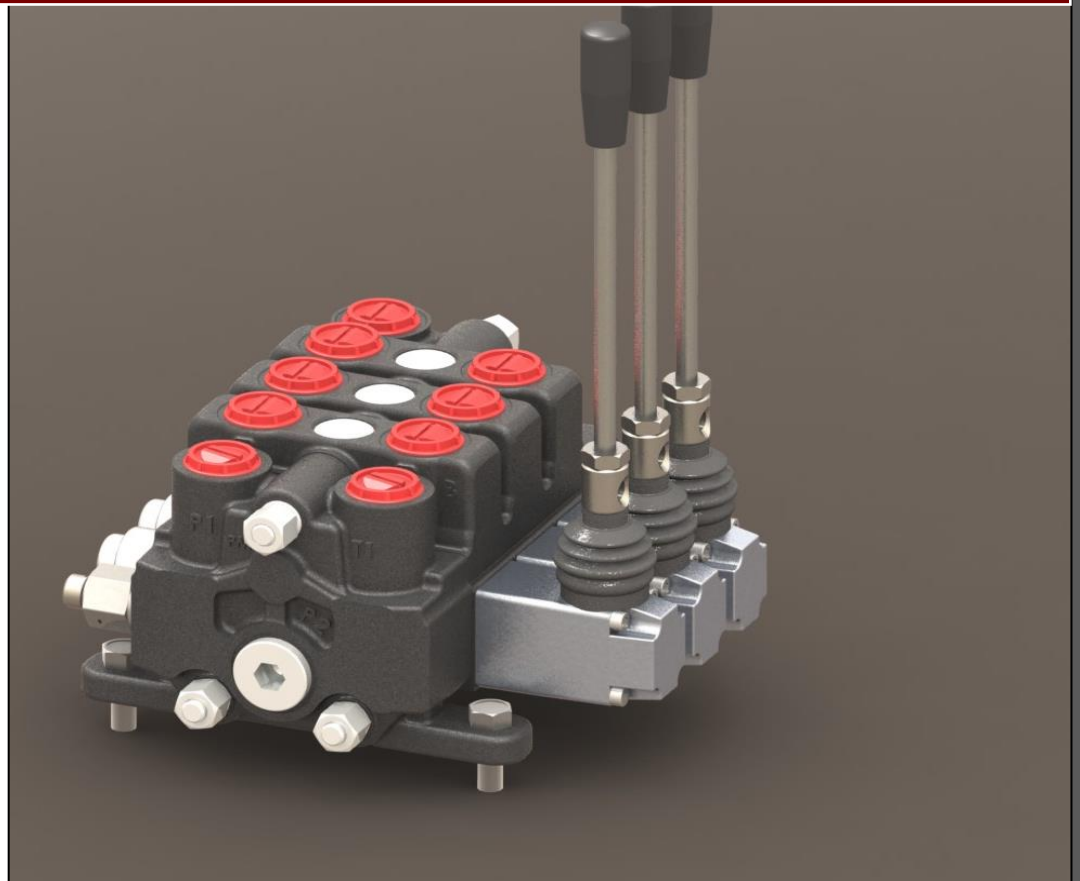




[2013]

KV17 SERIES



DATA SHEET

DIRECTIONAL CONTROL VALVE KV17

AKON

[AKON HYDRAULIC]

[21.01.2013]

KV17 SERIES



**AKON HİDROLİK
VALF SAN. VE TİC. A.Ş.**



Key features

- KV17 is a sectional valve designed for system pressures up to 350 bar and pump flows up to 90 l/min.
- KV17 is a sectional build valve in size 3/4" of modular design for maximal flexibility that is especially in combination with the wide range of available standard parts.
- The valve is designed for high performance applications in mainly open centre systems but also in Load-Sensing systems.
- Two or several valves can be connected to each other in a range of different circuits.
- The valve is very robust and well suitable for demanding mobile applications. The sections are designed in able to meet the most extended demands on controllability.
- Each section can be provided with a pressure relief valve, an anti-cavitation valve or a combination of items.
- The valve can be operated manual, pneumatic, electro--pneumatic, hydraulic, electro--hydraulic, with solenoid and remote with flexible cables
- The modular system includes different types of inlet, section and outlet. The valve is available with 1 – 12 working sections per valve assembly.
- The sections are symmetric which makes it possible to use the valve both as "Left Hand Inlet" and "Right Hand Inlet".
- Load checks in each working section.
- Available with parallel, series or tandem circuit.
- Optional carryover port (only for parallel or tandem circuit).
- Diameter 16 mm interchangeable spools.



Applications

KV17 is designed as a flexible valve for a wide range of applications, But typical applications are cranes, wheel loaders and agriculture applications within the flow range for the valve. The valve offers excellent operating characteristics, because of the special designed spools for various applications.



DIRECTIONAL CONTROL VALVE

Kv17 Series

Page2



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TECHNICAL DATA

Max. Pressure Settings

Max. working pressure: 350 Bar
Tank line pressure: max 25 Bar
Main relief valve pressure settings: up to 350 Bar
Standart Pressure setting : 190 bar@15 l/min
Port relief valve pressure settings: up to 300 Bar

Flow rates

Max. flow rates: 90 lt/min

Spool Leakage:

Max. 10 cm³/min@100 bar with 32cSt oil

Filtration:

18/14 according to ISO 4406

Viscosity;

Hydraulic fluid viscosity range at continuous operation: 10-400 mm²/s(cSt)

Temperature Range;

Hydraulic temperature range for continuous operation -15°C-+80°C

Spool stroke;

-7,5/+7,5 mm

Ambient temperature

with mechanical, pneumatic and hydraulic devices from -40° to 60°C
with electric devices from -20° to 60°C

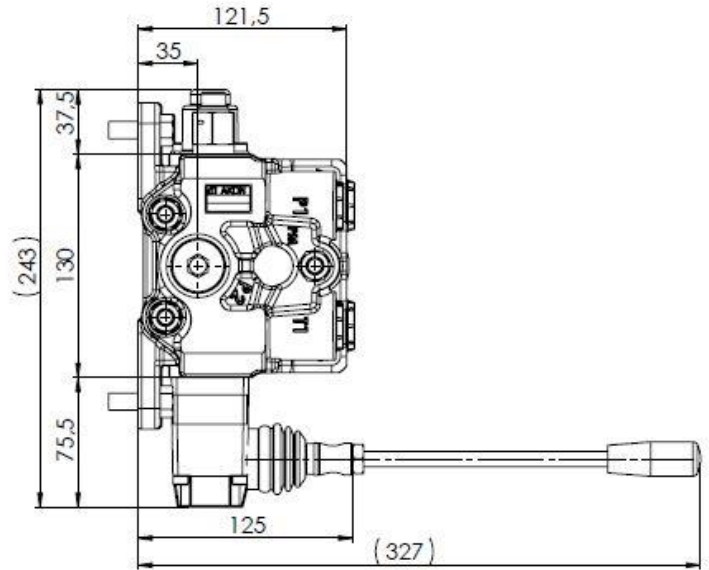
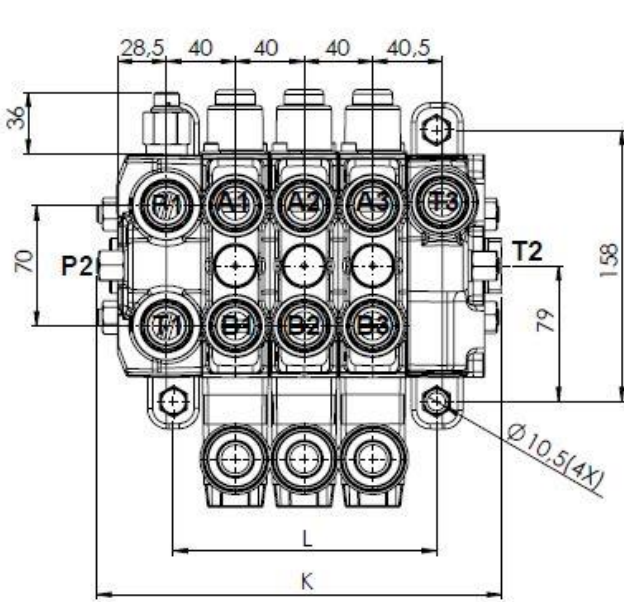
DIRECTIONAL CONTROL VALVE

Kv17 Series

Page3



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TYPE/TİP	L(mm)	K(mm)	W(kg)
KV17/1	73	155	
KV17/2	113	195	
KV17/3	153	235	
KV17/4	193	275	
KV17/5	233	315	
KV17/6	273	355	
KV17/7	313	395	
KV17/8	353	435	

	CODE/COD	P1-P2-T1	A/B	T2-T3
BSP	B	G1/2"	G1/2"	G3/4"
	C	G3/4"	G3/4"	G3/4"
UN-UNF	M	SAE10	SAE10	SAE12
	N	SAE12	SAE12	SAE12
METRIC	Z	M22X1,5	M22X1,5	M27X2
		M27X2	M27X2	M27X2

DIRECTIONAL CONTROL VALVE

Kv17 Series

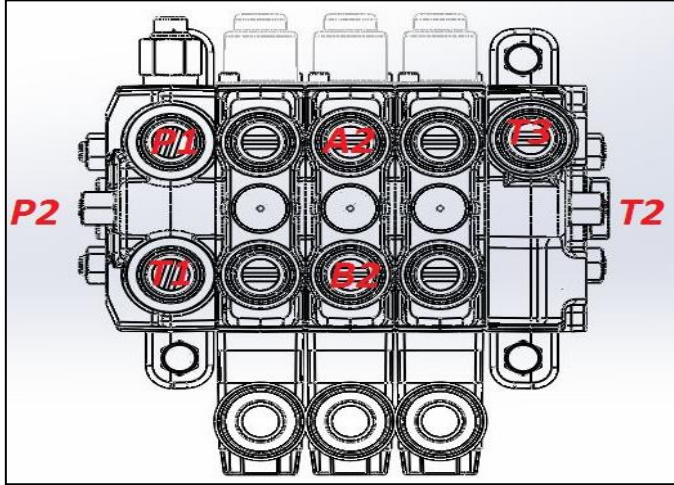
Page4



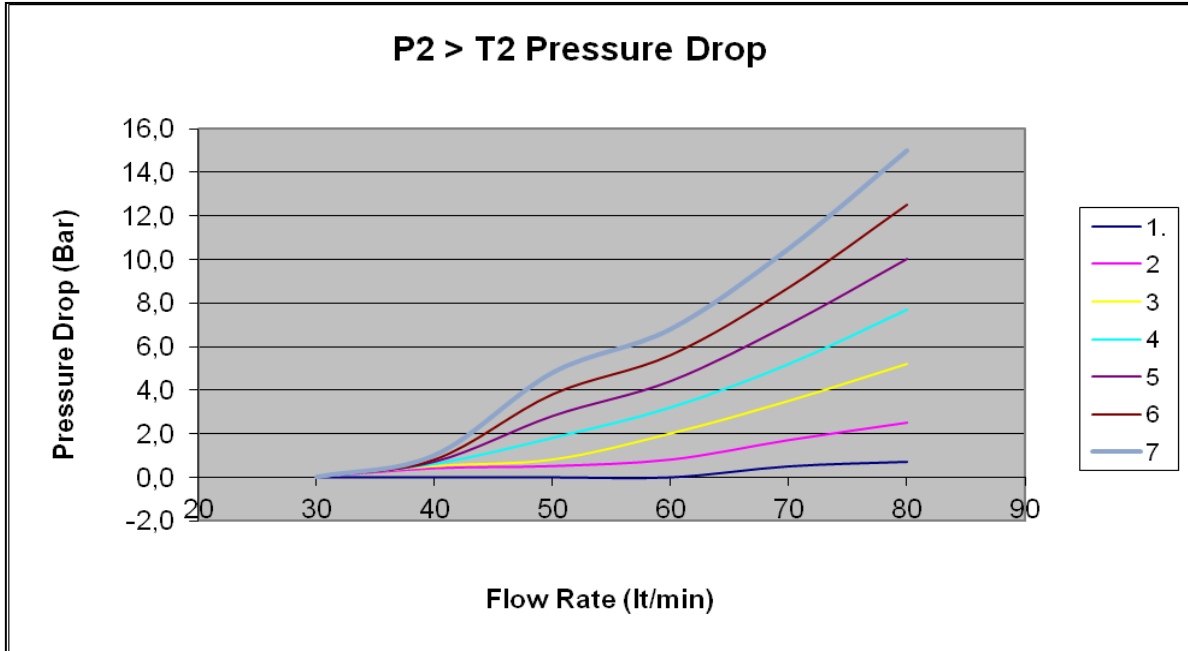
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PERFORMANCE DATA(Pressure drops, Main relief valve's curves...)



P2-T2 PRESSURE DROP



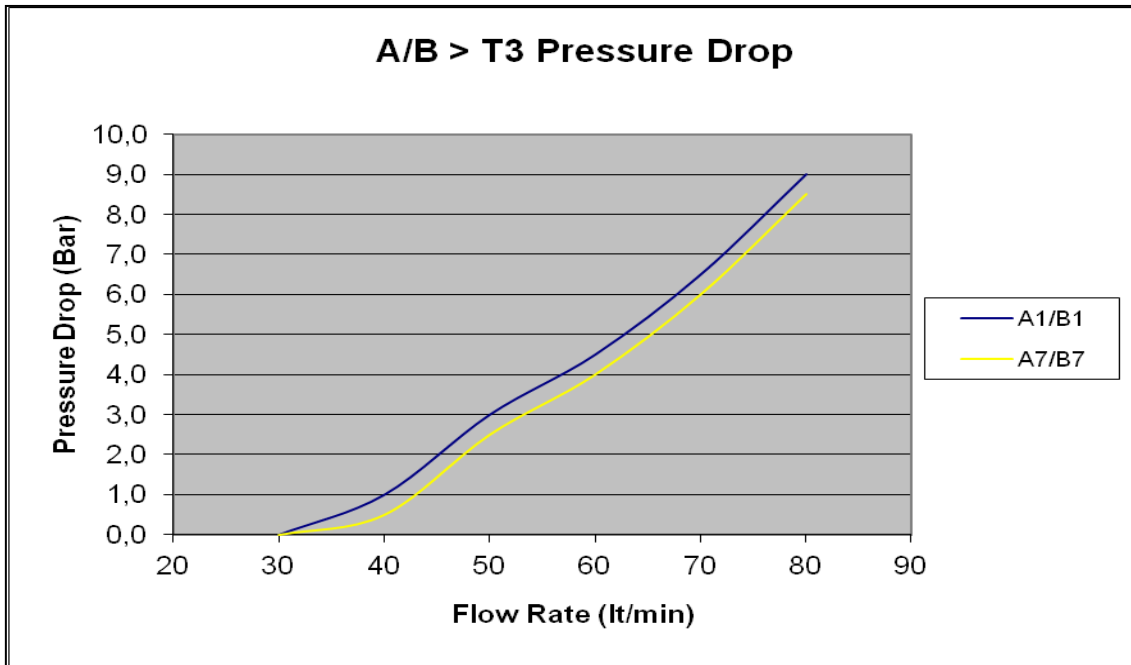
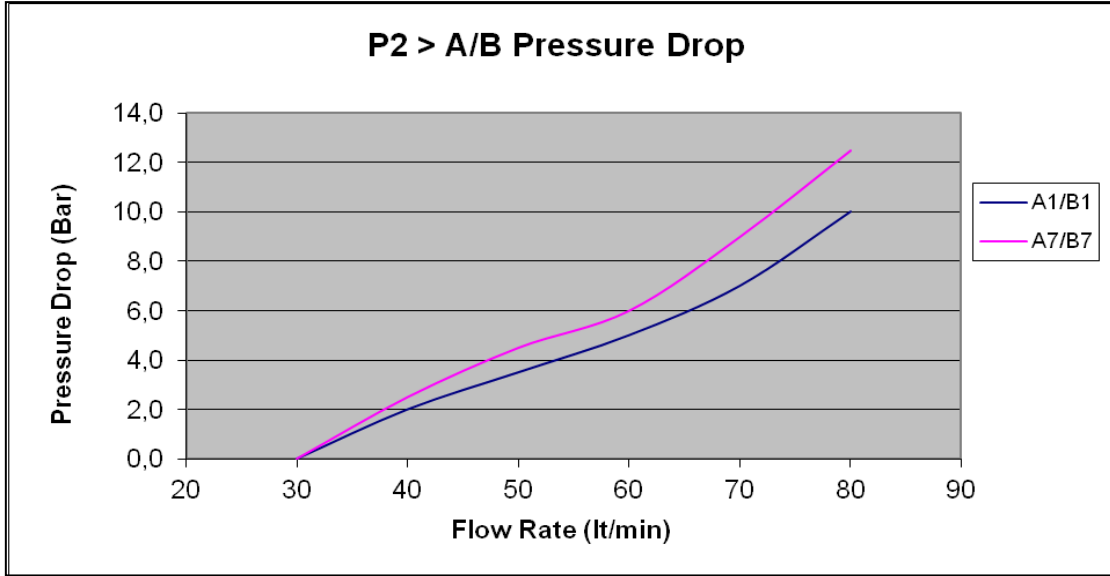
Note: Measured with standart spool and 32 cSt hydraulic oil@40°C

DIRECTIONAL CONTROL VALVE

Kv17 Series



P-A/B PRESSURE DROP AND A/B-T PRESSURE DROP



Note: Measured with standart spool and 32 cSt hydraulic oil@40°C



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MAIN RELIEF VALVE;

SETTING RANGE : 6 STEP

80-110 BAR

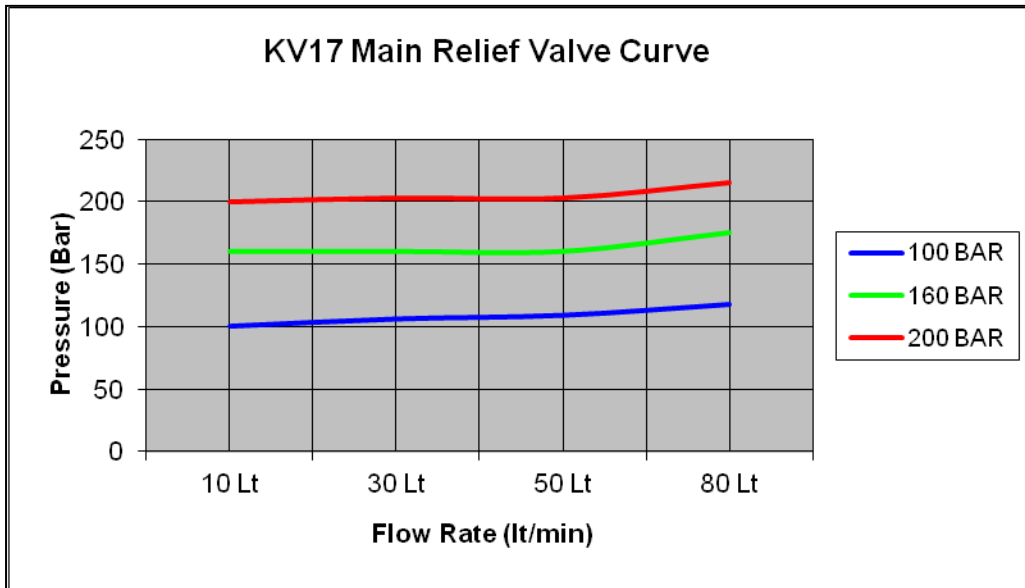
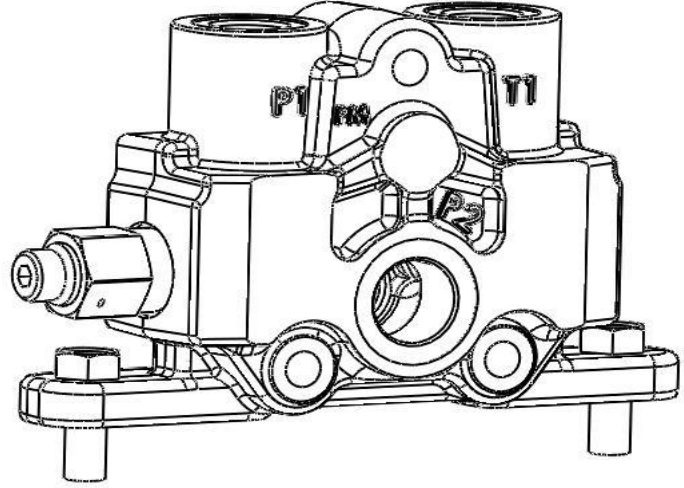
110-140 BAR

140-160 BAR

160-200 BAR

200-250 BAR

250-350 BAR



Note: Measured with 32 cSt hydraulic oil@40°C and neglected tank line pressure

DIRECTIONAL CONTROL VALVE

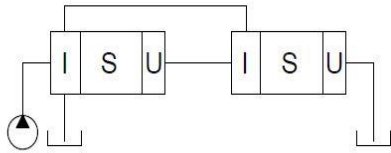
Kv17 Series



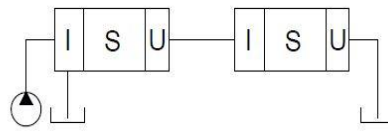
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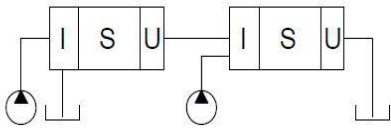
Configurations - system connection



Circuit of type parallel



Tandem or series parallel. First valve has priority.



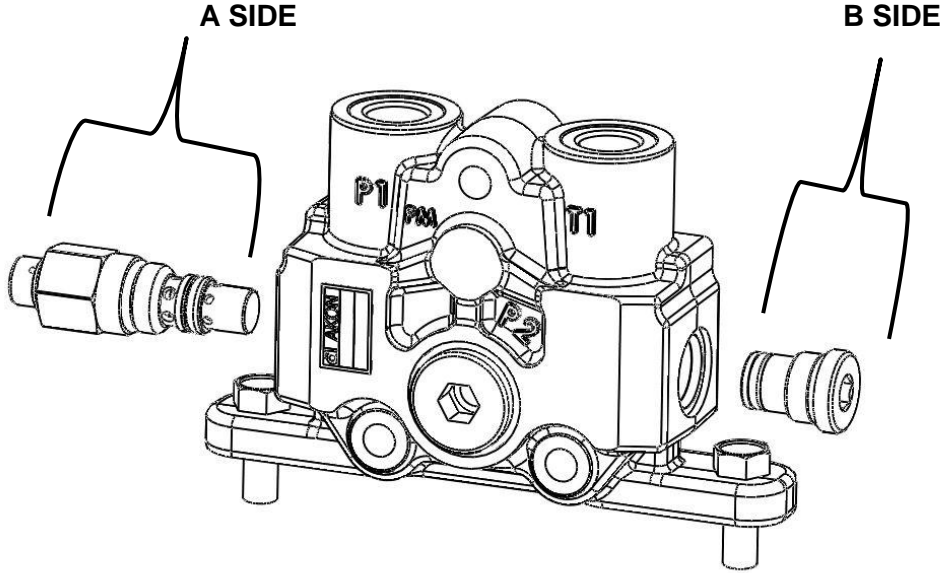
Tandem with a second pump to the second valve



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INLET SECTION ORDER



ORDER EXAMPLE : IL-001(180)-B01

IR or IL: INLET SECTION LEFT SIDE OR RIGHT SIDE

001: INLET SECTION CONFIGURASTION

(180): SETTING OF MAIN RELIEF VALVE

B01: INLET POSITION AND THREAD TYPE

DIRECTIONAL CONTROL VALVE

Kv17 Series

Page9



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INLET SECTION CONFIGURASTION

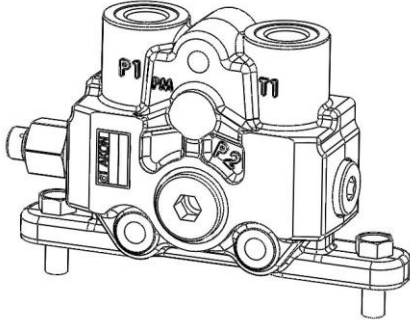
INLET SECTION CONFIGURASTION		
CODE	A SIDE	B SIDE
001	Direct acting pressure relief valve	Unmachined
002	Unmachined	Direct acting pressure relief valve
003	Direct acting pressure relief valve	Relief valve plugged
004	Direct acting pressure relief valve	Hydraulic lock or brake valve
005	Relief valve plugged	Direct acting pressure relief valve
006	Relief valve plugged	Hydraulic lock or brake valve
007	Hydraulic lock or brake valve	Direct acting pressure relief valve
008	Hydraulic lock or brake valve	Relief valve plugged

INLET POSITION AND THREAD TYPE

DIRECTIONAL CONTROL VALVE



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**INLET POSITION AND
THREAD TYPE**

CODE	DESCRIPTIONS
B01	ALL PORT G 1/2" P2 and T3 WITH STEEL PLUG P1 CONNECTION PORT
B02	ALL PORT G 1/2" P2 LOAD-SENSING CONNECTION T3 STEEL PLUG P1 CONNECTION PORT
C01	ALL PORT G 3/4" P2 and T3 WITH STEEL PLUG P1 CONNECTION PORT
C02	ALL PORT G 3/4" P2 LOAD-SENSING CONNECTION T3 STEEL PLUG P1 CONNECTION PORT

DIRECTIONAL CONTROL VALVE