

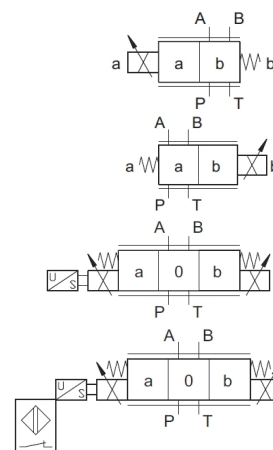
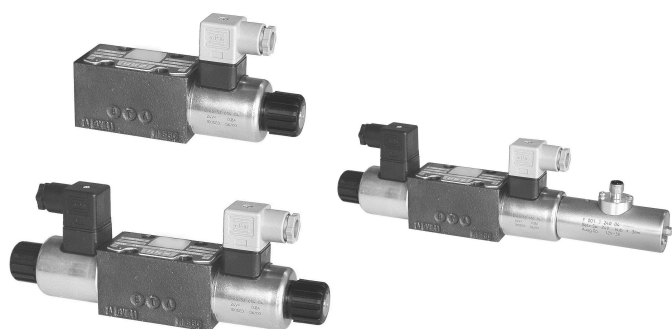
Proportional directional spool valve type POL, PRL, PIL (size 6)

operating pressure p_{max}

350 bar

volume flow V_{max}

36 L/min



Product characteristics

The positioning controlled slider ensures that the output signal can be changed proportionally to the input valve. The continuous control of the volume flow leads to smoother switching processes and exact positioning.

- high repeatability
- very good resolution
- low noise level
- use of transducer helps to decrease hysteresis and increase valve dynamics
- 4/2- and 4/3-way design

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Technical data

General

type	piston valve
design	subbase mounting valve
weight	POL_1_PC06_: 1.7 kg POL_0_PC06_: 2.1 kg PRL_/PIL_0_PC06_: 2.5 kg
ambient temperature	-20 to +50 °C
mounting position	arbitrary, preferably horizontal
connection size	ISO4401-03-02-0-05 (NG06)

Hydraulic parameters

Hydraulic fluid: mineral oil according to DIN 51524, other media on request

operating pressure	P, A, B: 350 bar T: 180 bar Max. pressure difference between two connections = 100 bar; Use load balancing for higher pressure differences.
volume flow	max. 36 L/min
temperature of hydraulic fluid	-20 to +70 °C
viscosity	10-600 mm ² /s
permissible degree of pollution	max. class 19/17/14 according ISO 4406
filter recommendation	filter retention rate $\beta_{10} > 75$
hysteresis	≤ 1 % for regulated operation ≤ 8 % for controlled regulation
repeatability	≤ 1 %

Actuation

actuation	electromagnetic with proportional solenoid
voltage	DC
nominal voltage	12 V; 24 V
control current	24 V solenoid: 0-800 mA 12 V solenoid: 0-1600 mA
rated output	14 W
connection type	connector DIN43650-AF2-PG9
protection class according DIN 40050	IP65 with plug
duty cycle	continuous operation
coil resistance (at 20 °C)	24 V solenoid: 21.3 Ω 12 V solenoid: 5.5 Ω

Inductive displacement transducer

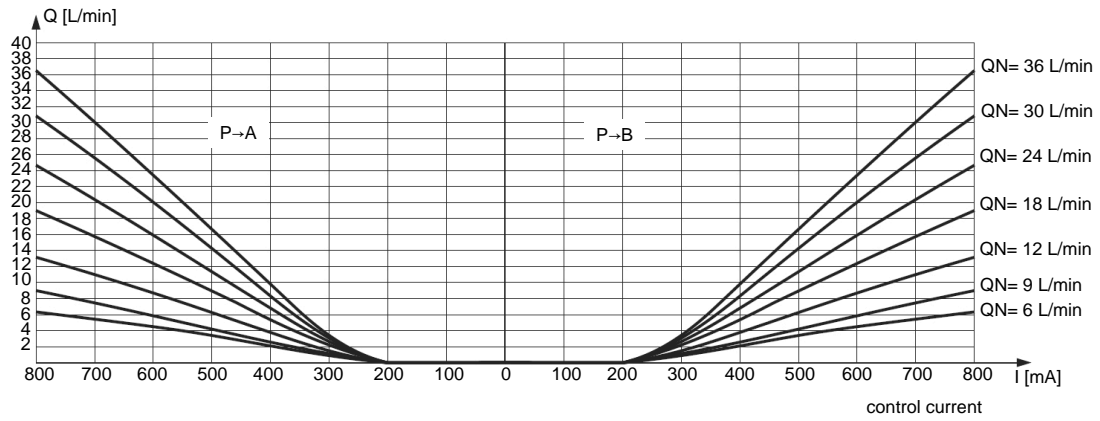
nominal voltage	UB = 24 V DC (±20 %)
residual ripple of nominal voltage	≤ 5 %
current consumption	< 40 mA
output voltage (linear range)	P→A: 7.5 to ≥ 3 V P→B: 7.5 to ≤ 12 V
load on output voltage	≥ 10 kW
responsivity	1.5 V/mm (±3 %)
linearity	≤ ±1.5 %
temperature drift	≤ ±0.03 %/°C
residual ripple of output voltage	≤ 20 mV
protection class according DIN 40050	IP65 with plug
connection type	M12x1

Digital central position signal (PIN4)

	Low signal: $U_A = 0 \text{ V}$
	High signal: $U_A \leq U_B - 2 \text{ V}$
load resistance	$\geq 220 \ \Omega$
switching section	upper threshold: $7.7 \text{ V} \pm 20 \text{ mV}$
	lower threshold: $7.3 \text{ V} \pm 20 \text{ mV}$

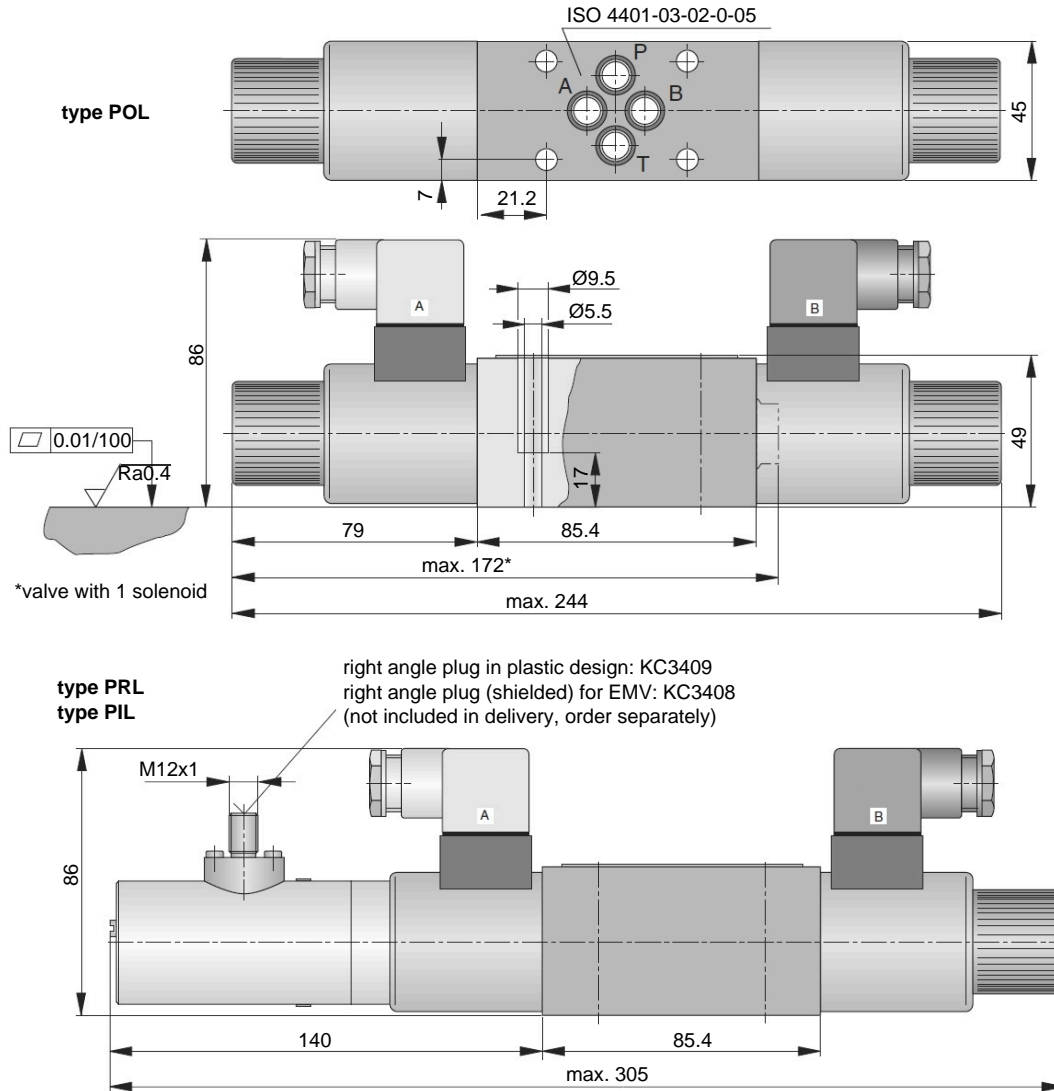
Characteristic lines

deviation $\pm 5\%$, $\Delta p = 5$ bar/control edge, measured at $+50$ °C temperature of hydraulic fluid and with 24 V coil (DC), viscosity 35 mm²/s

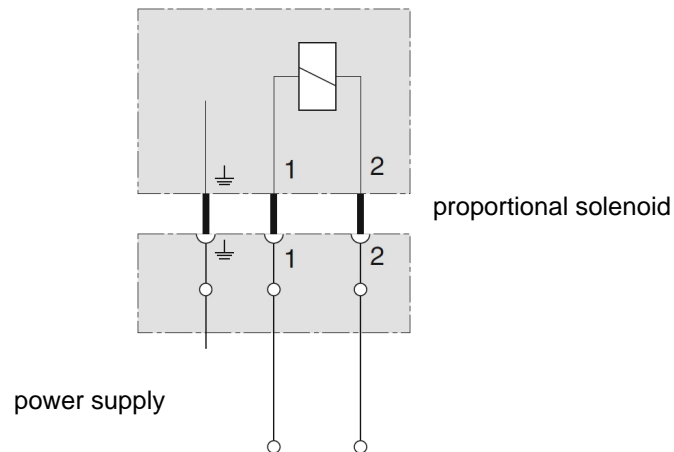


Dimensions and connections

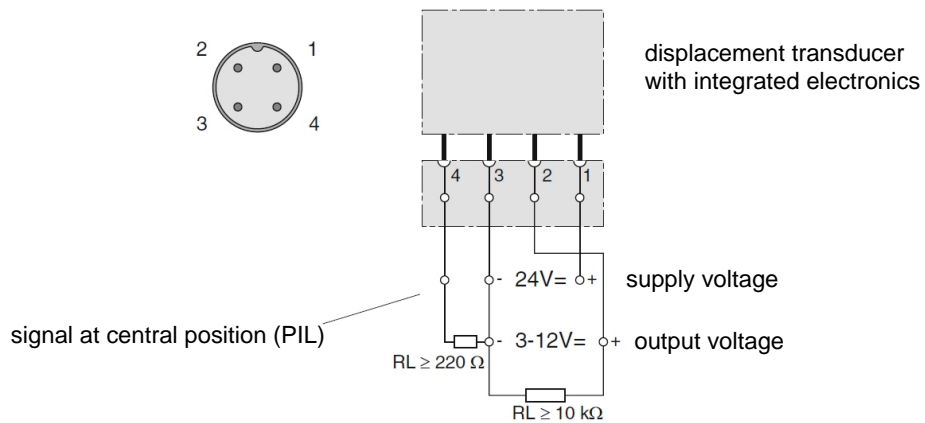
Dimensions are given in mm.



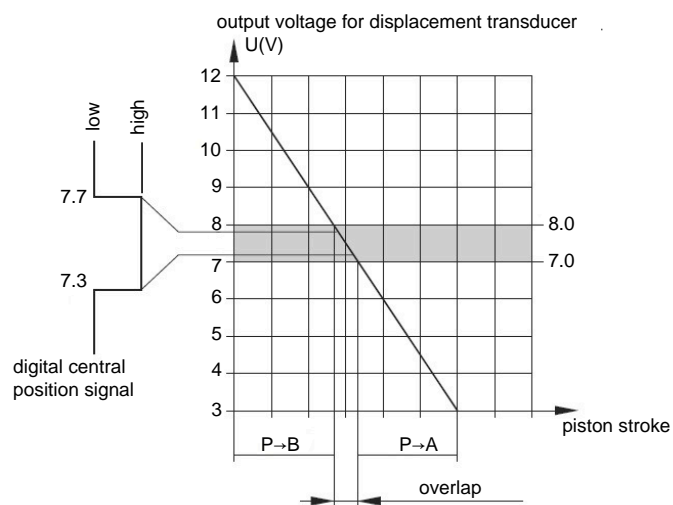
Proportional solenoid



Inductive displacement transducer

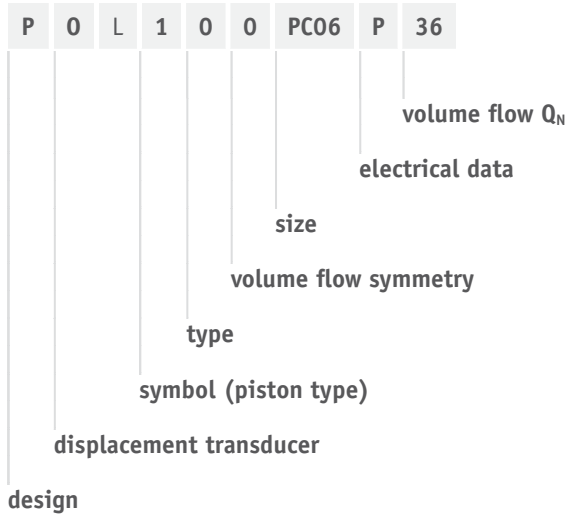


Output variable displacement transducer



Order information

Type code



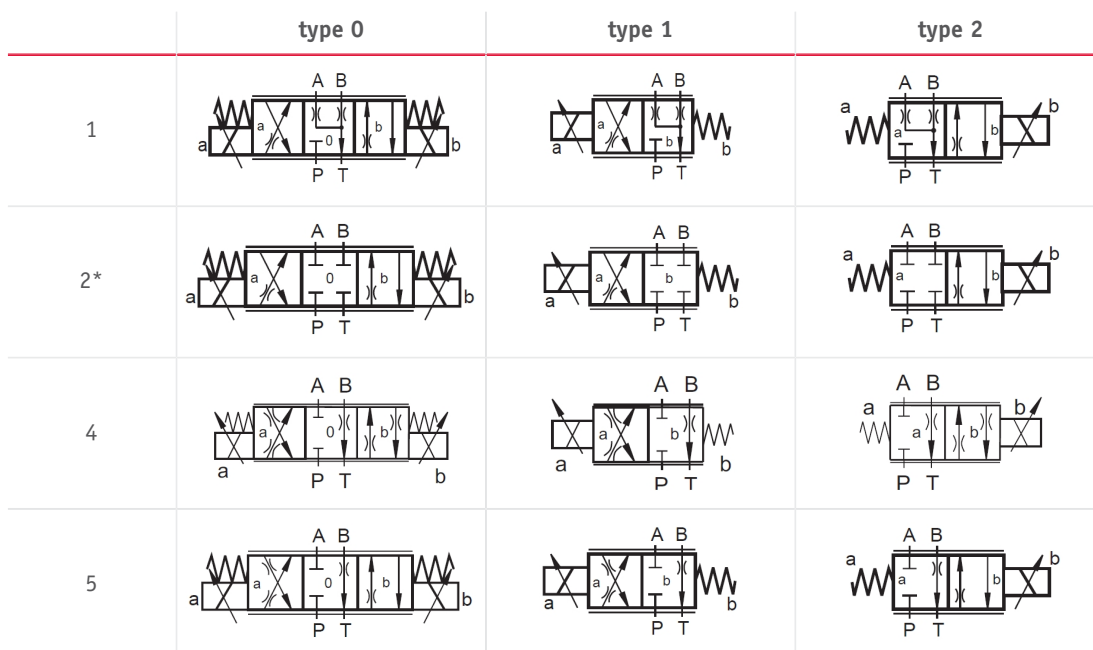
design

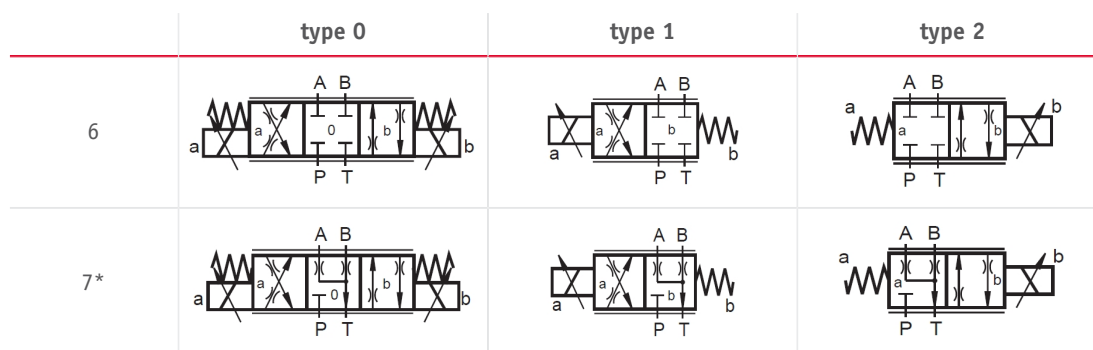
P | proportional directional spool valve

displacement transducer

- 0 | without displacement transducer
- R | with displacement transducer
- I | with displacement transducer and center position signal

symbol (piston type)





*on request

further symbols possible upon specifications

type

0	two proportional solenoids
1	proportional solenoid on side A
2	proportional solenoid on side B

volume flow symmetry

0	symmetrical $Q_N P \rightarrow B = Q_N P \rightarrow A$
1*	asymmetrical $Q_N P \rightarrow B \neq Q_N P \rightarrow A$

*on request

size

PC06 | size 6

electrical data

P	24 VDC
N	12 VDC

volume flow Q_N

for a valve pressure difference according to Q-I characteristic curve

$$Q_N P \rightarrow B = Q_N P \rightarrow A$$

06	6 L/min
09	9 L/min
12	12 L/min
18	18 L/min
24	24 L/min
30	30 L/min
36	36 L/min

Contact details

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