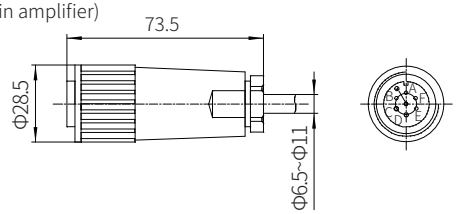
Electrical connections

Model 4WRKE...-3XJ/...(With built-in amplifier)



Plug settings refer to the built-in amplifier block diagram.

The plug-in connector to DINEN 175201-804

Plug allocation

Terminal identification	Contact	Signal type
Supply voltage	A	24VDC (u (t) =18 to 35V) , I_{max}=1.5 A, Impulse load≤3A
	B	0V
Reference potential (actual value)	C	Reference potential actual value (contact F)
Differential amplifier input (command value)	D	±10V or 4~20mA
	E	0V reference potential command value
Measurement output (actual value)	F	±10V or 4~20mA
	PE	Connected with the valve body and cooling element

Command value:

A positive command value 0 to 10V (or 12 to 20mA) at D and E causes a flow from P to A and B to T.

A negative command value 0 to -10V (or 12 to 4mA) at D and E causes a flow from P to B and A to T.

For valves only with one solenoid in side "A" (symbols EA and WA), a positive command value at D and E causes a flow from P to B and A to T.

Connecting cable:

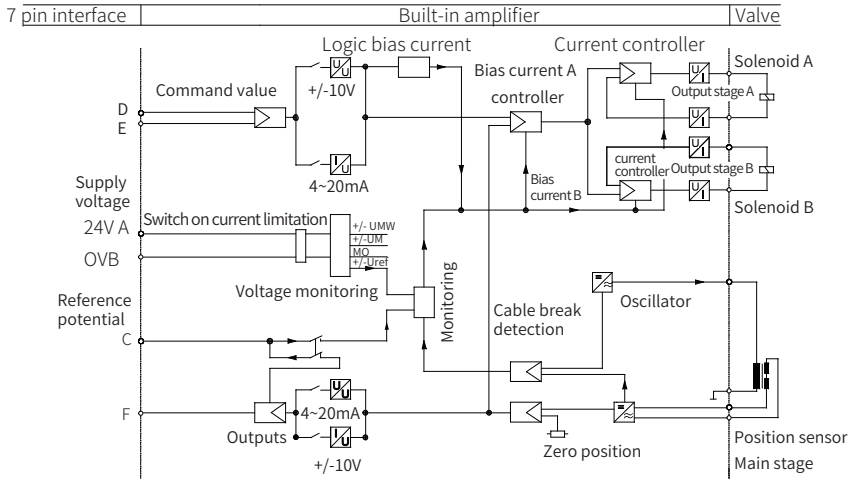
Recommendation:

Cable length up to 25m, model LiYCY 5x0.75mm² Cable length up to 50m, model LiYCY 5x1.0mm²

The external diameter of the cable is 6.5 to 11mm

The connection of screen to PE on the supply side only.

Wiring diagram/block diagram of integrated amplifier board (OBE)



Supply Pressure Compensator

Model: ZDC6XP-1XJ/...

- Size 6
- Maximum working pressure 315 bar
- Maximum working flow 26 L/min

Contents

Features

- Sandwich plate type
- Load compensation at the oil port P to A or P to B via built-in shuttle valve
- Two-way version"P"
- Flow control when work with proportional directional valves
- The mounting surface according to the standard DIN24 340 A

Function description, sectional drawing

The ZDC valve is a direct operated supply pressure compensator with two-way design. The valve is mainly composed of the valve body (1), control spool (2), pressure spring (3), two dampers (4), and end cover (5) with integral shuttle valve (6).

As same with all cross sections of throttle valve, the volume flow of proportional throttle valve and directional control valve depends on the differential pressure △P. The combination of the throttle valve and pressure compensator results the load-compensated electric flow control valve to keep the differential pressure △P at the throttle valve constant. The pressure difference is determined by the spring of the pressure compensator and depends on the select model when pressure between 8 and 25bar.

When the differential pressure from P1 to A1 or P1 to B1 is less than the spring force, the compression spring (3) holds the control spool (2) from P2 to P1 in the open position. If the differential pressure exceeds the spring force, the control spool (2) moves to the left until the differential pressure is restored.

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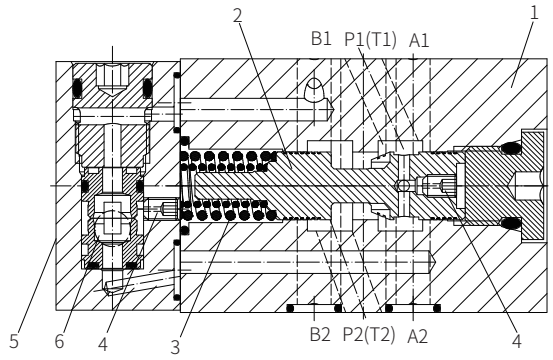
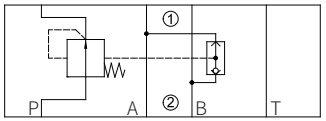


Model ZDC6XP-1XJ/...

Functional symbol:



Models and specifications

ZDC	6	XP–	1X	J	/		*

- size 6 =6
- two-way (reducing function) =XP
- 10 to 19 series =1X
  (10 to 19 series installation and connection size unchanged)
- Rekith =J
- 14bar= differential pressure
- sealing material
  No code= NBR seals
  V= FKM seals
  (consult for other seals)
- more information in text

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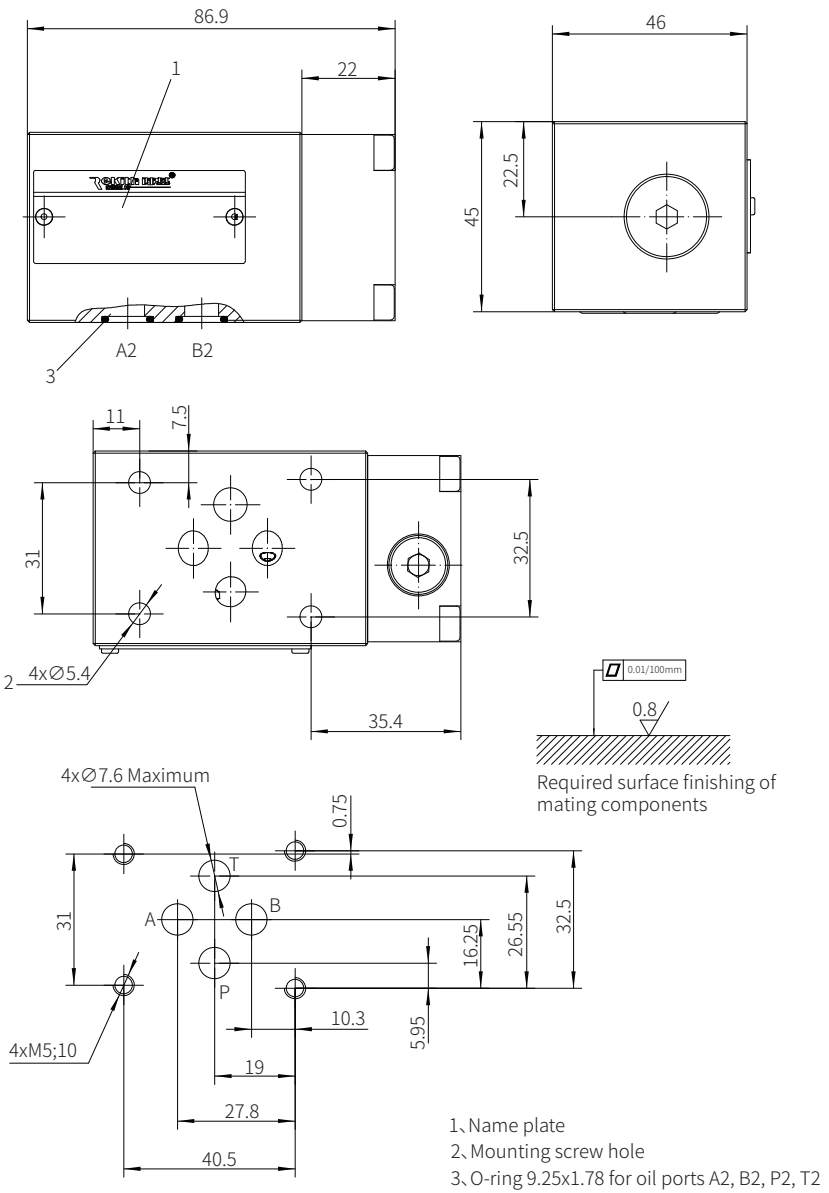
Technical parameters

Working medium		Mineral oil - for NBR seal and FKM seal
		Phosphate ester - for FKM seal
Working medium temperature range °C		-20 to +70
Viscosity range mm²/s		10 to 800
Cleanliness of oil		The maximum allowable pollution level of oil is NAS1638 Class7
Working pressure bar		
	Oil port A, B, P	315
	Oil port T	210
Maximum flow L/min		26

Component size

Size unit: mm



1、Name plate
2、Mounting screw hole
3、O-ring 9.25x1.78 for oil ports A2, B2, P2, T2

Supply Pressure Compensator

Model: ZDC...2XJ

- ◆ Size 10、16
- ◆ Maximum working pressure 350 bar
- ◆ Maximum working flow 150 L/min

Contents

Features

- ● Sandwich plate type
- ● Two-way version "P"
- ● Flow control when work with proportional directional valves
- ● The mounting surface according to the standard DIN24 340 A