

Solenoid operated poppet valve

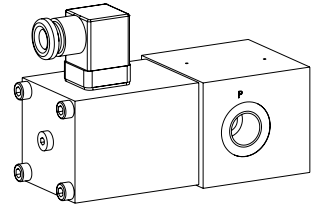
Installation in pipes

- ◆ 2/2-way
- ◆ normally open and normally closed
- ◆ threaded connection 1/2"
- ◆ $Q_{\max} = 80 \text{ l/min}$
- ◆ $p_{\max} = 350 \text{ bar}$

DESCRIPTION

Direct operated 2/2-way solenoid poppet valve for installation in pipes. By means of the pressure tight switching solenoid, the poppet valve spool is opened or closed acting against the spring. Due to the poppet spool construction with pressure compensation on both sides, the flow through the valve is possible in both directions. The seat spool guide is sealed by means of an O-ring. The metallic sealing seat closes the valve virtually leak free.

NG10

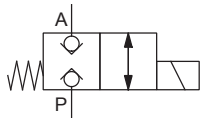


APPLICATION

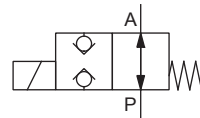
Poppet valves are used where tight closing functions of the valve are essential like leakage-free load holding, clamping or gripping.

SYMBOL

G.22101



G.22100



TYPE CODE

				G S 2 2 10					-		-		#	
Threaded connection														
Solenoid, Super														
2 way (connections)														
2 switching positions														
Nominal size 10														
Normally closed				1										
Normally open				0										
Nominal voltage U _N		12 VDC	G12	115 VAC	R115									
		24 VDC	G24	230 VAC	R230									
Sealing material		NBR												
		FKM (Viton)	D1											
Design index (subject to change)														
1.11-2860														

COMMISSIONING

Attention! When commissioning, the valve must be vented under pressure (max. 2 rotations of screw E).



ACTUATION

Actuation	Switching solenoid, wet pin push type, pressure tight
Execution	SIS60V (Data sheet 1.1-150)
Connection	Connector socket DIN EN 175301 – 803

GENERAL SPECIFICATIONS

Designation	2/2-way poppet valve
Construction	Direct operated
Mounting	Installation in pipes
Nominal size	NG10
Connection	Threaded connection G1/2"
Actuation	Switching solenoid
Ambient temperature	-25...+70 °C (NBR) -20...+70 °C (FKM)
Weight	≤ 4,0 kg
MTTFd	150 years

ELECTRICAL SPECIFICATIONS

Protection class	IP65
Relative duty factor	100 % DF
Switching frequency	15'000 / h
Service life time	10 ⁷ (number of switching cycles, theoretically)
Voltage tolerance	± 10 % with regard to nominal voltage
Standard nominal voltage	12 VDC, 24VDC, 115 VAC, 230 VAC AC = 50 to 60 Hz, rectifier integrated in the connector socket

Note! Other electrical specifications see data sheet 1.1-150



SEALING MATERIAL

NBR or FKM (Viton) as standard, choice in the type code

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{\max} = 350 \text{ bar}$
Maximum volume flow	$Q_{\max} = 80 \text{ l/min}$, see characteristic
Volume flow direction	Any (see characteristic)
Leakage oil	Poppet type, max. 0,05 ml / min (approx. 1 drop / min) at 30 cSt
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50

STANDARDS

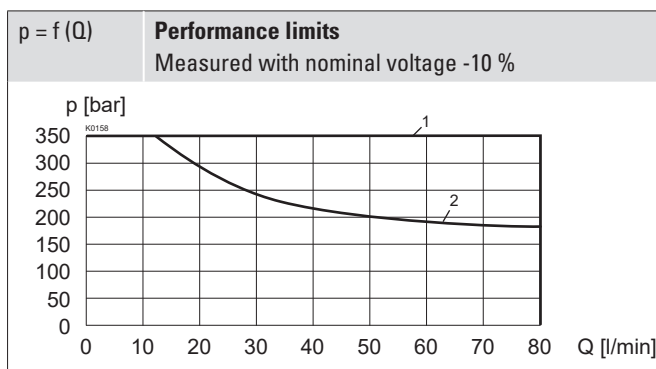
Solenoids	DIN VDE 0580
Connection execution D	DIN EN 175301 – 803
Protection class	EN 60 529
Contamination efficiency	ISO 4406

SURFACE TREATMENT

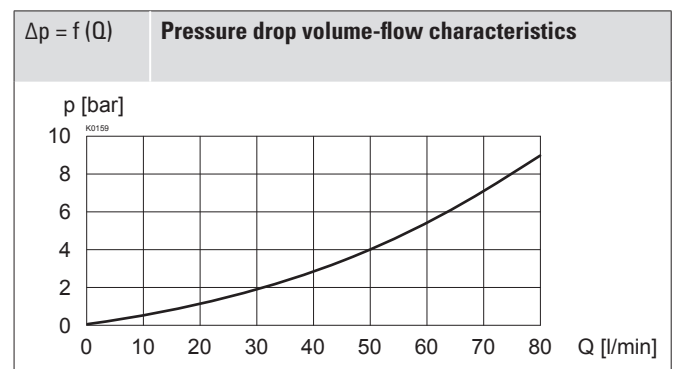
- ◆ The valve body, the solenoid, the cover and the socket head screws are zinc coated

PERFORMANCE SPECIFICATIONS

Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$



Type	Flow direction	
	P → A	A → P
GS2210	1	2

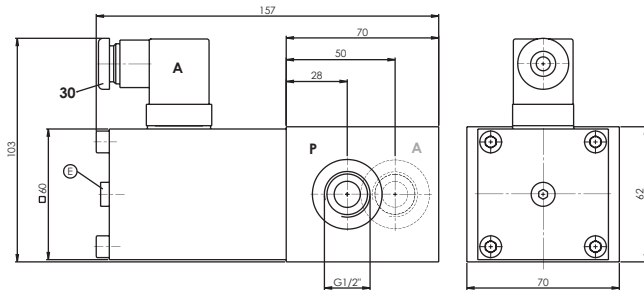


VALVES INSTALLED

The central functioning element is the poppet valve cartridge NG10, data sheet 1.11-2040.

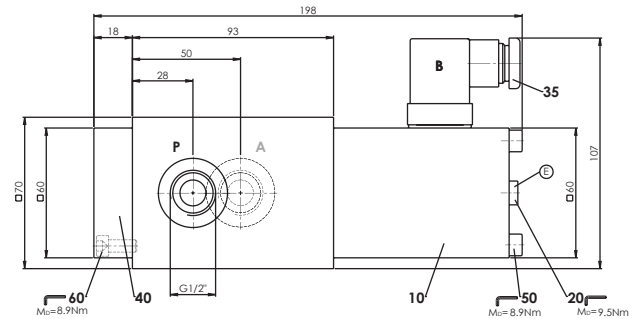
DIMENSIONS

G.22101



E = Air bleed screw

G.22100



PARTS LIST

Position	Article	Description
10	260.9...	Solenoid SIS60V
20	239.2033	Screw plug HB0 (incl. seal)
30	219.2001	Mating connector DIN EN 175301-803 grey
35	219.2002	Mating connector DIN EN 175301-803 black
40	059.2200	Cover
50	246.3190	Socket head screw M6 x 90 DIN 912
60	246.3121	Socket head screw M6 x 20 DIN 912

MANUAL OVERRIDE

Screw plug (HB0), no actuation possible
Optionally: See data sheet 1.1-300 and 1.1-311.

INSTALLATION NOTES

Mounting position: Any, preferably horizontal

ACCESSORIES

Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50
Relative duty factor	Data sheet 1.1-430