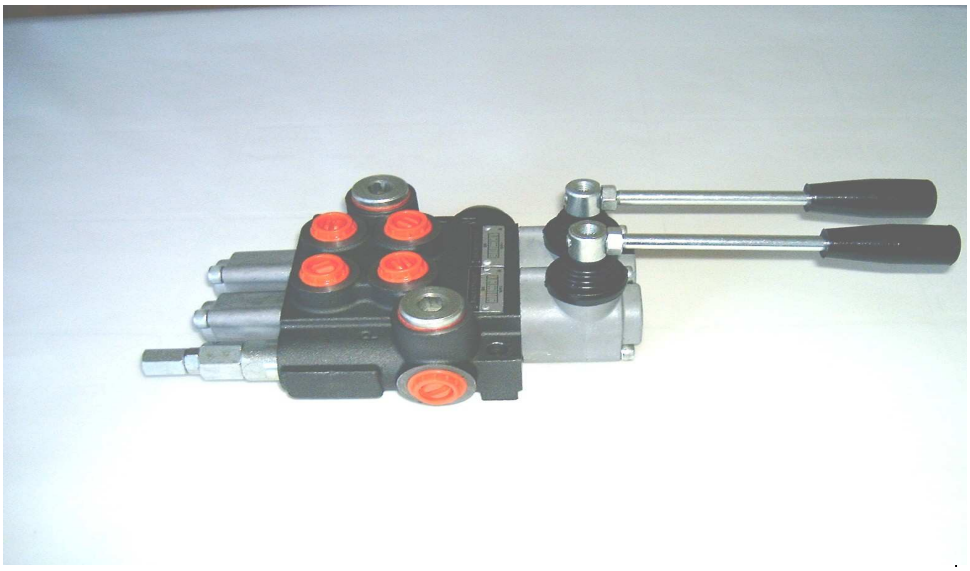
LENA AGROMASHNI LTD. 57 Tsar Simeon Str. 8800 Sliven, Bulgaria
Tel. +359 44 66 73 24, Fax: +359 44 66 72 91 ,+359 887 400 486, +359 887 429 491
e-mail: info@lena-bg.com, www.lena-bg.com

HYDRAULIC DIRECTIONAL CONTROL VALVES
РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



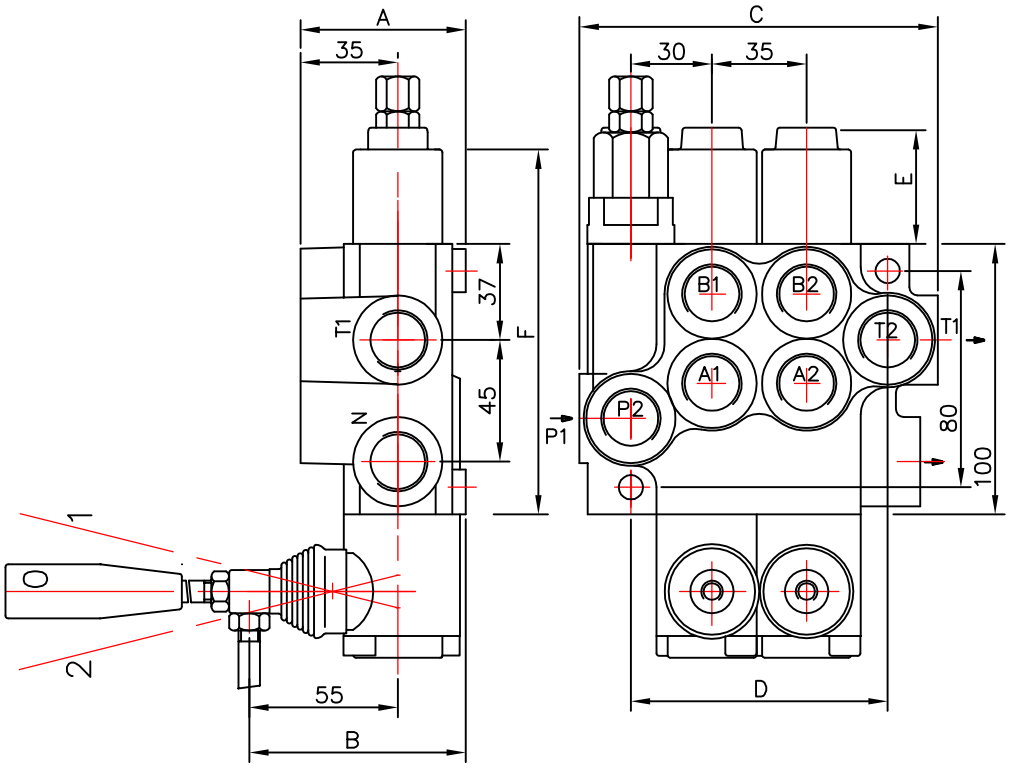
Description
Назначение и область применения
For starting, controlling and stopping the working fluid between the generator of pressured flow, the consumers ai the Tank.Предназначен для изменения направления потока, ограничения давления рабочей жидкости гидролиниях, разгрузки насоса в нейтральной позиции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

Specifications
Основные показатели:

1.Valve monoblock Конструктивное выполнение	моноблок
2.Mounting Крепление	2 bolts M8
3.Pressure connections Присоединительние отверстия	internal thread внутренние резби
4.Ambient temperature Температура воздуха	-40C…+60C
5.Pressure medium Рабочая жидкость	mineral oil based hydraulic oil
6.Viskosity Кинематическая вязкость	12…800 mm²/s permissible range 20…100 mm²/s recommended range
7.Fluid temperature	- 15C…+80C
8.Filtration	Oil contamination 10 to NAS1638
9. Max. operating pressure Давление max. bar	P = 250 bar T = 50 bar A, B = 300 bar
10.Leakage Внутренние потери (A, B – T)	15 cm³/min at 120 bar
11.Nominal flow Разход рабочей жидкости	40 l/min (see “operating” diagram)
12.Spool stroke Ход золотника	± 6 mm
13.Actuating force	< 200 N in spool axis direction

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Left hand configuration – standart



Right hand configuration

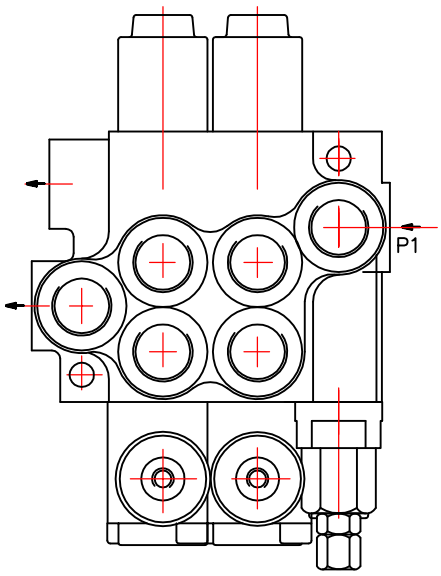


Table 1

	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	+	+	+	+

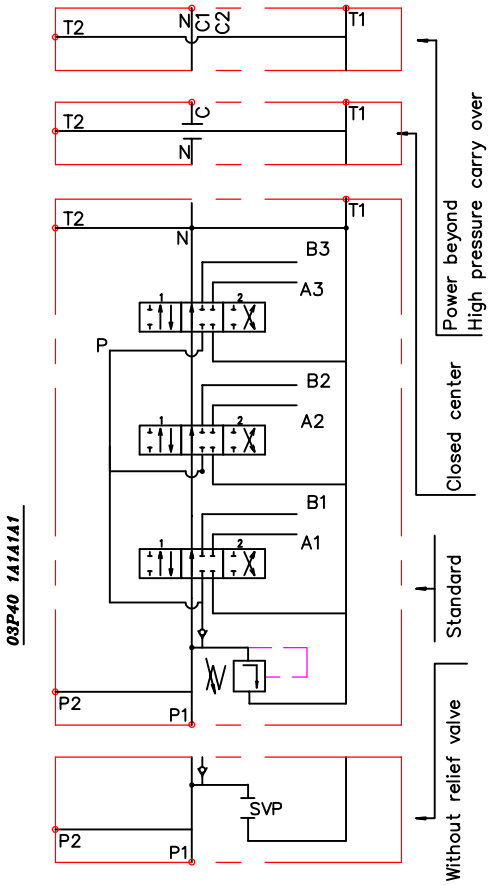
Table 2

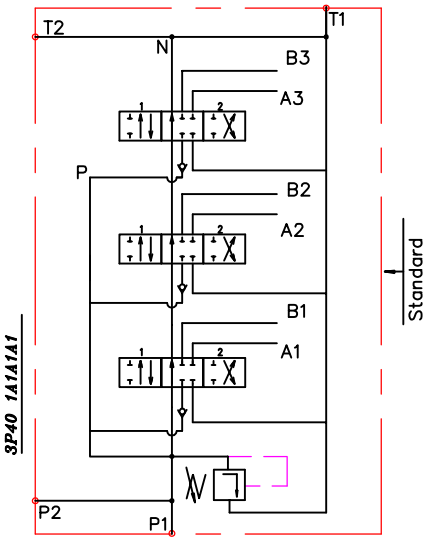
spool control фиксации золотника	E	F
1; 4; 5; 6; 7; 8; 9; 10; 11;	40	193
2; 3;	72	225
16	+	+

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 ets./ контрол золотника/фиксации и другие/	second spool distribution type вид второго золотника	spool control/detend and estr./ контрол золотника/фиксации и другие/	ports /treads/ резбовые отверстия	general operation feature вид ручного управления	with "teton" исполнение ручного управления с "метон"	operation feature /pneumatic, .../ другое управление	with electric switsh с елекмическим виключателем	high pressure carry over продолжител потока високого давления	connection ports in use присоединительные отверстия

oct 2013

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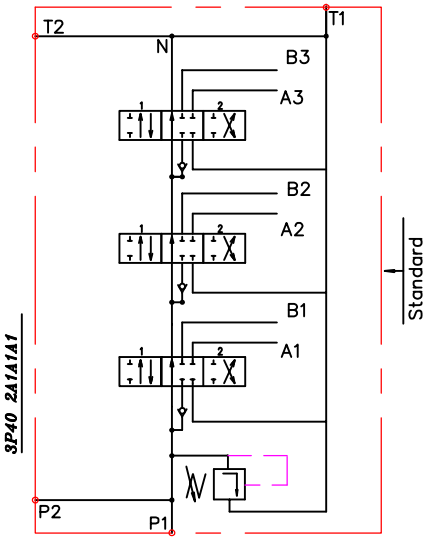


Table 3

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

ets.

Table 4

code	way of distribution ; распределение потока
1	parallel ; паралельное
2	tandem(series parallel) ; серийно–паралельное

Table 5

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

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

** L	

** молько при вход справо (dy8)
only for right hand configuration

Table 6

code	spool control
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
* 15	
* 16	

* молько при вход слева
only for left hand configuration

** 12	
** 13	

** молько при вход справо
only for right hand configuration

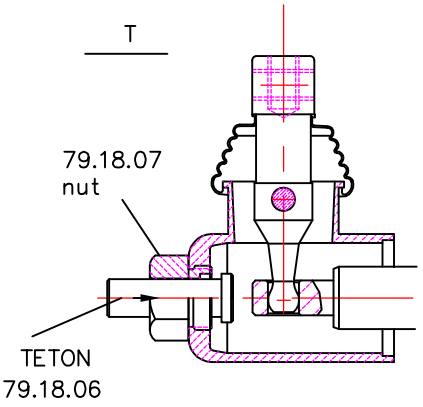
Table 7

code	с микро шалтер ; incorporated microswitch	
E		mikroswitch type Omron–V 165 I C5

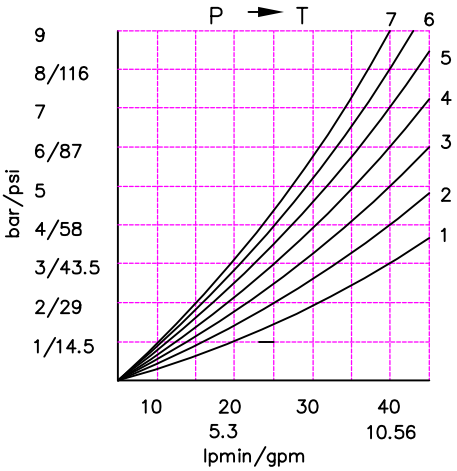
Table 8

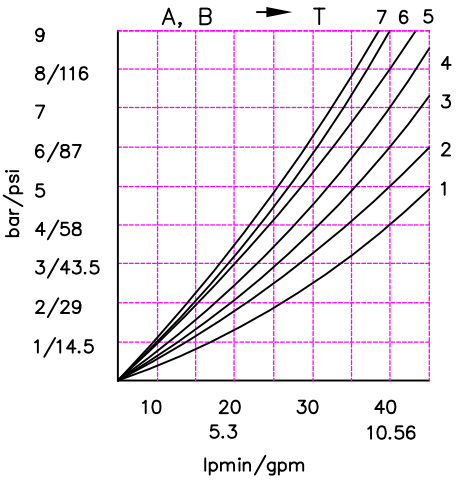
code	другое управление ; operation feature
P	пневматическое on–off pneumatic contol; 5–10 bar ; ports NPTF 1/8–27
H	гидравлическое on–off hydraulic control ; pn = 5 – 20 bar ; ports G1/4

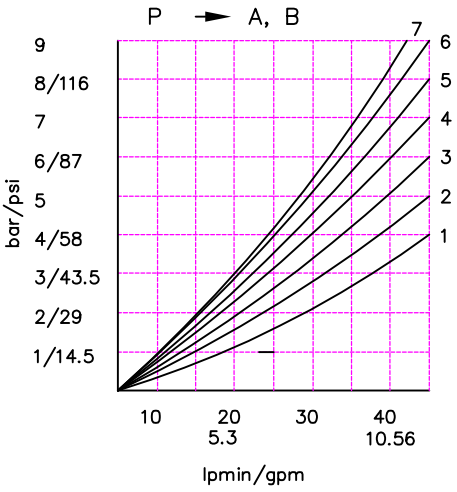
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P40 directional control valve







P40 Table 9

code ports (treads) ; присоединителни 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 ръчного управления Table 10

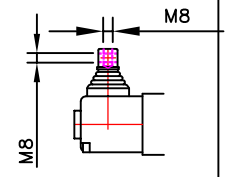
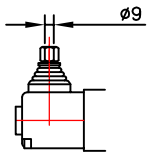
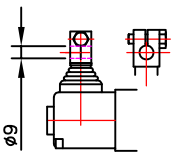
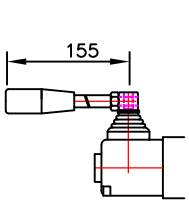
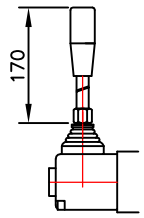
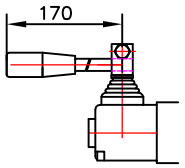
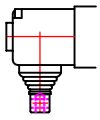
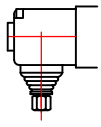
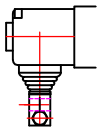
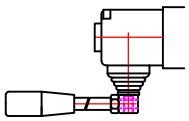
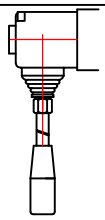
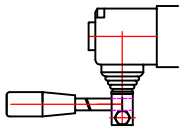
code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
_	without hand control ; без лостова система за управление				

Table 11

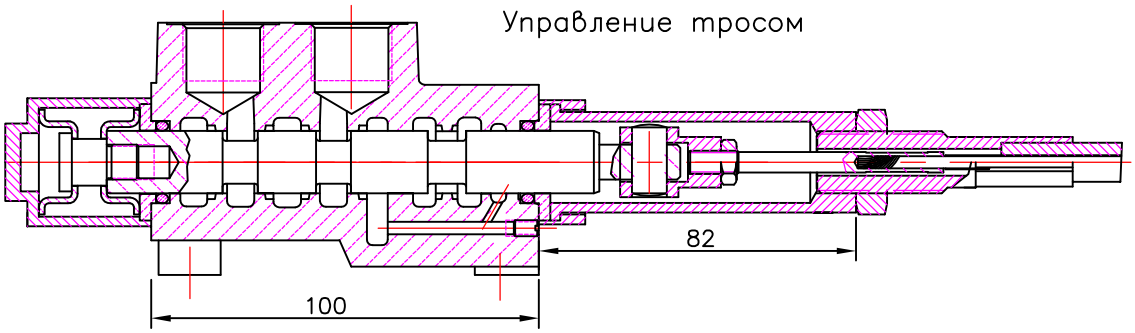
code	вид продължение на дебита	
C	отвор "N" затворен closed center	
C1	отвор "N" продължава за следващ консуматор part for power beyond sleeve(carry over)	 ø14 mm M22x1.5
C2	отвор "N" продължава за следващ консуматор part for power beyond sleeve(carry over)	 G 1/2 M22x1.5
_	отвор "N" е свързан с "T" without part for pressure carry over	
X	отвор "N" е винаги свързан с "T" power beyond ever to tank	

Table 12

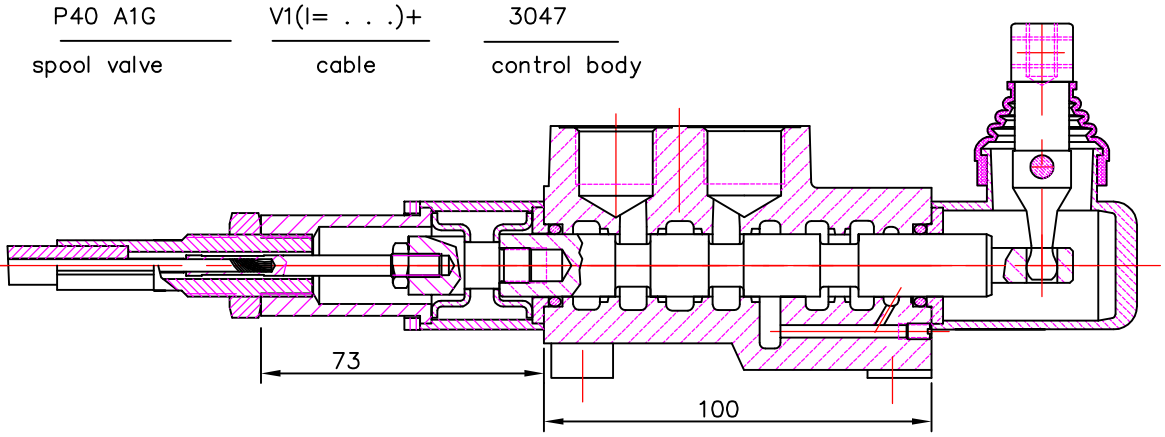
code	used connection ports ; присоединителни отверстия
11	P1 ; T1
12	P1 ; T2
21	P2 ; T1
22	P2 ; T2

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REMOTE CONTROLS
Управление тросом



P40 A1G — spool valve
V1(l= . . .)+ — cable
3047 — control body



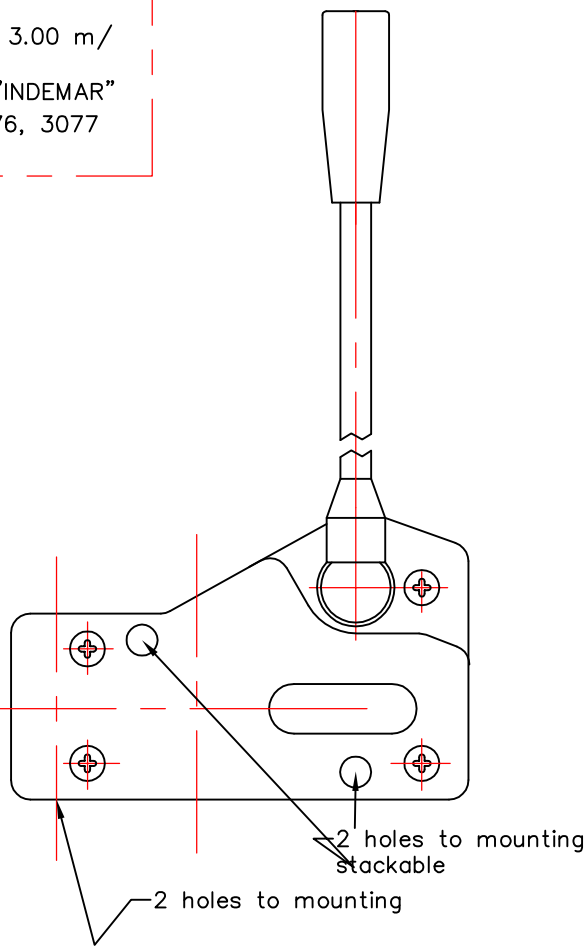
P40 A1GKZ — spool valve
V2(l= . . .)+ — cable
3047 — control body

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

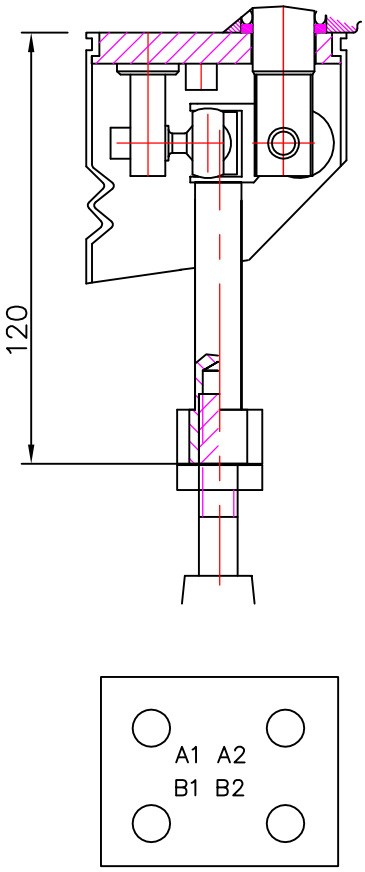
High solidity controls for easy mounting on every type of distributor.They can by mounted stand alone or packed together.
They use push−pull heavy duty cables that provide a positive smooth operating lever and are manifactured in a three differents models to meet different needs of Clients.



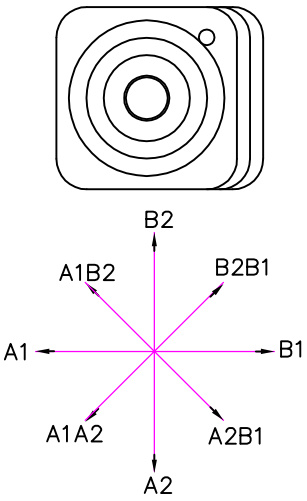
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JOYSTICK "+"

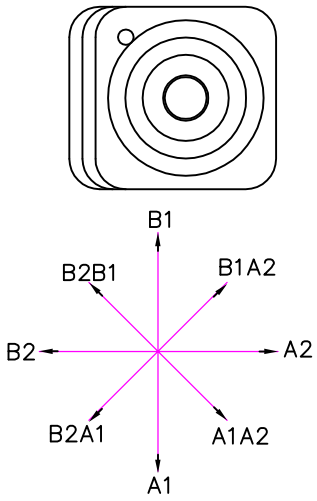
This control gives the possibility to operate, at the same time two spools with a"+"movement.



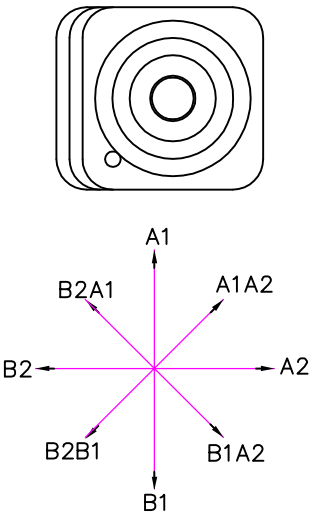
standard version 1



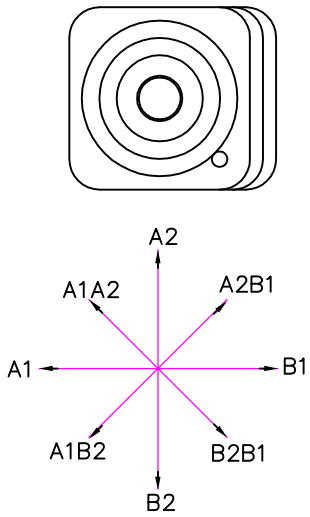
standard version 2

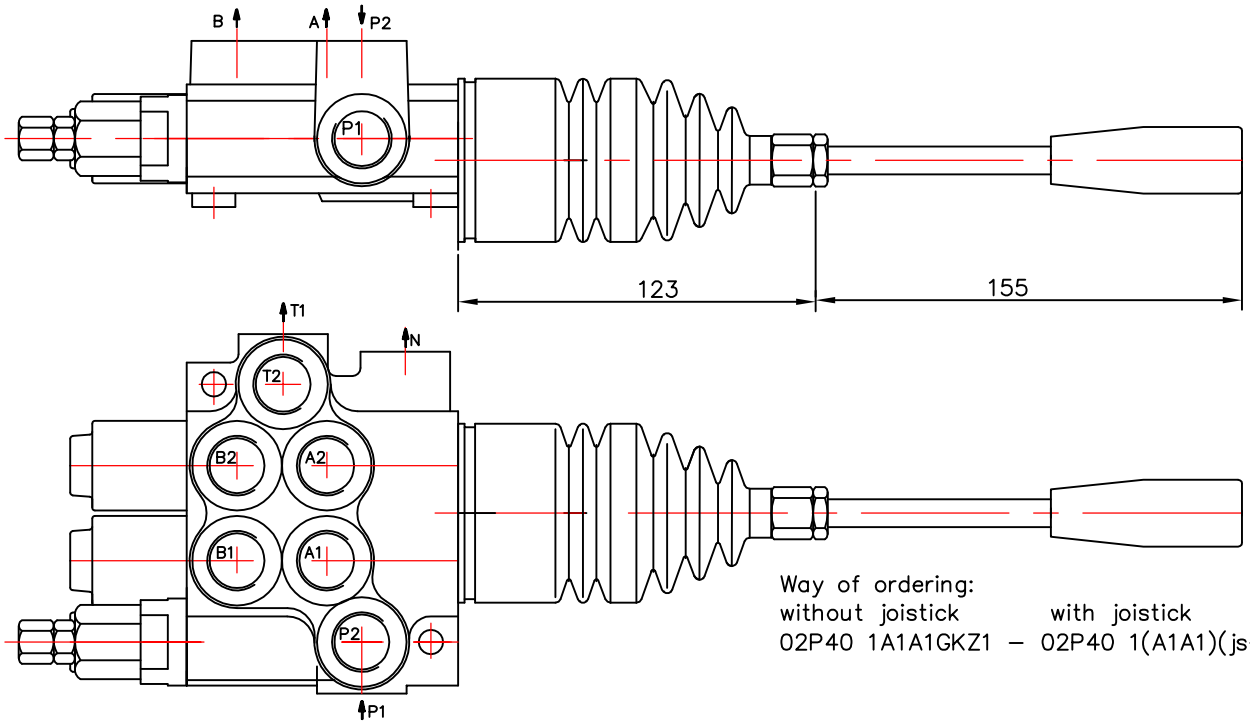


standard version 3



standard version 4

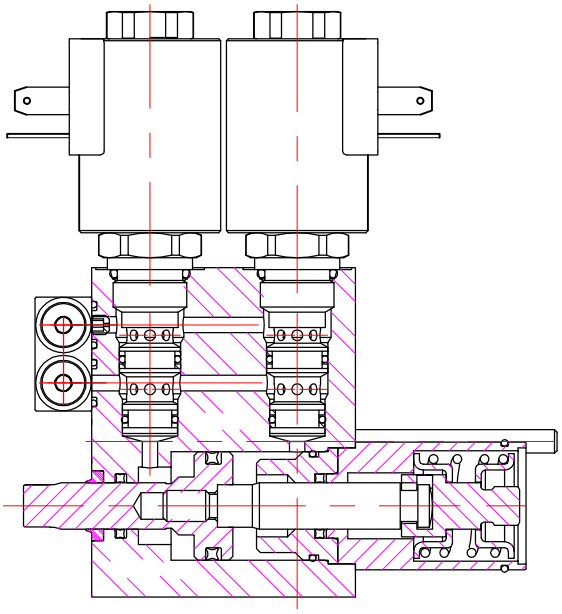


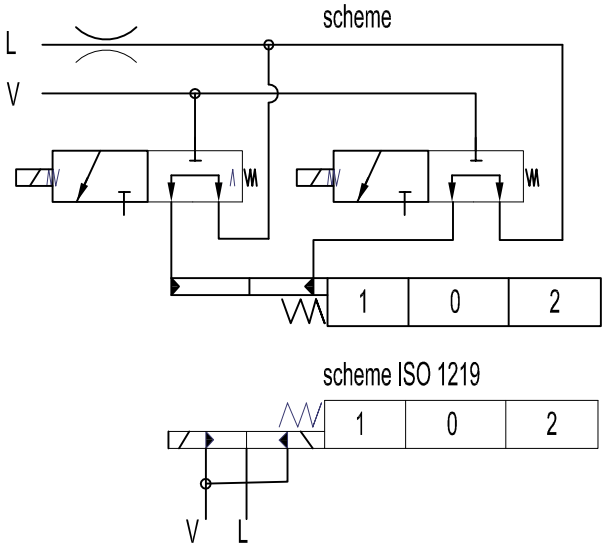


Way of ordering:
without joistick — with joistick
02P40 1A1A1GKZ1 – 02P40 1(A1A1)(js+3)G

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ED3 – electro–hydraulic control ON–OFF
Електрогидравлический контрол ON–OFF





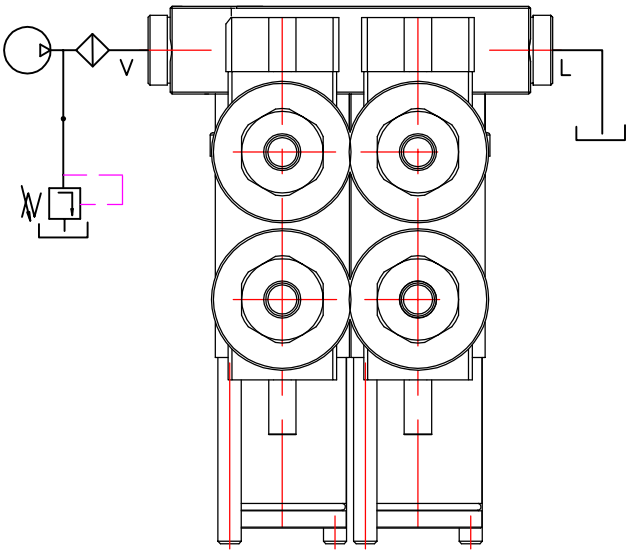
Operating pressure	min 10 bar(145 psi) max 50 bar(725 psi)
Max operating pressure in L (T line)	25 bar(360 psi)

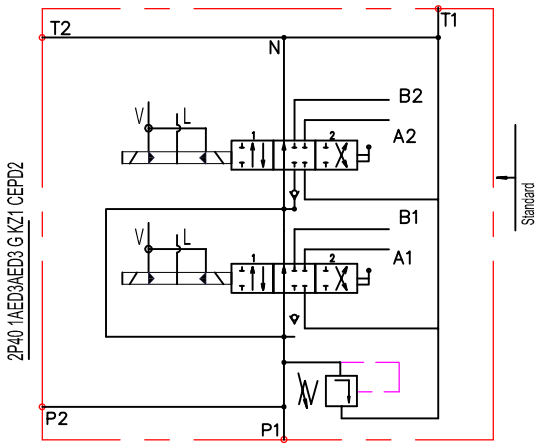
Ordering codes

3–wai solenoid valve–SV08–33
coil P40ED3–G–12VDC
coil P40ED3–G–24VDC

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

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





Ordering example

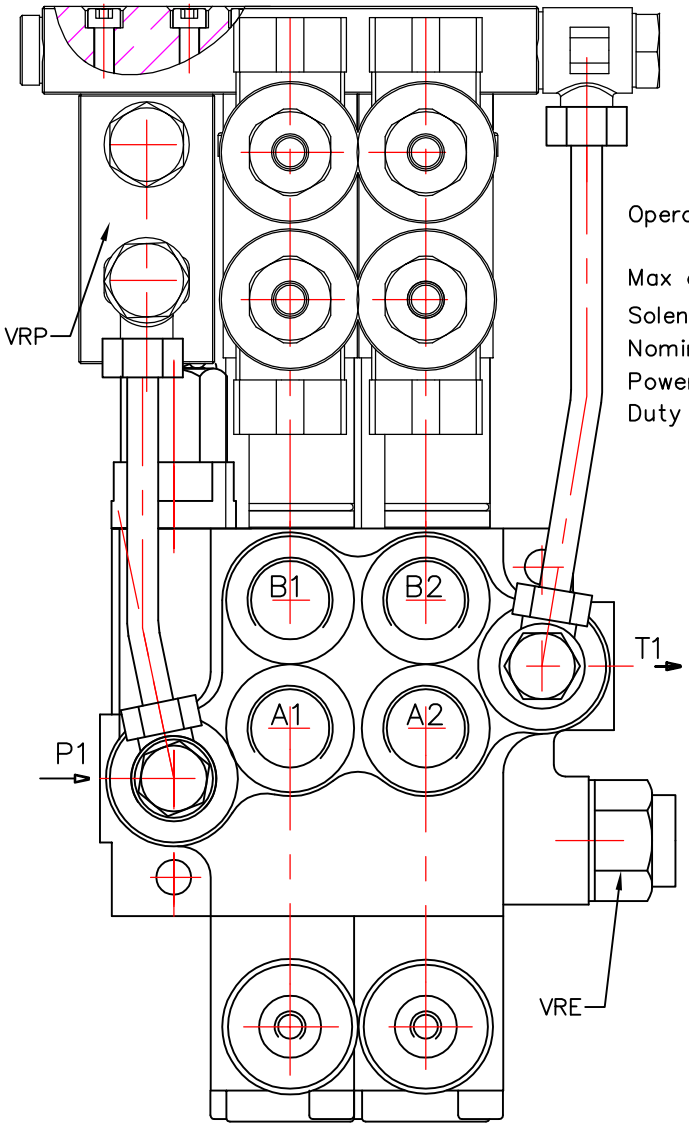
2P40–1A1ED3A1ED3 G KZ1–CEED2–12VDC

Ordering codes (BSP threads)

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

LENA AGROMASHNI LTD. 57 Tsar Simeon Str. 8800 Sliven, Bulgaria
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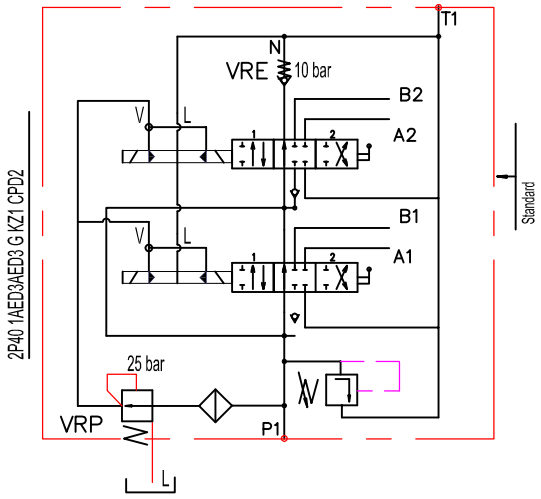
ED3 – electro–hydraulic control ON–OFF
Електрогидравлический контрол ON–OFF



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 – Ordering codes BSP threads

CED1	Kit for 1 section
CED2	Kit for 2 section
CED3	Kit for 3 section
CED4	Kit for 4 sektion
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Back pressure valve VRE–P40
Клапан подпорний на слив

