

Solenoid operated poppet valve

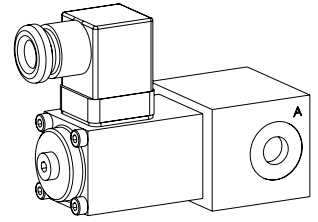
Installation in pipes

- ◆ 2/2-way
- ◆ normally open and normally closed
- ◆ threaded connection 1/4"
- ◆ $Q_{max} = 15 \text{ l/min}$
- ◆ $p_{max} = 350 \text{ bar}$

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.

NG4

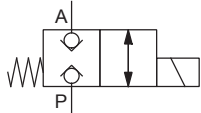


APPLICATION

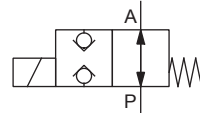
Poppet valves are used where tight closing functions of the valve are essential like leakage-free load holding, clamping or gripping.

SYMBOL

G.22041



G.22040



TYPE CODE

Threaded connection					G	<input type="checkbox"/>	2	2	04	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Solenoid, Medium	<input type="checkbox"/> M															
Solenoid, Super	<input type="checkbox"/> S															
2 way (connections)																
2 switching positions																
Nominal size 4																
Normally closed	<input type="checkbox"/> 1															
Normally open	<input type="checkbox"/> 0															
Nominal voltage U_N	12 VDC	<input type="checkbox"/> G12	115 VAC	<input type="checkbox"/> R115												
	24 VDC	<input type="checkbox"/> G24	230 VAC	<input type="checkbox"/> R230												
Sealing material	NBR	<input type="checkbox"/>														
	FKM (Viton)	<input type="checkbox"/> D1														
Design index (subject to change)	1.11-2820															

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	Medium: SIN35V (Data sheet 1.1-105) Super: SIS35V (Data sheet 1.1-110)
Connection	Connector socket EN 175301 – 803

GENERAL SPECIFICATIONS

Designation	2/2-way poppet valve
Construction	Direct operated
Mounting	Installation in pipes
Nominal size	NG4
Connection	Threaded connection G1/4"
Actuation	Switching solenoid
Ambient temperature	-25...+70 °C (NBR) -20...+70 °C (FKM)
Weight	≤ 1,2 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 1.1-105 (Medium) and 1.1-110 (Super)

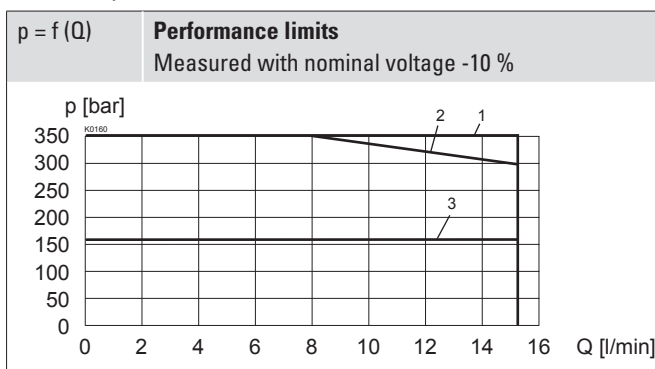


SEALING MATERIAL

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

PERFORMANCE SPECIFICATIONS

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



Type	Flow direction	
	P → A	A → P
GM2204.	3	3
GS2204.	1	2

HYDRAULIC SPECIFICATIONS

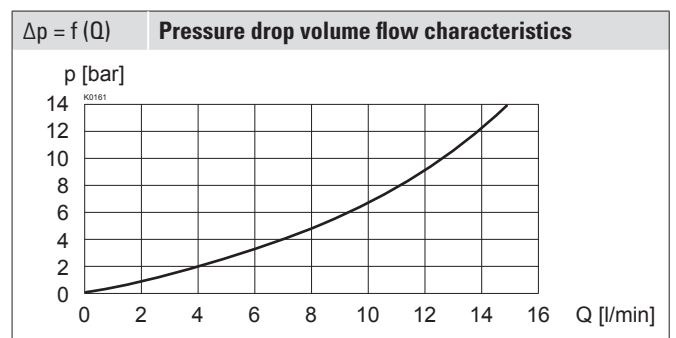
Working pressure	Medium: $p_{\text{max}} = 160 \text{ bar}$ Super: $p_{\text{max}} = 350 \text{ bar}$
Maximum volume flow	$Q_{\text{max}} = 15 \text{ l/min}$, see characteristic
Volume flow direction	Any (see characteristic)
Leakage oil	Seat tight, max. 0,05 ml / min (approx. 1 drop / min) at 30 cSt
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-20...+70 °C
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

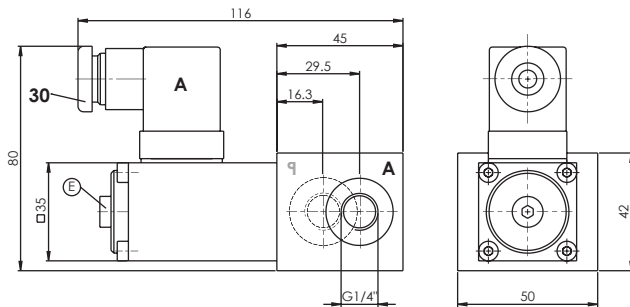


VALVES INSTALLED

Zentrales Funktionselement ist die Sitzventilpatrone NG4, Datenblatt 1.11-2020.

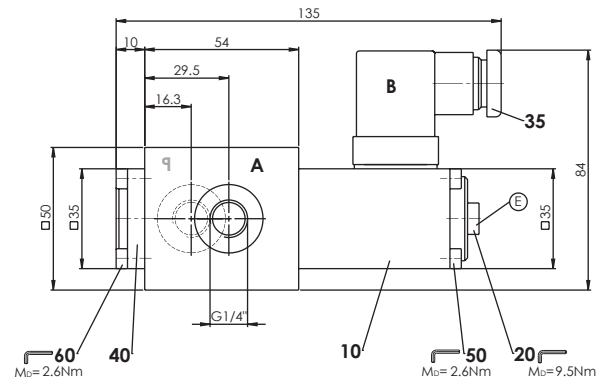
DIMENSIONS

G.22041



E = Air bleed screw

G.22040


PARTS LIST

Position	Article	Description
10	260.4...	Solenoid SIN35V
	260.5...	Solenoid SIS35V
20	239.2033	Screw plug HB0 (incl. seal)
30	219.2001	Electric plug A (grey)
35	219.2002	Electric plug B (black)
40	056.4201	Cover
50	246.1161	Socket head screw M4 x 60 DIN 912
60	246.1113	Socket head screw M4 x 12 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