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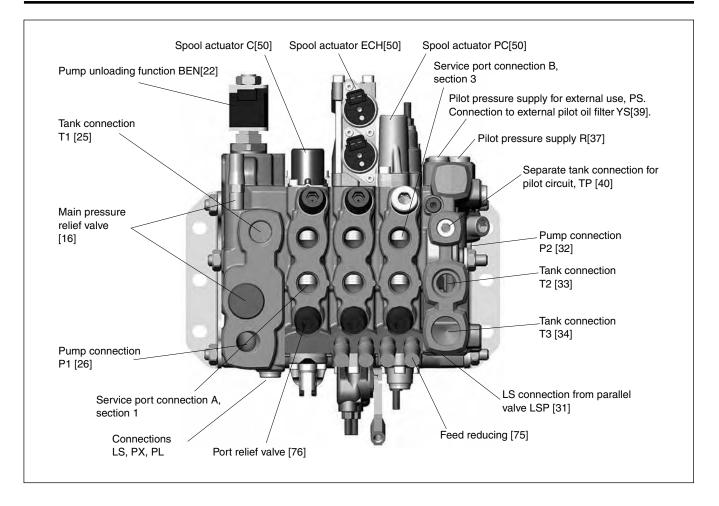


L90LS
Mobile Directional Control Valve
Proportional, Load Sensing, Pre-compensated





Technical Data



Pressures

 Pump connection
 max. 260/320 bar* (3800/4600 psi)

 Service ports
 max. 280/350 bar* (4000/5000 psi)

 Tank connection
 max. 20 bar (290 psi)

 Stated pressures are absolute shock pressures, valid for grey / nodular iron.

Flow rates, recommended

Pump connection max. 200 l/min (50 US gpm)

Service port, with pressure

compensator max. 90** I/min (24 US gpm)

Service port, without pressure

compensator max. 125** l/min (33 US gpm)
Return from service port max. 150 l/min (40 US gpm)

Leakage from work port over spool

From A or B port: max. 30 cm³/min (1.83 cu.in/min) at 250 bar (3625 psi), oil temperature 50 °C (122 °F) and viscosity 30 mm²/s (cSt).

** Depending on spool variant.

Feed reducing valves

Setting range 25 - 330 bar (363-4785 psi)

Internal pilot pressure

Fixed setting 22, 35 or 43 bar (320, 508 or 625 psi)

Filtration

Filtration must be arranged so that Target Contamination Class 20/18/14 according to ISO 4406 is not exceeded. For the pilot circuit, Target Contamination Class 18/16/13 according to ISO 4406 must not be exceeded.



Technical Data

Temperature

Oil temperature, working range +20 to 90 °C (68 to 194 °F)*

Hydraulic fluids

Best performance is obtained using mineral-base oil of high quality and cleanness in the hydraulic system. Hydraulic fluids of type HLP (DIN 51524), oil for automatic gearboxes Type A and engine oil type API CD can be used.

Viscosity, working range 15-380 mm²/s**

Technical information in this catalogue is applicable at an oil viscosity of 30 mm 2 /s and temperature of 50 °C using nitrile rubber seals.

- * Performance efficiency will be reduced if outside the ideal values. These extreme conditions must be evaluated by the user to establish suitability of the products performance.
- * * Product operating limits are broadly within the above range, but satisfactory operation within the specification may not be accomplished. Leakage and response will be affected when used at temperature extremes and it is up to the user to determine acceptability at these levels.

Weights

Inlet section	5.5 kg	12.1 lb
End section	4.2 kg	9.3 lb
Combo-inlet	11.5 kg	25.4 lb

Combined spool-end section, MU

compared to spool section below adds 1.2 kg (2.6 lb)

Spool section with spool actuator:

C, B3	4.1 kg	9.0 lb
ACE	5.2 kg	11.5 lb
CH, CHB3, CHX, PC	4.5 kg	9.9 lb
PCH	4.7 kg	10.4 lb
EC, ECS,	5.2 kg	11.5 lb
ECH. ECHL	5.4 ka	11.9 lb

Surface treatment (painted) [07]

P Primed valve, black. Primer only

X Unpainted

The paint is only a primer. For full corrosion protection, the valve must be painted with an outer coat.

Connections

Unless stated otherwise, all standard connections are available in two versions: G-version (BSP pipe thread) for flat seal (type Tredo) as per ISO 228/1 and UNF-version for O-ring seal as per ISO 11926-1.

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Connec-	In section	G-ver-	UNF-version
tion		sion.	
P1	inlet section	G 3/4	1 1/16-12 UN-2B
T1	inlet section	G 3/4	1 1/16-12 UN-2B
P1	combo-inlet CA/CL	Flange SAE 1 High pressure ISO 6162-2	
T1	combo-inlet CA/CL	Flange SAE 1 1/4 Std pressure ISO 6162-1	
T2	combo-inlet CA/CL	G 1	1 5/16-12 UN-2B
LS, PL, PX, AS2	inlet, combo-inlet CA/CL	G 1/4	9/16-18 UNF-2B
P2	end and spool/end section MU	G 1/2	7/8-14 UNF-2B
T2, T3	end and spool/end section MU	G 3/4	1 1/16-12 UN-2B
TP	end and spool/end section MU, combo-inlet CA/CL	G 3/8	3/4-16 UNF-2B
PS	end and spool/end section MU, combo-inlet CA/CL	G 1/4	9/16-18 UNF-2B
LSP	spool/end section MU	9/16-18 UNF-2A (ORFS pipe end, male)	
LSP	end section	G 1/4	9/16-18 UNF-2B
YS	end section, combo-inlet CA/CL	G1/4	9/16-18 JIC (37°) (male)
A, B	spool section	G 1/2	7/8-14 UNF-2B
PC	spool section	G 1/4	9/16-18 UNF-2B
ACE, ACEF, ACP	spool section	G 1/8	1/8-27 NPTF
LSA/ LSB	spool section	G 1/8	7/16-20 UNF-2B









For a copy of the full catalogue and further support please contact Hydratorque

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Fluid Power Solutions