Features

Simple, compact and heavy duty designed sectional valve from 1 to 12 sections for open and closed centre hydraulic systems.

- Fitted with a main pressure relief valve and a load check valve on every working section
- Available with parallel, tandem or series circuit.
- Optional carry-over port.
- A wide variety of port and circuit valves.
- Available manual, pneumatic, hydraulic, electro-hydraulic, and remote with flexible cables spool control kits.
- Diameter 20 mm (*0.79 in)* interchangeable spools.

Working conditions

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm^2/s - *46 cSt* viscosity at 40°C temperature.

Nominal flow rating		90 l/min	
Operating pressure (maximum)	*parallel or tandem circuit*	315 bar	*4600 psi*
	series circuit	210 bar	*3050 psi*
Back pressure (maximum)	*on outlet port T*	25 bar	*360 psi*
Internal leakage A(B)→T	*Δp=100 bar - 1450 psi fluid and valve at 40°C*	3 cm^3/min	*0.18 in^3/min*
Fluid		Mineral base oil	
Fluid temperature	*with NBR (BUNA-N) seals*	from -20° to 80°C	
	with FPM (VITON) seals	from -20° to 100°C	
Viscosity	*operating range*	from 15 to 75 mm^2/s	*from 15 to 75 cSt*
	min.	12 mm^2/s	*12 cSt*
	max.	400 mm^2/s	*400 cSt*
Max level of contamination		19/16 - ISO 4406	
Ambient temperature		from -40° to 60°C	

NOTE - *For different conditions please contact Sales Dept.*

Additional information

This catalogue shows the product in the most standard configurations.
Please contact Sales Dpt. for more detailed information or special request.

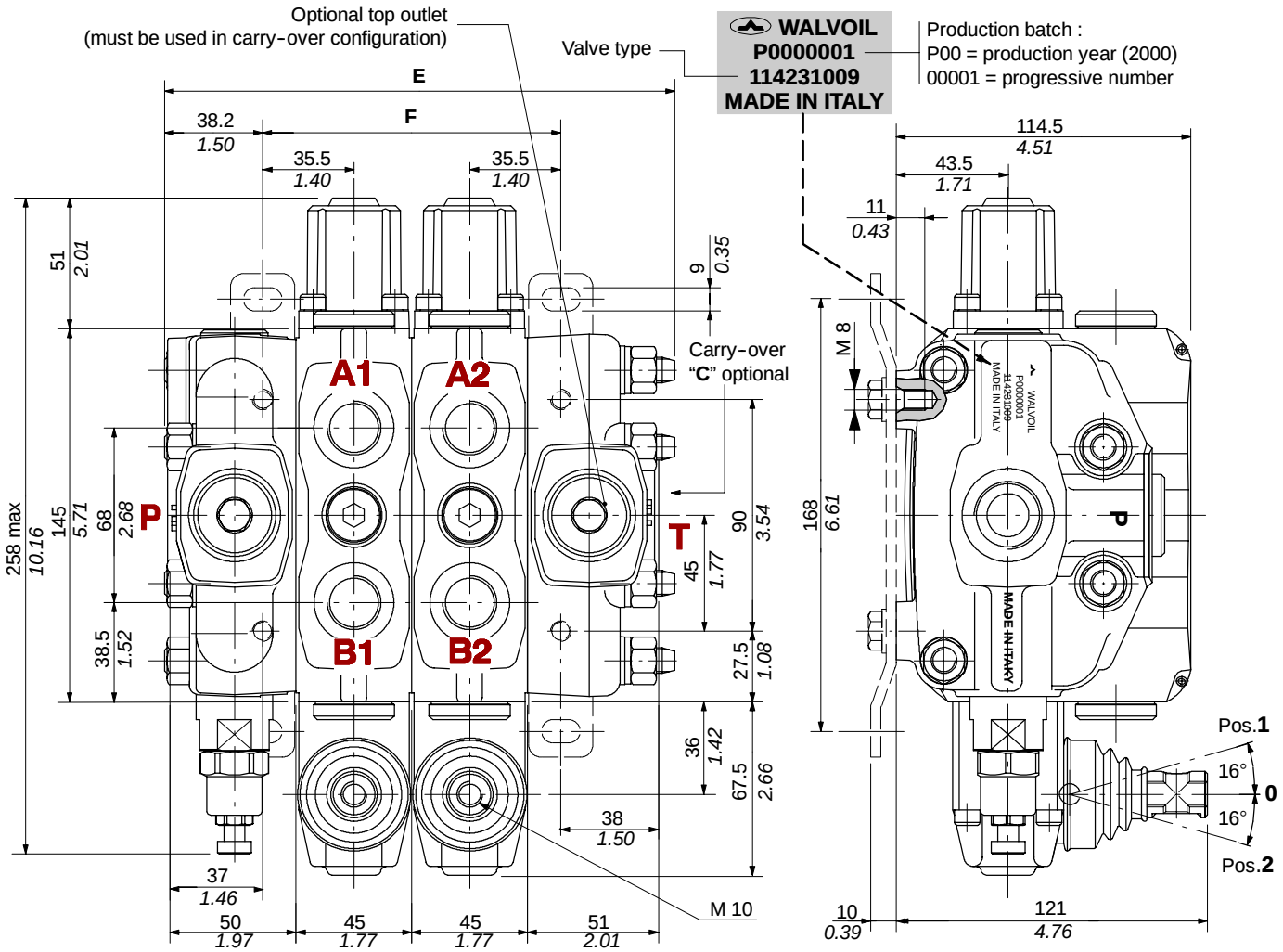
WARNING!

All specifications of this catalogue refer to the standard product at this date. Walvoil, oriented to a continuous improvement, reserves the right to discontinue, modify or revise the specifications, without notice.

WALVOIL IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY AN INCORRECT USE OF THE PRODUCT.

7th edition November 2000:
This edition supersedes all prior documents.

Dimensional data



TYPE	E		F		Weight	
	mm	*in*	mm	*in*	kg	*lb*
SDS150/1	154	*6.06*	71	*2.80*	11	*24.2*
SDS150/2	199	*7.83*	116	*4.57*	16	*35.3*
SDS150/3	244	*9.61*	161	*6.34*	20.9	*46.1*
SDS150/4	289	*11.4*	206	*8.11*	25.9	*57.1*
SDS150/5	334	*13.2*	251	*9.88*	30.8	*67.9*
SDS150/6	379	*14.9*	296	*11.7*	35.8	*78.9*

TYPE	E		F		Weight	
	mm	*in*	mm	*in*	kg	*lb*
SDS150/7	424	*16.7*	341	*13.4*	40.7	*89.7*
SDS150/8	469	*18.5*	386	*15.2*	45.7	*101*
SDS150/9	514	*20.2*	431	*17.0*	50.6	*112*
SDS150/10	559	*22.0*	476	*18.7*	55.6	*123*
SDS150/11	604	*23.8*	521	*20.5*	60.5	*133*
SDS150/12	649	*25.6*	566	*22.3*	65.5	*144*

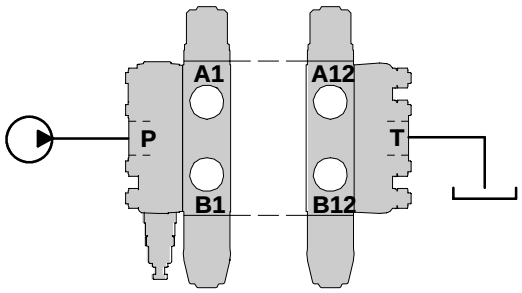
Standard threads

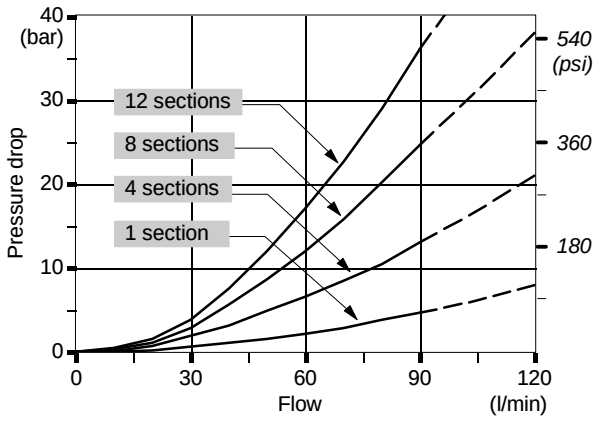
PORTS	BSP (ISO 228/1)	UN-UNF (ISO 11926-1)
Inlet **P** and carry-over **C**	G 3/4	1 1/16-12 UN-2B (SAE 12)
A and **B** ports	G 1/2	7/8-14 UNF-2B (SAE 10)
Outlet **T**	G 3/4	1 1/16-12 UN-2B (SAE 12)
PILOT PORTS		
Hydraulic	G 1/4	9/16-18 UNF-2B (SAE 6)
Pneumatic	NPTF 1/8-27	NPTF 1/8-27

Performance data (pressure drop vs. flow)

Open centre

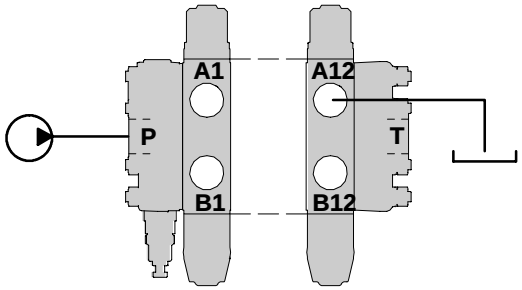
From side inlet to side outlet.

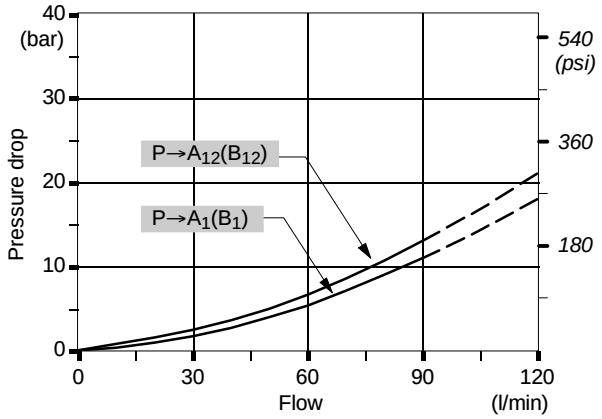




Inlet to work port

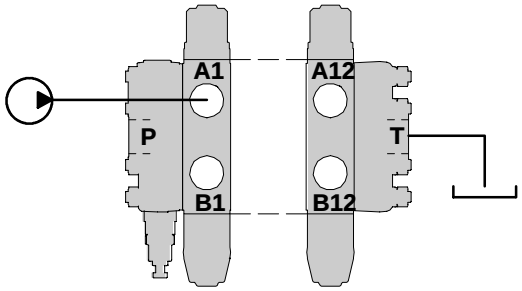
From side inlet to **A** port (spool in position **1**) or **B** port (spool in position **2**).

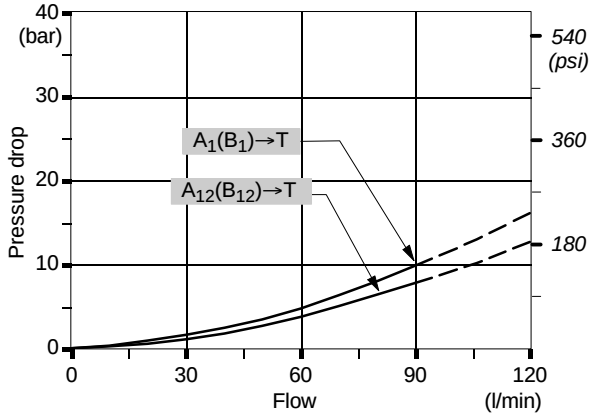




Work port to outlet

From **A** port (spool in position **2**) or **B** port (spool in position **1**) to side outlet.

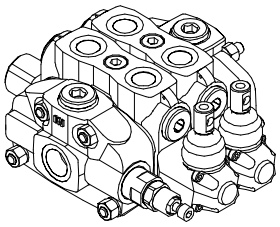


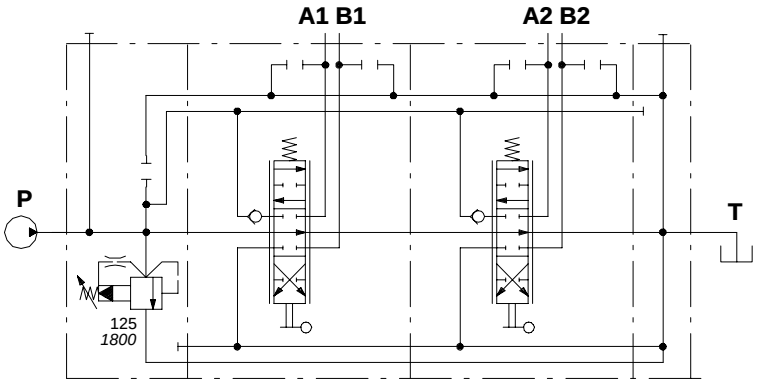


NOTE – *Measured with spool type 1.*

Hydraulic circuit

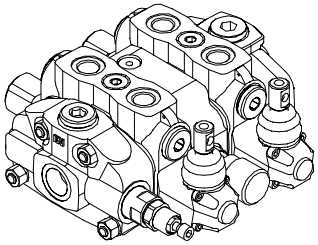
2 parallel working sections

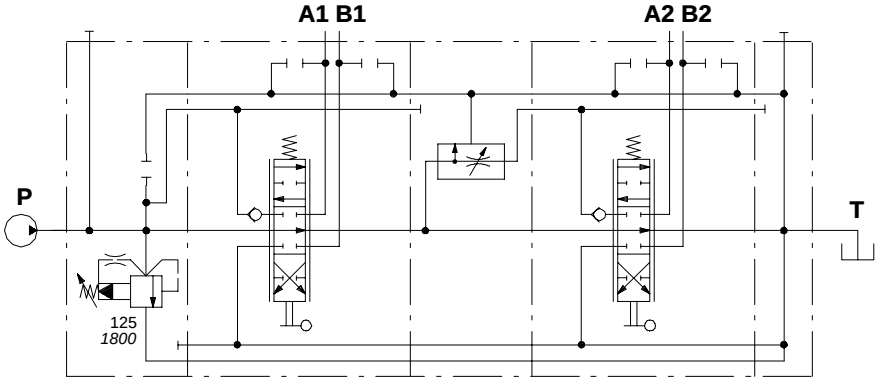




Ex.: SDS150/2/AC(XG-125)/18L/18L/RC

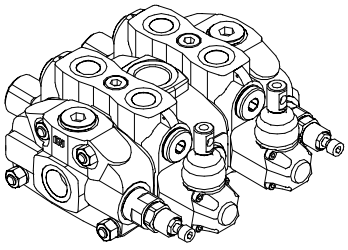
Intermediate pressure compensated flow divider section

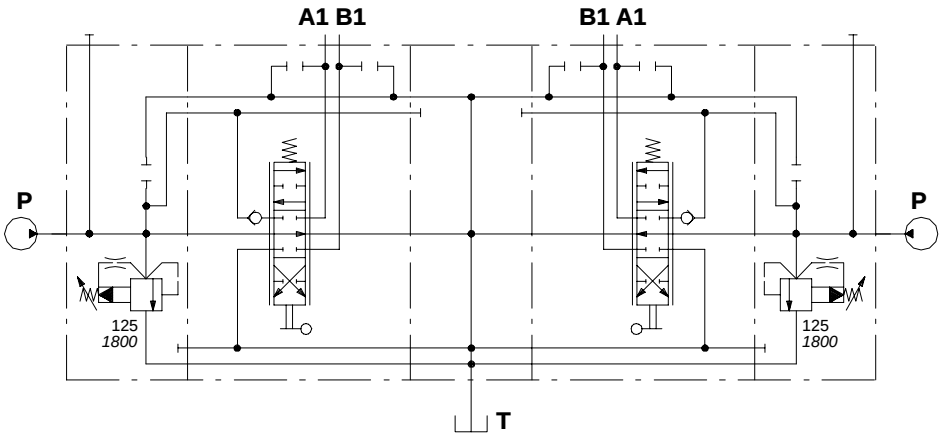




Ex.: SDS150/2/AC(XG-125)/18L/DFG/18L/RC

2 inlet cover and mid return manifold section

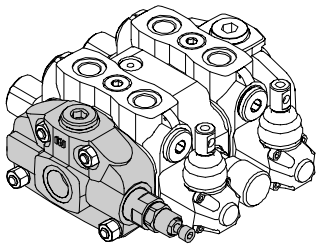




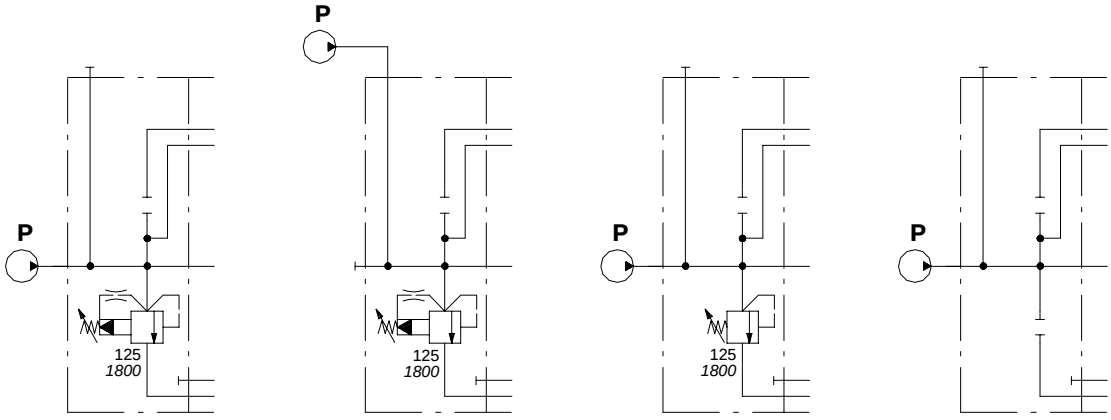
Ex.: SDS150/2/AC(XG-125)/18L/CS1/18L/BC(XG-125)

Hydraulic circuit

Inlet cover

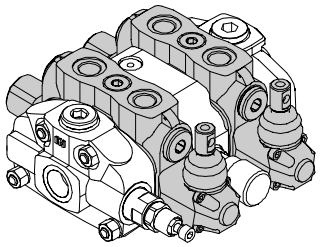


TYPE	CODE	DESCRIPTION
AC(XG)	614261001	Side inlet with pilot operated pressure relief valve
AD(XG)	614261004	Top inlet with pilot operated pressure relief valve
AC(YG3)	614261010	Side inlet with direct pressure relief valve
AC(SV)	614261003	Side inlet with relief valve blanking plug

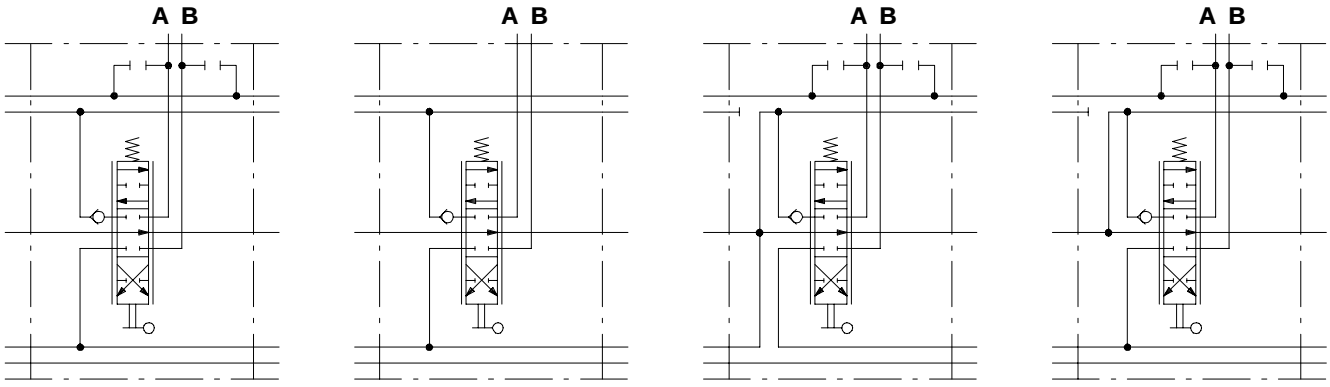


AC(XG-125) AD(XG-125) AC(YG3-125) AC(SV)

Working sections

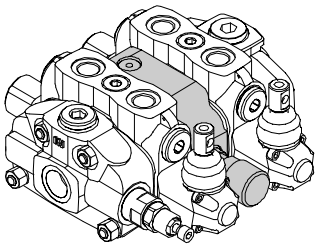


TYPE	CODE	DESCRIPTION
P-18L	614161001	Parallel
Q-18L	614151001	Parallel without valve prearangement
S-18L	614171001	Series
SP-18L	614181001	Tandem

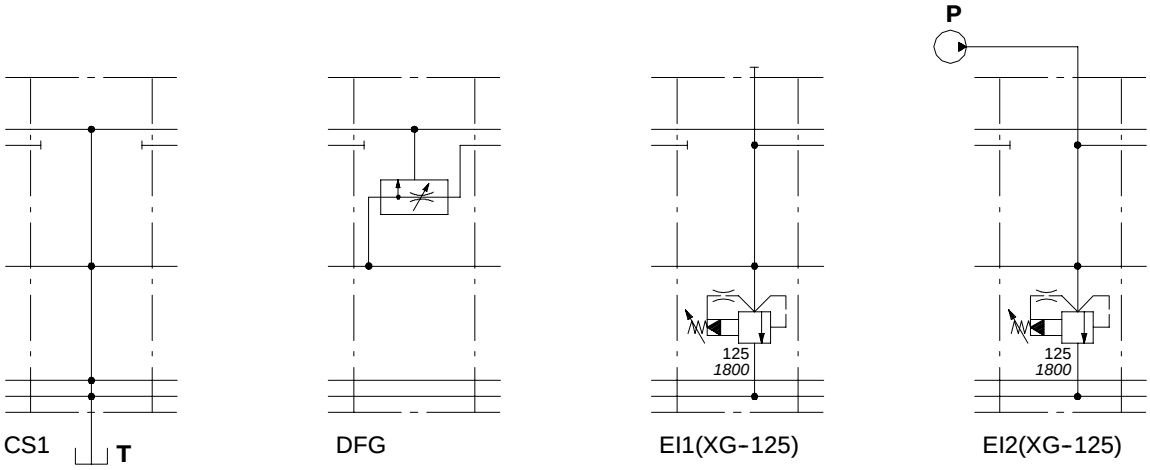


P-18L Q-18L S-18L SP-18L

Intermediate sections

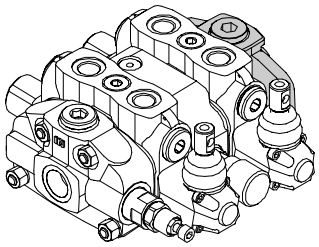


TYPE	CODE	DESCRIPTION
CS1	614402100	Mid return manifold section
DFG	614461020	Pressure compensated flow divider section
EI1(XG)	614521010	Secondary pilot operated pressure relief valve
EI2(XG)	614521025	Mid inlet with secondary pilot operated pressure relief valve

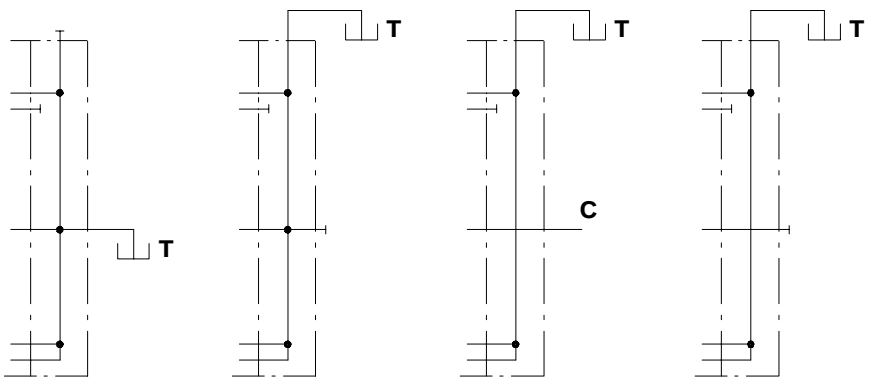


CS1 DFG EI1(XG-125) EI2(XG-125)

Outlet cover



TYPE	CODE	DESCRIPTION
RC	614361001	Side outlet
RD	614361005	Top outlet
RE	614361002	Top outlet with carry-over
RK	614361004	Top outlet with closed centre



RC RD RE RK

NOTE - *Codes are referred to **BSP** thread.*

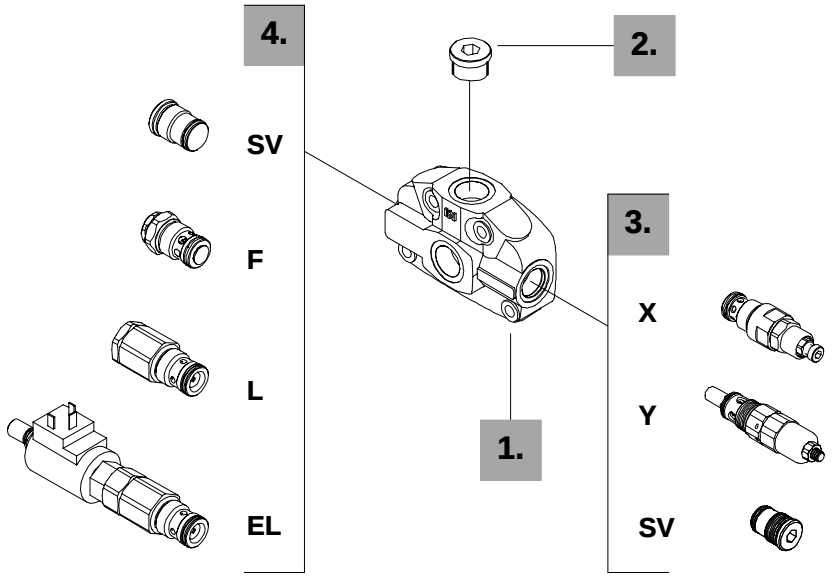
Inlet cover options

Description example:

FE SDS150 / A C (XG - 125) EL-12VDC *

1. **2.** **3.** **4.**

Pressure relief valve setting in bar



1. Inlet cover body *

CODE	DESCRIPTION
3FIA111400	AC-AD type body

2. Inlet port options *

CODE	DESCRIPTION
3XTAP732200	G 3/4 plug (n.1 plug required)

3. Inlet relief options

TYPE	CODE	DESCRIPTION
VMP10/1 pilot operated pressure relief valve type X (standard)		
(XG-125)	X006211120	Range 25 to 315 bar / *360 to 4600 psi* standard setting 125 bar / *1800 psi*
VMD10/1 direct pressure relief valve type Y		
(YG2-125)	3XCAR110212	Range 80 to 160 bar / *1160 to 2300 psi* standard setting 125 bar / *1800 psi*
(YG3-175)	3XCAR110213	Range 125 to 250 bar / *1800 to 3600 psi* standard setting 175 bar / *2500 psi*
(YG4-220)	3XCAR110214	Range 200 to 315 bar / *2900 to 4600 psi* standard setting 220 bar / *3200 psi*

Standard setting is referred to 10 l/min flow.

SV	XTAP526340	Relief valve blanking plug

4. Inlet valves options

TYPE	CODE	DESCRIPTION
F	3XCAR410200	Inlet anti-cavitation valve
L	XCAR410311	Hydraulic pilot unloader valve (FC1.5)
EL	YCAR410305	12 VDC electromagnetic controlled unloader valve
	YCAR410320	24 VDC electromagnetic controlled unloader valve
SV	XTAP526340	Relief valve blanking plug -

NOTE (*) - *Items are referred to **BSP** thread.*

Working section options

Description example:

EL SDS150 / P - 1 8 L . P 1 (G3 - 100) *

1. **2.** **3.** **4.** **5.**

- **1** mounted on A port.
- **2** mounted on B port.
- **3** mounted on A and B ports.

Port relief valve setting in bar

1. Working section kits *

TYPE	CODE	DESCRIPTION
Q	5EL1113010	Parallel without valve prearrangement
P	5EL1123000	Parallel
S	5EL2123000	Series
SP	5EL3123000	Tandem

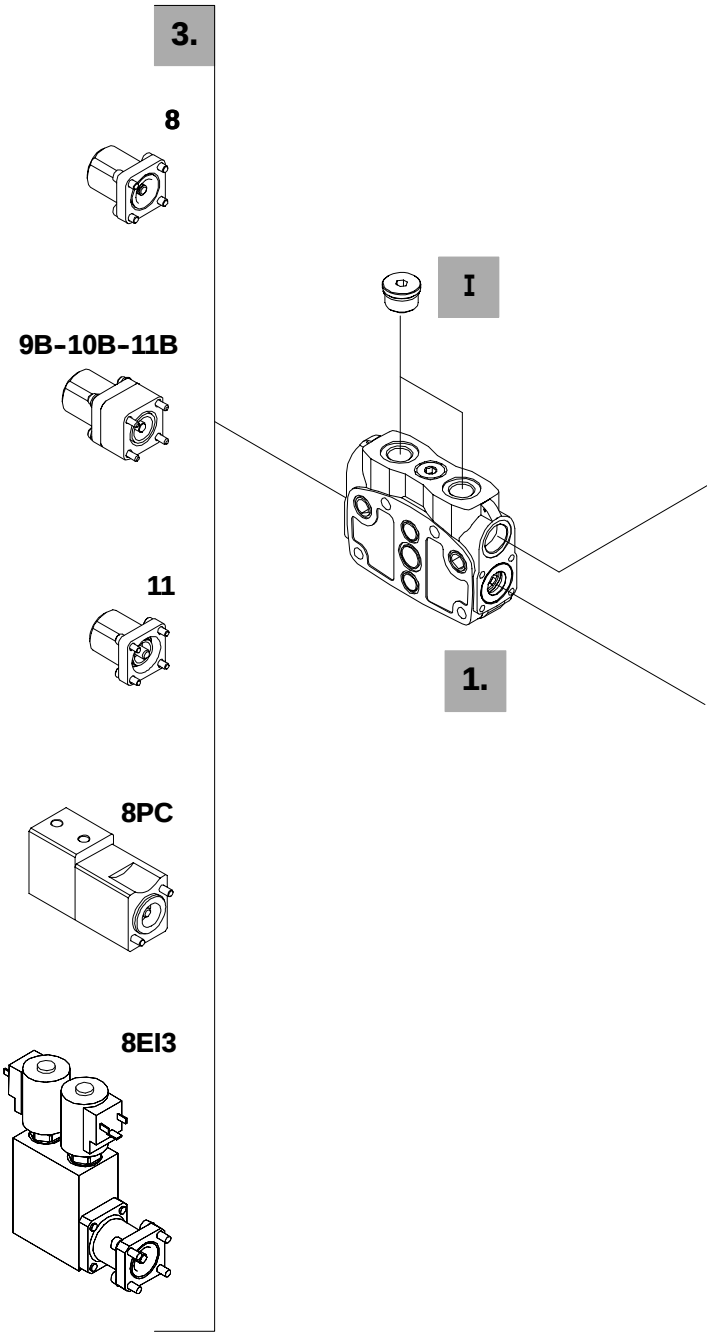
Include boby, seals, rings and load check valve.

2. Spool options

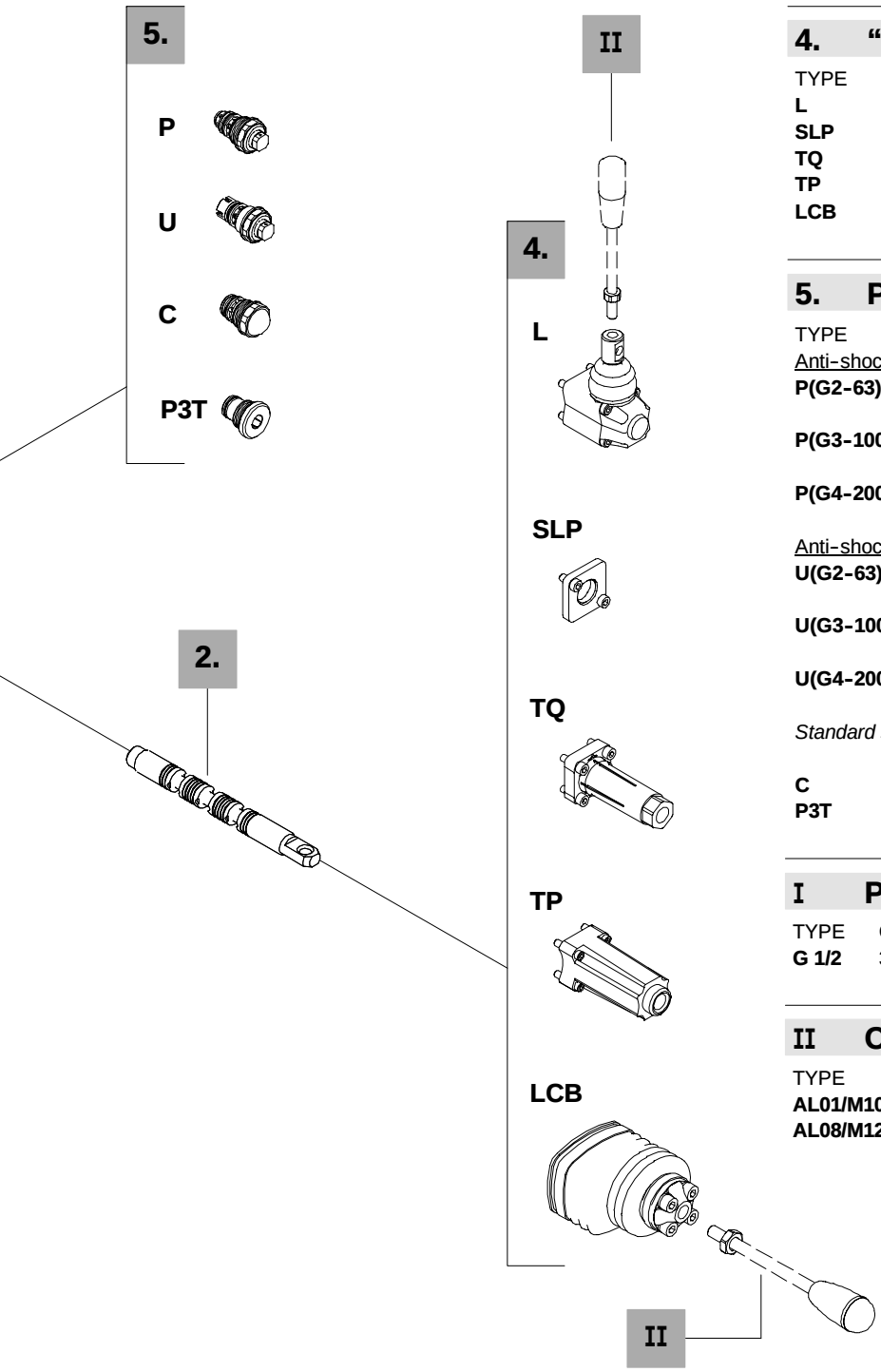
TYPE	CODE	CIRCUIT DESCRIPTION
1	3CU2410120	Double acting, 3 positions, with A and B closed in neutral position
1CS	3CU2410200	Double acting, 3 positions, with A and B closed in neutral position, metering type
1A	3CU2421200	Double acting, 3 positions, with A open to tank in neutral position
1B	3CU2422130	Double acting, 3 positions, with B open to tank in neutral position
2	3CU2425200	Double acting, 3 positions, with A and B open to tank in neutral position
3	3CU2431180	Single acting on A, 3 positions, B plugged; requires G1/2 plug (see part I)
4	3CU2435100	Single acting on B, 3 positions, A plugged; requires G1/2 plug (see part I)

3. "A" side spool positioners

TYPE	CODE	DESCRIPTION
8	5V08110000	With spring return in neutral position
9B	5V09110000	With detent in position 1 and spring return in neutral position
10B	5V09110000	With detent in position 1 and spring return in neutral position
11	5V11110000	With detent in position 1, neutral and 2
11B	5V11210000	With detent in position 1 and 2, spring return in neutral position
8PC	5V08111709	Proportional pneumatic kit
8EI3	5V08110350	12 VDC ON/OFF electro-hydraulic kit
	5V08110351	24 VDC ON/OFF electro-hydraulic kit



NOTE (*) - *Items are referred to **BSP** thread.*



4. "B" side options

TYPE	CODE	DESCRIPTION
L	5LEV110000	Standard lever
SLP	5COP110000	Without lever, with dust proof plate
TQ	5TEL110110	CD cable connection
TP	5TEL110005	CG cable connection
LCB	5CLO211100	Mechanical joystick

5. Port relief options

TYPE	CODE	DESCRIPTION
Anti-shock valve		
P(G2-63)	5KIT210212	Range 40 to 80 bar / *from 580 to 1150 psi* standard setting 63 bar / *900 psi*
P(G3-100)	5KIT210213	Range 63 to 200 bar / *from 900 to 2900 psi* standard setting 100 bar / *1450 psi*
P(G4-200)	5KIT210214	Range 160 to 315 bar / *from 2300 to 4600 psi* standard setting 200 bar / *2900 psi*
Anti-shock and anti-cavitation valve		
U(G2-63)	5KIT310112	Range 63 to 125 bar / *from 900 to 1800 psi* standard setting 63 bar / *900 psi*
U(G3-100)	5KIT310113	Range 100 to 250 bar / *from 1450 to 3600 psi* standard setting 100 bar / *1450 psi*
U(G4-200)	5KIT310114	Range 200 to 315 bar / *from 2900 to 4600 psi* standard setting 200 bar / *2900 psi*
Standard setting is referred to 10 l/min flow.		
C	5KIT410100	Anti-cavitation
P3T	5TAP528320	A and B ports valve blanking plugs

I Port plug *

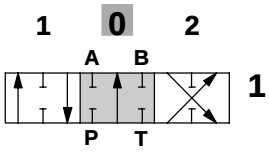
TYPE	CODE	DESCRIPTION
G 1/2	3XTAP727180	Plug for single acting spool

II Optional handlevers

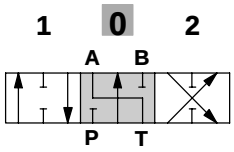
TYPE	CODE	DESCRIPTION
AL01/M10x200	170012020	For L lever box L= 200mm/*7.87in*
AL08/M12x250	170013125	For LCB joystick L= 250mm/*9.84in*

For special configurations see page 13

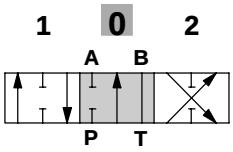
Spools options



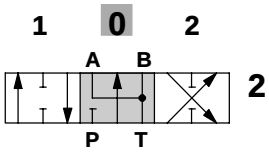
1



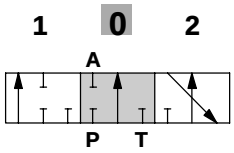
1A



1B

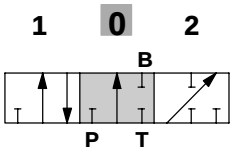


2



3

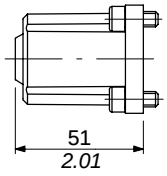
"B" port plugged

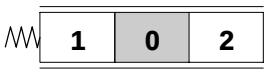


4

"A" port plugged

"A" side spool positioners

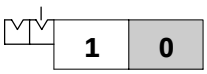




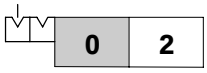
8



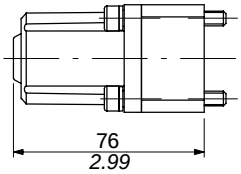
11



15

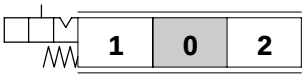


16

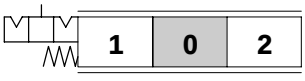




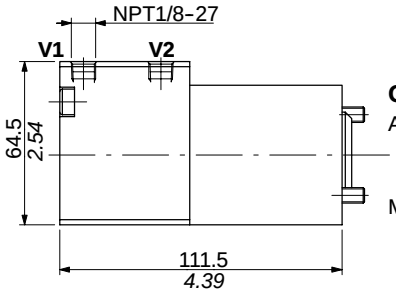
9B



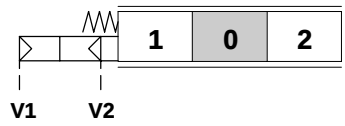
10B



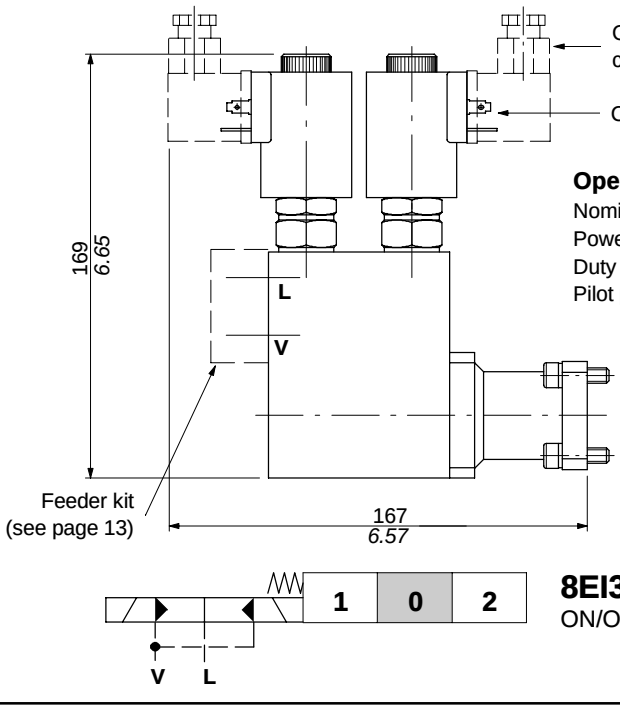
11B



Operating features
Adjustment range : from 1 to 5.5 bar
from 14.5 to 79.8 psi
diagram 501A
Max.pilot pressure : 10 bar / *145 psi*



8PC
Proportional pneumatic kit



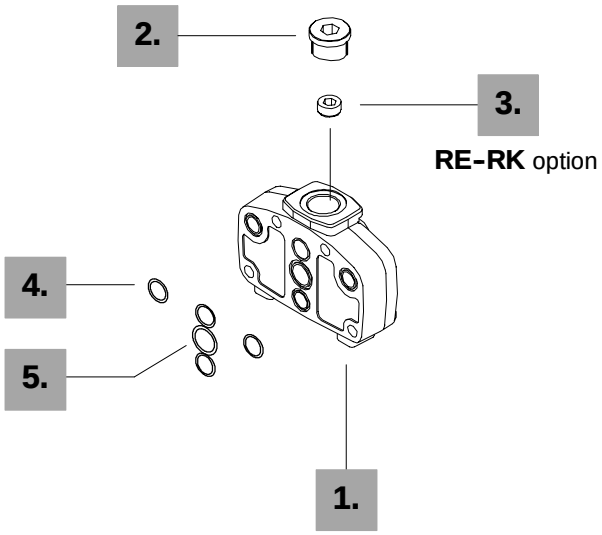
Operating features
Nominal voltage : 12 VDC / 24 VDC
Power rating . . : 21 W
Duty cycle . . . . : 100%
Pilot pressure . : from 10 to 50 bar
from 145 to 725 psi

8EI3
ON/OFF electro-hydraulic kit

Outlet cover options

Description example:

FS SDS150 / RC *



Outlet section parts

PART	CODE	QTY	DESCRIPTION
1.	3FIA211300	1	Outlet section body *
2.	3XTAP732200	1	G 3/4 plug *
4.	4GUA117218	4	17.17x1.78 NBR 70 SH O-Ring seal
5.	4GUA122018	1	21.95x1.78 NBR 70 SH O-Ring seal

Circuit option

PART	CODE	QTY	DESCRIPTION
3.	4TAP318010	1	M18x1.5 plug for carry-over (RE) and closed centre (RK) configuration

NOTE (*) - *Items are referred to **BSP** thread.*