Hz: -10/+20%	±10%
Permissible frequency fluctuation	-	±5%	
Power consumption	2.5 W	Pull: 5 VA Hold: 3.7 VA	
Duty cycle	100%		
Degree of protection per EN 60 529	IP 65 with plug-socket		
Electrical connection	Plug pins as per connection diagram DIN 43 650, type A		
Temperature range [ambient]	-10 ... +50 °C		
Temperature range [medium]	-10 ... +50 °C		
Min. pickup time	10 ms		
Power factor: cosφ	-	0.7	
Weights	0.080 kg		

	Part No.	Type	
Solenoid coil without plug-socket Connection diagram: DIN 43 650 Type A			for mounting to the following valves MN1H, JMN1H Scope of delivery: 1 solenoid coil, 1 mounting clip
24 V DC	123 060	MSN1G-24-OD	
110 V AC/50 ... 60 Hz	123 061	MSN1W-110-50/60-OD	
230 V AC/50 ... 60 Hz	123 062	MSN1W-230-50/60-OD	
<b>Accessories</b>			
Plug-socket	34 583	MSSD-C	
Plug-socket with PVC cable			
for 24 V DC, 2.5 m	30 931	KMC-1-24-2,5-LED	
for 0 ... 240 V, 2.5 m	30 932	KMC-1-220/230-2,5	
for 24 V DC, 5 m	30 933	KMC-1-24-5-LED	
for 0 ... 240 V, 5 m	30 934	KMC-1-220/230-5	
Luminescent seal			
for 12 ... 24 V DC/AC	19 145	MC-LD-12-24	
for 0 ... 240 V DC/AC	19 146	MC-LD-230	
Identification plate (scope of delivery 35 pieces)	33 362	KMC/F/V-BZ-35X	

Conversion factors → page 7.



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Conversions: bar/psi = x 14.500  
kg/lb = x 2.2046  
mm/inch = x 25.400  
N/lbs = x 0.2248  
NI/ft<sup>3</sup> = x 0.0353  
Nm/ft-lb = x 0.7376  
C°/F° = x [1.8] + 32

## Conversion Factors

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