

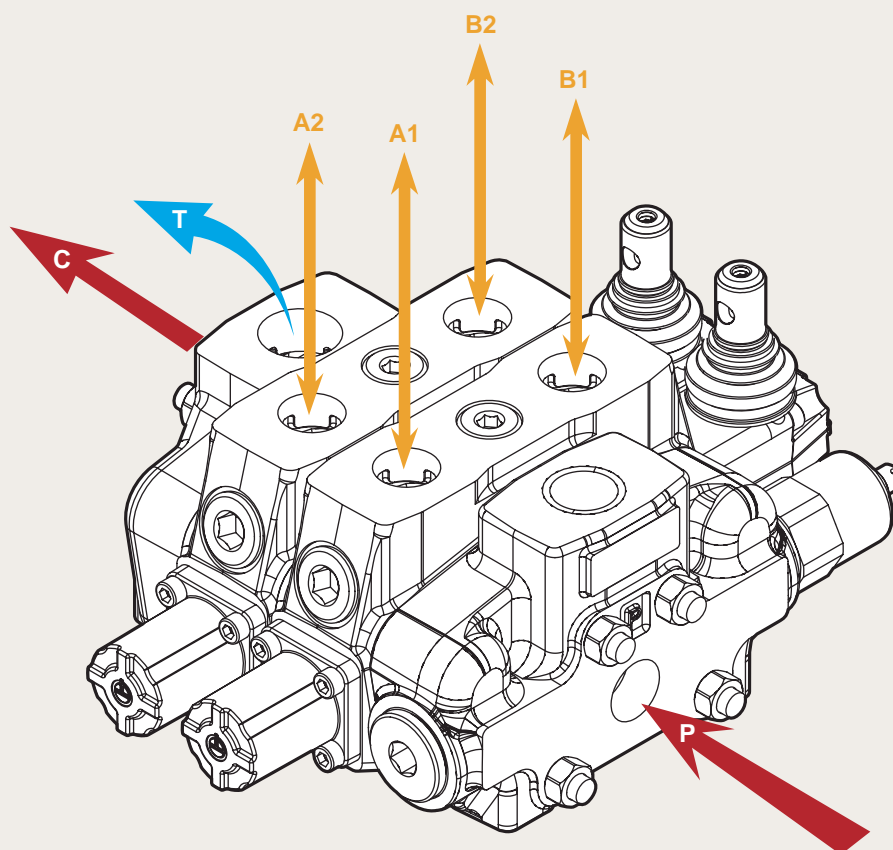
SN-6 Chapters

Sectional Directional Control Valves

Working condition	P.5
Ordering code	P.7
Dimensions	P.12
Performance data	P.13
Inlet relief options	P.14
Spool options	P.15
A side options	P.19
B side spool positioners	P.22
Port relief	P.28
Other options	P.29
Outlet options	P.31

SN-6

Sectional Directional Control Valves



SN-6 Specifications

Nominal flow rate		140 l/min	37 US gpm
Operating pressure (maximum)		315 bar	4600 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 mm ² /s	from 15 to 75 cst
	min.	12 mm ² /s	12 cst
	max.	400 mm ² /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.

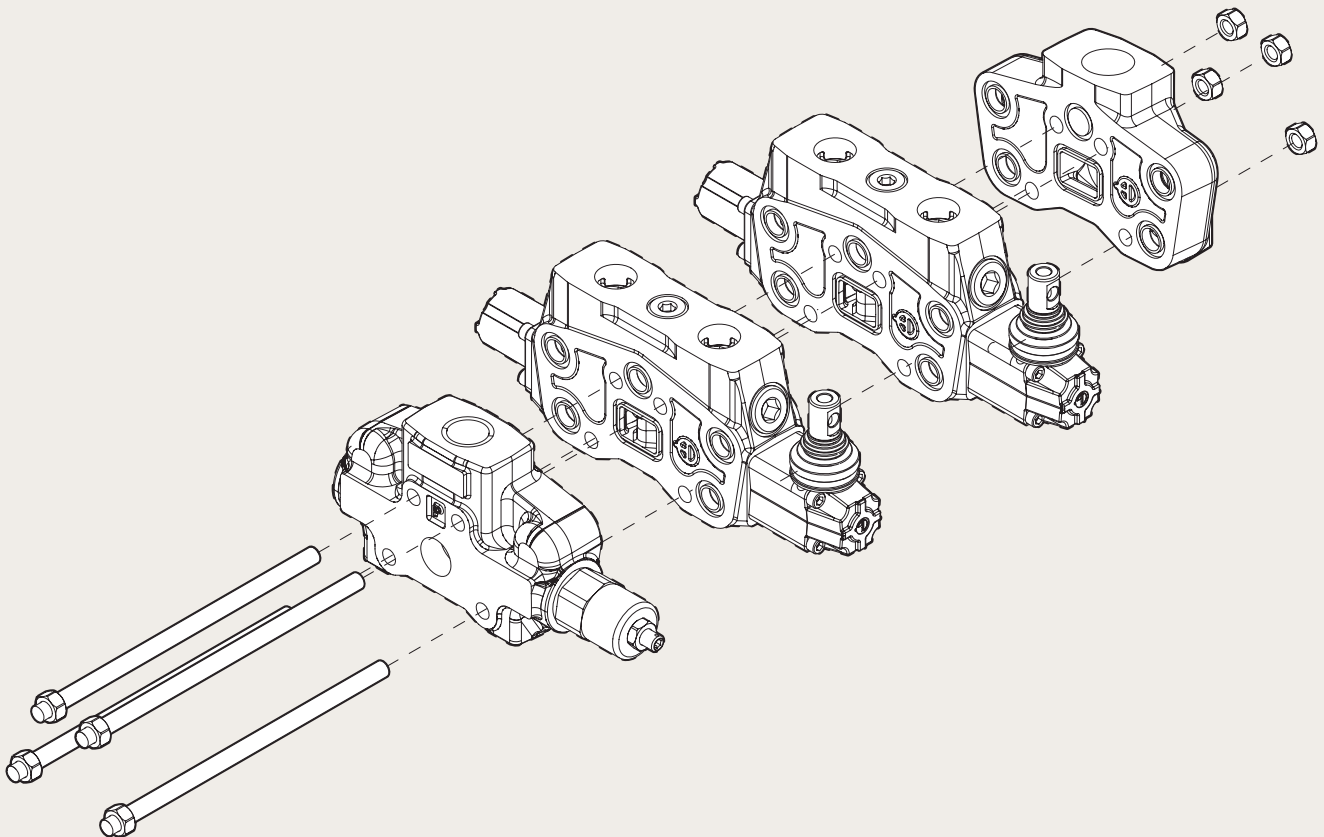
SN-6 Complete

Sectional Directional Control Valves

HOW TO ORDER FOR A COMPLETE ASSEMBLED VALVE

SN-6 / 2S - 3 / 18L / 28L / G-6-1 / M3

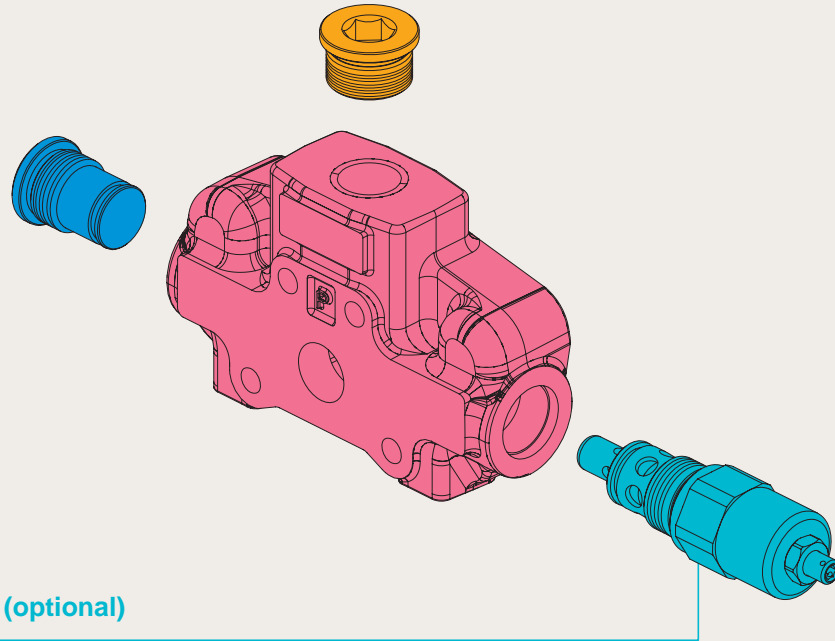
2S	No. of working section
3	Inlet cover with a main pressure relief valve
18L	1st section (complete working section)
28L	Following section (complete working section)
G-6-1	BSP ports
M3	Outlet cover



SN-6 Inlet Section

Sectional Directional Control Valves

FP SN-6 / FG-3 / G-6



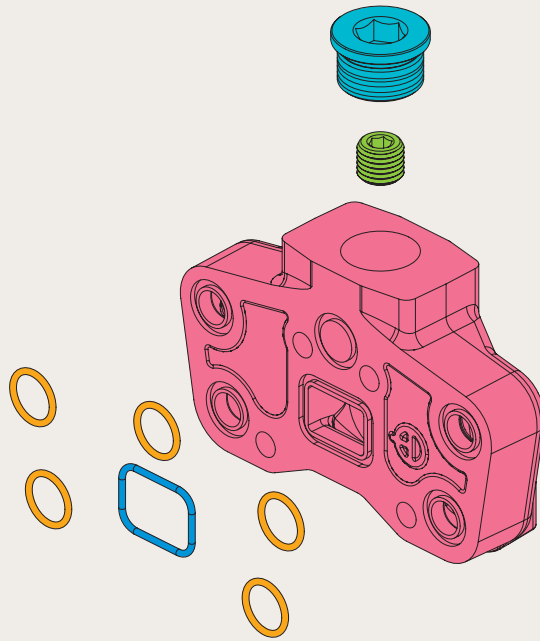
Inlet relief (optional)

Inlet Relief (optional)			
TYPE	CODE	DESCRIPTION	PAGE
FG-2	YLPSN63002	Range 80 to 160 bar / 1150 to 2300 psi , standard setting 125 bar / 1800 psi	P. 14
FG-3	YLPSN63003	Range 125 to 250 bar / 1800 to 3600 psi , standard setting 175 bar / 2500 psi	P. 14
SV	YLPSN64000	Relief valve blanking plug	P. 14
XFG	YLPSN63000	Pilot operated pressure relief valve Range 25 to 315 bar/ 360 to 4600 psi, standard setting 125 bar/ 1800 psi	P. 14

SN-6 Outlet Section

Sectional Directional Control Valves

FT SN-6 / G-1 / M3

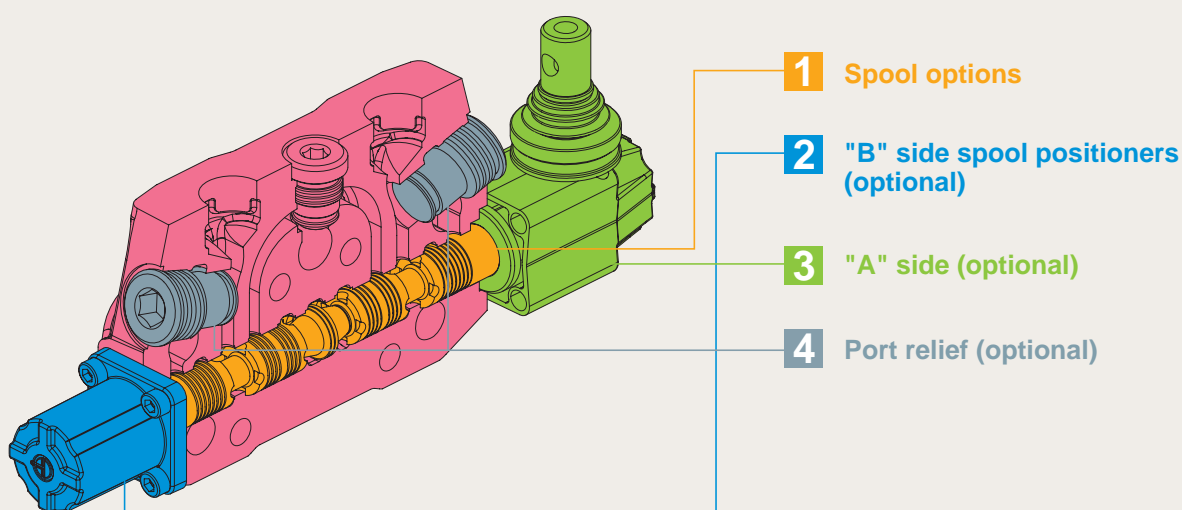


SN-6 Working Section

Sectional Directional Control Valves

EW SN-6 / 1S / **1** **8** **L** / **P1(G3-100)** / G-6

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

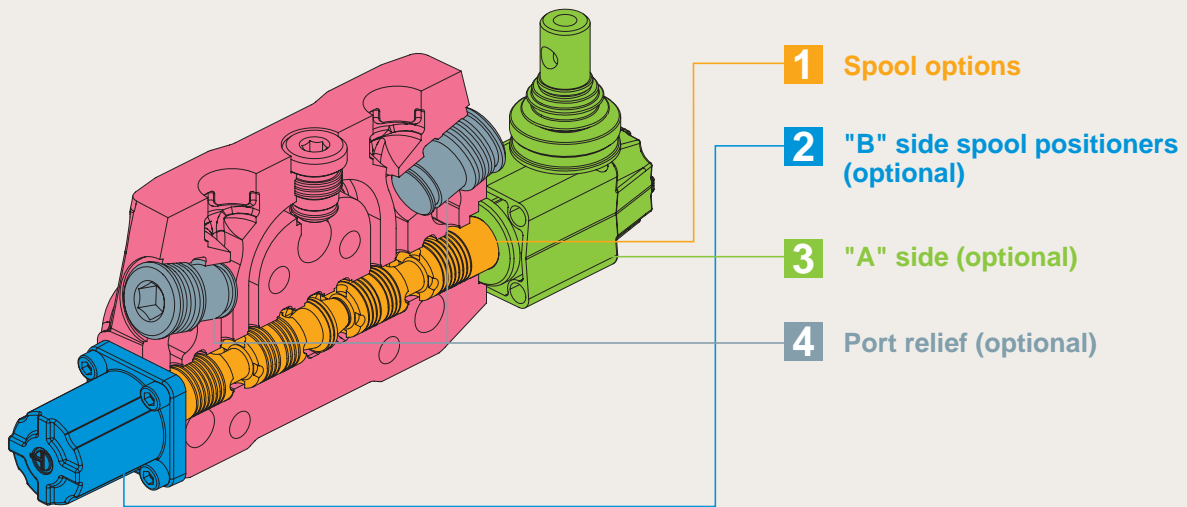


1: Spool Options			
TYPE	CODE	DESCRIPTION	PAGE
1	YLWSN62001	Double acting,3 positions,with A and B closed in neutral position	P. 15
2	YLWSN62002	Double acting,3 positions,with A and B open to tank in neutral position	P. 15
3	YLWSN62003	Single acting on A closed in neutral position, 3 positions, B plugged	P. 16
4	YLWSN62004	Single acting on B closed in neutral position, 3 positions, A plugged	P. 16
5	YLWSN62005	Double acting, 3 positions, with B open to Tank in neutral position	P. 17
6	YLWSN62006	Double acting, 3 positions, with A open to Tank in neutral position	P. 17
5PY	YLWSN62051	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pushing the lever	P. 18

SN-6 Working Section

Sectional Directional Control Valves

EW SN-6 / 1S / **1** **8** **L** / P1(G3-100) / G-6
1 2 3 4



2: B Side Spool Positioners			
TYPE	CODE	DESCRIPTION	PAGE
6-1	YLWSN63061	Detent in pos. 1-0-2, without spring centered	P. 22
6-2	YLWSN63062	2 positions, detent in pos. 0-2, without spring centered	P. 22
6-3	YLWSN63063	2 positions, detent in pos. 1-0, without spring centered	P. 22
8D2	YLWSN63082	With spring return to neutral position and pin with M8 male thread for dual control	P. 22
8P	YLWSN63080	ON/OFF Pneumatic actuator	P. 23
8EP3	YLWSN64300	ON/OFF Electro-Pneumatic actuator	P. 23
8MG1 (NO)	YLWSN63801	Microswitch kit operated in pos. 1 (Normally Open)	P. 26
8MG2 (NO)	YLWSN63802	Microswitch kit operated in pos. 2 (Normally Open)	P. 26
8MG3 (NO)	YLWSN63803	Microswitch kit operated in pos. 1&2 (Normally Open)	P. 26
MG (NO)	YLWSN63804	Microswitch with NO terminal	P. 26
8MG1 (NC)	YLWSN638011	Microswitch kit operated in pos. 1 (Normally Closed)	P. 26
8MG2 (NC)	YLWSN638021	Microswitch kit operated in pos. 2 (Normally Closed)	P. 26
8MG3 (NC)	YLWSN638031	Microswitch kit operated in pos. 1&2 (Normally Closed)	P. 26
MG (NC)	YLWSN638041	Microswitch with NC terminal	P. 26
8	YLWSN63008	With spring return to neutral position	P. 27
8-1	YLWSN64081	2 positions, with spring centered from pos. 1	P. 27
8-2	YLWSN64082	2 positions, with spring centered from pos. 2	P. 27
9-1	YLWSN63091	Detent in pos. 1, 2 with spring centered	P. 27
9-2	YLWSN63092	Detent in pos. 2 with spring centered	P. 27
9-3	YLWSN63093	Detent in pos. 1 with spring centered	P. 27

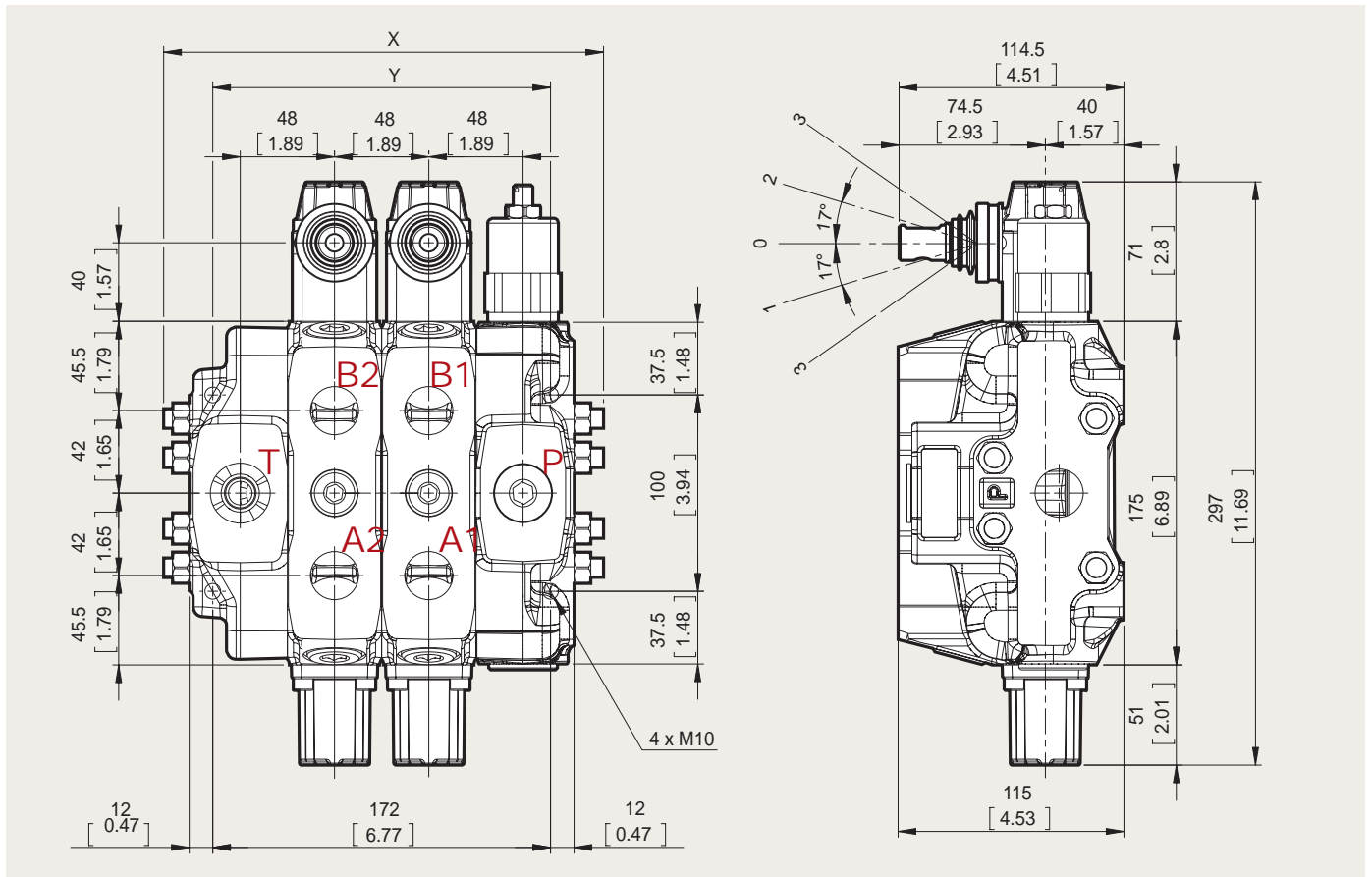
2: B Side Spool Positioners			
TYPE	CODE	DESCRIPTION	PAGE
8ED3+RV-KE1R3	YLWSN63201	1S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE2R3	YLWSN63202	2S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE3R3	YLWSN63203	3S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE4R3	YLWSN63204	4S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE5R3	YLWSN63205	5S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE6R3	YLWSN63206	6S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE7R3	YLWSN63207	7S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE8R3	YLWSN63208	8S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE9R3	YLWSN63209	9S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE10R3	YLWSN63210	10S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE11R3	YLWSN63211	11S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ED3+RV-KE12R3	YLWSN63212	12S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 24
8ER3+KE1S0	YLWSN63401	1S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE2S0	YLWSN63402	2S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE3S0	YLWSN63403	3S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE4S0	YLWSN63404	4S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE5S0	YLWSN63405	5S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE6S0	YLWSN63406	6S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE7S0	YLWSN63407	7S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE8S0	YLWSN63408	8S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE9S0	YLWSN63409	9S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE10S0	YLWSN63410	10S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE11S0	YLWSN63411	11S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25
8ER3+KE12S0	YLWSN63412	12S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 25

3: A Side (Optional)			
TYPE	CODE	DESCRIPTION	PAGE
L	YLWSN64000	Standard lever	P. 19
SLP	YLWSN64001	Without lever, with dust proof plate	P. 19
LCB	YLWSN64002	Joystick lever for 2 section operation	P. 20
TQ	YLWSN64003	Flexible cable connection	P. 21

4: Port Relief (Optional)			
TYPE	CODE	DESCRIPTION	PAGE
P (G2-63)	YLWSN65002	Anti-shock valve, range 63 to 125 bar / form 900 to 1800 psi standard setting 63 bar / 900 psi	P. 28
P (G3-100)	YLWSN65003	Anti-shock valve, range 100 to 250 bar / form 1450 to 3600 psi standard setting 100bar / 1450 psi	P. 28
P (G4-200)	YLWSN65004	Anti-shock valve, range 200 to 315 bar / form 2900 to 4600 psi standard setting 200 bar / 2900 psi	P. 28
U (G2-63)	YLWSN65012	Anti-shock valve and Anti-cavitation valve, range 63 to 125 bar / form 900 to 1800 psi standard setting 63 bar / 900 psi	P. 28
U (G3-100)	YLWSN65013	Anti-shock valve and Anti-cavitation valve, range 100 to 250 bar / form 1450 to 3600 psi standard setting 100 bar / 1450 psi	P. 28
U (G4-200)	YLWSN65014	Anti-shock valve and Anti-cavitation valve, range 200 to 315 bar / form 2900 to 4600 psi standard setting 200 bar / 2900 psi	P. 28
C	YLWSN65100	Anti - cavitation	P. 28

SN-6 Dimensions

Sectional Directional Control Valves



Standard threads

Ports	Inlet P and carry-over C	A and B	Outlet T
BSP	G3/4	G3/4	G1
UN-UNF	1 5/16-12 UN-2B (SAE 16)	1 1/16-12 UN-2B (SAE 12)	1 5/16-12 UN-2B (SAE 16)

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

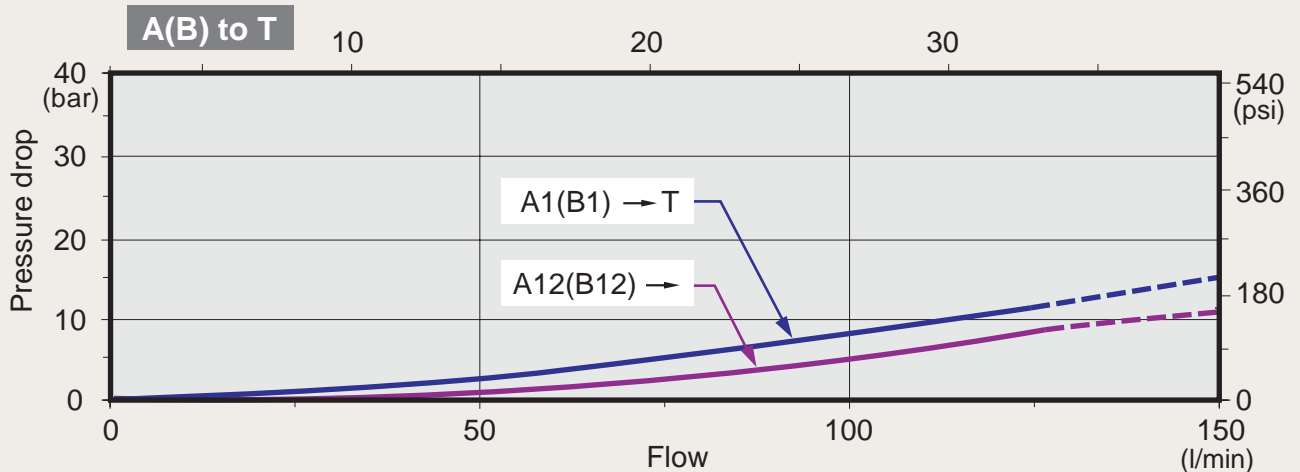
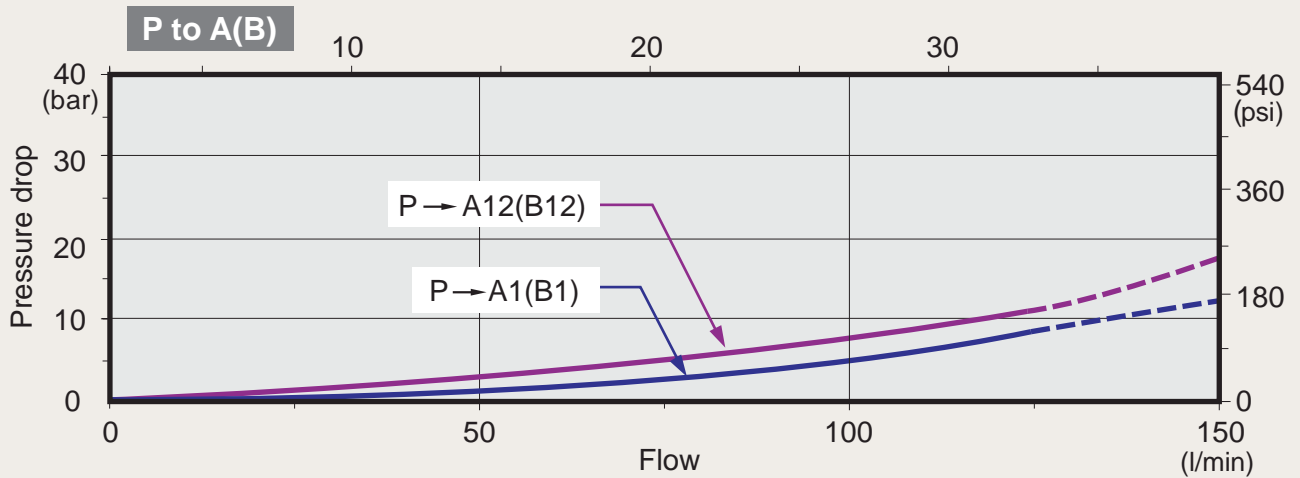
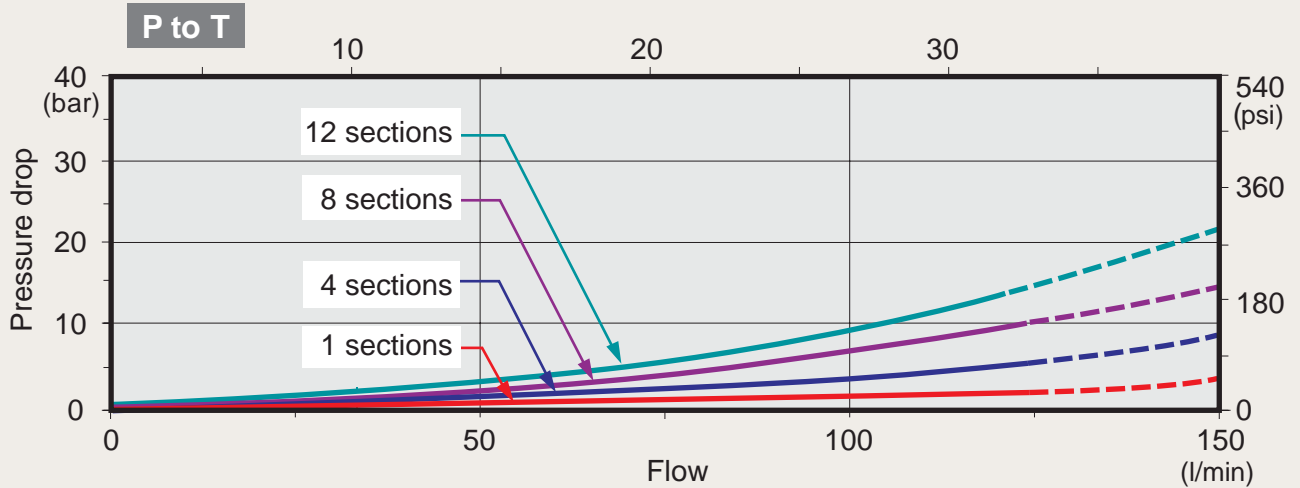
- G-1/2 : G4 G-3/8 : G3 G-3/4 : G6 G-1 : G1
- SAE 8 : E8 SAE 10 : E10 SAE 12 : E12 SAE 16 : E16

Standard dimensions

TYPE	X		Y		TYPE	X		Y	
	mm	in	mm	in		mm	in	mm	in
SN6 /1S	176	6.63	124	4.88	SN6 /7S	464	18.27	412	16.22
SN6 /2S	224	8.82	172	6.77	SN6 /8S	512	20.16	460	18.11
SN6 /3S	272	10.71	220	8.66	SN6 /9S	560	22.05	508	20
SN6 /4S	320	12.60	268	10.55	SN6 /10S	608	23.94	556	21.89
SN6 /5S	368	14.49	316	12.44	SN6 /11S	656	25.83	604	23.78
SN6 /6S	416	16.38	364	14.33	SN6 /12S	704	27.72	652	25.67

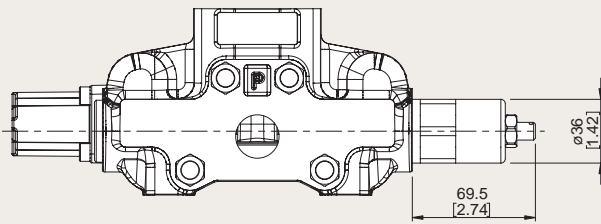
SN-6 Performance Curve Chart

Sectional Directional Control Valves

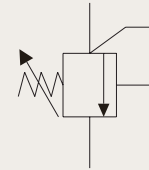


SN-6 Inlet Relief (Optional) Sectional Directional Control Valves

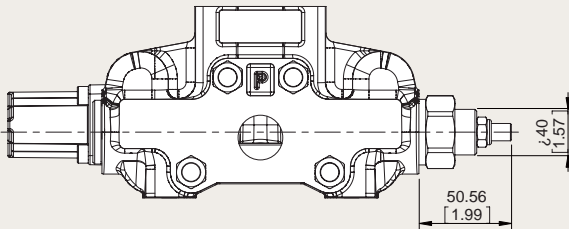
Type FG



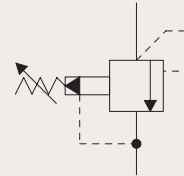
Direct pressure relief valve:



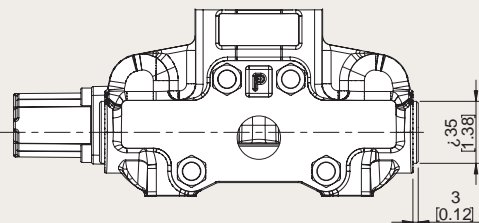
Type XFG



Pilot operated pressure relief valve:



Type SV



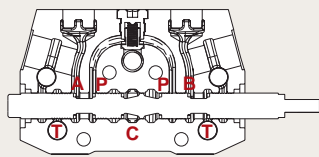
Relief valve blanking plug:



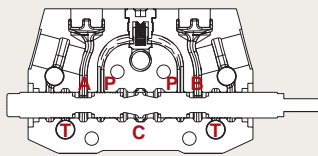
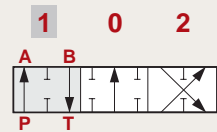
SN-6 Spool Options

Sectional Directional Control Valves

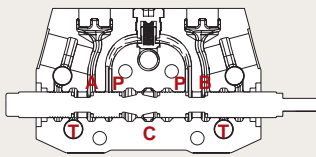
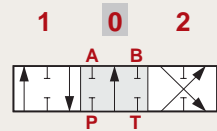
TYPE 1



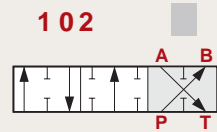
P → A
B → T
C closed



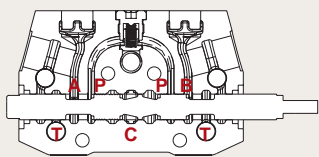
P & A & B & T closed
C open



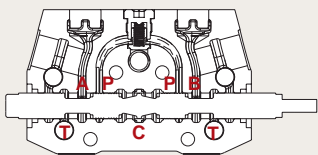
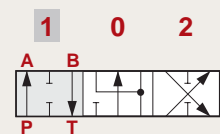
P → B
A → T
C closed



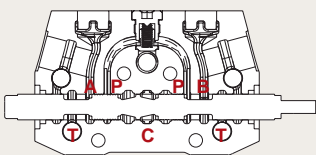
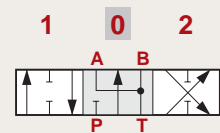
TYPE 2



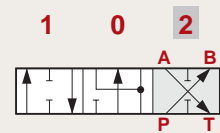
P → A
B → T
C closed



A & B → T
P closed
C open



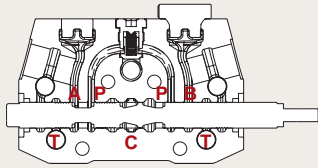
P → B
A → T
C closed



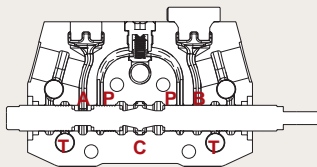
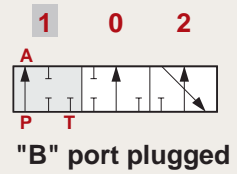
SN-6 Spool Options

Sectional Directional Control Valves

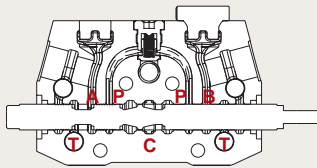
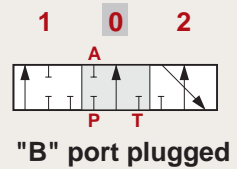
TYPE 3



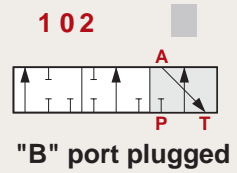
P → A
T & C closed



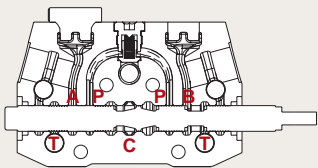
P & A & T closed
C open



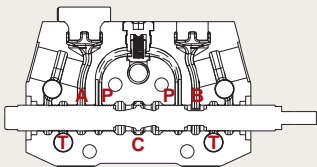
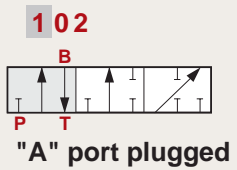
A → T
P closed
C open



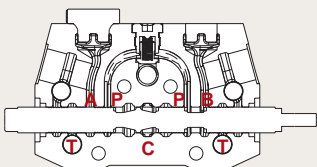
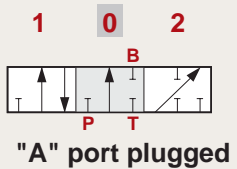
TYPE 4



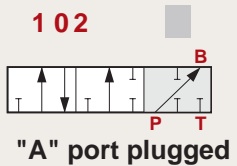
B → T
P closed
C open



P & B & T closed
C open



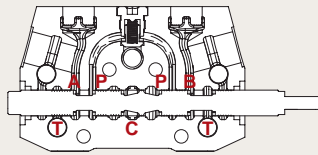
P → B
T & C closed



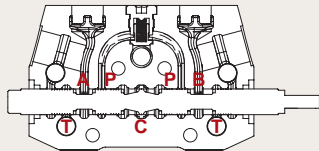
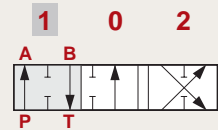
SN-6 Spool Options

Sectional Directional Control Valves

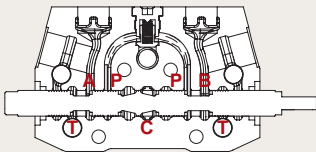
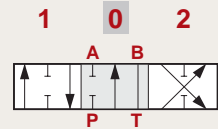
TYPE 5



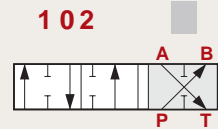
P → A
B → T
C closed



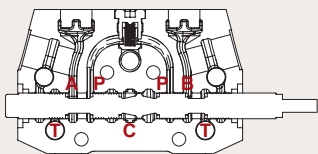
B → T
P & A closed
C open



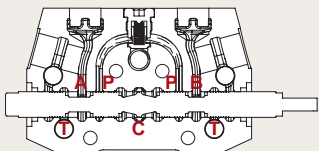
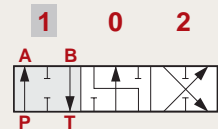
P → B
A → T
C closed



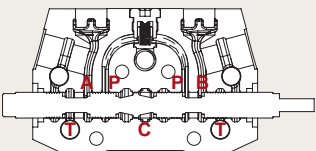
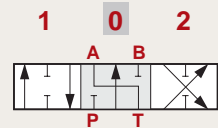
TYPE 6



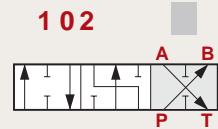
P → A
B → T
C closed



A → T
P & B closed
C open

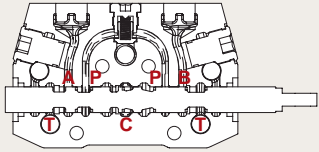
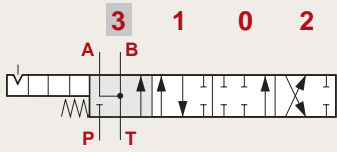
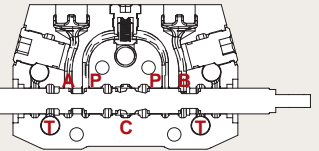
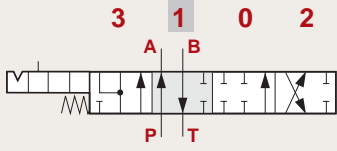
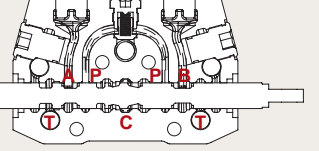
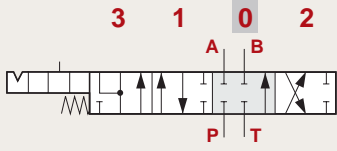
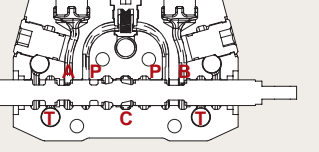
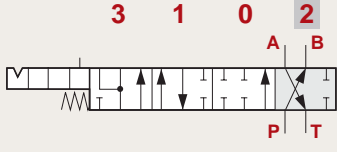


P → B
A → T
C closed



SN-6 Spool Options

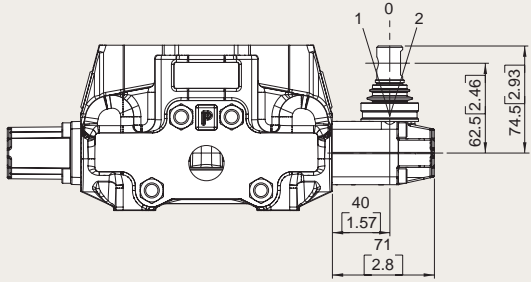
Sectional Directional Control Valves

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-6A Side

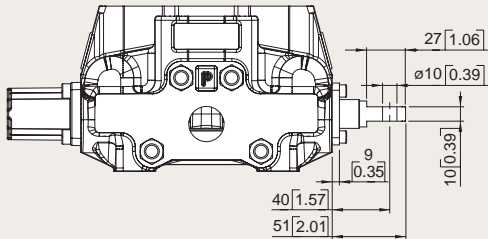
Sectional Directional Control Valves

Type L



Type L:
STANDART LEVER KIT

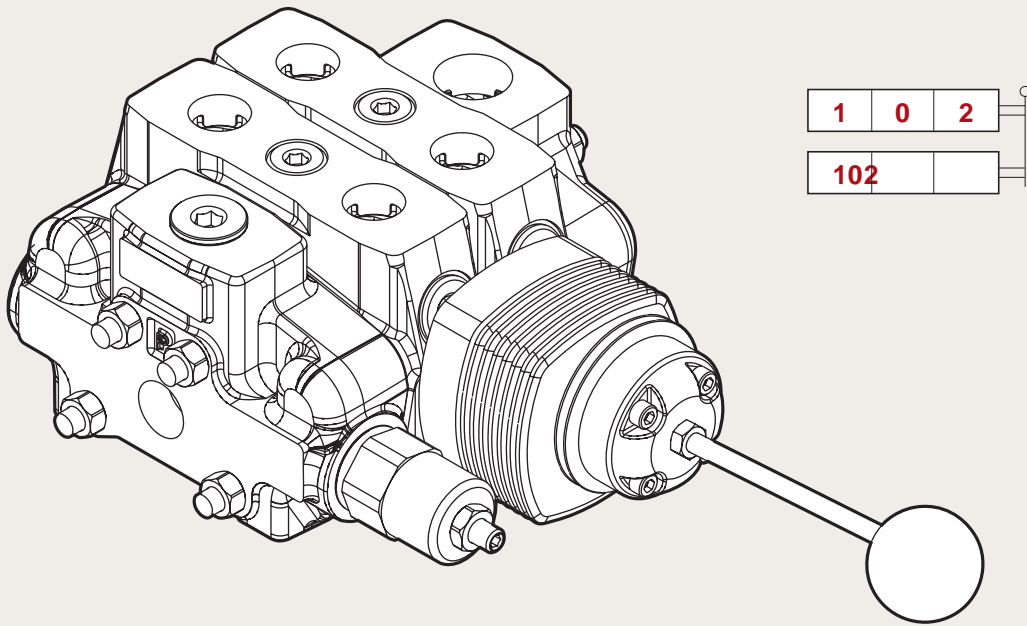
Type SLP



Type SLP:
WITH DUST-PROOF PLATE

SN-6A Side Sectional Directional Control Valves

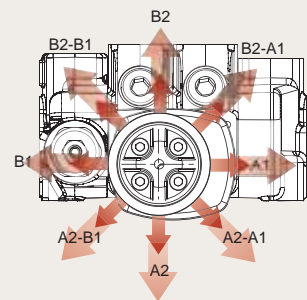
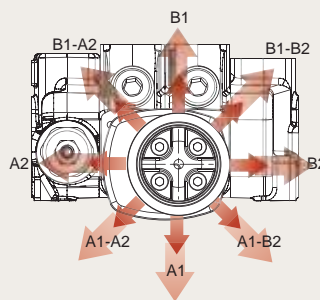
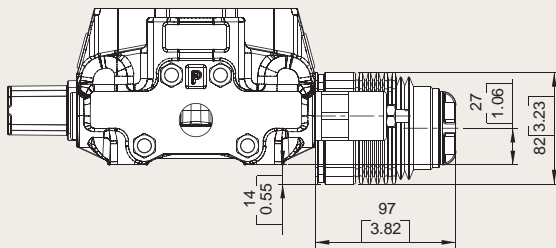
LCB: Joystick control



Type LCB

LCB1

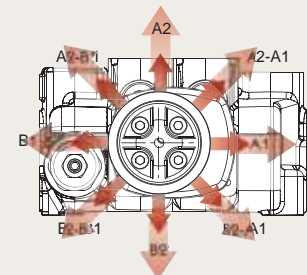
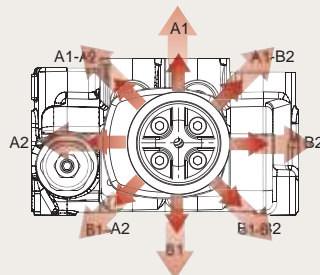
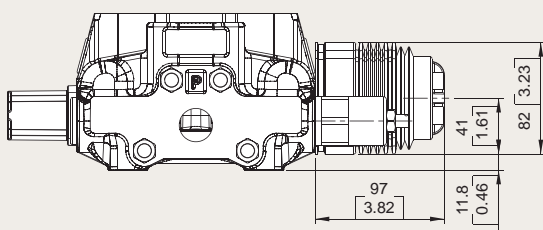
LCB2



Type LCB

LCB3

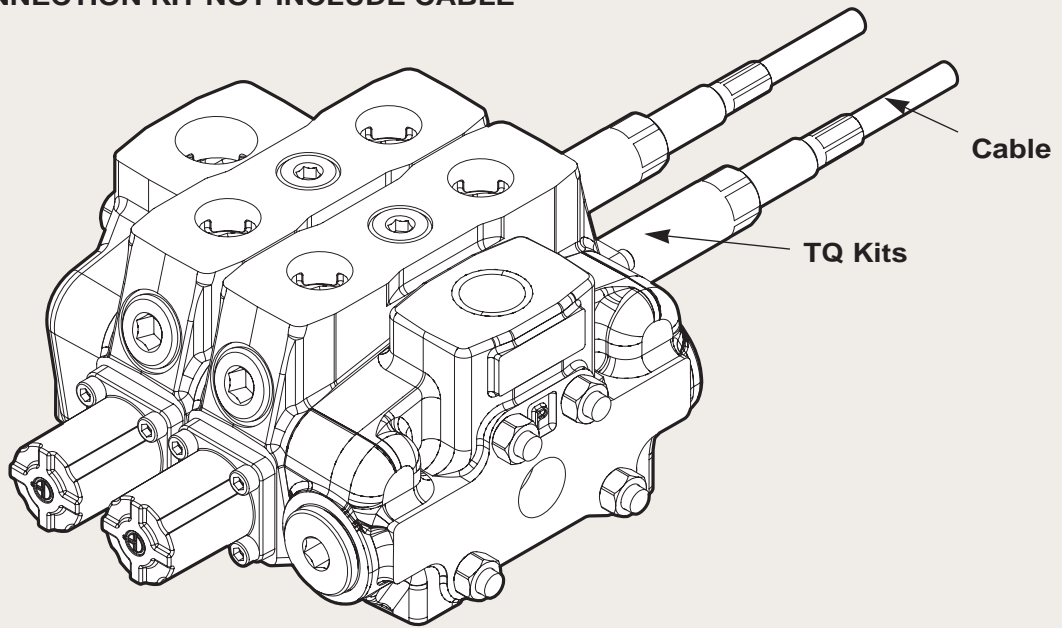
LCB4



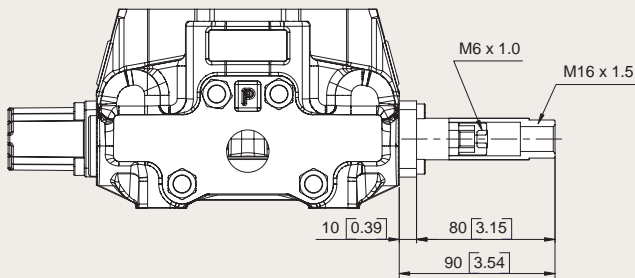
SN-6A Side

Sectional Directional Control Valves

Note : CONNECTION KIT NOT INCLUDE CABLE



Type TQ



TQ Kit:



SN-6B Side Sectional Directional Control Valves

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

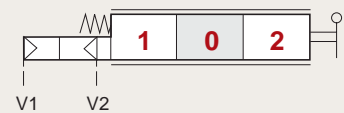
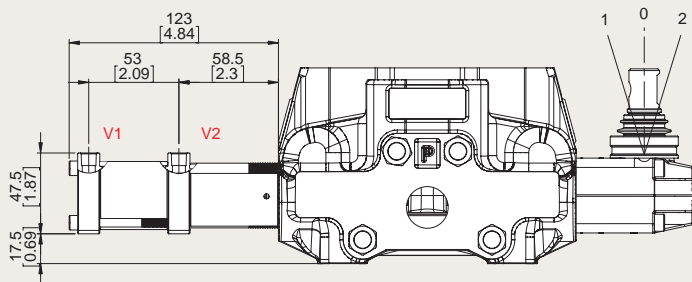
Type 8D2		
		<p>8D2 Kit: WITH SPRING RETURN TO NEUTRAL POSITION AND PIN WITH M8 MALE THREAD FOR DUAL CONTROL</p>

Type 8IM		
	<p>Operating features : PILOT PRESSURE : MAX. 50 BAR INTERNAL LEAKAGE A(B) -> T : MAX. 6 CM³/MIN (100 BAR / 40°C)</p>	

SN-6B Side Sectional Directional Control Valves

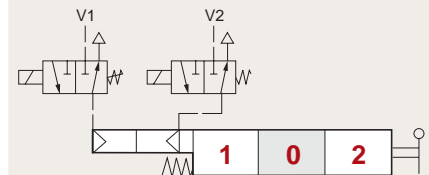
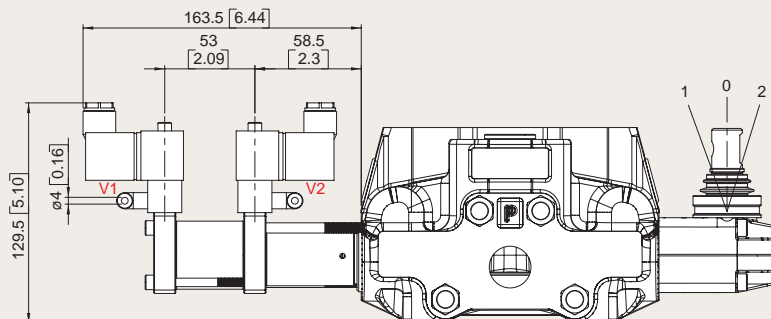
Type 8P

V1 & V2 : NPT 1/8 - 27



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

Type 8EP3

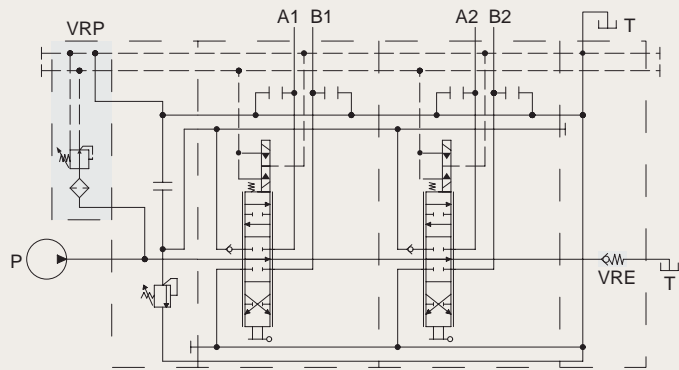
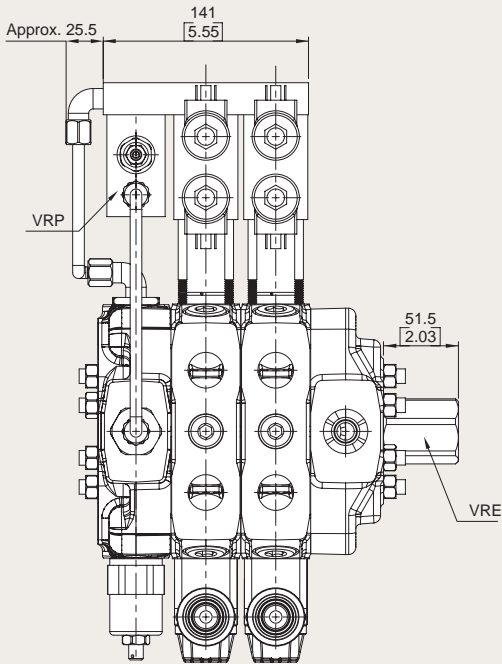


Solenoid operating features :

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

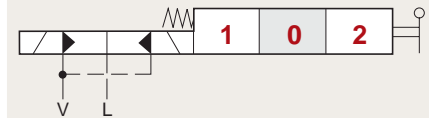
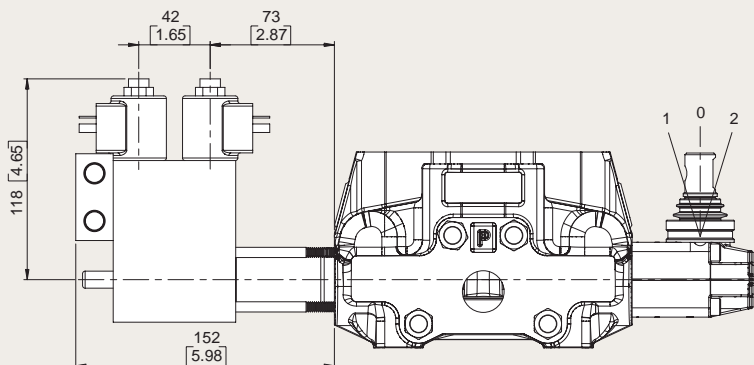
SN-6B Side Sectional Directional Control Valves

Type 8ED3



VRP valve operating features :

- OUTLET PRESSURE: 25 BAR / 363 PSI
- MAX. FLOW: 8 L/MIN / 2.1 US GPM
- FLTERING: 80 μ



Operating features :

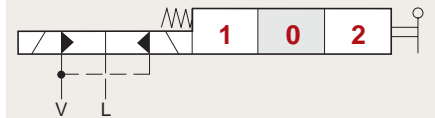
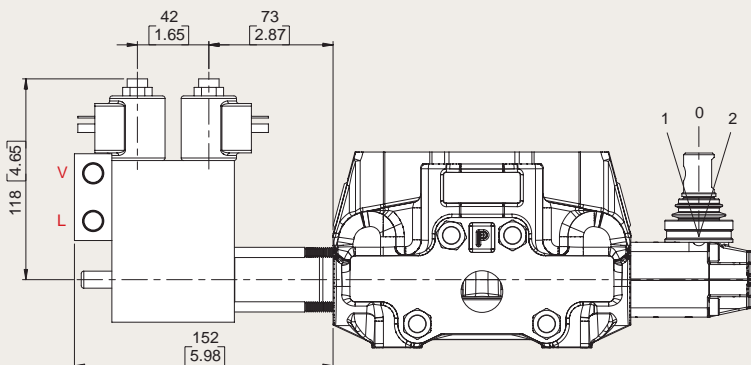
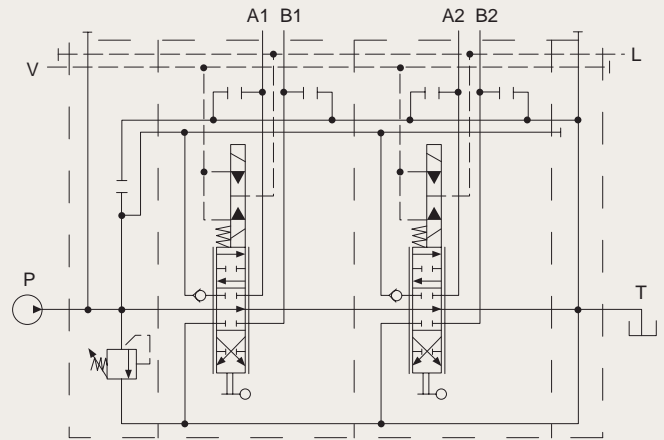
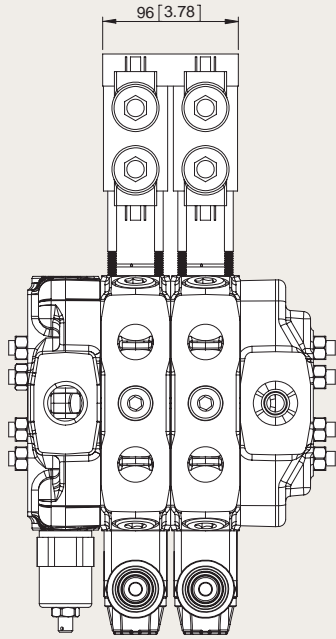
- PILOT PRESSURE:
 - MIN. 10 BAR / 145 PSI
 - MAX. 50 BAR / 725 PSI
- MAX. BACKPRESSURE ON DRAIN L: 25 BAR / 360PSI

Solenoid operating features :

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

SN-6B Side Sectional Directional Control Valves

Type 8ER3



Operating features :

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

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

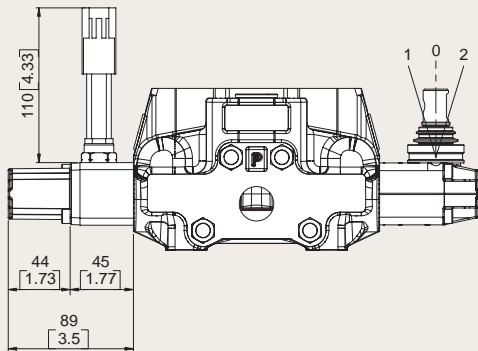
Solenoid operating features :

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

SN-6B Side

Sectional Directional Control Valves

Type 8MG

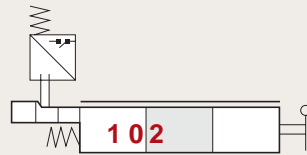


MICROSWITCH Operating features :

MECHANICAL LITE: • 5X10⁶ OPERATIONS

ELECTRICAL LITE (RESISTIVE LOAD):

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



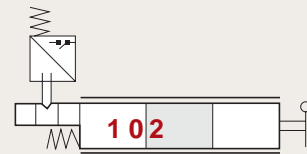
8MG1 Kit:

MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 1



8MG2 Kit:

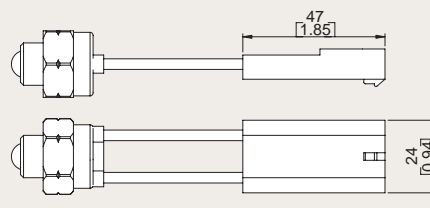
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 2



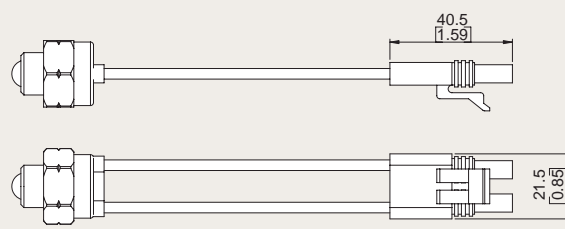
8MG3 Kit:

MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 1 AND POS. 2

With NO contact (female connector with male end)



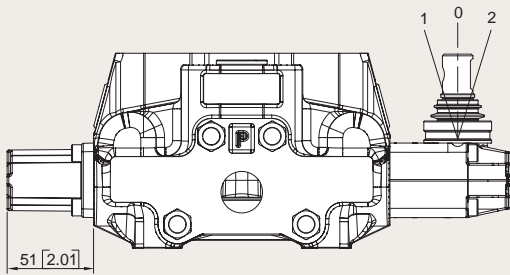
With NC contact (male connector with female end)



SN-6B Side

Sectional Directional Control Valves

Type 8



8 Kit:

SPRING RETURN TO NEUTRAL POSITION



8-1 Kit:

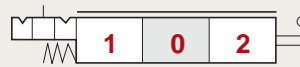
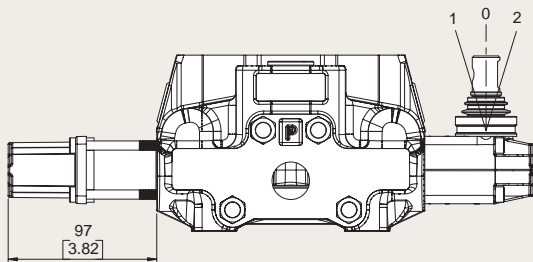
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)



8-2 Kit:

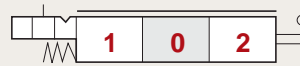
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)

Type 9



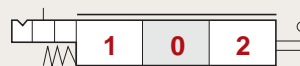
9-1 Kit:

DETENT IN POS. 1, 2 WITH SPRING CENTERED



9-2 Kit:

DETENT IN POS. 2 WITH SPRING CENTERED



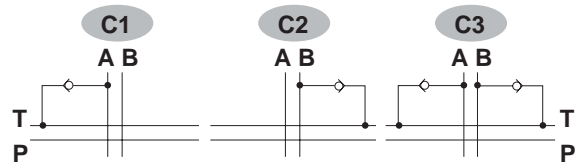
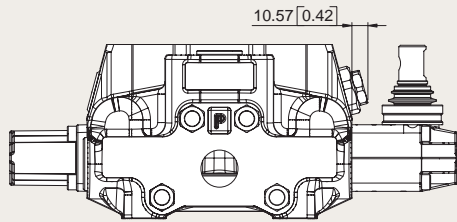
9-3 Kit:

DETENT IN POS. 1 WITH SPRING CENTERED

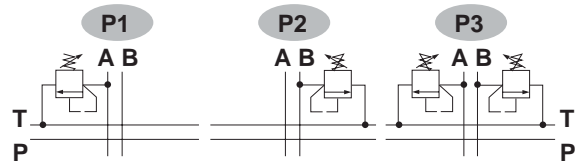
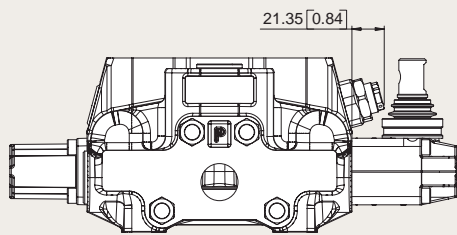
SN-6Port Relief

Sectional Directional Control Valves

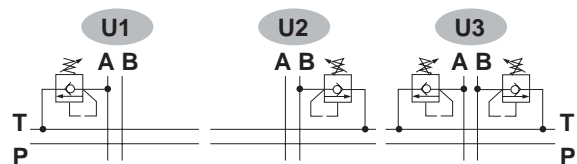
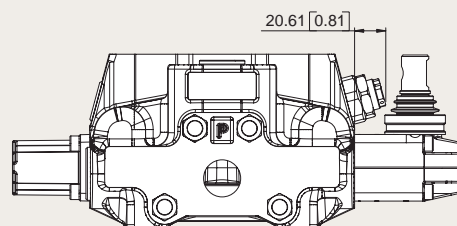
TYPE C



TYPE P



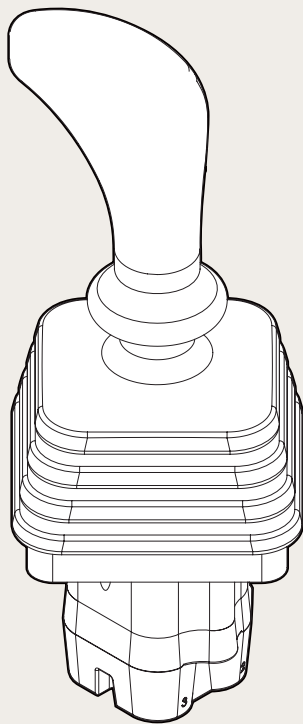
TYPE U



SN-6 Accessories

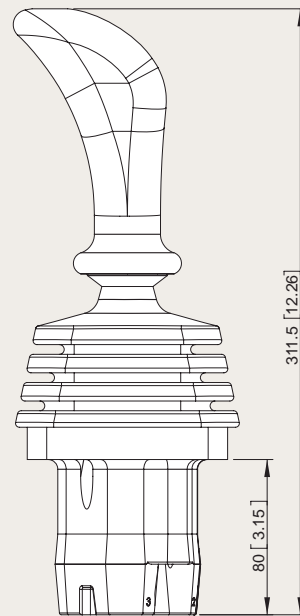
Sectional Directional Control Valves

Type JHP-2

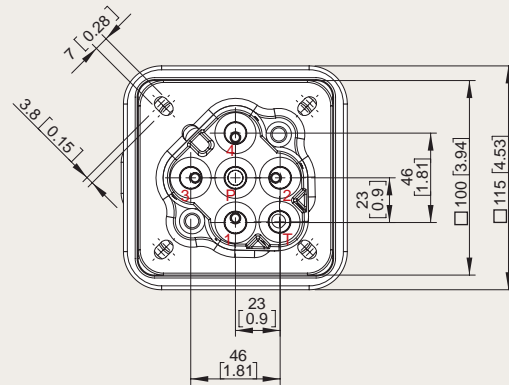
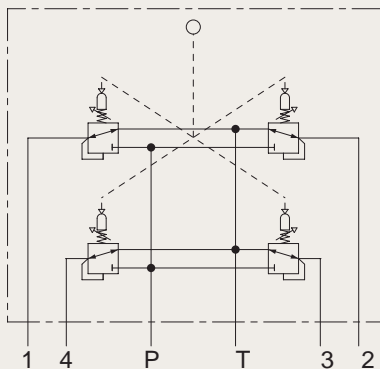


Specifications:

- This data sheet shows technical spec. with mineral oil of 46 mm²/s (cSt) viscosity at 40°C (104°F)
- Flow : 5 ~ 20 LPM
- Feeding pressure : 30 ~ 100 bar
- Max. backpressure : 3 bar
- Internal leakage at 30 bar : 10 ~ 18 cm³/min
- Fluid : mineral oil
- Fluid temperature : - 10 ~ 80°C
- Ambient temperature : - 40 ~ 60°C



HYDRAULIC SCHEME:



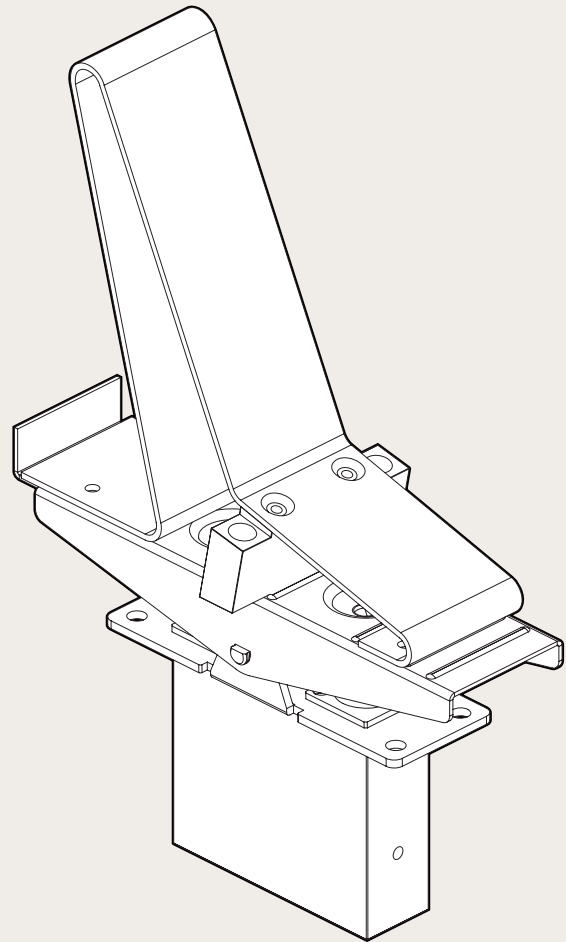
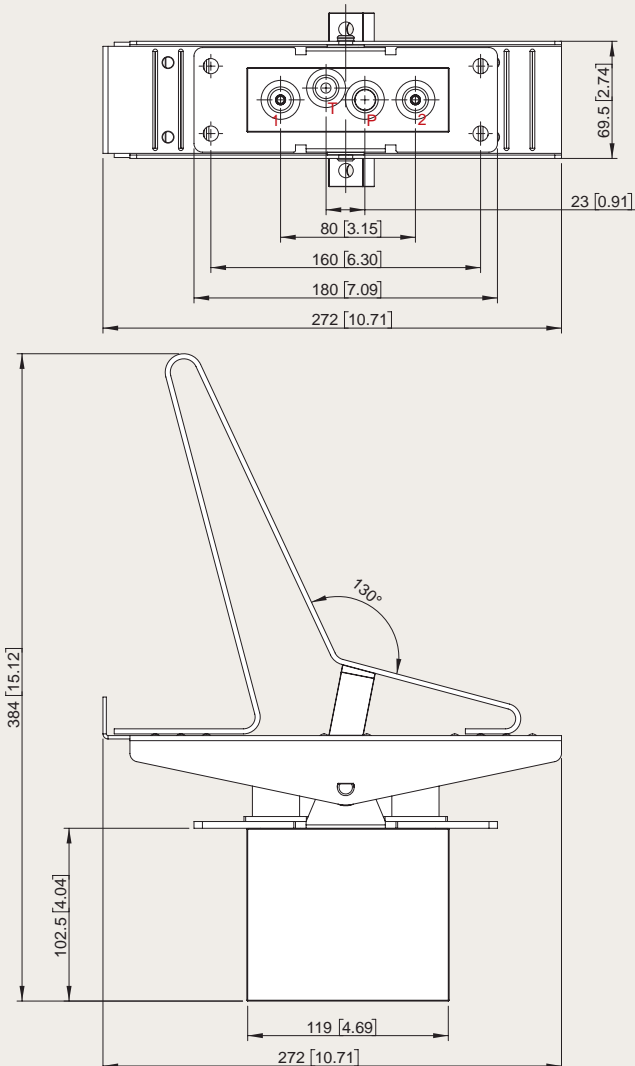
SN-6 Accessories

Sectional Directional Control Valves

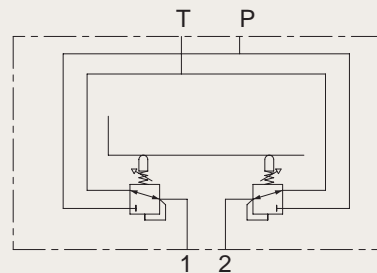
Type PHP-1

Specifications:

- This data sheet shows technical spec. with mineral oil of 46 mm²/s (cSt) viscosity at 40°C (104°F)
- Flow : 5 ~ 20 LPM
- Feeding pressure : 30 ~ 100 bar
- Max. backpressure : 3 bar
- Internal leakage at 30 bar : 10 ~ 18 cm³/min
- Fluid : mineral oil
- Fluid temperature : - 10 ~ 80°C
- Ambient temperature : - 40 ~ 60°C



HYDRAULIC SCHEME:



SN-6Outlet

Sectional Directional Control Valves

Power Beyond Conversion plug
(Closed center plug)

