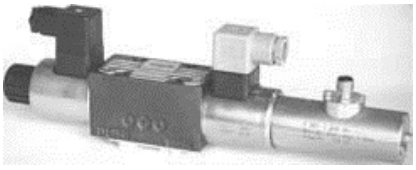
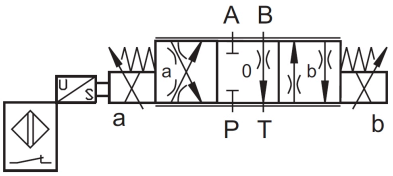
Proportional directional control valve type PIH (size 6)

operating pressure p_{max}	**350 bar**
volume flow V_{max}	**30 L/min**





Product characteristics

- As a controller, the electronic digital amplifier PVR6 by HAWE is recommended. It has been specially designed for this type of valve.
- very high repeatability
- design PIH43_

Table of Contents

Technical data

General

weight	2.5 kg
ambient temperature	-20 to +50 °C
mounting position	arbitrary (preferably horizontal)

Hydraulic parameters

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

max. operating pressure	P, A, B = 350 bar T = 180 bar
hydraulic fluid temperature	-20 to +70 °C
viscosity	10-600 mm²/s
permissible degree of pollution	max. class 19/16/13 according ISO 4406
response time for stroke	0-100 % → 12 ms 100-0 % → 12 ms
leakage	≤ 0.05 L/min (A→T) p_A = 100 bar U_A = 7-8 V
hysteresis	≤ 0.05 %
repeatability	≤ 0.05 %

Actuation

actuation	electromagnetic with proportional solenoid
voltage	DC voltage
nominal voltage	12 V
coil resistance (at 20 °C)	12 V solenoid : 5.8 Ω
protection class	IP65 with plug

connection type	connector DIN43650-AF2-PG9

Inductive displacement transducer

nominal voltage	U_B = 24 V DC (±20 %)
residual ripple of nominal voltage	< 5 %
current consumption	< 40 mA
output voltage (linear range)	P→A: U_A = 7.5 to 3 V P→B: U_A = 7.5 to 12 V
load on output voltage	≥ 10 kΩ
responsivity	3.75 V/mm (±3 %)
linearity	≤±1.5 %
temperature drift	≤±0.03 %/°C
residual ripple of output voltage	≤ 20 mV

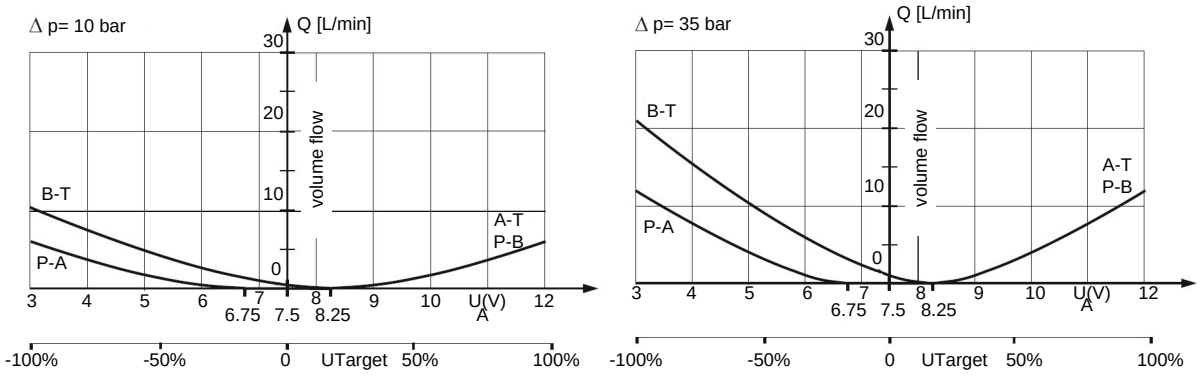
Digital signal at central position (PIN 4)

	Low signal: DU = 0 V High signal: UD = UB – 2 V
load resistance	≥ 220 Ω
switching section	upper threshold voltage: 8.0 V ±20 mV lower threshold voltage: 7.0 V ±20 mV

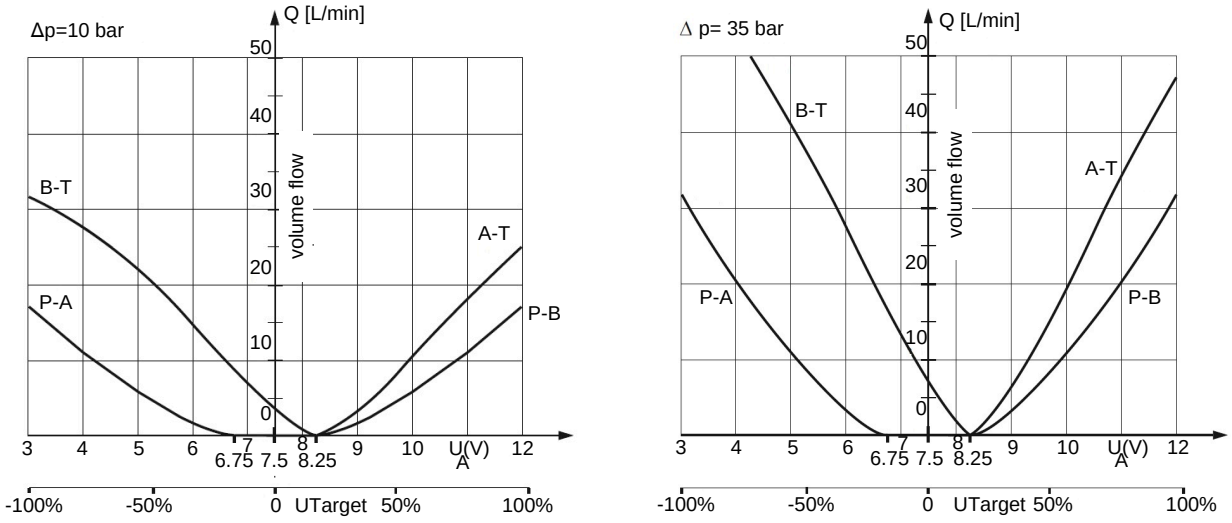
Characteristic lines

measured at +50 °C temperature of hydraulic fluid, viscosity 35 mm²/s, tolerance ±5 %

PIH430PC06_06

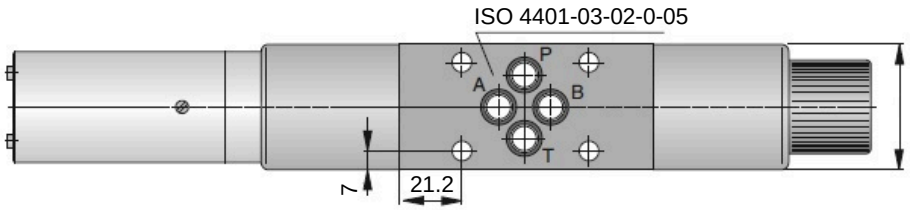


PIH430PC06_17

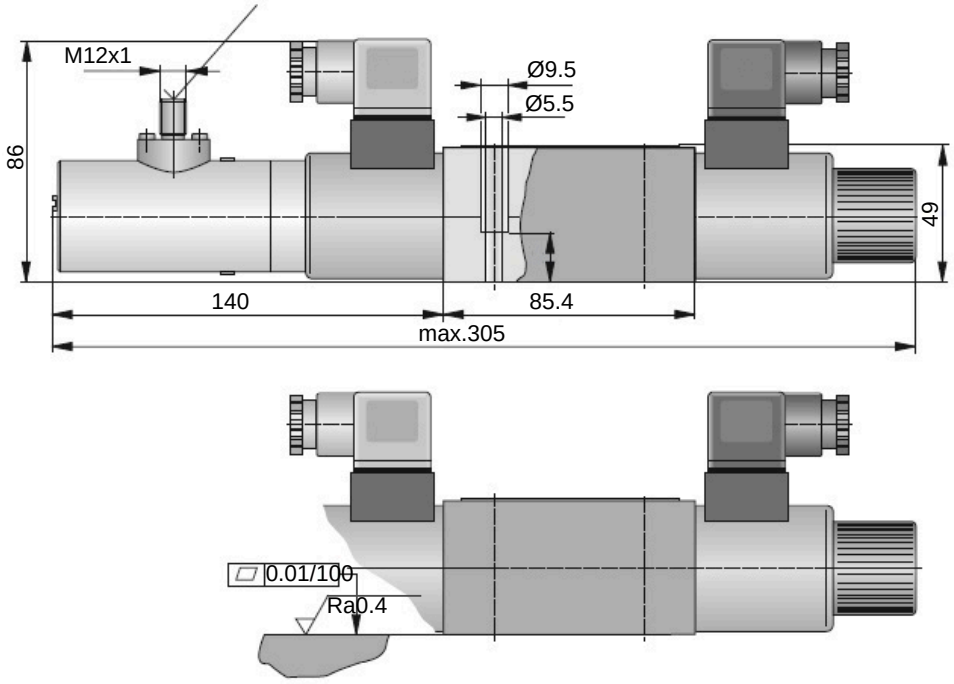


Dimensions and connections

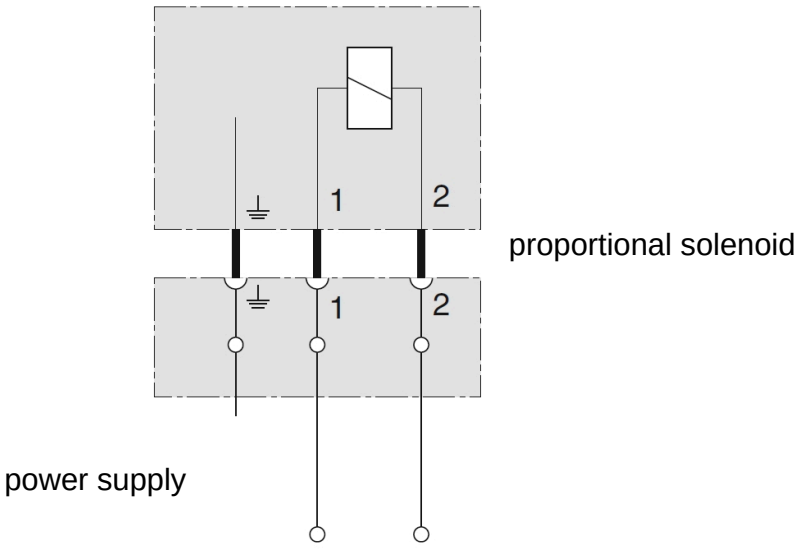
Dimensions are given in mm.



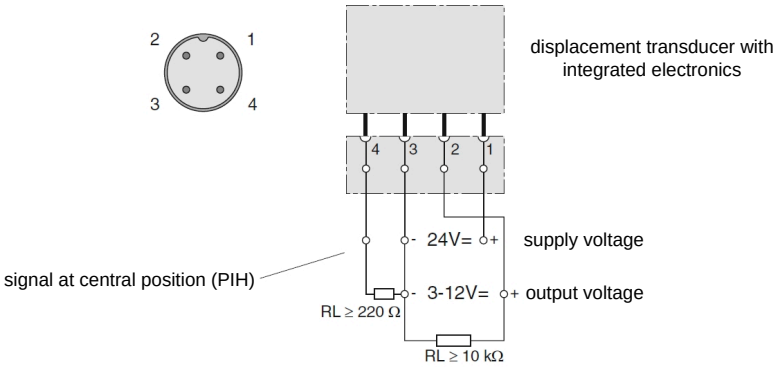
right angle plug in plastic design: KC3409
right angle plug (shielded) for EMC: KC3408
(not included in delivery, order separately)



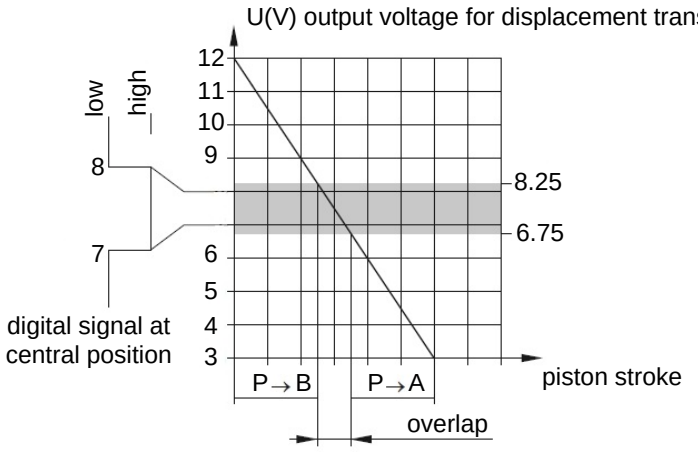
Proportional solenoid



Inductive displacement transducer



Output value displacement transducer



Order information

Type code

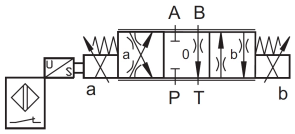
P	I	H	4	3	0	PC06	N	17

- 17 – volume flow Q_N
- N – electrical data
- 0 – volume flow symmetry
- 3 – type
- 4 – symbol (piston type)
- I – displacement transducer

displacement transducer

I	with displacement transducer and center position signal

symbol (piston type)

4	

further symbols possible upon instructions

type

3	two proportional solenoids, working in opposition to one another, midposition centered by force

volume flow symmetry

0	symmetrical $Q_{N\ P\rightarrow B} = Q_{N\ P\rightarrow A}$

electrical data

N	12 VDC

volume flow Q_N

at a valve pressure difference of 10 bar on each side

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

06	6 L/min
17	17 L/min

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