

ZP4-15

Load-sensing control block in sandwich plate design

- Size: 15
- Nominal pressure: 350 bar
- Maximum flow: 150L/min



- Flow control independent of load pressure
- Sandwich plate design
- Type of actuation: mechanical, hydraulic, electrohydraulic (switching, proportional or with on-board electronics)
- High repetition accuracy and low hysteresis
- The flow can be adjusted by the travel limiter
- The flow pressure of each actuator port can be adjusted
- LS pressure limitation-Adjustable per consumer port, external pressure setting per consumer port possible, electro-proportional per section

Ordering Code / Standard Program

First plate

5	ZP4-15-2X	J	275
01	02	03	04

Total number of spool axes

01	= 5	5 spool axes
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Order code

02	Diameter 15
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Application system

03	= J	Closed (for variable pump)
	= P	Open (for fixed pump)

Main relief valve

04	= Q	Without main relief valve
	= 275	With main relief valve, number is pressure Bar 3-digit number

Directional valves

S	180	M	180	J	080-080	H			H320	H320
01	02	03	04	05	06	07	08	09	10	

Pressure compensator

01	= S	With pressure compensator, with load holding function
	= T	With pressure compensator, without load holding function
	= C	Without pressure compensator, with load holding function

LS pressure relief and housing variant (Port A)

02	= 180	Pressure 180bar(3-digit number)
	= Z	Without LS pressure relief valve
	= Q	With threaded plug

Spool type

03	= M	Valve with gauge port
	= Z	Valve without gauge port

LS pressure relief and housing variant (Port B)

04	= 180	Pressure 180bar(3-digit number)
	= Z	Without LS pressure relief valve
	= Q	With threaded plug

Spool type

05	= J	
	= E	
	= Q	

Flow

06	= 070-070	Actuator A 70L/min B 70L/min
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Control

07	= H	Hydraulic
	= M	Mechanical
	= W2	Electrohydraulically proportional

End plate

LAY	V	01	additional information
01	02	03	

End plate

01	= LA	With LS unloading
	= LAY	With LS unloading Internal pilot oil supply
	= LAX	With LS unloading External pilot oil supply
	= LZ	Without LS unloading
	= LZY	Without LS unloading Internal pilot oil supply
	= LZX	Without LS unloading External pilot oil supply

Sealing material

02	=V	FKM (fluoroelastomer)
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Pipe thread line connections

03	=01	Inches according to ISO228/1
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Order code sample

- 5ZP4-15-2XJ275
 1. SQMQJ040-040W21H320H320
 2. S100M190J100-100HH320H320
 3. SQMQJ040-050W41H320H280
 4. SQMQJ100-100HH300H300
 5. S230M230E100-100W41H250H250
 LAYV01

Electromagnet

08	= 1	24V (AMP 2 pin)
	= 3	12V (AMP 2 pin)
	= 8	24V (DEUTSCH)
	= 9	12V (DEUTSCH)

Actuation B side

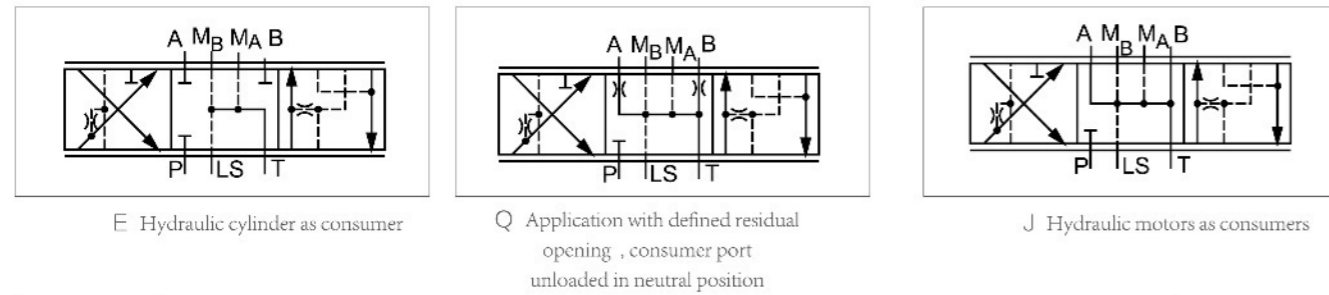
09	= -	Standard cover
	= K	Hand lever position 60°
	= L	Hand lever position 0°
	= K	Hand lever position -60°

Secondary valves for consumer ports A and B

10	=H180H220	With secondary valves	Pressure at side A 180
			Pressure at side B 220
	= Q		threaded plug
	= E		Feed valve

► Technical data

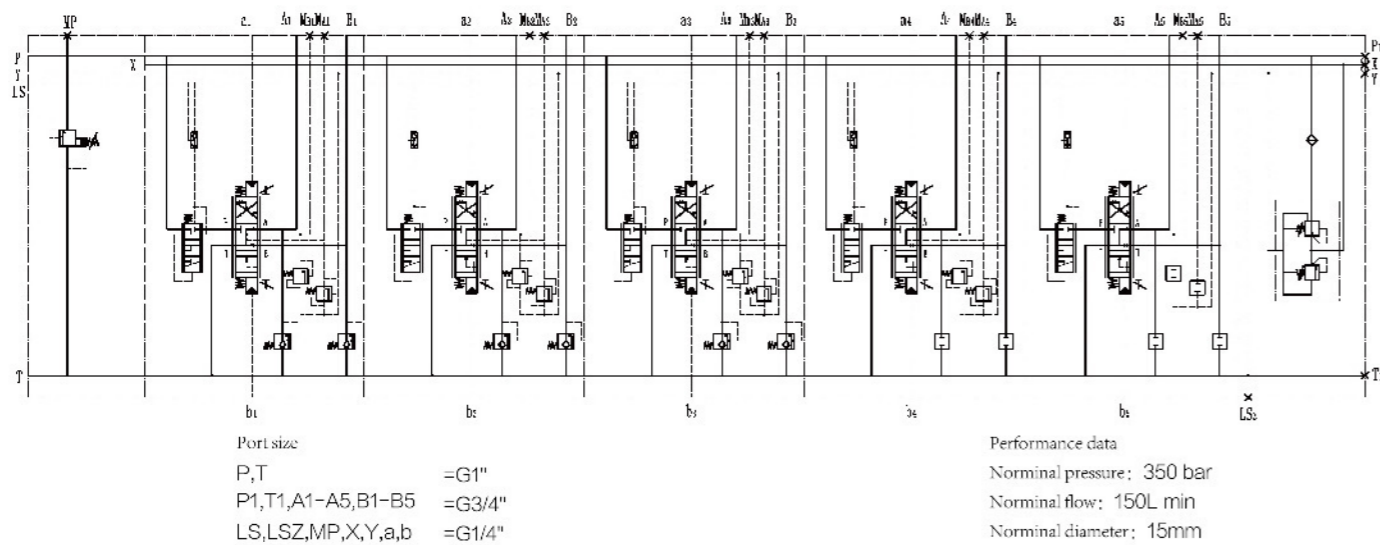
Control spool



Spool type3	Pressure compensator	Flow L/min				
			150-150	120-120	080-080	050-050
E, J, Q	S	130-130	100-100	070-070	045-045	028-028
		110-110	085-085	060-060	040-040	025-025
	C	175-175	145-145	110-110	080-080	045-045
		190-190	160-160	100-100	065-065	040-040

Spool type3	Pressure compensator	Flow L/min			
			150-120	120-080	080-050
E, J, Q	S	130-100	100-070	070-045	045-028
		110-085	085-060	060-040	040-025
	C	175-146	145-110	110-080	080-045
		190-160	160-100	100-065	065-040

► Hydraulic circuit diagram 5ZP4-15



► Order examples of closed center with lateral inlet plate

Example:

- Variable pump qv max. 200L/min
- Three-fold control block with 3 directional valves
- Hydraulic operation
- Closed center, lateral, With primary pressure relief valve, set to 250 bar

- directional valves
- 1st spool axis
 - With pressure compensator, without load holding function
 - With 1 LS pressure relief valve for consumer ports A and B 200 bar
 - Spool symbol J, Flow in A and B 190L/min
 - Type of actuation: hydraulic
 - Secondary valves: Pressure/feed valve, consumer port A and B 320 bar
- 2nd and 3rd spool axis
- With pressure compensator, with load holding function
 - With LS pressure relief valve for consumer port A 180 bar, consumer port B 120 bar
 - Spool symbol E. Flow in A 85L/min
 - Type of actuation: hydraulic
 - Secondary valves: Pressure/feed valve, consumer port A and B 320 bar

Ordering codes

3	ZP4-15-2X /J250
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1st spool axis

T	200M=	J	190-190	H	-	H320	H320
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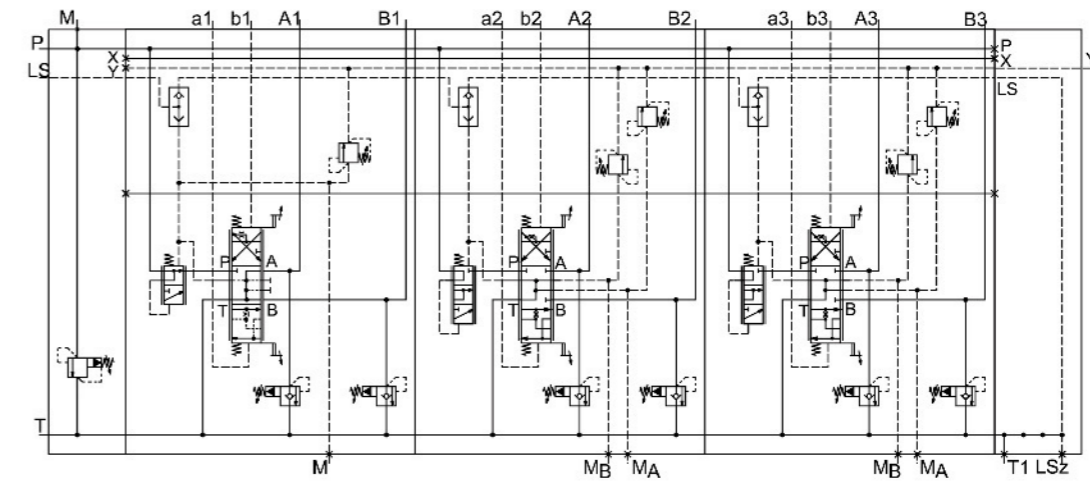
2nd spool axis

S	180M120	E	085-085	H	-	H320	H320
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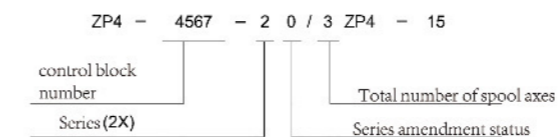
3rd spool axis

S	180M120	E	085-085	H	-	H320	H320
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LA	V	01
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► Example of ordering code: ZP4-15 control block with three directional valves



► Order examples: Closed center with central inlet plate

Example

- Variable pump qv max.= 200L/min
- One actuator with priority
- one slave actuator
- Electro-hydraulic actuation

Short type, diversion plate

- Diversion plate

directional valves

- 1st spool axis (Priority actuator)
- With pressure compensator, with load holding function
- Without LS pressure relief valve bore
- Spool symbol E, Flow in A and B 175 L/min
- Type of actuation: electrohydraulically proportional. With Junior Timer, 2-pin (AMP) 24 V
- Overriding hand lever (revolving)
- Secondary valve bores plugged

Inlet

- Closed center, central, With primary pressure relief valve, set to 300 bar
- With priority valve (dynamic), set to 250 bar

2nd spool axis

- With pressure compensator, with load holding function
- With LS pressure relief valve for consumer port A 270 bar, consumer port B 300 bar
- With electro-proportional Pressure limitation, 210 bar (decreasing characteristic curve)
- Spool symbol E, Flow in A and B 90 L/min
- Type of actuation: digital OBE.
- Overriding hand lever (revolving)
- Secondary valve bores plugged

End plate

- With internal LS unloading and pilot oil supply

Ordering codes:

2	ZP4-15-2X / LU
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1st spool axis

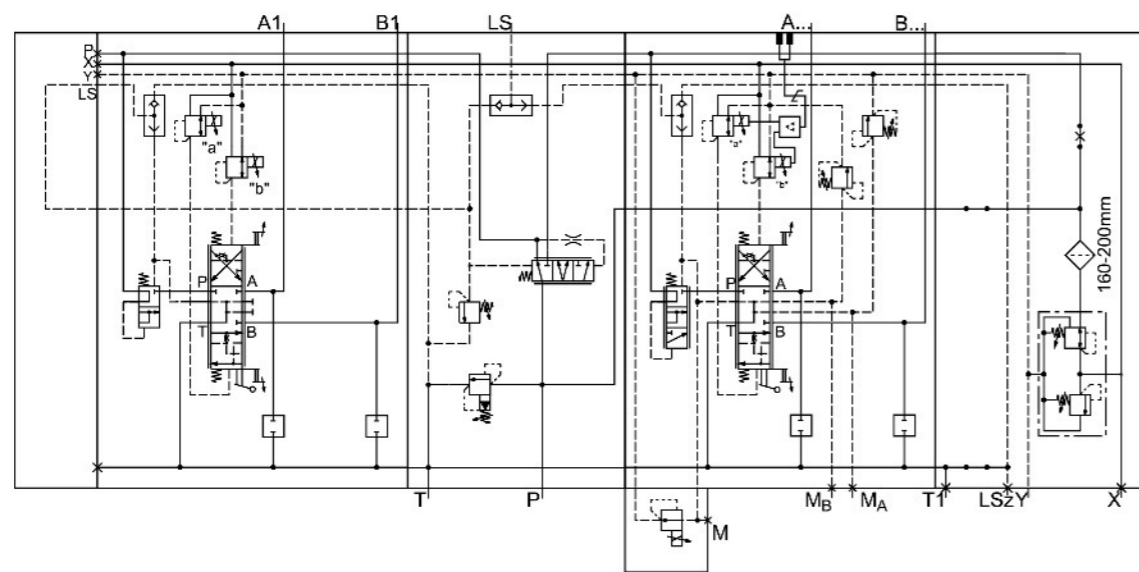
C	ZZZ	E	175-175	W2	1	K	Q	Q
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VZ	300	B	250
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2nd spool axis

S	270 L 300	E	090-090	AAQ	K	Q	Q
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LAY	V	01
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► Mounting dimension 5ZP4-15

