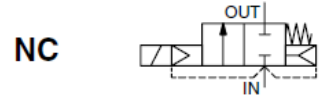


### Description:

- High operating pressure
- Interchangeable magnetic heads, direct current or alternating current (10,1 W/11,6 W or 17,1 W/22,6 W) on request
- The valves do not require a minimum working pressure
- Large choice of chemically resistant sealing materials

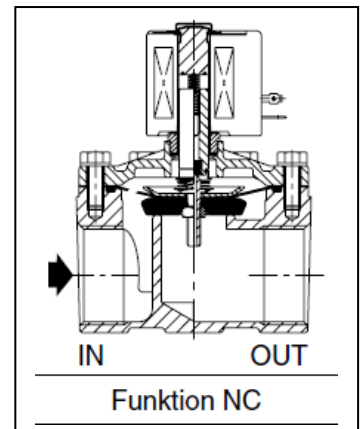


### General:

Medium *	Air, neutral gases, water, oil
Pressure difference	See characteristics valve body [1 bar = 100 kPa]
Maximum viscosity	65 cSt (mm <sup>2</sup> /s)
Response time	5 to 25 ms
Housing	Stainless steel 1.4301

### Parts in contact with the medium:\*

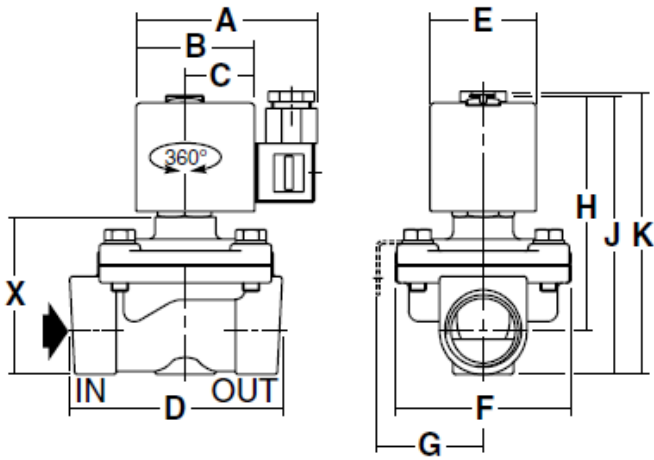
Housing	Stainless steel 1.4301
Guide pipe	Stainless steel
Armature of magnet and counter-armature	Stainless steel
Springs	Stainless steel
Valve seat	Stainless steel
End ring	Silver
Insulation class (coil)	F (AC) or H (DC)
Electrical connection	ISO 4400; EN 175301-803, Type A
Electrical design	IEC 335



\* The resistance of the parts in contact with the medium must be checked separately.



Type 3



**Solenoid valve normally closed, 230 V, 50 to 60 Hz, combined operation**

Art. No.	Type No.	Thread	DN	A	B	C	D	E	F	G	H	J	K	X
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
102977	MV 102 ES	G 1/2	16	80.0	50.0	30.0	71.0	45.0	61.0	41.0	87.0	105.0	122.0	55.0
102978	MV 122 ES	G 1/2	16	80.0	50.0	30.0	71.0	45.0	61.0	41.0	87.0	105.0	122.0	55.0
102979	MV 103 ES	G 3/4	16	80.0	50.0	30.0	71.0	45.0	61.0	41.0	87.0	105.0	122.0	55.0

**Solenoid valve normally closed, 24 V DC (direct current), combined operation**

Art. No.	Type No.	Thread	DN	A	B	C	D	E	F	G	H	J	K	X
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
102980	MV 102 ES-G	G 1/2	16	80.0	50.0	30.0	71.0	45.0	61.0	41.0	87.0	105.0	122.0	55.0
102981	MV 122 ES-G	G 1/2	16	80.0	50.0	30.0	71.0	45.0	61.0	41.0	87.0	105.0	122.0	55.0
102982	MV 103 ES-G	G 3/4	16	80.0	50.0	30.0	71.0	45.0	61.0	41.0	87.0	105.0	122.0	55.0

**Solenoid valve normally closed, 230 V, 50 to 60 Hz, combined operation**

Art. No.	Type No.	Thread	Sealant	Operating pressure min. / max. (1) bar	Medium temperature min. / max. (2) °C	Insulation class	Weight * kg
102977	MV 102 ES	G 1/2	NBR	0 / 9	-20 / 85	F	1.0
102978	MV 122 ES	G 1/2	FPM	0 / 9	-15 / 100	F	1.0
102979	MV 103 ES	G 3/4	NBR	0 / 9	-20 / 85	F	1.0

**Solenoid valve normally closed, 24 V DC (direct current), combined operation**

Art. No.	Type No.	Thread	Sealant	Operating pressure min. / max. (1) bar	Medium temperature min. / max. (2) °C	Insulation class	Weight * kg
102980	MV 102 ES-G	G 1/2	NBR	0 / 3	-20 / 85	H	1.0
102981	MV 122 ES-G	G 1/2	FPM	0 / 3	-15 / 100	H	1.0
102982	MV 103 ES-G	G 3/4	NBR	0 / 3	-20 / 85	H	1.0

\* Inkl. Solenoid and connector

(1) For detailed pressure information each medium, please see characteristics valve body.

(2) At temperatures below zero the medium may freeze and damage the valve.

**Characteristics valve body:**

Connec- tion	Nom. width  (mm)	Flow coefficient (Kv)  (m³/h) (l/min)		Working pressure difference (bar)								Coil Type No.	Coil Type No.	Solenoid valve Art. No.	
				min.	max.										
					Air/gas		Water		Oil<65cSt						
					~	=	~	=	~	=	~	=	~	=	
G 1/2	16	3.4	57	0	9	3	9	3	9	-	400-425-217 +	400-425-142 +	102977	102980	
					9	3	9	3	9	-	400-412-201	400-425-141	102978	102981	
G 3/4	16	3.9	65	0	9	3	9	3	9	-	400-425-217 +	400-425-142 +	102979	102982	
					9	3	9	3	9	-	400-412-201	400-425-141			

**Electrical data:**

Coils (2) DC (=) 12V - 24V → Please use the suffix »G« to order **DC valves**  
AC (~) 24V/50Hz - 110V/50Hz - 230V/50Hz

- (1) At temperatures below zero the medium may freeze and damage the valve.  
(2) Other voltages and 60 Hz frequency on request.

Coil Type No.	Power				Ambient temperature (1)  (°C) **	Max. perm. operating temperature  (°C) ***	Max. perm. temperature rise  (°C) *	Insulation class	Degree of protection (with socket connector fitted)
	Pickup ~	Holding ~		hot / cold =					
	(VA)	(VA)	(W)	(W)					
400-425-xxx	55	23	10.5	9 / 11.2	-25 to 75 (NBR)	155	80	F	IP 65
					-15 to 75 (FPM)			H	

\* Coil temperature after energising

\*\* Additional effect of the medium temperature within the value range stated in the catalogue

\*\*\* At 100 % ED

**Special versions (on request):**

- Diaphragms, seals and seat seal:
  - EPDM - Ethylen-Propylene (0 °C to 100 °C)
  - PTFE (-15 °C to 100 °C (F)) / (-15 °C to 120 °C (H))
  - CR – Chloroprene (0°C to 180 °C)
- Coil with higher power
- Mounting bracket for valves with brass housing
- Manuell Override
- Socket connector with light emitting diode and protective circuit

**Installation:**

- Installation position: piping axis horizontal, magnetic head upwards
- Valve bodies supplied with two mounting holes
- Threaded connections: G 1/4 acc. to DIN EN ISO 228-1 + ISO 7/1; G 1/8 acc. to ISO 228/1
- Other threaded connections on request
- Assembly and servicing instructions enclosed with each valve