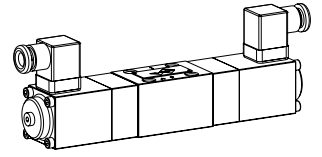


Solenoid operated poppet valve detented

Flange construction

- ◆ 3/2-way
- ◆ $Q_{max} = 40 \text{ l/min}$
- ◆ $p_{max} = 350 \text{ bar}$

NG6
ISO 4401-03



DESCRIPTION

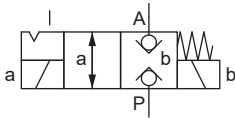
Direct operated 2/2- and 3/2-way solenoid poppet valve in flange construction. By means of the pressure tight switching solenoid, the poppet valve spool is opened or closed acting against the spring and is held in the switching position by the form-closed detent. Due to the poppet spool construction with pressure compensation on both sides, the flow through the valve is possible in both directions. The metallic sealing seat closes the valve virtually leak free.

APPLICATION

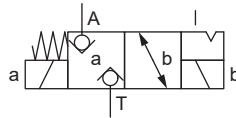
Poppet valves are used where tight closing functions of the valve are essential like leakage-free load holding, clamping or gripping.

SYMBOL

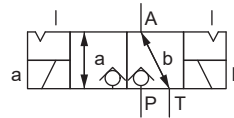
A_2206ra



A_2206rb



A_3206rr



TYPE CODE

International standard interface ISO		A		□		2		06		□		-		□		-		□		#		□	
Solenoid, Medium		M																					
Solenoid, Super		S																					
2 way (connections)		2																					
3 way (connections)		3																					
2 switching positions																							
Nominal size 6																							
Detent	one-sided A-side	ra																					
	one-sided B-side	rb																					
	on both sides	rr																					
Nominal voltage U_N	12 VDC	G12																					
	24 VDC	G24																					
Sealing material / Temperature range	NBR																						
	FKM (Viton)	D1																					
	NBR -40 °C	Z604																					
Design index (subject to change)																							

1.11-2146

GENERAL SPECIFICATIONS

Designation	2/2-, 3/2-way poppet valve
Construction	Direct operated
Mounting	Flange construction
Nominal size	NG6 according to ISO 4401-03
Actuation	Switching solenoid
Ambient temperature	-25...+70 °C
Weight	3,0 kg (2206) 3,5 kg (3206)
MTTFd	150 years

HYDRAULIC SPECIFICATIONS

Working pressure	Medium: $p_{max} = 160$ bar Super: $p_{max} = 350$ bar
Maximum volume flow	$Q_{max} = 40$ 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) -40...+70 °C (NBR 872)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50

ELECTRICAL SPECIFICATIONS

Protection class	IP65
Relative duty factor	100 % DF
Switching frequency	7'500 / 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 1.1-120 (Medium) and 1.1-125 (Super)

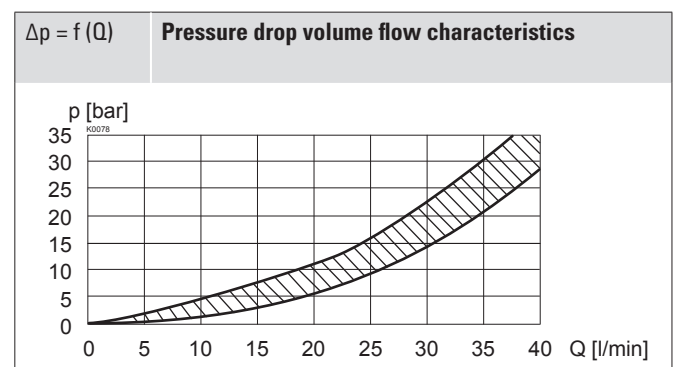
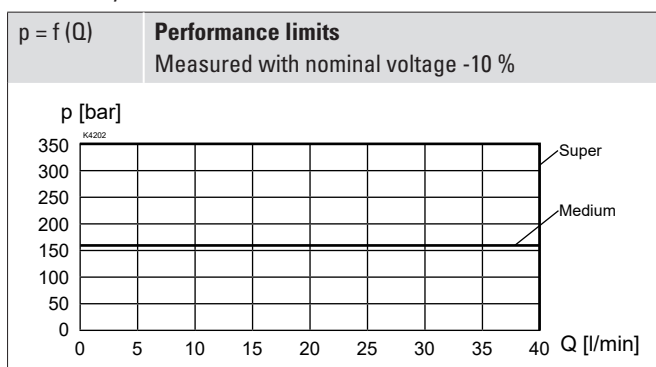


ACTUATION

Actuation	Switching solenoid, wet pin push type, pressure tight
Execution	Medium: SIN45V (Data sheet 1.1-120) Super: SIS45V (Data sheet 1.1-125)
Connection	Connector socket EN 175301 – 803

PERFORMANCE SPECIFICATIONS

Oil viscosity $\nu = 30$ mm²/s



Attention! Long periods of non-actuation can reduce the switching performance



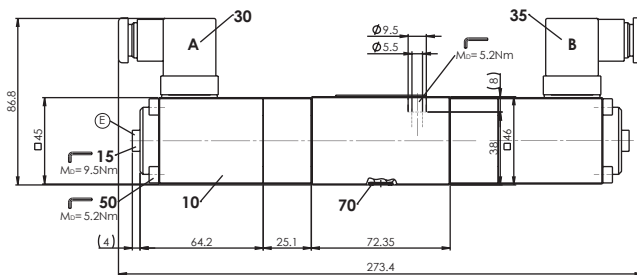
VALVES INSTALLED

The central functioning element is the poppet valve cartridge listed below

Article	Description	Data sheet no.
2206	Solenoid poppet valve cartridge normally closed NG6	1.11-2030

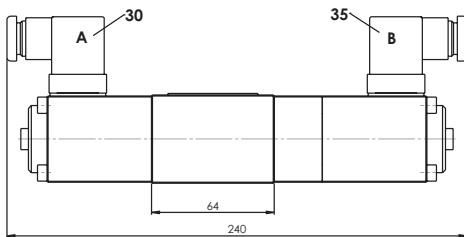
DIMENSIONS

3206rr

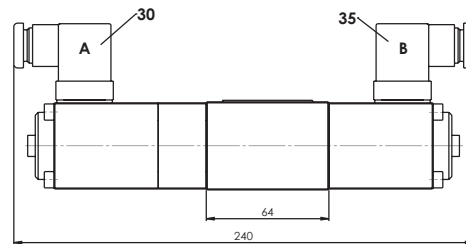


E = Air bleed screw

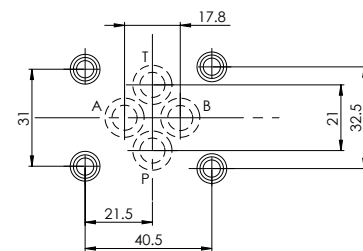
2206rb



2206ra



HYDRAULIC CONNECTION



PARTS LIST

Position	Article	Description
10	260.6...	Solenoid SIN45V
	260.7...	Solenoid SIS45V
15	239.2033	Screw plug HB0 (incl. seal)
30	219.2001	Electric plug A (grey)
35	219.2002	Electric plug B (black)
50	246.2190	Socket head screw M5 x 90 DIN 912
70	160.2093	O-ring ID 9,25 x 1,78 (NBR) „-25 °C to...”
	160.7092	O-ring ID 9,25 x 1,78 (NBR) „-40 °C to...”
	160.6092	O-ring ID 9,25 x 1,78 (FKM)

MANUAL OVERRIDE

Screw plug (HB0), no actuation possible

Optionally: HB6 or HN(K)

→ See data sheet 1.1-311

ACCESSORIES

Fixing screws	Data sheet 1.0-60
Threaded subplates	Data sheet 2.9-30
Multi-station subplates	Data sheet 2.9-60
Module type manifold blocks	Data sheet 2.9-100
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50
Relative duty factor	Data sheet 1.1-430

SEALING MATERIAL

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

STANDARDS

Mounting interface	ISO 4401-03
Solenoids	DIN VDE 0580
Connection execution D	EN 175301 – 803
Protection class	EN 60 529
Contamination efficiency	ISO 4406

COMMISSIONING

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



SURFACE TREATMENT

- ◆ The valve body is painted with a two component paint
- ◆ The solenoid and the flange are zinc-nickel coated
- ◆ The socket head screws are zinc coated

INSTALLATION NOTES

Mounting type	Flange mounting 4 fixing holes for socket head screws M5 x 45
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws $M_D = 5,2 \text{ Nm}$ (screw quality 8.8, zinc coated)

Note!



The length of the fixing screw depends on the base material of the connection element.