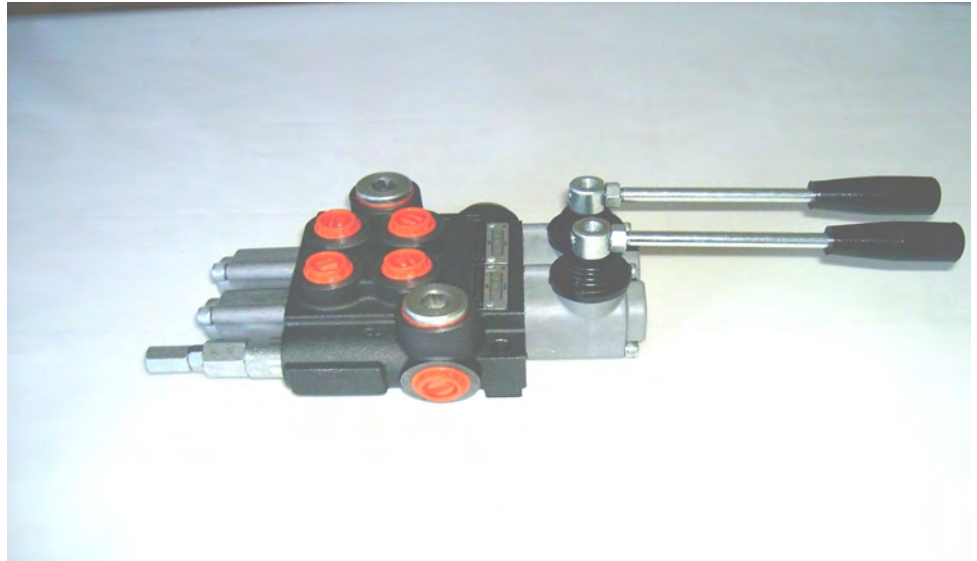


## HYDRAULIC DIRECTIONAL CONTROL VALVES РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



### Description

#### Назначение и область применения

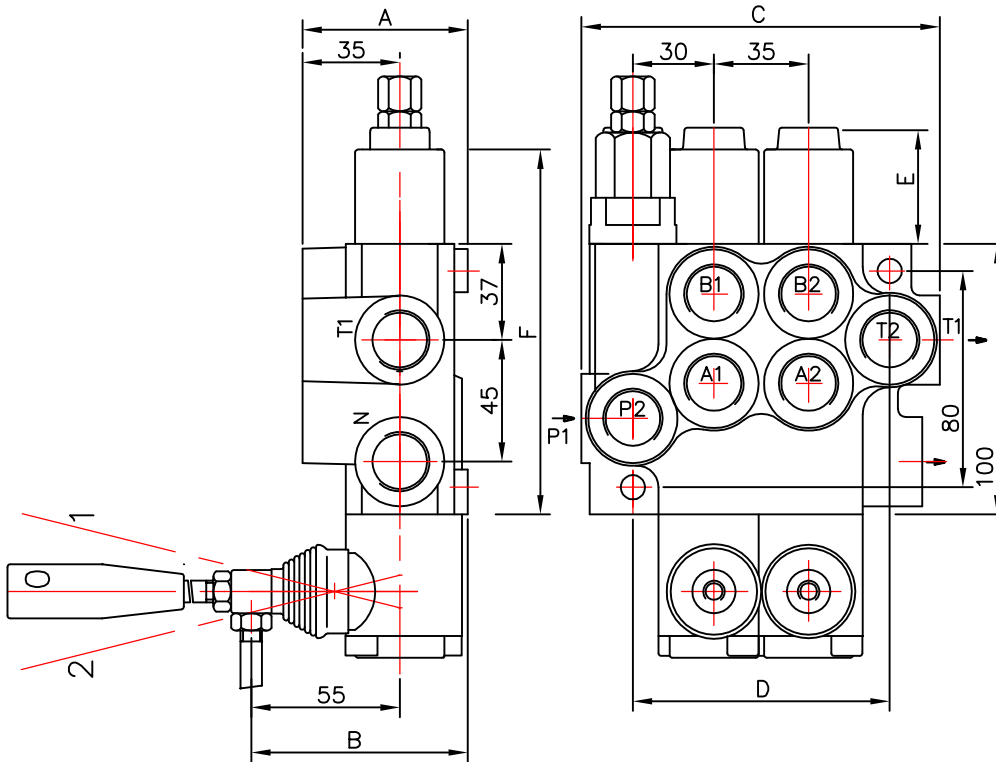
For starting, controlling and stopping the working fluid between the generator of pressured flow, the consumers at the Tank. Предназначен для изменения направления потока, ограничения давления рабочей жидкости гидролиниях, разгрузки насоса в нейтральной позиции золотников.

### Specifications

#### Основные показатели:

1. Valve monoblock	моноблок
Конструктивное выполнение	
2. Mounting	2 bolts M8
Крепление	
3. Pressure connections	internal thread
Присоединительные отверстия	внутренние резьбы
4. Ambient temperature	-40C...+60C
Температура воздуха	
5. Pressure medium	mineral oil based hydraulic oil
Рабочая жидкость	
6. Viskosity	12...800 mm <sup>2</sup> /s permissible range
Кинематическая вязкость	20...100 mm <sup>2</sup> /s recommended range
7. Fluid temperature	- 15C...+80C
8. Filtration	Oil contamination 10 to NAS1638
9. Max. operating pressure	P = 250 bar
Давление max. bar	T = 50 bar
	A, B = 300 bar
10. Leakage	15 cm <sup>3</sup> /min at 120 bar
Внутренние потери (A, B – T)	
11. Nominal flow	40 l/min (see “operating” diagram)
Разход рабочей жидкости	
12. Spool stroke	± 6 mm
Ход золотника	
13. Actuating force	< 200 N in spool axis direction

Left hand configuration - standart



Right hand configuration

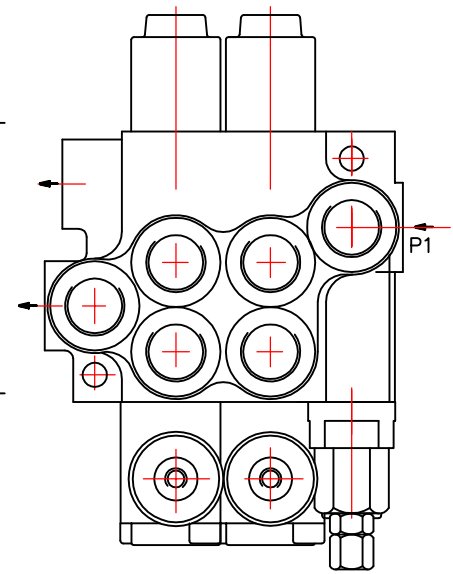


Table 1

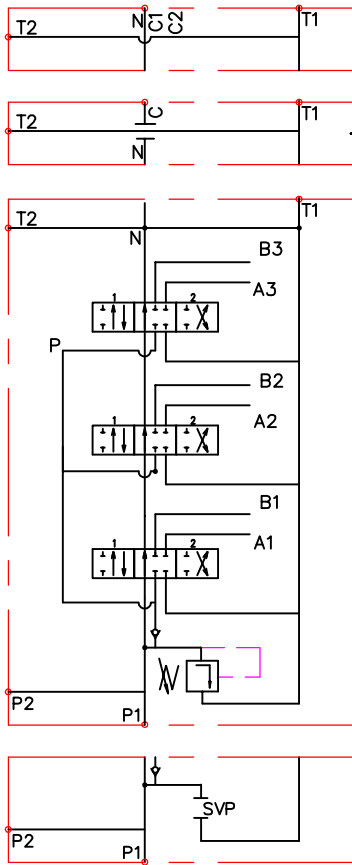
	A	B	C	D	P1	P2	T1	T2
P40	60	80	85	60	+	-	+	-
02P40	60	80	129	97	+	+	+	+
03P40	60	80	164	132	+	+	+	+
04P40	60	80	199	167	+	+	+	+
05P40	60	80	234	202	+	+	+	+
06P40	60	80	269	237	+	+	+	+
07P40	60	80	304	272	+	+	+	+
2P40	60	80	129	97	+	+	+	+
3P40	60	80	164	132	+	+	+	+
4P40	60	80	199	167	+	+	+	+

Table 2

spool control фиксация золотника	E	F
1; 4; 5; 6; 7; 8; 9; 10; 11;	40	193
2; 3;	72	225
16	+	+

- 0 2 P40 R 1 A 1 A 1 G KZ1 T H E C2 11
- block with common check valve  
распределитель с общим клапаном
  - number of spools  
количество золотников
  - directional control valve type ...  
распределитель типа ...
  - inlet high pressure - right  
вход давления с правой стороны
  - way of distribution/parallel or .../  
способ распределения потока
  - first spool distribution type  
характеристика первого золотника
  - spool control/detend and estr./  
контроль золотника/фиксации и сгруе/
  - second spool distribution type  
вид второго золотника
  - spool control/detend and estr./  
контроль золотника/фиксации и сгруе/
  - ports /treads/  
резбовые отверствия
  - general operation feature  
вид ручного управления
  - with "teton"  
исполнение ручного управления с "тетон"
  - operation feature /pneumatic, .../  
сгруе управление
  - with electric switch  
с электрическим выключателем
  - high pressure carry over  
продолжител потока високого давления
  - connection ports in use  
присоединительные отверствия

03P40 1A1A1A1



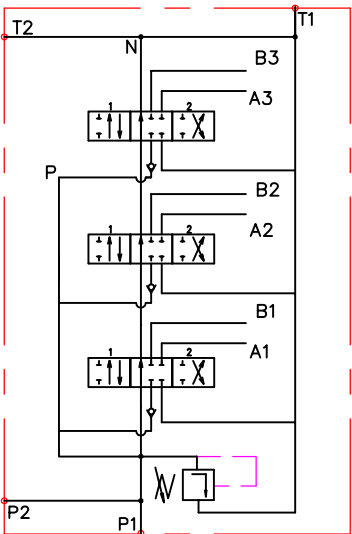
Power beyond  
High pressure carry over

Closed center

Standard

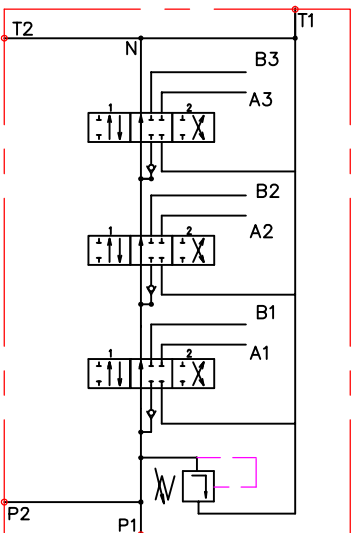
Without relief valve

3P40 1A1A1A1



Standard

3P40 2A1A1A1



Standard

Table 3

code	Number of spools
	1
02, 2	2
03, 3	3

ets.

Table 4

code	way of distribution ; распределение потока
1	parallel ; параллельное
2	tandem(series parallel) ; серийно-параллельное

Table 5

code	spool type
A	
B	
C	
D	
E	
F	
G	
H	
M	
N	
O	
P	
Q	
R	
S	
T	
* K	
** L	

\* только при вход слева (dy8)  
only for left hand configuration

\*\* только при вход справа (dy8)  
only for right hand configuration

Table 6

code	spool control
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	

\* 15

\* 16

\* только при вход слева  
only for left hand configuration

\*\* 12

\*\* 13

\*\* только при вход справа  
only for right hand configuration

Table 7

code	с микро шалпер ; incorporated microswitch	
E		mikroswitch type Omron-V 165 I C5

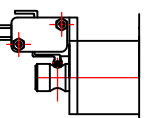
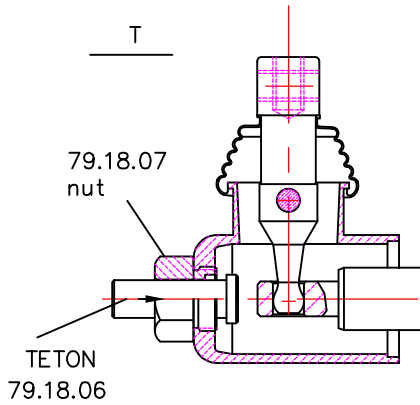


Table 8

code	грузое управление ; operation feature	
P		пневматическое on-off pneumatic control; 5-10 bar ; ports NPTF 1/8-27
H		гидравлическое on-off hydraulic control ; pn = 5 - 20 bar ; ports G1/4



P40

code ports (treads); присоединительные отверстия

	P	A ; B	T	N
M	M22x1.5	M18x1.5	M22x1.5	M22x1.5
G	G1/2	G3/8	G1/2	G1/2
G1/2	G1/2	G1/2 on request	G1/2	G1/2
S	7/8-14UNF	3/4-16UNF	7/8-14UNF	7/8-14UNF

kind of hand control; вид ручного управления

Table 10

code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
-	without hand control; без лостова система за управление				

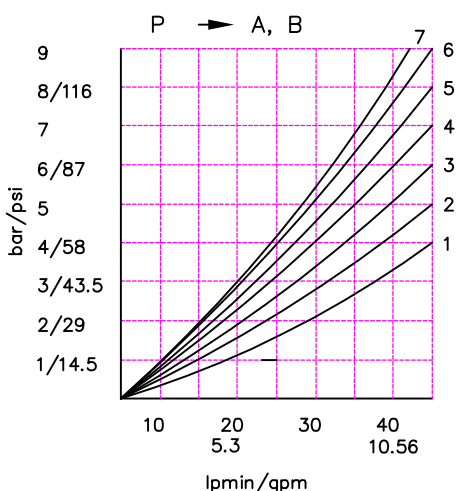
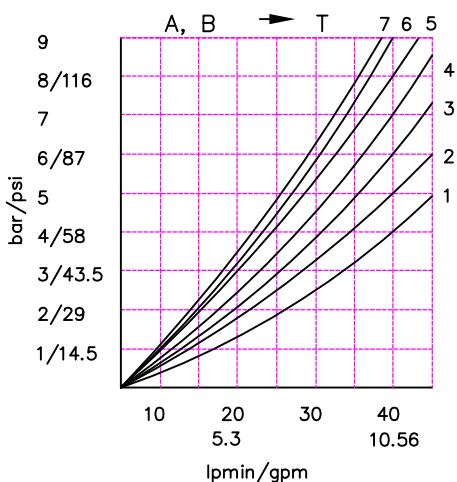
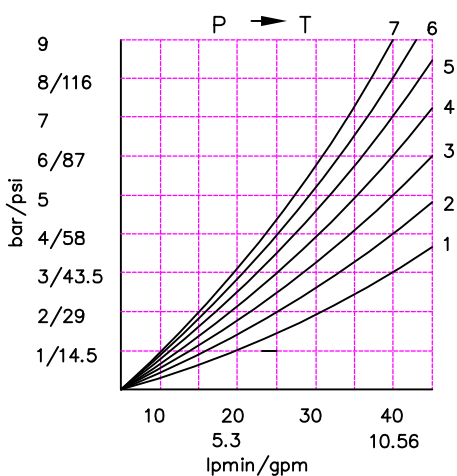
Table 11

code	вид продължение на дебита	
C	отвор "N" затворен closed center	
C1	отвор "N" продължава за следващ консуматор part for power beyond sleeve (carry over)	$\varnothing 14 \text{ mm}$ M22x1.5
C2	отвор "N" продължава за следващ консуматор part for power beyond sleeve (carry over)	G 1/2 M22x1.5
-	отвор "N" е свързан с "T" without part for pressure carry over	
X	отвор "N" е винаги свързан с "T" power beyond ever to tank	

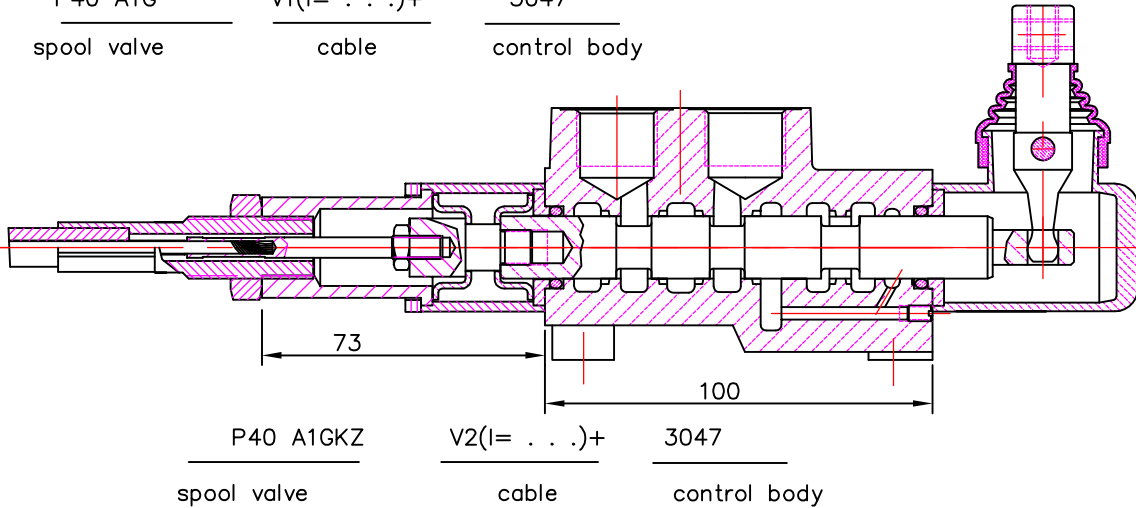
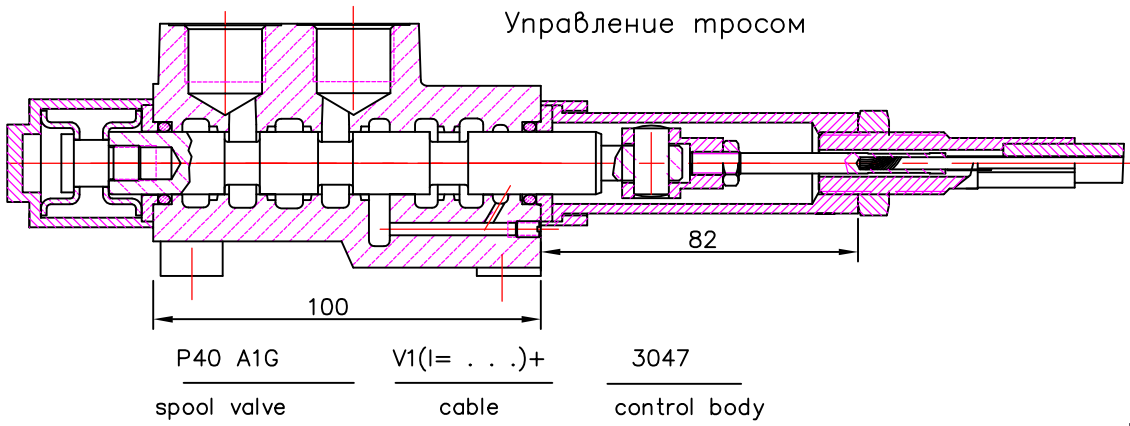
Table 12

code	used connection ports; присоединительные отверстия
11	P1; T1
12	P1; T2
21	P2; T1
22	P2; T2

P40 directional control valve



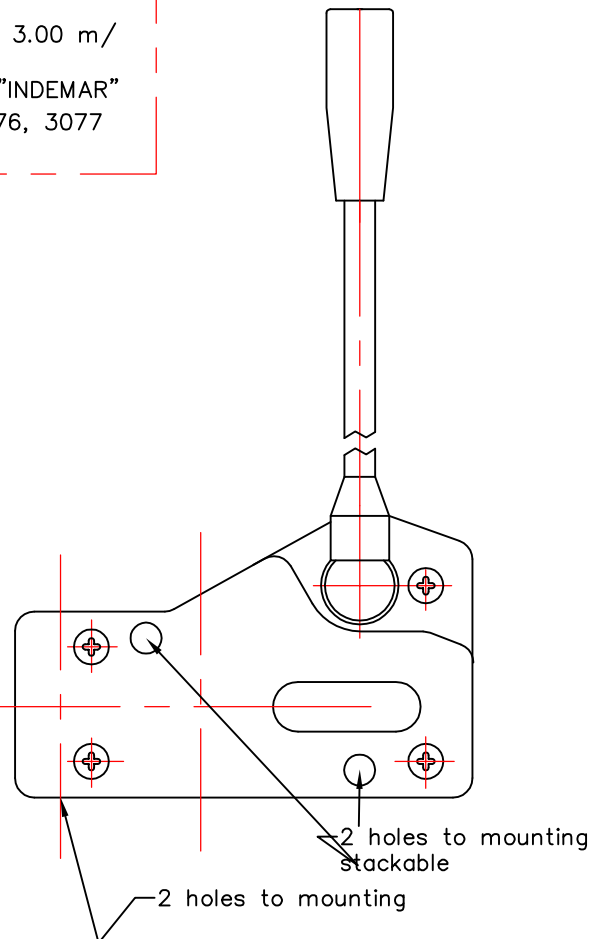
REMOTE CONTROLS  
 Управление тросом



Cable "INDEMAR" Cod. IT 3056 /l=1.00; 1.50; 2.00; 2.50; 3.00 m/  
 +control body "INDEMAR"  
 code 3047, 3076, 3077

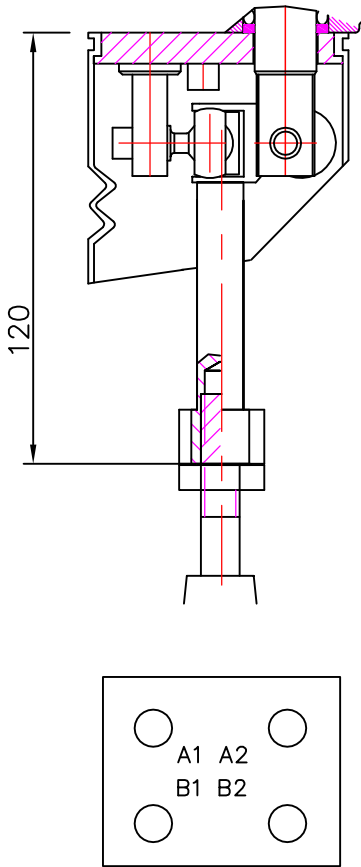
Technical specifications			
	3047	3076	3077
Stroke	13+13 mm	13+13 mm	13+13 mm
Max. load	45 kg	45 kg	45 kg
Level ratio	10:1	10:1	10:1
Lock in neutral	No	No	Yes
Antireverse lock	No	Yes	No
Body colour	Black	Black	Black
Cables type	Heavy Duty	Heavy Duty	Heavy Duty
Operating temperature	-40/+80C	-40/+80C	-40/+80C

High solidity controls for easy mounting on every type of distributor. They can be mounted stand alone or packed together. They use push-pull heavy duty cables that provide a positive smooth operating lever and are manufactured in a three different models to meet different needs of Clients.

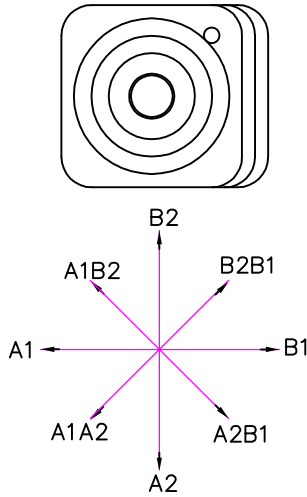


## JOYSTICK "+"

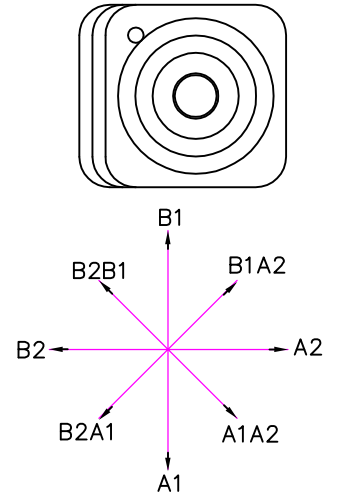
This control gives the possibility to operate, at the same time two spools with a "+" movement.



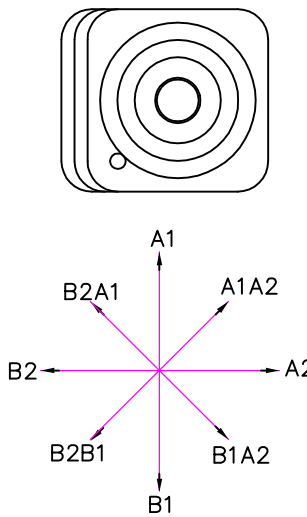
standard version 1



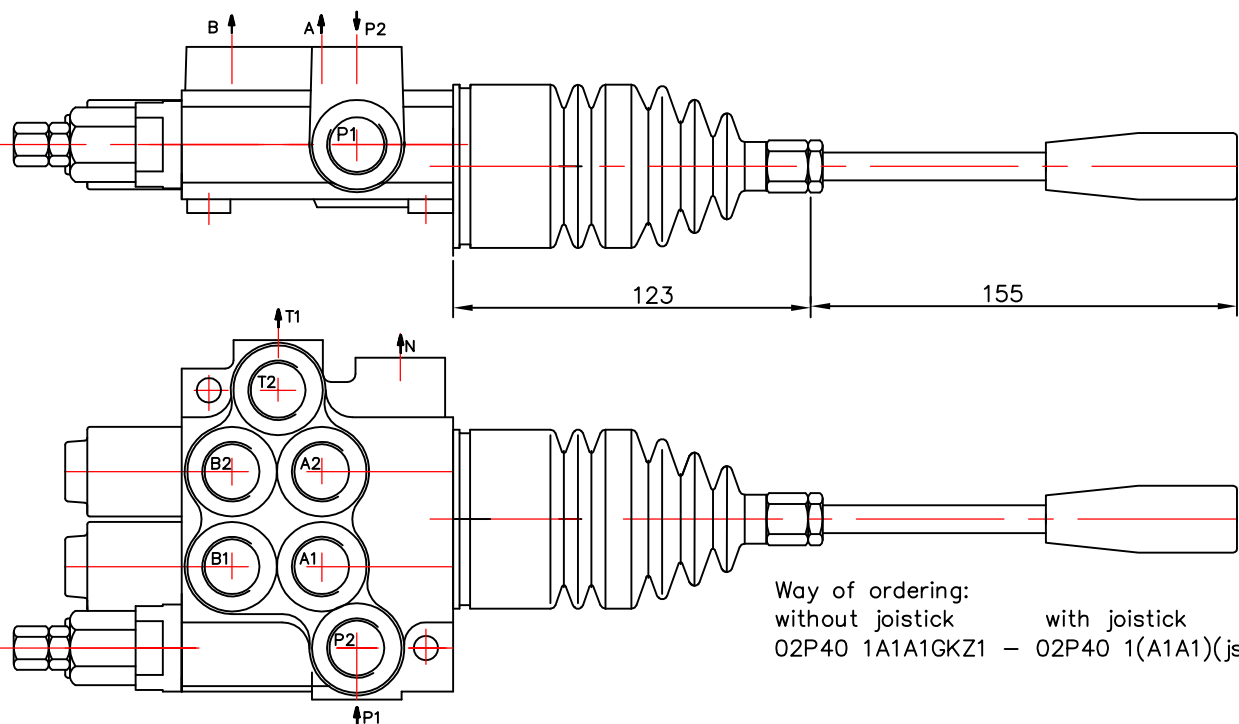
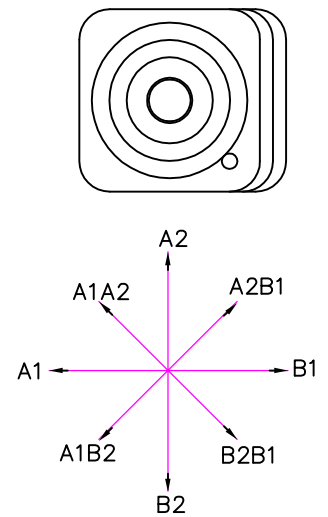
standard version 2



standard version 3

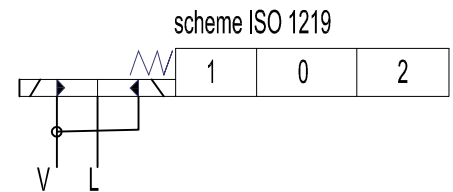
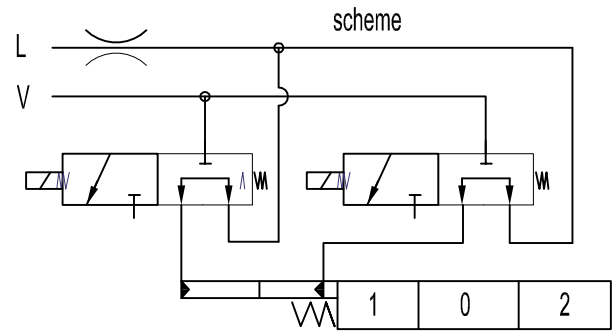
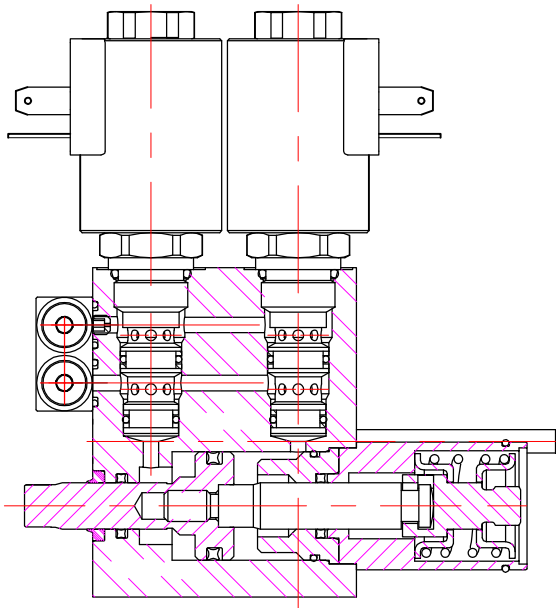


standard version 4



directional control valve P40

ED3 – electro-hydraulic control ON-OFF  
 Электрогидравлический контрол ON-OFF



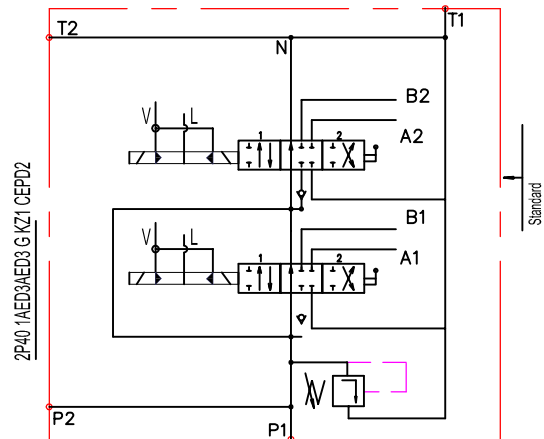
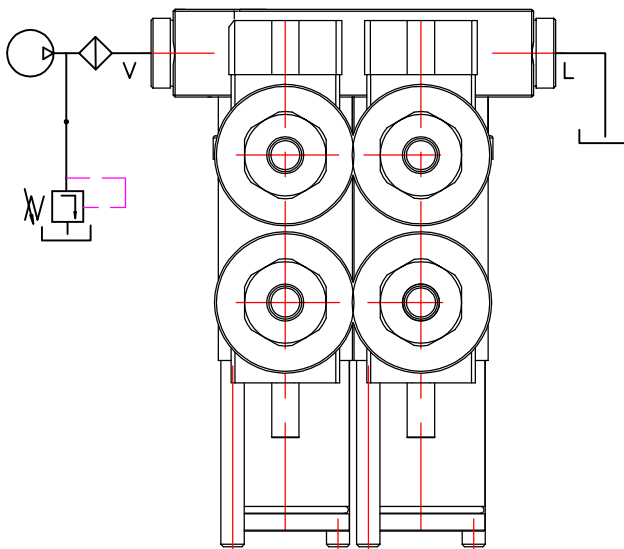
**Ordering codes**

3-way solenoid valve-SV08-33  
 coil P40ED3-G-12VDC  
 coil P40ED3-G-24VDC

Operating pressure min 10 bar(145 psi)  
 max 50 bar(725 psi)  
 Max operating pressure in L (T line) 25 bar(360 psi)

Solenoid operating features  
 Nominal voltage tolerance ±10%  
 Power rating 24W  
 Duty cycle 100 %

**Collector kit for external pilot and drain – CEED...(1,2,3 ...)**  
**Коллектор для внешнего питания управления и слив**



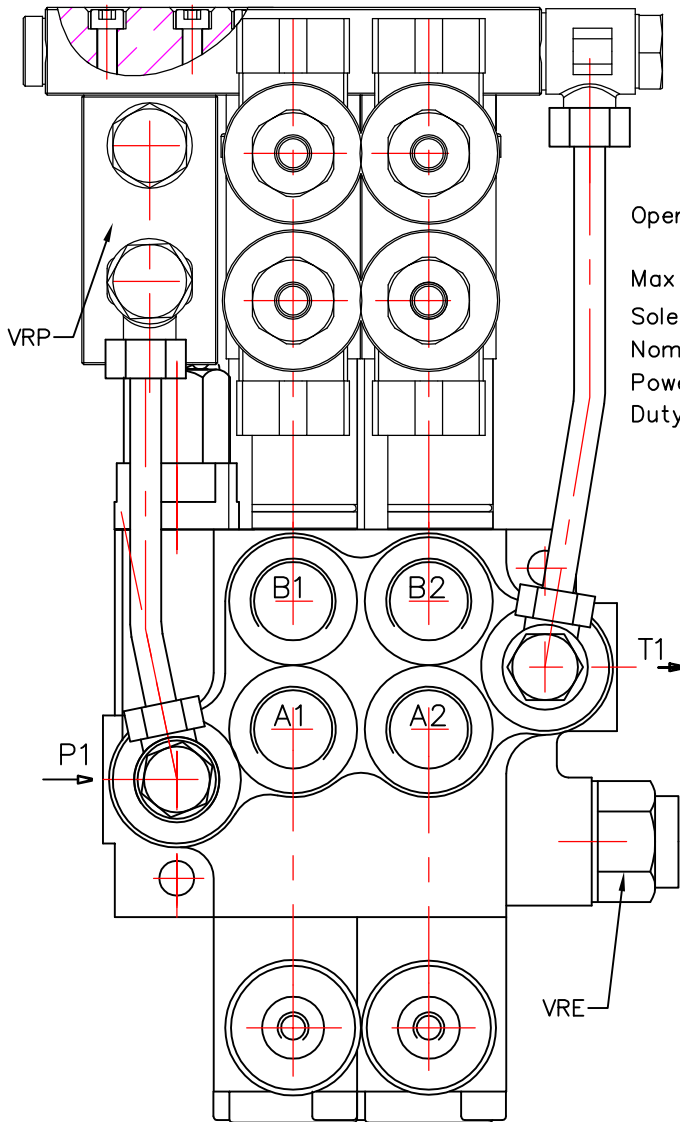
**Ordering example**

2P40-1A1ED3A1ED3 G KZ1-CEED2-12VDC

**Ordering codes (BSP threads)**

CEED1P40	Kit for 1 section
CEED2P40	Kit for 2 section
CEED3P40	Kit for 3 section
CEED4P40	Kit for 4 sektion
.....	

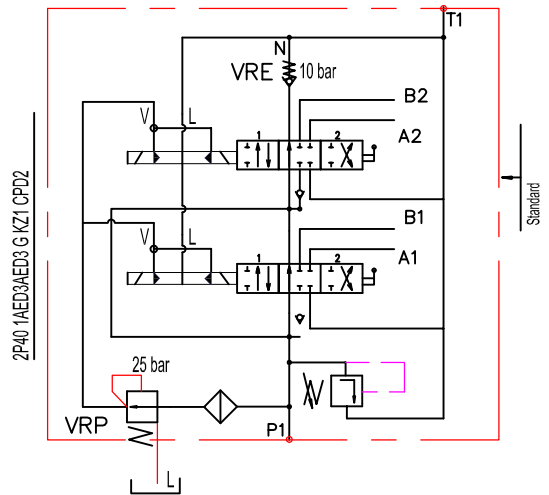
ED3 – electro-hydraulic control ON-OFF  
 Электрогидравлический контрол ON-OFF



**Order codes**

3-wai solenoid valve-LSV2-08-3C  
 coil P40ED3-G-12VDC  
 coil P40ED3-G-24VDC

Operating pressure	min 10 bar(145 psi) max 50 bar(725 psi)
Max operating pressure in L (T line)	25 bar(360 psi)
Solenoid operating features	
Nominal voltage tolerance	±10%
Power rating	24W
Duty cycle	100 %



**Ordering example**

2P40-VRP- 1A1ED3A1ED3 G KZ1-CED2-VRE-12VDC

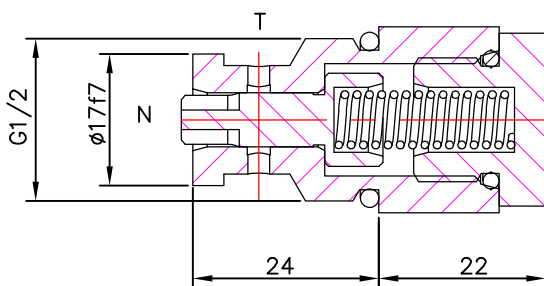
**Colector kit**

- CED1
- CED2
- CED3
- CED4
- ...

**Ordering codes  
BSP threads**

- Kit for 1 section
- Kit for 2 section
- Kit for 3 section
- Kit for 4 sektion

**Back pressure valve VRE-P40  
Кланан погпорний на слив**



Pressure drop N-T

