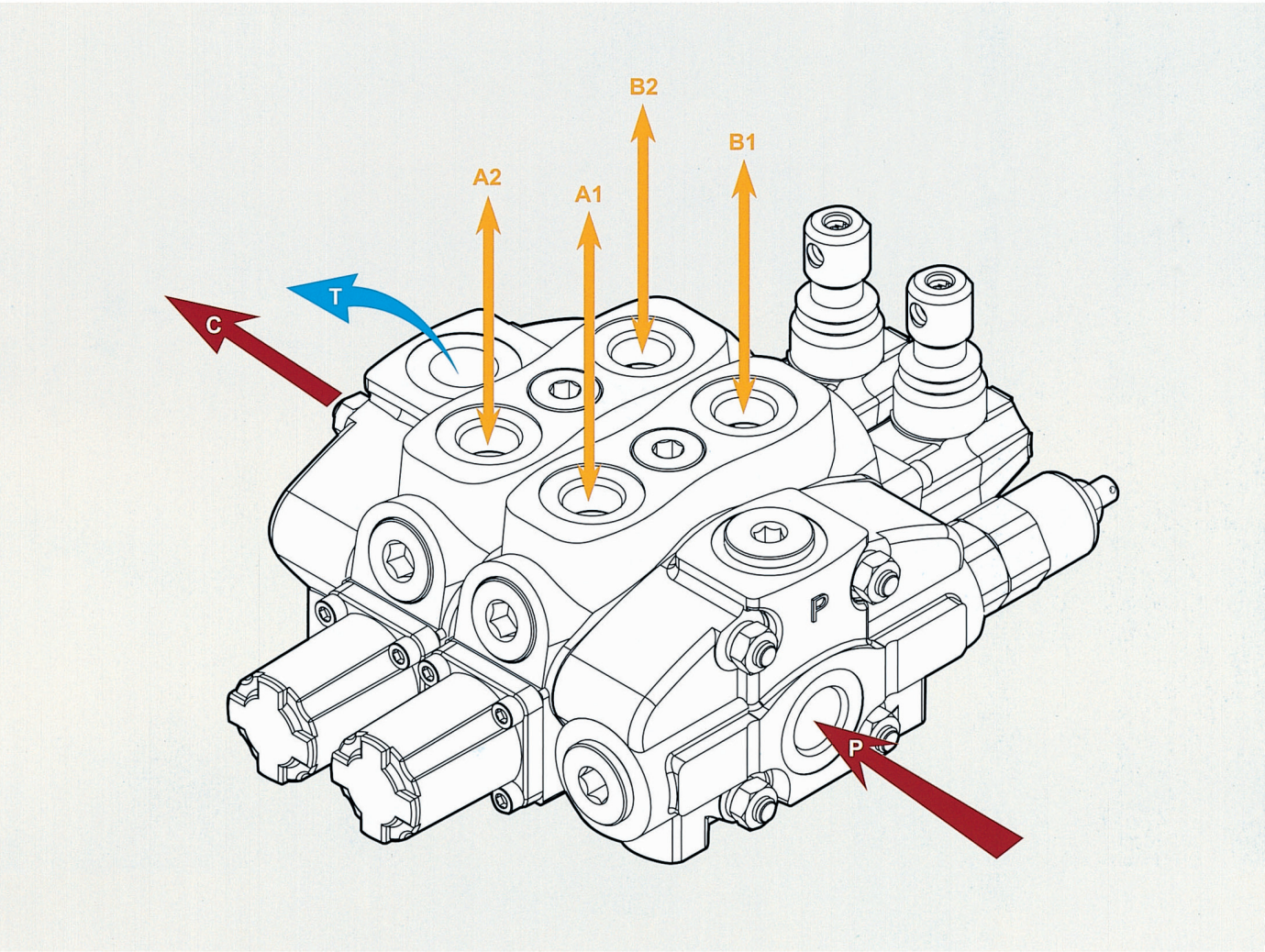


SN-4

Sectional Directional Control Valves



SN-4

SN-4 Specifications

Nominal flow rate		80 l/min	21 US gpm
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
Fluid temperature range	with NBR(BUNA-N) seals	from - 20° to 80°C	from - 4° to 176° F
	with FPM(VITON) seal	from - 20° to 100°C	from - 4° to 212° F
Viscosity	operating range	from 15 to 75 mm²/s	from 15 to 75 cst
	min	12 mm²/s	12 cst
	max.	400 mm²/s	400 cst
Ambient temperature range		from - 40° to 60°C	from - 40° to 140° F

• All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

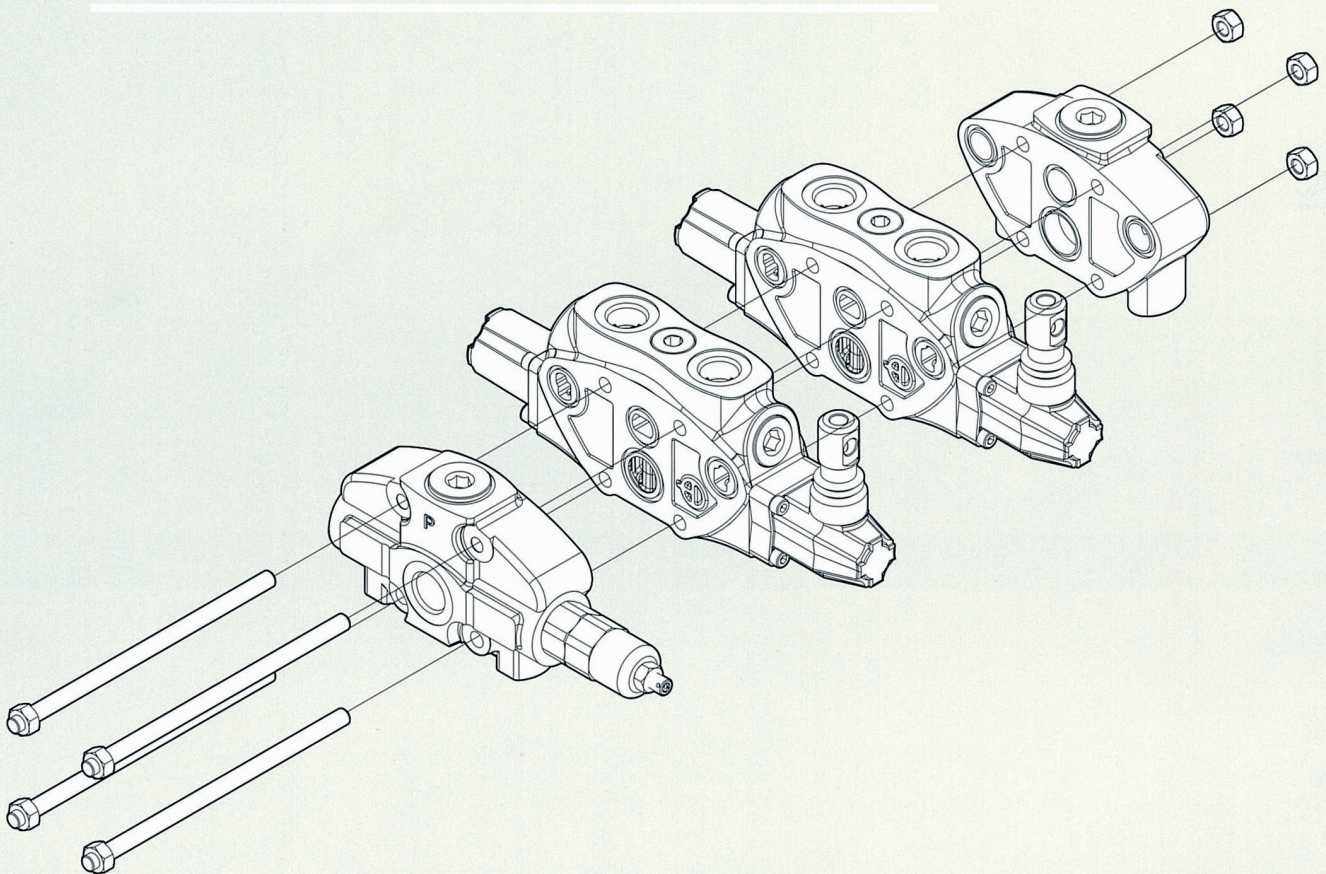
SN-4 Complete

Sectional Directional Control Valves

HOW TO ORDER FOR A COMPLETE ASSEMBLED VALVE

SN-4 / 2S - 3 / 18L / 28L / G-4-6 / M3

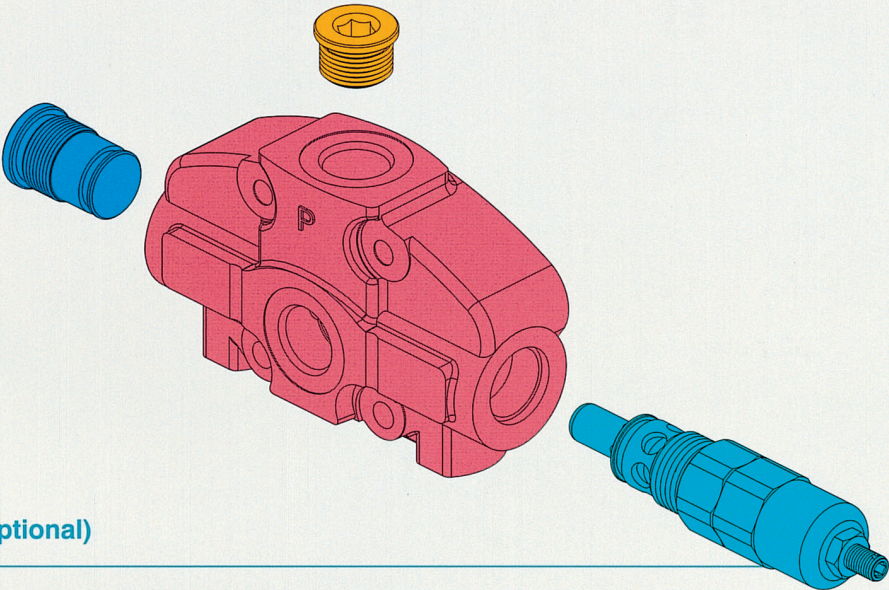
2S	No. of working section
3	Inlet cover with a main pressure relief valve
18L	1st section (complete working section)
28L	Following section (complete working section)
G-4-6	BSP ports
M3	Outlet cover



SN-4 Inlet Section

Sectional Directional Control Valves

FP SN-4 / SG-3 / G4



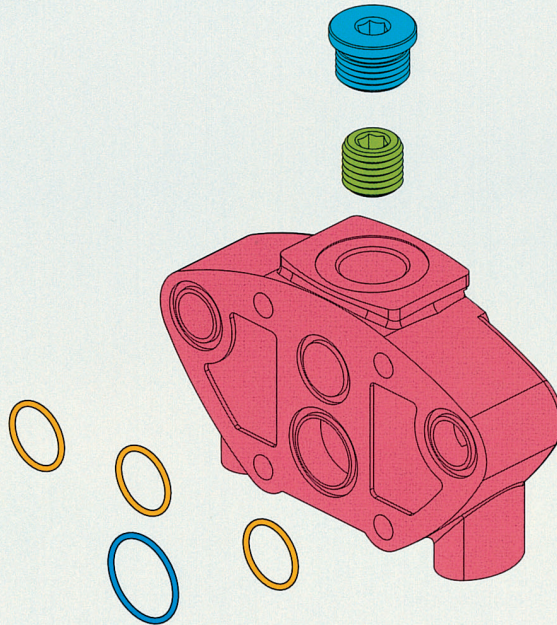
Inlet relief (optional)

Inlet Relief (optional)			
TYPE	CODE	DESCRIPTION	PAGE
SG-2	YLPSN43002	Range 80 to 160 bar / 1150 to 2300 psi , standard setting 125 bar / 1800 psi	P. 175
SG-3	YLPSN43003	Range 125 to 250 bar / 1800 to 3600 psi , standard setting 175 bar / 2500 psi	P. 175
SG-4	YLPSN43004	Range 200 to 315bar / 2900 to 4600 psi , standard setting 220 bar / 3200 psi	P. 175
		Standard setting is referred to 10 l/min - 2.6 US gpm flow.	P. 175
SV	YLPSN44000	Relief valve blanking plug	P. 175
XSG	YLX21000	Pilot operated pressure relief valve Range 25 to 315 bar/ 360 to 4600 psi, standard setting 125 bar/ 1800 psi	P. 175

SN-4 Outlet Section

Sectional Directional Control Valves

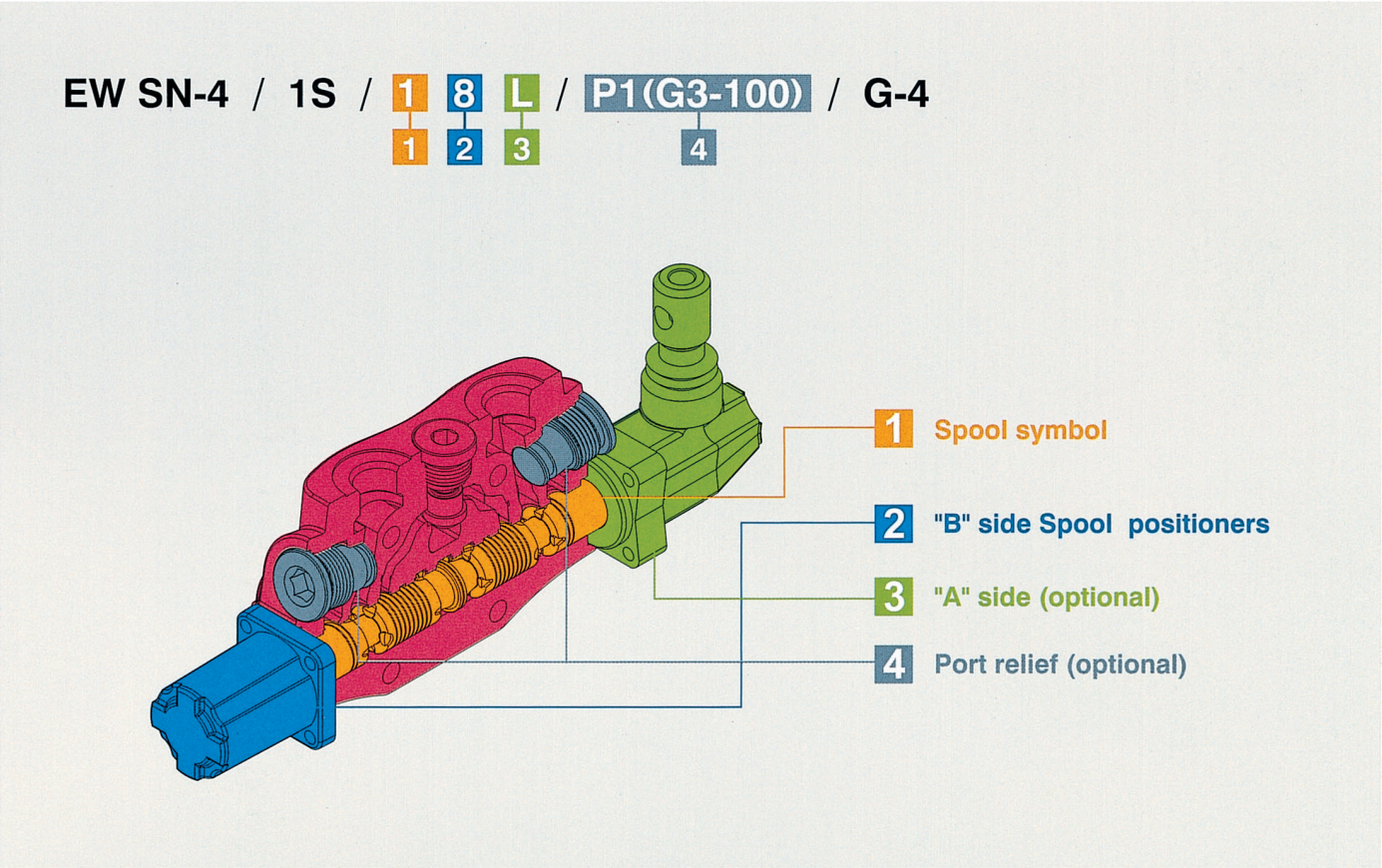
FT SN-4 / G-6 / M3



SN-4

SN-4 Working Section

Sectional Directional Control Valves



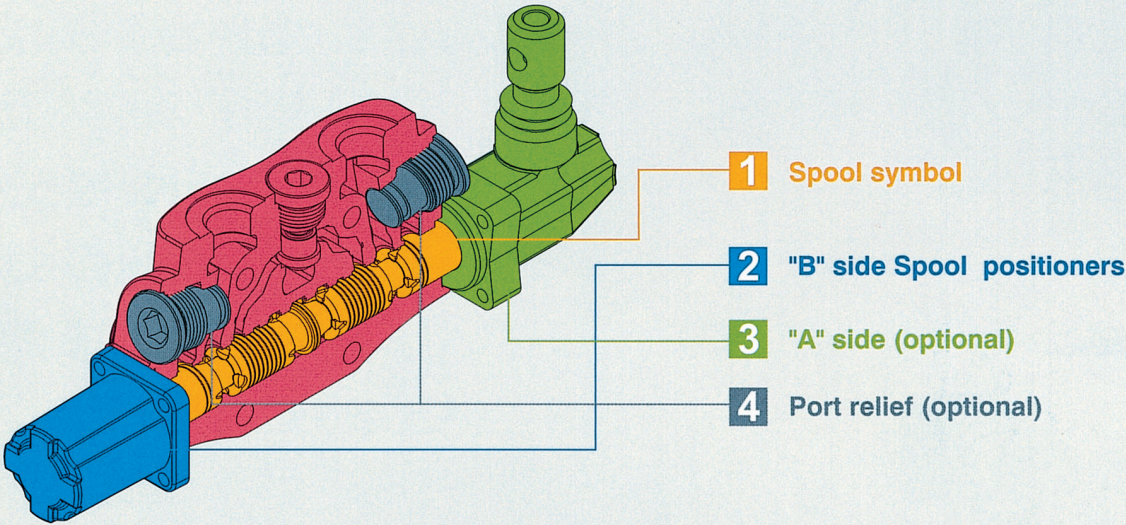
SN-4

1: Spool Symbol			
TYPE	CODE	DESCRIPTION	PAGE
1	YLWSN42001	Double acting,3 positions,with A and B closed in neutral position	P. 176
1S	YLWSN42010	Double acting,3 positions,with A and B closed in neutral position, for series circuit	P. 179
2	YLWSN42002	Double acting,3 positions,with A and B open to tank in neutral position	P. 176
3	YLWSN42003	Single acting on A closed in neutral position, 3 positions, B plugged	P. 177
4	YLWSN42004	Single acting on B closed in neutral position, 3 positions, A plugged	P. 177
5	YLWSN42005	Double acting, 3 positions, with B open to Tank in neutral position	P. 178
6	YLWSN42006	Double acting, 3 positions, with A open to Tank in neutral position	P. 178
5PY	YLWSN43051	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pushing the lever	P. 180

SN-4 Working Section

Sectional Directional Control Valves

EW SN-4 / 1S / 1 8 L / P1(G3-100) / G-4



2: B Side Spool Positioners			
TYPE	CODE	DESCRIPTION	PAGE
6-1	YLWSN43061	Detent in pos. 1-0-2, without spring centered	P. 184
6-2	YLWSN43062	2 positions, detent in pos. 0-2, without spring centered	P. 184
6-3	YLWSN43063	2 positions, detent in pos. 1-0, without spring centered	P. 184
8D2	YLWSN43082	With spring return to neutral position and pin with M8 male thread for dual control	P. 184
8P	YLWSN43080	ON/OFF Pneumatic actuator	P. 185
8EP3	YLWSN44300	ON/OFF Electro-Pneumatic actuator	P. 185
8MG1 (NO)	YLWSN43801	Microswitch kit operated in pos. 1 (Normally Open)	P. 188
8MG2 (NO)	YLWSN43802	Microswitch kit operated in pos. 2 (Normally Open)	P. 188
8MG3 (NO)	YLWSN43803	Microswitch kit operated in pos. 1&2 (Normally Open)	P. 188
MG (NO)	YLWSN43804	Microswitch with NO terminal	P. 188
8MG1 (NC)	YLWSN438011	Microswitch kit operated in pos. 1 (Normally Closed)	P. 188
8MG2 (NC)	YLWSN438021	Microswitch kit operated in pos. 2 (Normally Closed)	P. 188
8MG3 (NC)	YLWSN438031	Microswitch kit operated in pos. 1&2 (Normally Closed)	P. 188
MG (NC)	YLWSN438041	Microswitch with NC terminal	P. 188
8	YLWSN43008	With spring return to neutral position	P. 189
8-1	YLWSN44081	2 positions, with spring centered from pos. 1	P. 189
8-2	YLWSN44082	2 positions, with spring centered from pos. 2	P. 189
9-1	YLWSN43091	Detent in pos. 1, 2 with spring centered	P. 189
9-2	YLWSN43092	Detent in pos. 2 with spring centered	P. 189
9-3	YLWSN43093	Detent in pos. 1 with spring centered	P. 189

2: B Side Spool Positioners

TYPE	CODE	DESCRIPTION	PAGE
8ED3+RV-KE1R3	YLWSN43201	1S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE2R3	YLWSN43202	2S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE3R3	YLWSN43203	3S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE4R3	YLWSN43204	4S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE5R3	YLWSN43205	5S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE6R3	YLWSN43206	6S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE7R3	YLWSN43207	7S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE8R3	YLWSN43208	8S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE9R3	YLWSN43209	9S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE10R3	YLWSN43210	10S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE11R3	YLWSN43211	11S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ED3+RV-KE12R3	YLWSN43212	12S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 186
8ER3+RV-KE1S0	YLWSN43401	1S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE2S0	YLWSN43402	2S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE3S0	YLWSN43403	3S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE4S0	YLWSN43404	4S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE5S0	YLWSN43405	5S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE6S0	YLWSN43406	6S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE7S0	YLWSN43407	7S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE8S0	YLWSN43408	8S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE9S0	YLWSN43409	9S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE10S0	YLWSN43410	10S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE11S0	YLWSN43411	11S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187
8ER3+RV-KE12S0	YLWSN43412	12S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 187

3: A Side (Optional)

TYPE	CODE	DESCRIPTION	PAGE
L	YLWSN44000	Standard lever	P. 181
SLP	YLWSN44001	Without lever, with dust proof plate	P. 181
LCB	YLWSN44002	Joystick lever for 2 section operation	P. 182
TQ	YLWSN44003	Flexible cable connection	P. 183

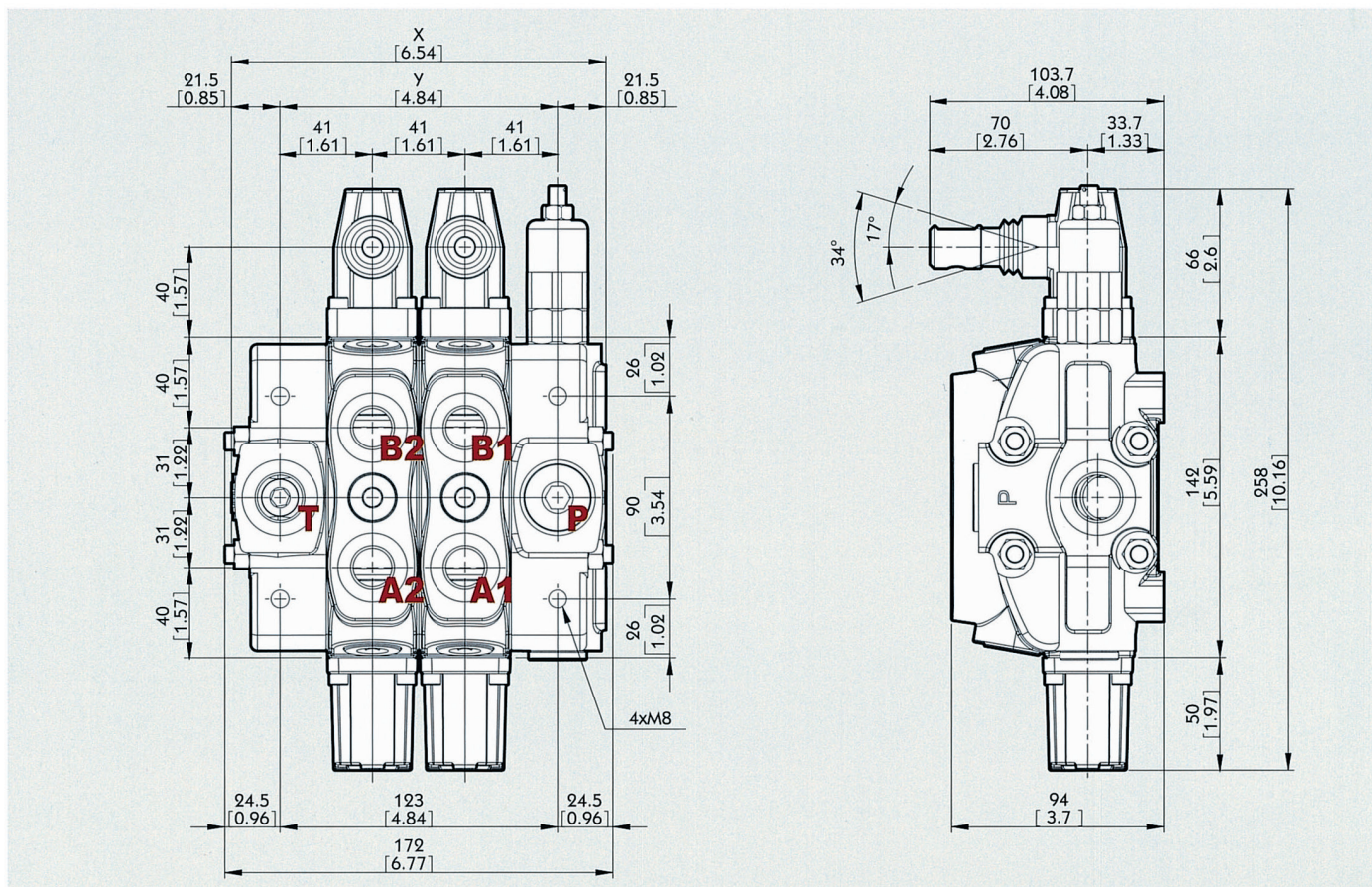
4: Port Relief (Optional)

TYPE	CODE	DESCRIPTION	PAGE
P (G2-63)	YLWSN45002	Anti-shock valve, range 63 to 125 bar / form 900 to 1800 psi standard setting 63 bar / 900 psi	P. 190
P (G3-100)	YLWSN45003	Anti-shock valve, range 100 to 250 bar / form 1450 to 3600 psi standard setting 100bar / 1450 psi	P. 190
P (G4-200)	YLWSN45004	Anti-shock valve, range 200 to 315 bar / form 2900 to 4600 psi standard setting 200 bar / 2900 psi	P. 190
PM (G2-63)	YLWSN45005	Anti-shock valve, range 63 to 125 bar / form 900 to 1800 psi standard setting 63 bar / 900 psi, for low setting	P. 190
U (G2-63)	YLWSN45012	Anti-shock valve and Anti-cavitation valve, range 63 to 125 bar / form 900 to 1800 psi standard setting 63 bar / 900 psi	P. 190
U (G3-100)	YLWSN45013	Anti-shock valve and Anti-cavitation valve, range 100 to 250 bar / form 1450 to 3600 psi standard setting 100 bar / 1450 psi	P. 190
U (G4-200)	YLWSN45014	Anti-shock valve and Anti-cavitation valve, range 200 to 315 bar / form 2900 to 4600 psi standard setting 200 bar / 2900 psi	P. 190
C	YLWSN45100	Anti - cavitation	P. 190

SN-4 Dimensions

Sectional Directional Control Valves

SN-4



Standard threads

Ports	Inlet P and carry-over C	A and B	Outlet T
BSP	G1/2	G1/2	G3/4
UN-UNF	7/8-14 UNF-2B (SAE 10)	3/4-16 UNF-2B (SAE 8)	7/8-14 UNF-2B (SAE 10)
METRIC	M22x1.5	M22x1.5	M22x1.5

Pilot ports	Hydraulic	Pneumatic
BSP	G1/4	NPTF 1/8-27
UN-UNF	9/16-18 UNF-2B (SAE 6)	NPTF 1/8-27
METRIC	G1/4	NPTF 1/8-27

• G-1/2 : G4 G-3/8 : G3 G-3/4 : G6
• SAE 8: E8 SAE 10: E10 SAE 12: E12 SAE 16: E16

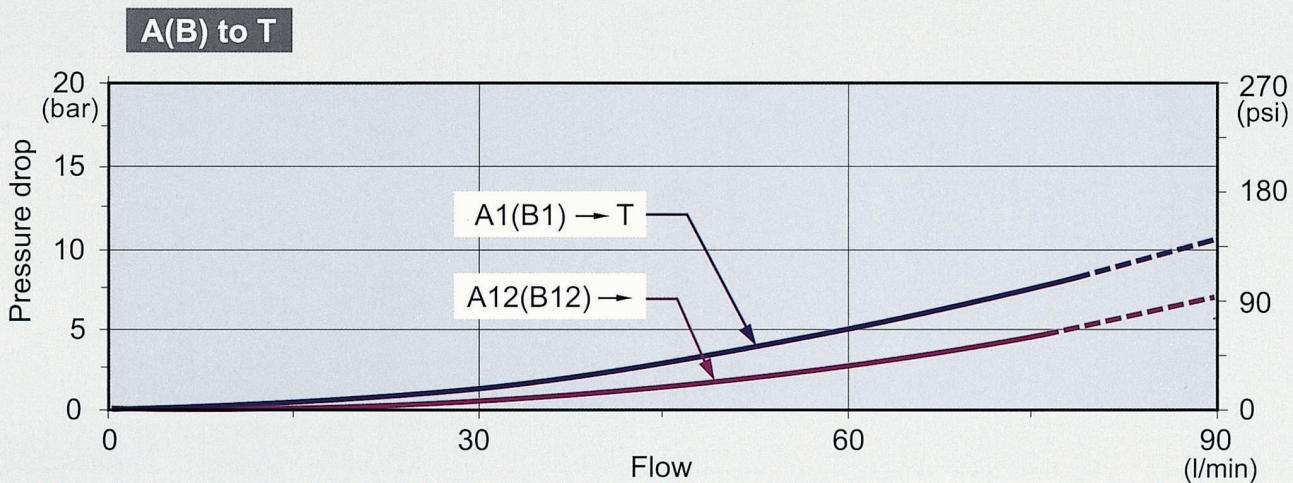
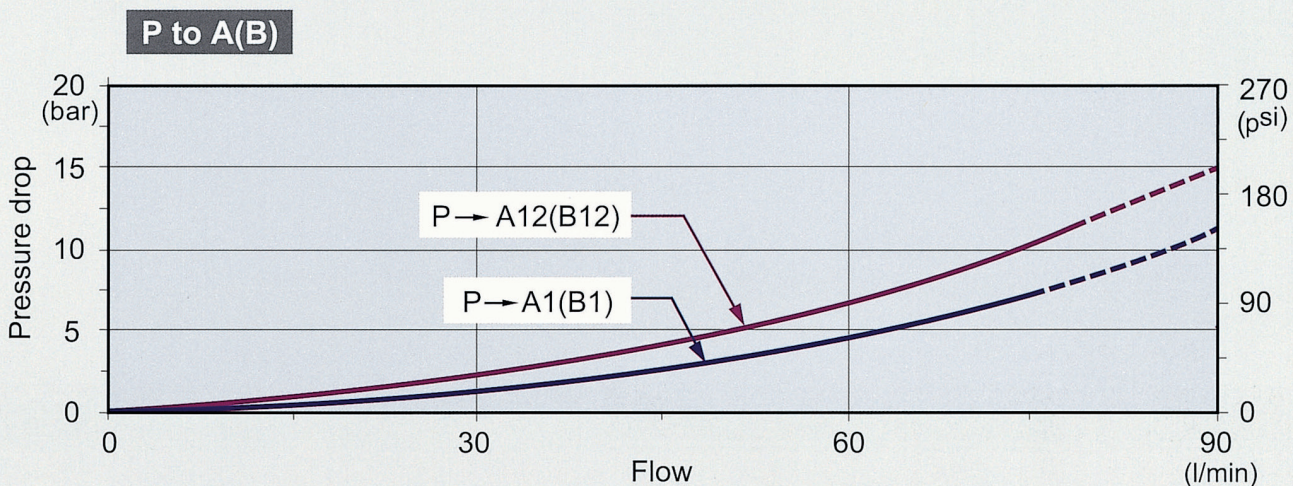
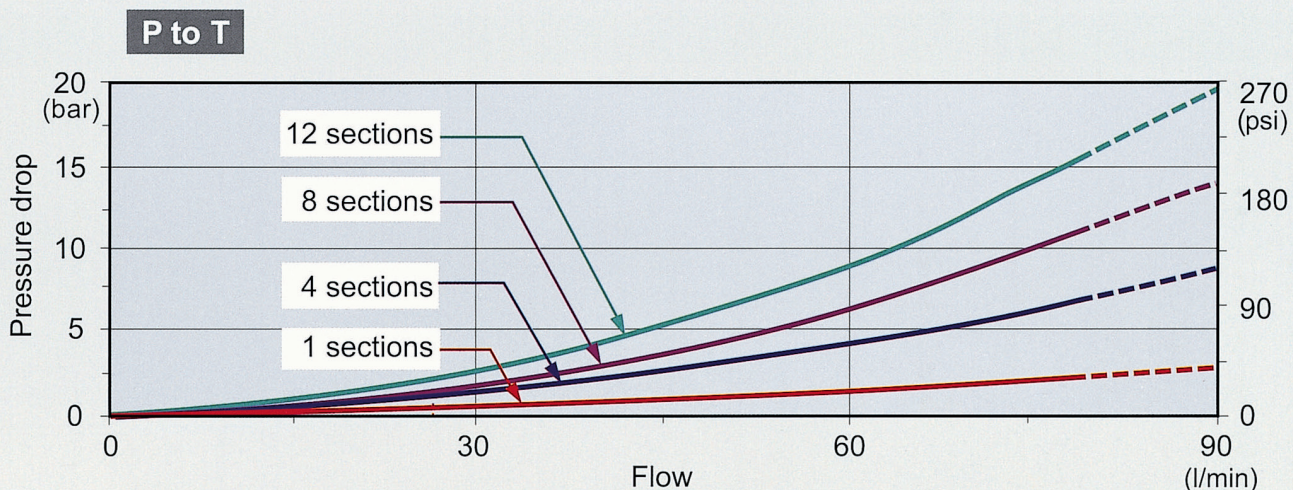
Standard dimensions

TYPE	X		Y		TYPE	X		Y	
	mm	in	mm	in		mm	in	mm	in
SN4 /1S	128	5.04	82	3.23	SN4 /7S	374	14.72	328	12.91
SN4 /2S	169	6.65	123	4.84	SN4 /8S	415	16.33	369	14.52
SN4 /3S	210	8.27	164	6.46	SN4 /9S	456	17.94	410	16.13
SN4 /4S	251	9.88	205	8.07	SN4 /10S	497	19.55	451	17.74
SN4 /5S	292	11.5	246	9.69	SN4 /11S	538	21.16	492	19.35
SN4 /6S	333	13.11	267	11.3	SN4 /12S	579	22.77	533	20.96

SN-4 Performance Curve Chart

Sectional Directional Control Valves

SN-4

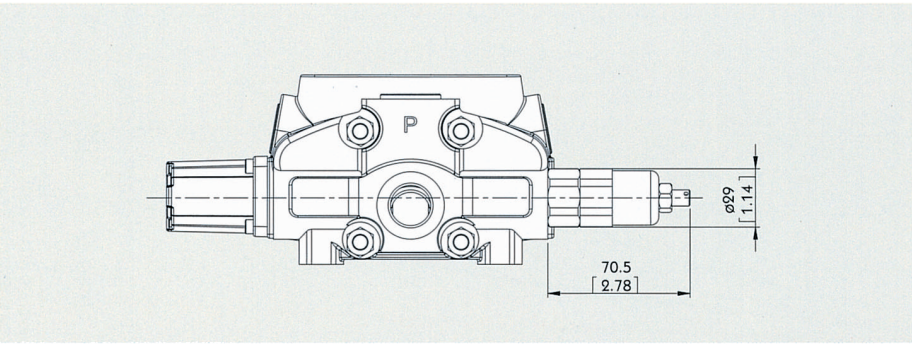


SN-4 Inlet Relief (Optional)

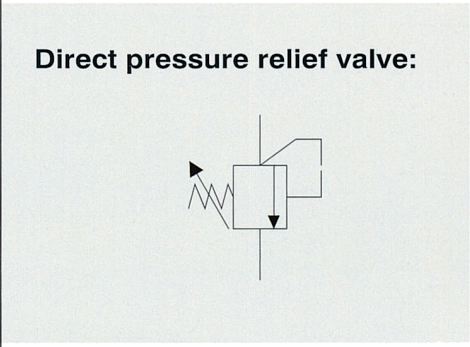
Sectional Directional Control Valves

SN-4

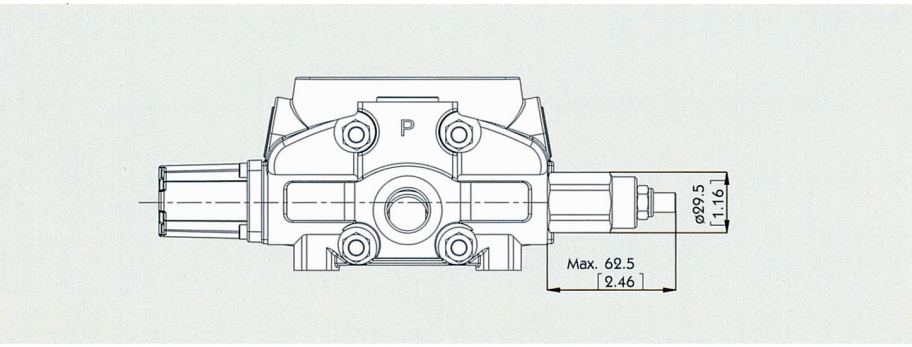
Type SG



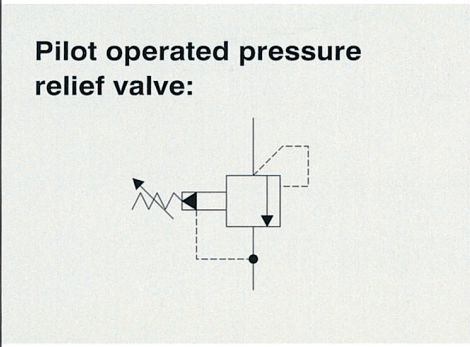
Direct pressure relief valve:



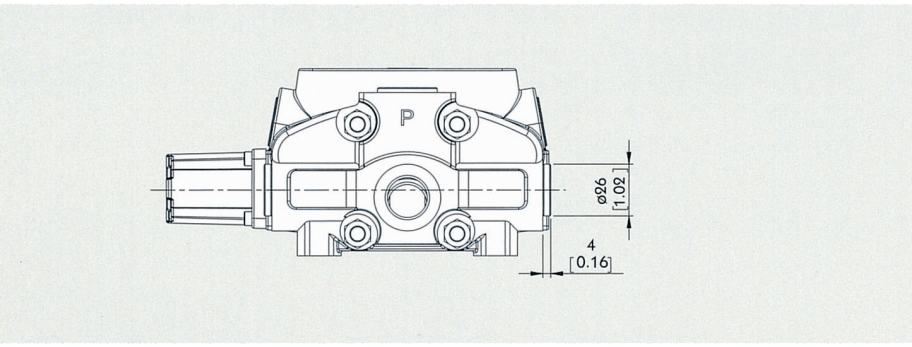
Type XSG



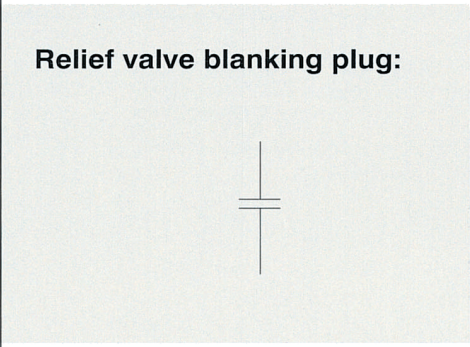
Pilot operated pressure relief valve:



Type SV



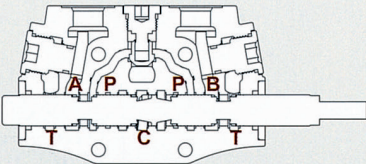
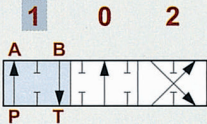
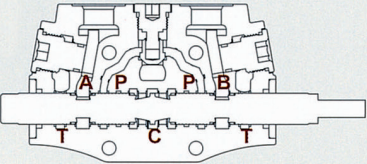
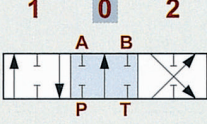
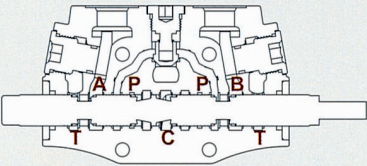
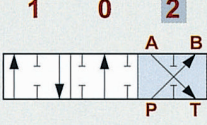
Relief valve blanking plug:



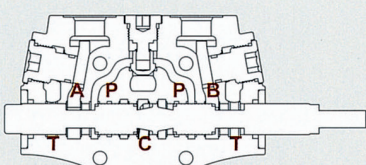
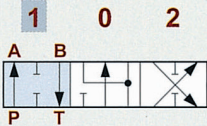
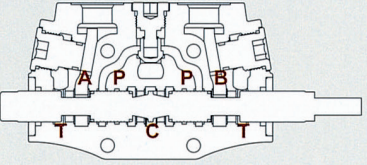
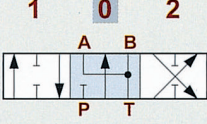
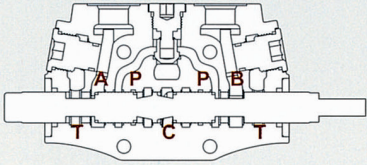
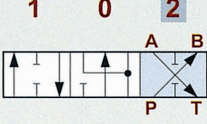
SN-4 Spool Options

Sectional Directional Control Valves

TYPE 1

	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>P & T & A & B closed</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

TYPE 2

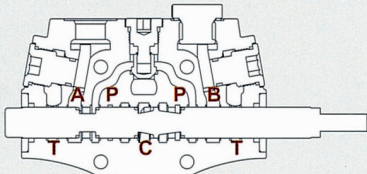
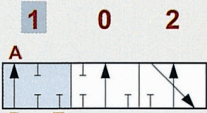
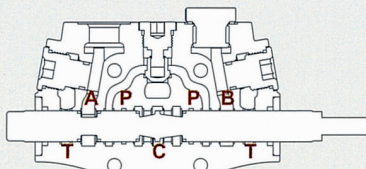
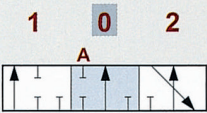
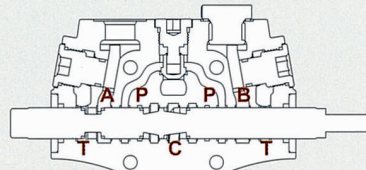
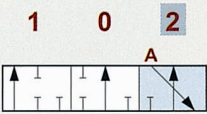
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>A & B → T</p> <p>P closed</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

SN-4 Spool Options

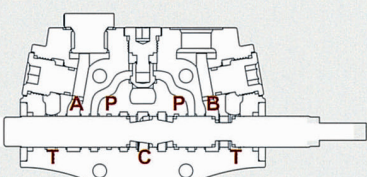
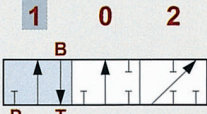
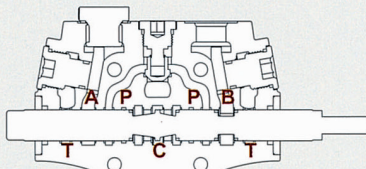
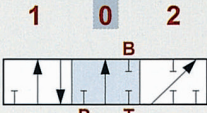
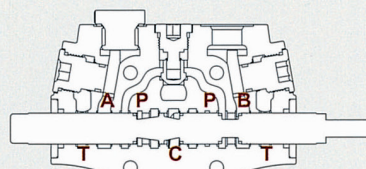
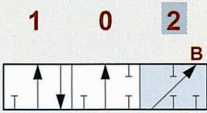
Sectional Directional Control Valves

SN-4

TYPE 3

	<p>$P \rightarrow A$</p> <p>C closed</p>	 <p>"B" port plugged</p>
	<p>P & A closed</p> <p>C open</p>	 <p>"B" port plugged</p>
	<p>$A \rightarrow T$</p> <p>P closed</p> <p>C open</p>	 <p>"B" port plugged</p>

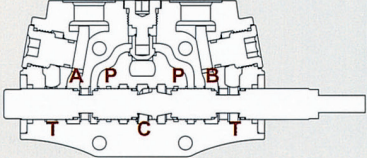
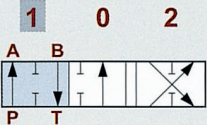
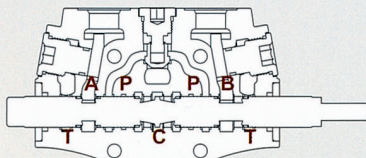
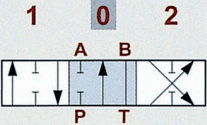
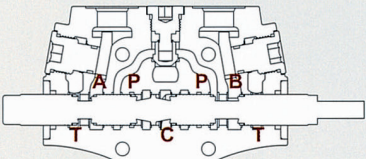
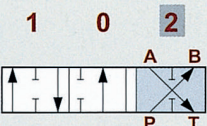
TYPE 4

	<p>$B \rightarrow T$</p> <p>P closed</p> <p>C open</p>	 <p>"A" port plugged</p>
	<p>P & B closed</p> <p>C open</p>	 <p>"A" port plugged</p>
	<p>$P \rightarrow B$</p> <p>C closed</p>	 <p>"A" port plugged</p>

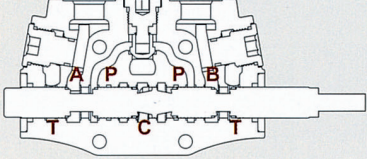
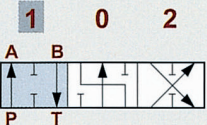
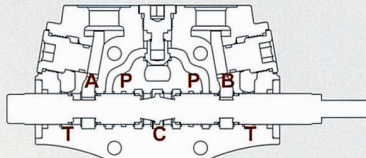
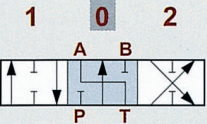
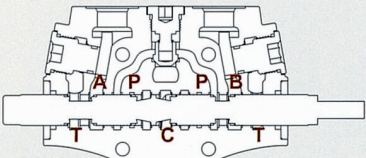
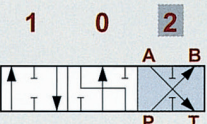
SN-4 Spool Options

Sectional Directional Control Valves

TYPE 5

	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>B → T</p> <p>P & A closed</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

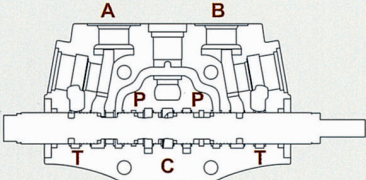
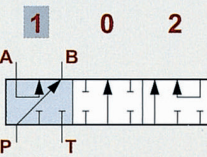
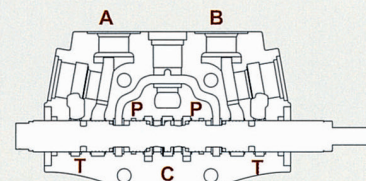
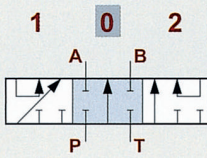
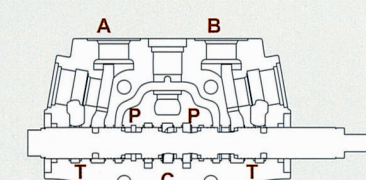
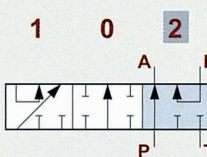
TYPE 6

	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>B → T</p> <p>P & A closed</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

SN-4 spool Options

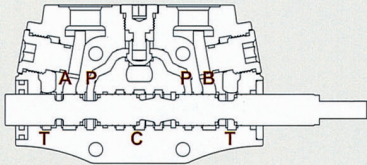
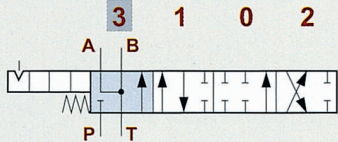
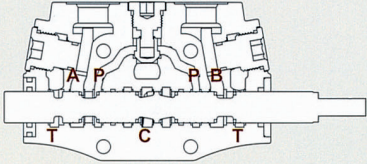
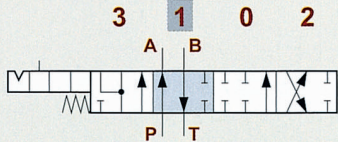
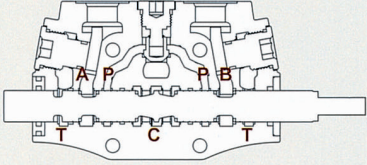
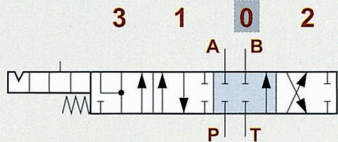
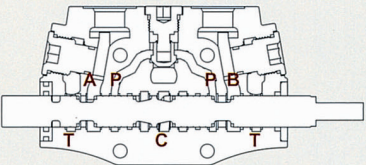
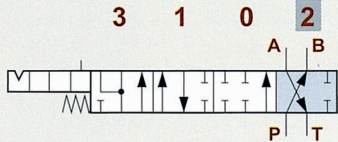
Sectional Directional Control Valves

SN-4

TYPE 1S		
	<p>P → A</p> <p>B → C</p> <p>T closed</p>	 <p>"B" port plugged</p>
	<p>P & A & B & T closed</p> <p>C open</p>	 <p>"B" port plugged</p>
	<p>P → B</p> <p>A → C</p> <p>T closed</p>	 <p>"B" port plugged</p>

SN-4 spool Options

Sectional Directional Control Valves

TYPE 5PY		NOTE : WITH SPECIAL BODY AND SPECIAL POSITIONER.
	<p>A & B → T</p> <p>P closed</p> <p>C open</p>	
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>P & T & A & B closed</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

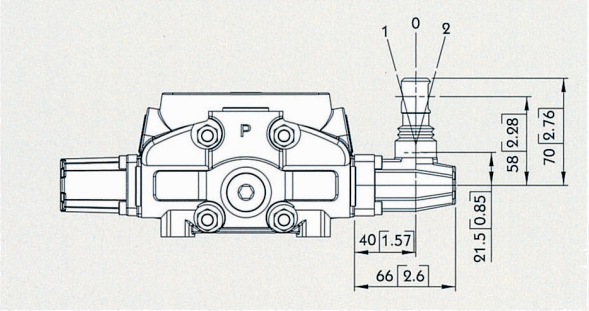
SN-4

SN-4 A Side

Sectional Directional Control Valves

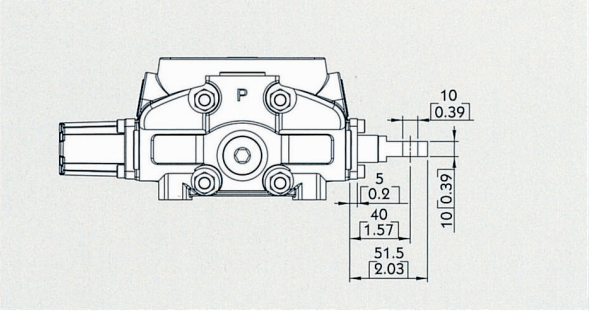
SN-4

Type L



Type L:
STANDART LEVER KIT

Type SLP

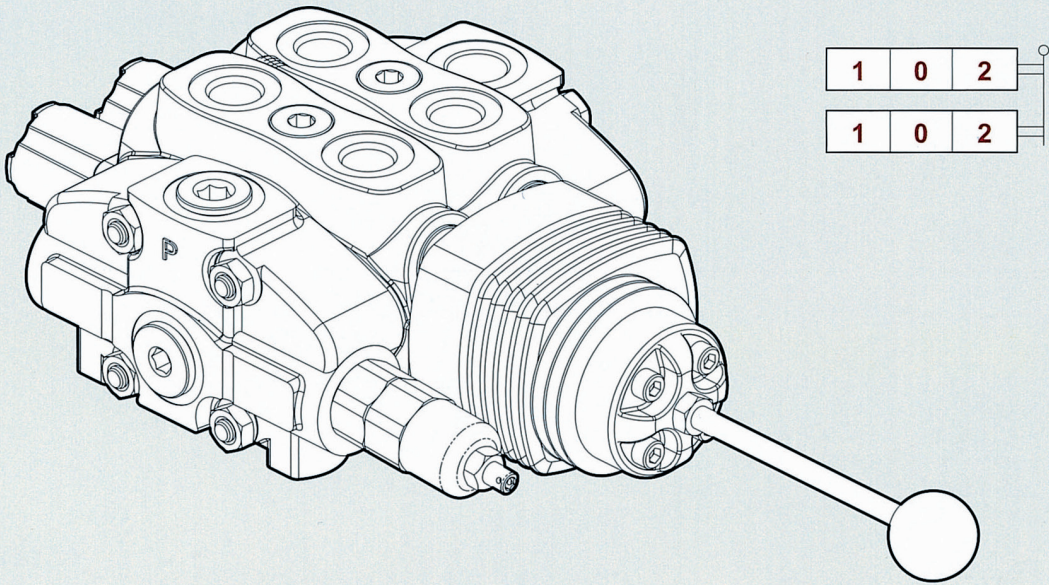


Type SLP:
WITH DUST-PROOF PLATE

SN-4 A Side

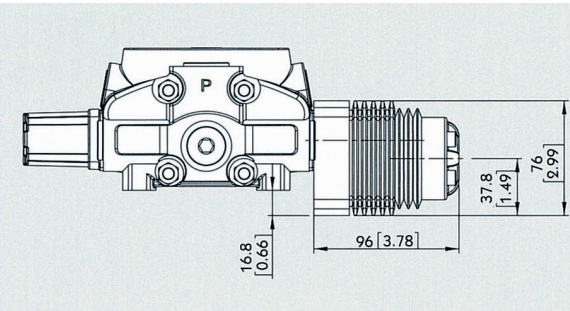
Sectional Directional Control Valves

LCB: Joystick control

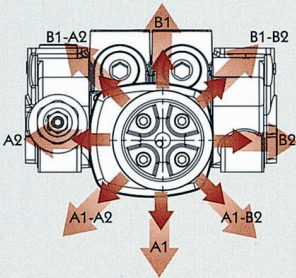


SN-4

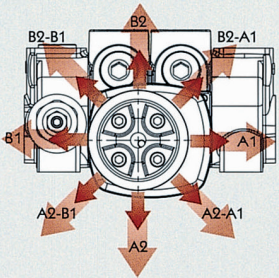
Type LCB



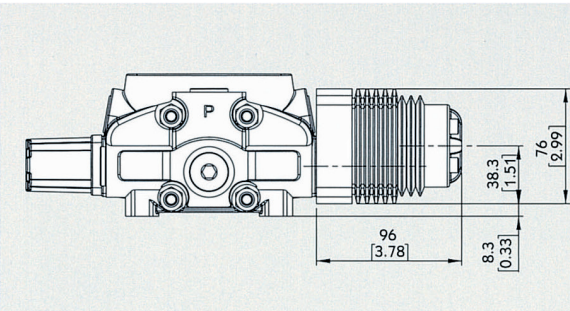
LCB1



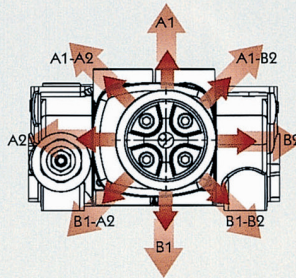
LCB2



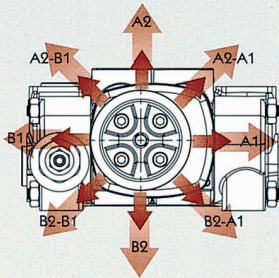
Type LCB



LCB3



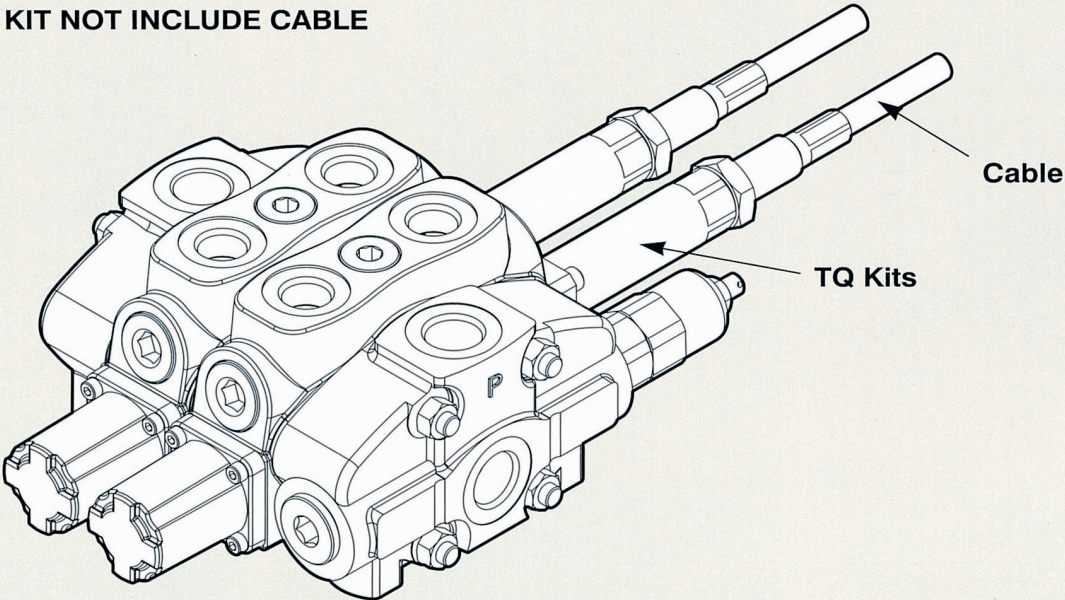
LCB4



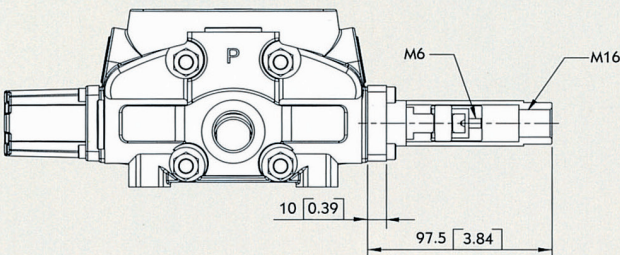
SN-4 A Side

Sectional Directional Control Valves

Note : TQ KIT NOT INCLUDE CABLE



Type TQ



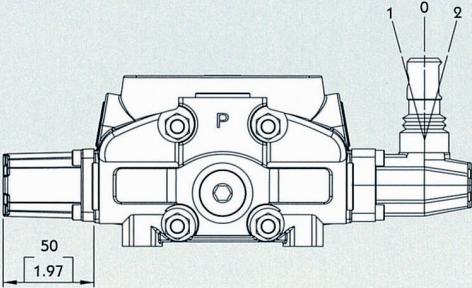
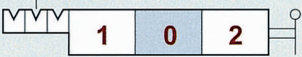

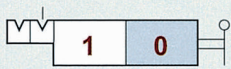
TQ Kit:



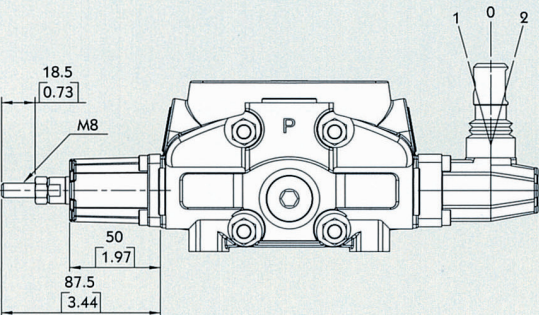

SN-4 B Side

Sectional Directional Control Valves

Type 6

		<p>6-1 Kit:</p> <p>DETENT IN POS. 1-0-2, WITHOUT SPRING CENTERED</p>
		<p>6-2 Kit:</p> <p>2 POSITIONS, DETENT IN POS. 0-2, WITHOUT SPRING CENTERED</p>
		<p>6-3 Kit:</p> <p>2 POSITIONS, DETENT IN POS. 1-0, WITHOUT SPRING CENTERED</p>

Type 8D2

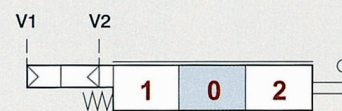
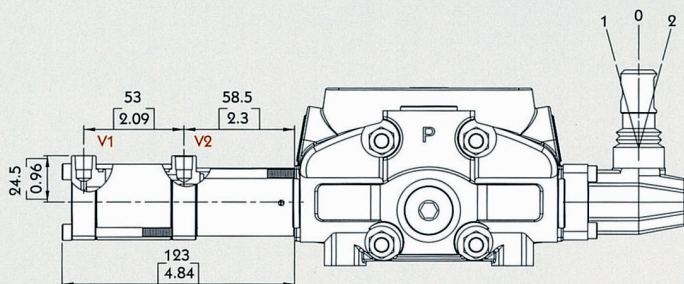
		<p>8D2 Kit:</p> <p>WITH SPRING RETURN TO NEUTRAL POSITION AND PIN WITH M8 MALE THREAD FOR DUAL CONTROL</p>
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SN-4 B Side

Sectional Directional Control Valves

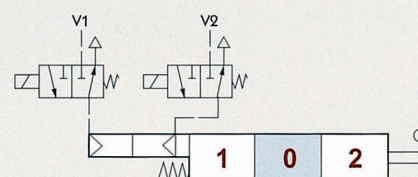
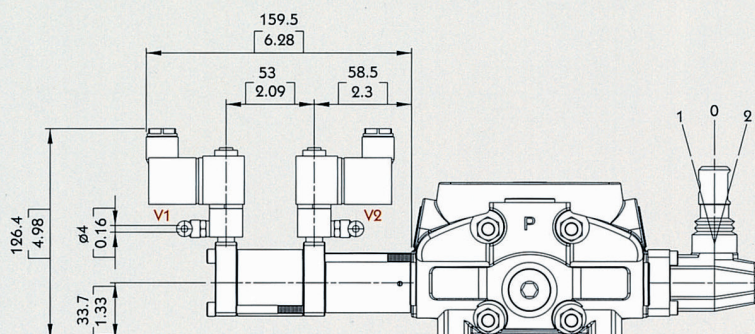
Type 8P

V1 & V2 : NPT 1/8 - 27



Pilot pressure : FROM 7 TO 10 BAR / 101 TO 145 PSI

Type 8EP3



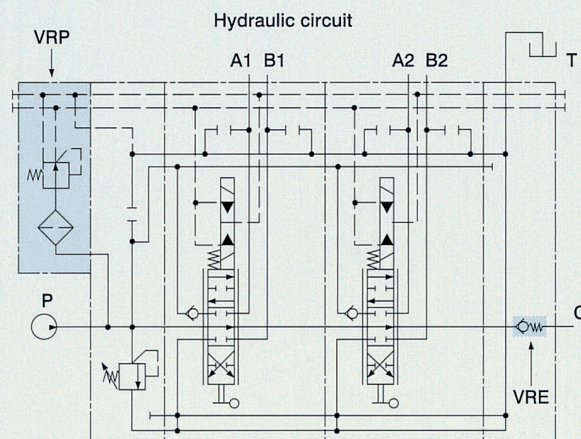
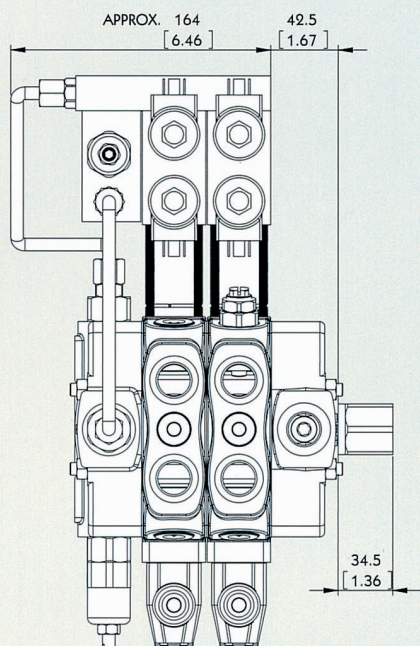
Solenoid operating features :

NOMINAL VOLTAGE: 24VDC
 NOMINAL VOLTAGE TOLERANCE: $\pm 10\%$
 POWER RATING: 5W

SN-4 B Side

Sectional Directional Control Valves

Type 8ED3



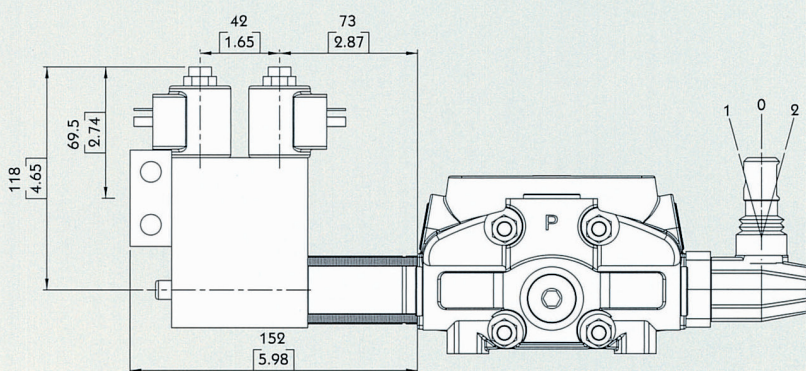
VRP valve operating features :

OUTLET PRESSURE: 25 BAR / 363 PSI

MAX. FLOW: 8 L/MIN / 2.1 US GPM

FLTERING: 80 μ

SN-4



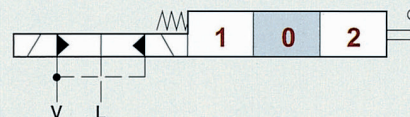
Operating features :

PILOT PRESSURE: • MIN. 10 BAR / 145 PSI
• MAX. 50 BAR / 725 PSI

MAX. BACKPRESSURE ON DRAIN L: 25 BAR / 360PSI

Solenoid operating features :

NOMINAL VOLTAGE: 12VDC / 24 VDC
POWER RATING: 21 W
DUTY CYCLE: 100 %

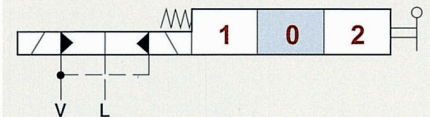
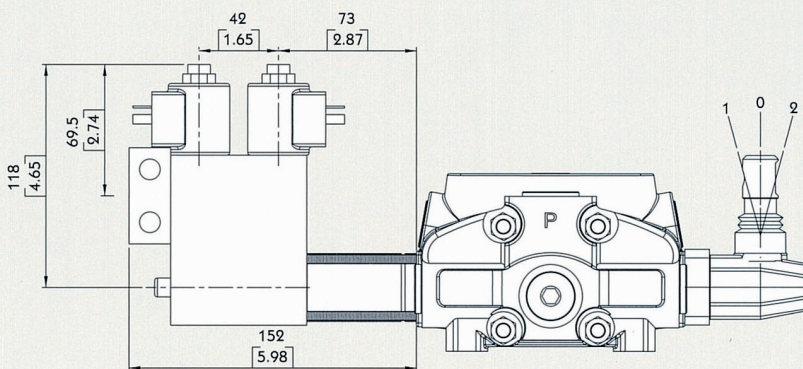
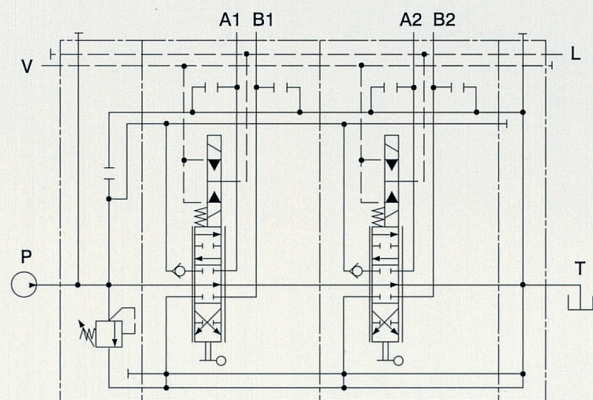
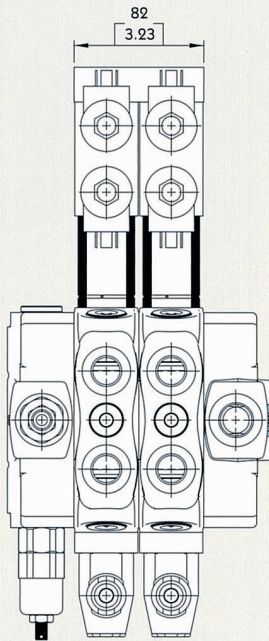


SN-4 B Side

Sectional Directional Control Valves

SN-4

Type 8ER3



Operating features :

PILOT PRESSURE: • MIN. 10 BAR / 145 PSI
• MAX. 50 BAR / 725 PSI
MAX. BACKPRESSURE ON DRAIN L: 25 BAR / 360PSI

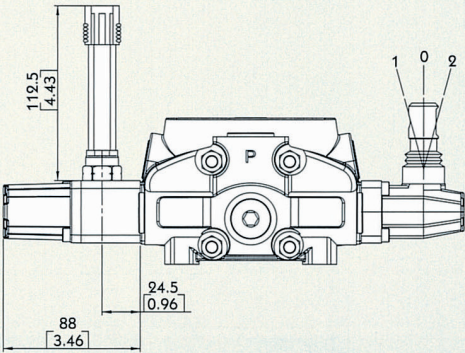
Solenoid operating features :

NOMINAL VOLTAGE: 12VDC / 24 VDC
POWER RATING: 21 W
DUTY CYCLE: 100 %

SN-4 B Side

Sectional Directional Control Valves

Type 8MG



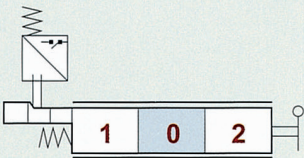
MICROSWITCH

Operating features :

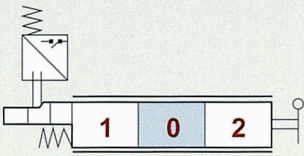
MECHANICAL LIFE: • 5X10⁵ OPERATIONS

ELECTRICAL LIFE (RESISTIVE LOAD):

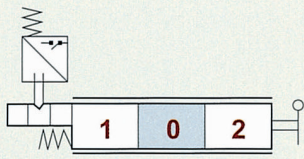
- 10⁵ OPERATIONS - 7A / 13.5 VDC
- 5x10⁴ OPERATIONS - 10A / 12 VDC
- 5x10⁴ OPERATIONS - 3A / 28 VDC



8MG1 Kit:
MICROSWITCH WITH MALE/FEMALE
CONNECTOR, OPERATED IN POS. 1

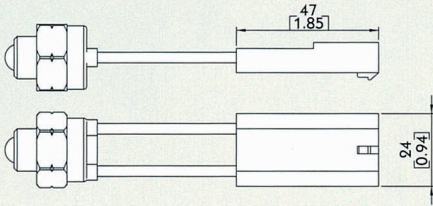


8MG2 Kit:
MICROSWITCH WITH MALE/FEMALE
CONNECTOR, OPERATED IN POS. 2

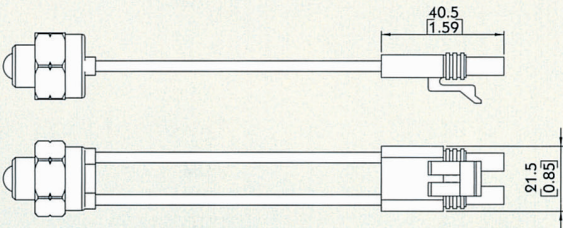


8MG3 Kit:
MICROSWITCH WITH MALE/FEMALE
CONNECTOR, OPERATED IN POS. 1
AND POS. 2

With NO contact (female connector with male end)



With NC contact (male connector with female end)

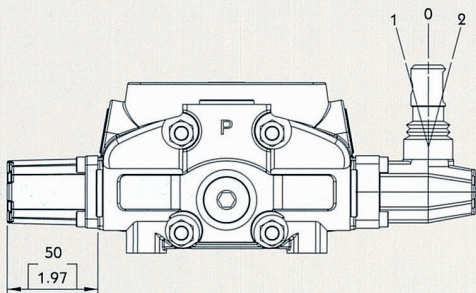


SN-4 B Side

Sectional Directional Control Valves

SN-4

Type 8



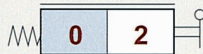
8 Kit:

SPRING RETURN TO NEUTRAL POSITION



8-1 Kit:

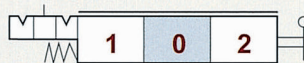
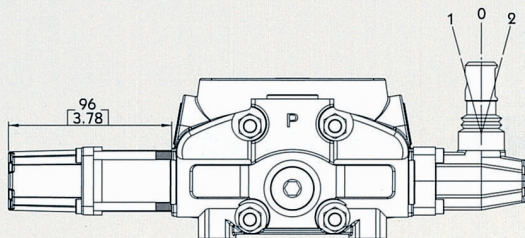
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)



8-2 Kit:

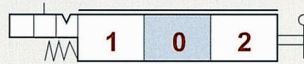
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)

Type 9



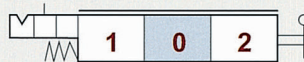
9-1 Kit:

DETENT IN POS. 1, 2 WITH SPRING CENTERED



9-2 Kit:

DETENT IN POS. 2 WITH SPRING CENTERED



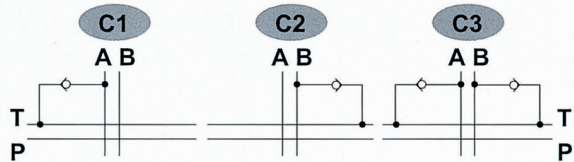
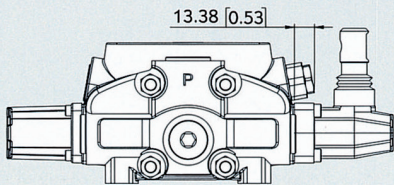
9-3 Kit:

DETENT IN POS. 1 WITH SPRING CENTERED

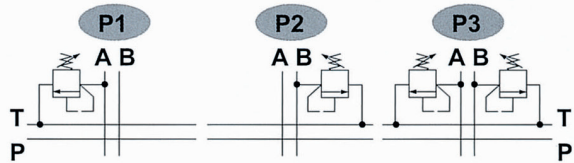
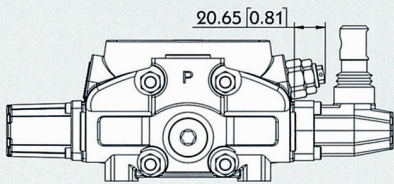
SN-4 Port Relief

Sectional Directional Control Valves

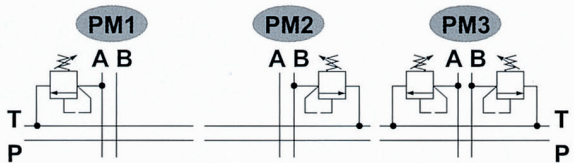
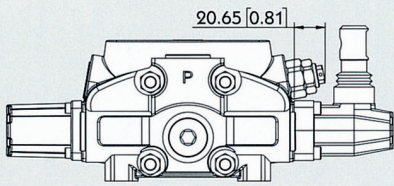
TYPE C



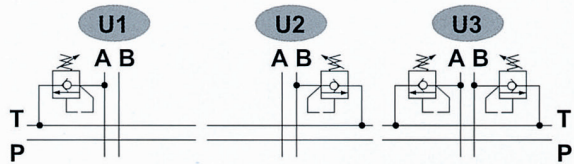
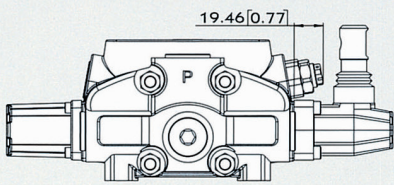
TYPE P



TYPE PM



TYPE U



SN-4

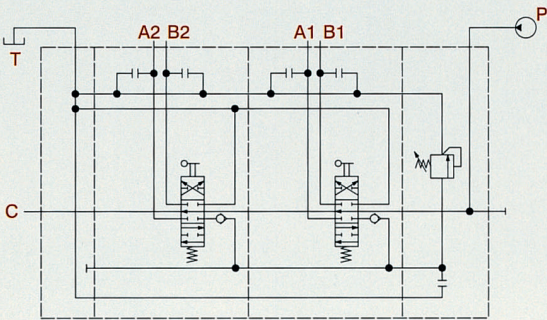
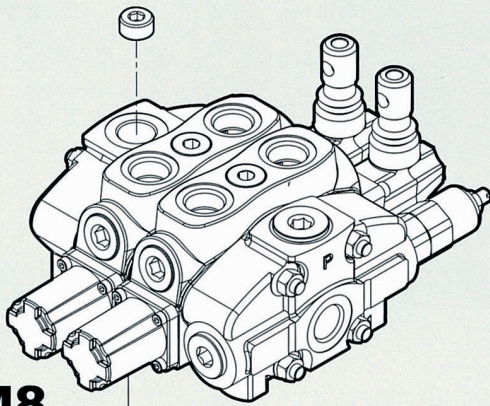
SN-4 Outlet

Sectional Directional Control Valves

SN-4

Power Beyond Conversion plug
(Closed center plug)

M8



M3

