**References:**

For contaminated fluids insertion of a strainer is recommended

At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

Attention! The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

Description:

- 2/2-way valve in flange version
- piston seat valve
- servo operated
- duty cycle 100% (VDE0580)
- installation position: optional, preferable with standing magnets magnets (from DN65 only with standing magnets)
- flanges EN1092-1:
version gray iron: PN16
version cast steel and VA: PN40
- adjustable close muting from DN32
- overall length EN558-1, line 1
- version in gray iron and cast steel have a thick-coat passivation as corrosion protection on
- connector plug EN 175301-803 respectively terminal box (depending on magnet type)

Application area:

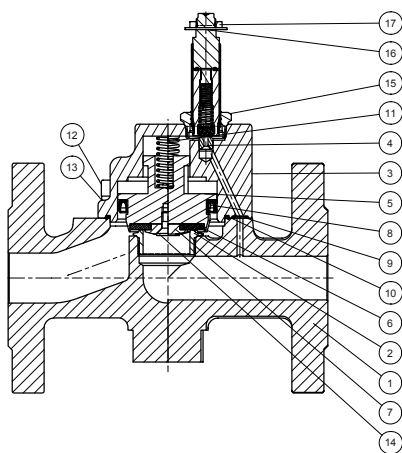
- viscosity 22mm²/s
- media temperature -10°C to +80°C
- ambient temperature -10°C to +35°C
- working pressure
PN16: 1 - 16bar
from DN 125 2 - 16bar
PN40: 1 - 40bar
from DN125 2 -40bar
- minimum pressure has to be there as differential pressure
- IP65 (with correct installed connector plug) DIN40050
- for hot and cold water, oil and air

Explanation:

Voltage tolerance +10% / -10% at maximal pressure and ambient temperature. Please note the **flow pattern** (arrow mark on body).

The setting of a defined minimum or maximum flow rate is possible via the basic quantity setting available on request.

Other tensions and coil power as well as sealings on request. You find these in the catalog under „Spare parts and accessories“. The **connector plug EN175301-803** is included in the scope of supply. You find more connector plugs under accessories and spare parts in the catalog. On request a **higher protection class** than IP65 is possible, with special coils and connector plugs.

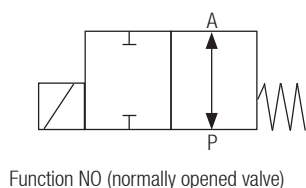
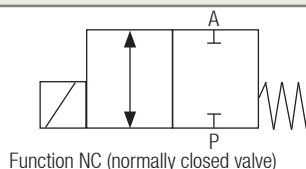


Pos.	Component	Cast iron	Cast steel	Stainless steel	
1	Body	EN-GJL-250 (thick layer)	L GP240GH (thick layer)	K 1.4581	O
2+10	Seat with sealing	NBR (version PN16) PTFE (version PN40)	B FKM T EPDM	V FKM E EPDM	V E
3	Cover	up to DN50: Messing from DN65: EN-GJL-250	up to DN50: Messing from DN65: GP240GH DN100: St52	1.4581	T
4	Sealing (servo bore)	NBR	FKM EPDM PTFE	V FKM E EPDM T PTFE	V E T
9,10	O-rings Plunger	NBR 1.4104	FKM / EPDM / PTFE B 1.4104	FKM / EPDM / PTFE V	

Wear parts:

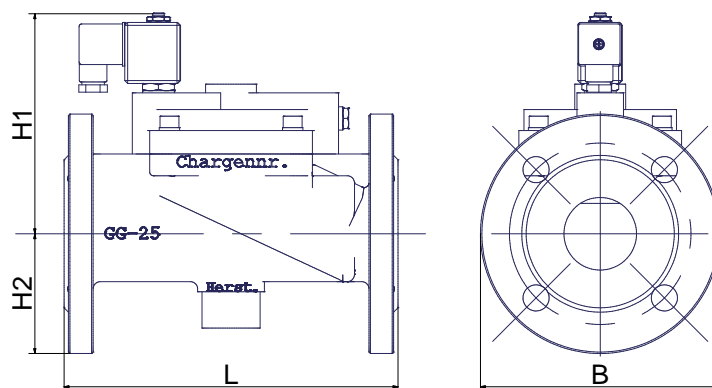
- Piston
- Sealing
- Disk
- Countersunk screw
- Groove ring
- O-ring
- O-ring
- Spring
- Tube
- Coil
- Connector plugs

2/2-WAY SOLENOID VALVE, PILOT OPERATED IN PISTON DESIGN, FLANGE VERSION



Options:

- NO: opened in rest position
- HA: manual override
- TH: temperature version upto 180°C
- OF: free of oil and grease
- BU: non-ferrous metals
- PS: position indication
- EX: Ex II 2G EEx m II T4
Ex II 2G EEx em II T4
Ex II 2G EEx md IIc T4
- GM: basic quantity setting
- AA: sealed plunger spot
- RS: adjustable close muting up to DN25
(from DN32 standard)



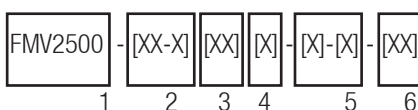
Power of the coils:

Type	AC*	DC
G03	24VA / 15VA	11W
G04	43VA / 24VA	18,5W
G07		25W
G08	with separate rectifier	30W
G09		46W
G10		100W

*Power coil AC: Declared are the power suit and the holding power.

**CV-Value: The nominal pressure of Kv to VDI / VDE 2173 indicates the water amount in m³ / h, found out at a pressure difference $\Delta p = 1$ bar and a media temperature from +5°C to 30°C. With the largest possible magnet system (PN40). The information refers to the value with the largest possible magnet system (PN40).

Matchcode	Size		Working pressure						Dimensions [mm]						Weight [kg]	CV** [m ³ /h]	
	Conne- tion [inch]	Nominal size [mm]	PN16			PN40			L	H1		H2		B			
			Coil	min	max	Coil	min	max		PN16	PN40	PN16	PN40	PN16			PN40
FMV2500-52-x xx150-x-x	DN15	15	G03	1	16	G04	1	40	130	125		47,5		95	3,5	5	
FMV2500-53-x xx200-x-x	DN20	20	G03	1	16	G04	1	40	150	131		52,5		105	3,9	11	
FMV2500-54-x xx250-x-x	DN25	25	G03	1	16	G04	1	40	160	131		57,5		115	4,3	13	
FMV2500-55-x xx320-x-x	DN32	32	G03	1	16	G04	1	40	180	151		70		140	9,1	28	
FMV2500-56-x xx400-x-x	DN40	40	G03	1	16	G04	1	40	200	151		75		150	9,8	30	
FMV2500-57-x xx500-x-x	DN50	50	G03	1	16	G04	1	40	230	158		82,5		165	12,6	46	
FMV2500-58-x xx650-x-x	DN65	65	G07	1	16	G07	1	40	290	190		92,5		185	31	75	
FMV2500-59-x xx800-x-x	DN80	80	G07	1	16	G08	1	40	310	230	245	100		200	39	97	
FMV2500-60-x xx1000-x-x	DN100	100	G07	1	16	G08	1	40	350	230	245	110	117,5	220	235	59	143
FMV2500-61-x xx1250-x-x	DN125	125	G08	2	16	G09	2	40	400	305	330	125	135	250	270	95	240
FMV2500-62-x xx1500-x-x	DN150	150	G08	2	16	G09	2	40	480	335	360	142,5	150	285	300	103	370
FMV2500-63-x xx2000-x-x	DN200	200	G09	2	16	G10	2	40	600	370	400	170	187,5	340	375	119	625
FMV2500-64-x xx2500-x-x	DN250	250	G10	2	16	G10	2	40	730	400		202,5	225	405	450	172	950
FMV2500-65-x xx3000-x-x	DN300	300	G10	2	16	G10	2	40	850	410		230	257,5	460	515	242	1400



Appointment details:

1: Type: FMV2500

2: Connection size: 57-65 (see chart) with pressure stage

- PN16: 1
- PN40: 3

3: Material:

- 1. Body material
L=gray iron
K=cast steel
O=stainless steel
- 2. Sealing
B=NBR

Demands on your application conditions that are not listed on the data sheet, can be requested!

The guide book and the maintenance guidelines, particularly the given safety instructions have to be paid attention to before the installation!

V=FKM

T=PTFE

4. Nominal size in 1/10mm (s.chart)

5: Operation:

- 1. (3 digits): Indication of the coil type (s. chart/options)
- 2. Indication of the tension:
0: 230V AC
1: 24V DC
2: 110V AC (on request)
Other tensions on request.

6: Options (see „Options“)

Heating and power of solenoid coils

default solenoid valves are designed for continuous operation (100% ED = power-on time) under normal operating conditions. The pulling force of a solenoid coil is basically influenced by three elements:

- the self-heating of the magnet coil
- the medium temperature
- the ambient temperature

Solenoid coils are by default designed for a maximum ambient temperature of +35 °C. This specification applies for the maximum allowable operating pressure specified in the data sheet of the corresponding valve, 100% duty cycle and a medium temperature of +80 °C.

A higher ambient temperature is possible, when lower values are applied for the other influencing parameters. When the max. operation pressure and max. ambient temperature of +50 °C is given the medium temperature is not allowed to be higher than max. +50 °C. In addition to that, deviations from the default design temperature range are possible, e.g. when temperature coils or other constructive measures are used. Please contact the MIT headquarters to discuss the specific application.

More precise specifications and technical data with regard to the operating conditions can be found in the data sheets of the solenoid coils and the solenoid valve regarded. Please observe that the surface temperature of a permanently loaded coil can amount up to +120 °C, solely by the self-heating of the coil. The power consumption of our default solenoid valves was calculated to DIN VDE 05820 for a coil temperature of +20 °C.