

3/2-WAY SOLENOID VALVE, DIRECT OPERATED SEAT VALVE



Description:

- 3/2-way valve in G 1/4"
- valve in poppet design
- direct operated
- female thread acc. to ISO228
- duty cycle 100% (VDE0580)
- any installation position (solenoid upright is preferred)
- connector plug acc. to EN 175301-803 or terminal box (depending on the solenoid design)

Range of application:

- viscosity 22mm²/s
- medium temperature -10°C up to +80°C
- ambient temperature: -10°C up to +35°C
- working pressure from 0 bar no pressure difference required
- for pressure ranges up to 160 bar
- IP65 (with a professionally installed connector socket) according to DIN 40050
- for hot and cold water, oil and air

Comments:

Voltage tolerance +10% / -10% at maximum pressure and standard ambient temperature. Please note the **flow direction** (marked with arrow on the body) during installation.

Higher pressure ranges are possible.

Other voltage, coil power or sealing on request! These can be found in the catalog under "spare parts and accessories".

Included is the **connector socket GS02 (28x28mm)**. Further connector sockets can be found in the catalog under square parts and accessories. **Higher protection class** than IP65 is possible with special coils and connector sockets.

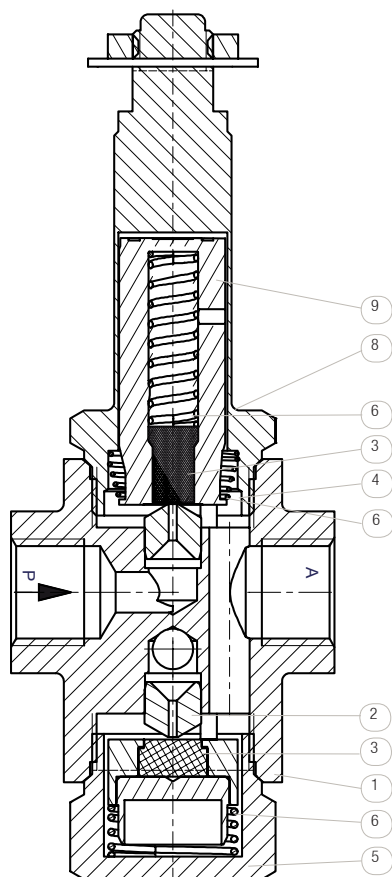
Threads according to EN 228: It describes the threaded connection of a parallel male thread with a parallel female thread and is marked with "G".

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.



pos.	part	brass		stainless steel	optional material
1	body	brass	A	1.4571	O
2	seat nozzle	1.4305		1.4305	
3	seat sealing	up to 2mm: PTFE >2mm: FKM	T V	up to 2mm: PTFE >2mm: FKM	T V
4	valve pin	1.4305		1.4305	
5	screw connection	1.4104		1.4104	
6	springs				
7	solenoid plunger sealing	up to 2mm: PTFE-carbon >2mm: FKM		up to 2mm: PTFE-carbon >2mm: FKM	
8	tube				
9	plunger				

wear parts (can vary depending on the valve design):

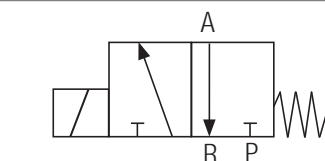
- valve disc
- spring
- spring
- tube
- plunger
- solenoid
- connector socket

options:

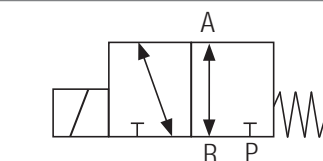
- NO: opened in rest position
- HA: manual override
- OF: free of oil and grease
- CV: chemically nickel plated body
- UN: universal design, bidirectional flow-through
- NPT: pipe thread ANSI B 1.20.1
- EX: explosion protection acc. to ATEX: Ex II 2G EEx m II T4
Ex II 2G EEx em II T4
- AA: sealed plunger spot
- HD: high pressure application

An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

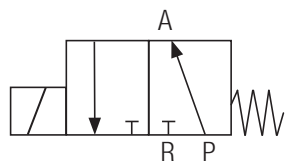
3/2-WAY SOLENOID VALVE, DIRECT OPERATED SEAT VALVE



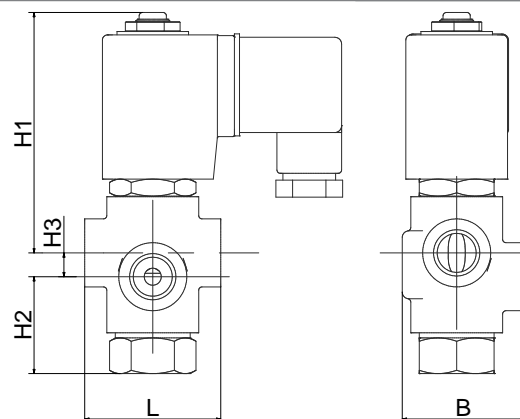
function NC (normally closed valve)



function UN: (bidirectional flow-through)



function NO (normally opened valve)



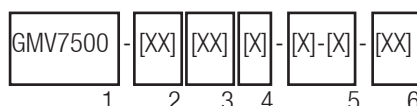
match code	size [inch]	no- minal size [mm]	working pressure [bar]							L [mm]	H1 [mm]	H2 [mm]	H3 [mm]	B [mm]	weight [kg]	CV** [m³/h]
			min.	max AC / DC												
				sole- noid	NC	NO	UN	sole- noid	EX							
GMV7500-02xT10-x-x	1/4	1	0	G04	40	40	28	G20	40	40	72	28	7	40	1.9	0.06
GMV7500-02xT15-x-x	1/4	1.5	0	G04	36	32	20	G20	32	40	72	28	7	40	1.9	0.09
GMV7500-02xT20-x-x	1/4	2	0	G04	28	25	12	G20	20	40	72	28	7	40	1.9	0.13
GMV7500-02xV25-x-x	1/4	2.5	0	G04	18	16	9	G20	14	40	72	28	7	40	1.9	0.16
GMV7500-02xV30-x-x	1/4	3	0	G04	15	11	6.5	G20	10	40	72	28	7	40	1.9	0.2
GMV7500-02xV40-x-x	1/4	4	0	G04	9	8	4	G20	7	40	72	28	7	40	1.9	0.35
GMV7500-02xV50-x-x	1/4	5	0	G04	6	5	2.5	G20	4	40	72	28	7	40	1.9	0.5
high pressure application:																
GMV7500-02xT10-x-x-HD	1/4	1	0	G08	160		130	G21	100	40		28	7	40	1.9	0.06
GMV7500-02xT15-x-x-HD	1/4	1.5	0	G08	130		50	G21	100	40		28	7	40	1.9	0.09
GMV7500-02xT20-x-x-HD	1/4	2	0	G08	100	on rqst	on rqst	G21	80	40		28	7	40	1.9	0.13
GMV7500-02xV25-x-x-HD	1/4	2.5	0	G08	on rqst		25	G21	40	40	on rqst	28	7	40	1.9	0.16
GMV7500-02xV30-x-x-HD	1/4	3	0	G08	60		20	G21	2525	40		28	7	40	1.9	0.2
GMV7500-02xV40-x-x-HD	1/4	4	0	G08	30		20	G21	on rqst	40		28	7	40	1.9	0.35
GMV7500-02xV50-x-x-HD	1/4	5	0	G08	on rqst		16	G21	on rqst	40		28	7	40	1.9	0.5

**CV value: The nominal flow rate CVs acc. to VDI/VDE 2173 shows the water quantity in cubic meter per hour with the valve fully opened, $\Delta p=1$ and the water temperature between 5°C and 30°C.

***solenoid power for AC: listed are the pick-up power and the holding power.

solenoid power:

type	AC***	DC
G04	43VA / 24VA	18.5W
G08	rectifier	30W
G20	9VA	10W
G21	-	23W



Order information:

1: type: GMV7500

2: connection size 02 (see table)

3: materials:

- 1. digit: body material
A=brass
O=stainless steel
- 2. digit: sealing
V=FKM
T=PTFE (up to nominal size 2mm)

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!

4. nominal size in 1/10mm (see table)

5: operation:

- 1. digit (3 digits): specification solenoid type (see table / options)
- 2. digit: specification voltage:
0: 230V AC
1: 24V DC
2: 110V AC (on request)
Other voltage 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.