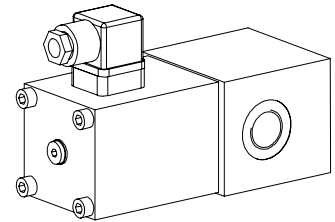


**Solenoid poppet valve
for installation in pipes**

- 2/2-way construction
- $Q_{max} = 80 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

NG10

DESCRIPTION

Poppet valve, for installation in pipes, as 2/2-way valve normally open or closed. The central functioning element of poppet valves is the poppet valve cartridge NG10. See data sheet 1.11-2040. The solenoids correspond to VDE standard 0580. The threaded body with connections G1/2" is painted.

Important: When commissioning, the valve must be vented under pressure (max. 2 revolutions of screw E).

FUNCTION

The valve is direct operated by a wet pin push type solenoid which in turn either opens or closes the poppet. The design of the poppet spool, which is equal in surface area on both sides and thus pressure balanced, means there are no undue opening and closing hydraulic forces. Due to this the oil flow through the poppet valve is possible in both directions. The valve is tight in both flow directions.

APPLICATION

Wandfluh poppet valves can be used anywhere absolutely leak tight closing functions are important. Completely sealed loading, gripping and clamping operations are all important functions which Wandfluh poppet valves can perform. From a mechanical and functional point of view, poppet valves can replace slide valves at any time.

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TYPE CODE

	G	□	2	2	10	□	-	□	#	□
Threaded connection										
Medium-solenoid						M				
Super-solenoid						S				
2-way (connection)										
2 position										
Nominal size 10										
Normally closed,						1				
Normally open,						0				
Standard nominal voltage U_N :	12 VDC	G12					110 VAC	R110		
	24 VDC	G24					115 VAC	R115		
							230 VAC	R230		
Design-Index (Subject to change)										

GENERAL SPECIFICATIONS

Description	2/2-way poppet valve
Nominal size	NG10
Construction	Direct operated poppet valve
Operations	Solenoid
Mounting	Installation in pipes (see dimensions)
Connection	Threaded connection G1/2"
Ambient temperature	-20...+50°C
Mounting position	any
Weight	m = 4,0 kg
Volume flow direction	any (see characteristics)

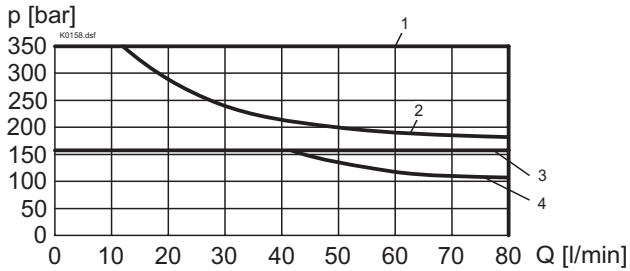
ELECTRICAL CONTROL

Construction	Solenoid, wet pin push, pressure tight
Standard-nominal voltage	$U_N = 12 \text{ VDC}, 24 \text{ VDC}$ $U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$ AC = 50 at 60 Hz * Rectifier integrated in the plug
Voltage tolerance	± 10% of nominal voltage
Protection class	IP 65 to EN 60 529
Relative duty factor	100% DF (see data sheet 1.1-430)
Switching cycles	15'000/h
Operating life	10^7 (number of switching cycles, theoretically)
Connection/Power supply	Overdevice plug connection to ISO 4400 / DIN 43 650, (2P+E), other connections on request
Solenoid:	- Medium SIN60V (data sheet 1.1-145) - Super SIS60V (data sheet 1.1-150)

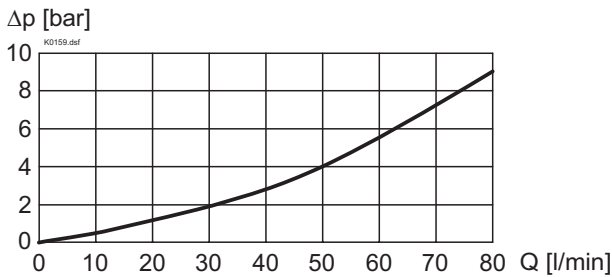
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10} \dots 16 \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70°C
Working pressure	Medium: $p_{max} = 160 \text{ bar}$ Super: $p_{max} = 350 \text{ bar}$
Max. volume flow	$Q_{max} = 80 \text{ l/min}$ (see characteristics)

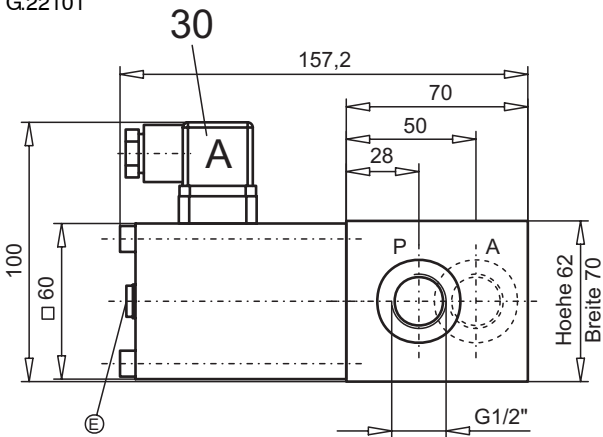
SYMBOLS


CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p = f(Q)$ Performance limit at -10%


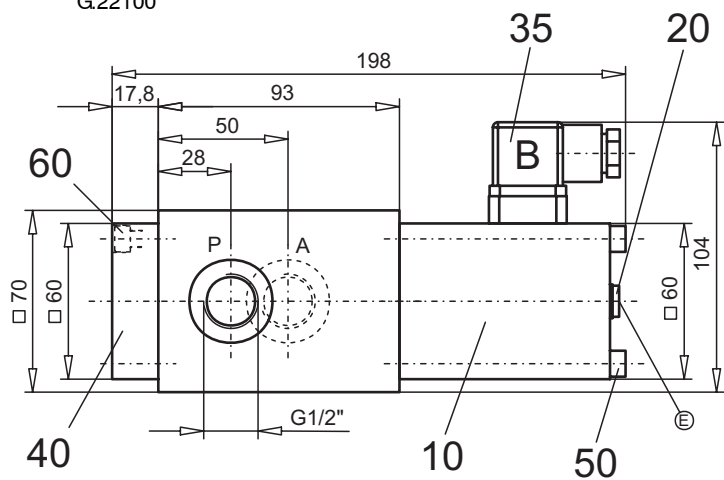
Type	Flow direction	
	P → A	A → P
GM2210.	3	4
GS2210.	1	2

 $\Delta p = f(Q)$ Pressure loss/flow characteristics

DIMENSIONS

G.22101



G.22100



E = air bleed screw

PARTS LIST

Position	Article	Description
10	260.8... 260.9...	Medium-solenoid SIN60V Super-solenoid SIS60V
20	239.2033	Plug (incl. seal) HB0
30	219.2001	Plug A (grey)
35	219.2002	Plug B (black)
40	059.2200	Cover
50	246.3190	Socket head cap screw M6x90 DIN 912
60	246.3121	Socket head cap screw M6x20 DIN 912

Technical explanation see data sheet 1.0-100E