

### Description

#### Назначение и применение

For starting, controlling and stopping the working fluid between the generator of pressure flow, the consumers and the Tank. Предназначение для изменения направления потока, ограничения давления рабочей жидкости в гидролинии, разгрузка насоса в нейтральной позиции золотника.

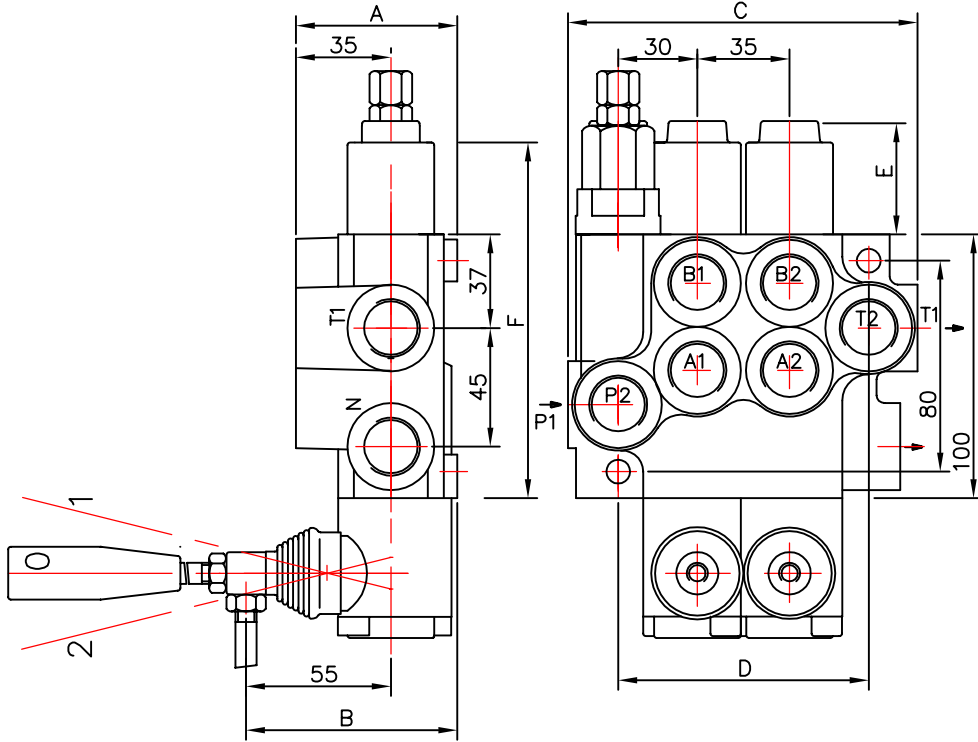
### Specifications

#### Основные показатели

1. Valve monoblock	моноблок
Конструктивное решение	
2. Mounting	2 bolts M8
Крепление	
3. Ports	internal thread
Присоединительные отверстия	резбовые отверстия
4. Ambient temperature	-40 – +60 C
температура воздуха	
5. Pressure medium	mineral oil
Рабочая жидкость	
6. Viscosity	12...800 mm/s
Вязкость	20...100 mm/s
	recommended range
7. Fluid temperature	-30 – +80 C
8. Filtration	oil contaminations
	class 10 to NAS 1683
	achived with filter 75
9. Max. operating pressure	P = 250 bar
	A, B = 300 bar
	T < 50 bar
10 Internal leakage	5 ccm/min at 100 bar
	viscosity 46 mm/s
11. Nominal flow	40 l/min (operating diagram)
12. Spool stroke	+– 6 mm
13. Actuating force	< 200 N in spool axis



Left hand configuration – standard



Right hand configuration

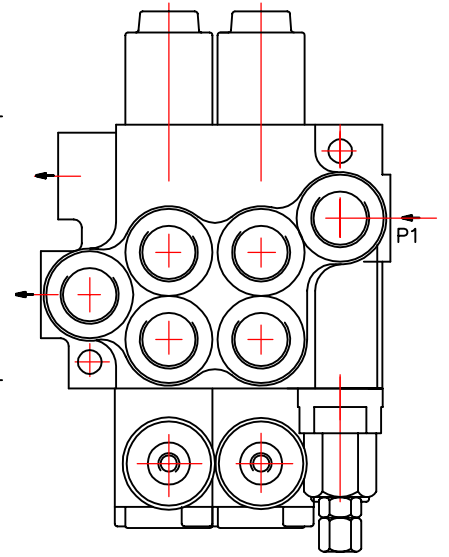


Table 1

	A	B	C	D	P1	P2	T1	T2
01Z50	60	80	85	60	+	-	+	-
02Z50	60	80	129	97	+	+	+	+
03Z50	60	80	164	132	+	+	+	+
04Z50	60	80	199	167	+	+	+	+
05Z50	60	80	234	202	+	+	+	+
06Z50	60	80	269	237	+	+	+	+
07Z50	60	80	304	272	+	+	+	+

Table 2

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

Table 3

code	spools
01	1
02	2
03	3

ets.

- 0 block with common check valve / распределитель с общим клапаном
- 2 number of spools / количество золотников
- Z50 directional control valve type ... / распределитель типа ...
- R inlet high pressure – right / вход давления с правой стороны
- A first spool distribution type / характеристика первого золотника
- 1 spool control/detend and ets./ / контроль золотника/фиксация и грузе/
- A second spool distribution type / вид второго золотника
- 1 spool control/detend and estr./ / контроль золотника/фиксация и грузе/
- G ports /treads/ / резьбовые отверстия
- KZ1 general operation feature / вид ручного управления
- T with "teton" / исполнение ручного управления с "тетон"
- H operation feature /pneumatic, .../ / грузе управление
- E with electric switch / с электрическим выключателем
- C2 high pressure carry over / продолжитель потока высокого давления
- 11 connection ports in use / присоединительные отверстия

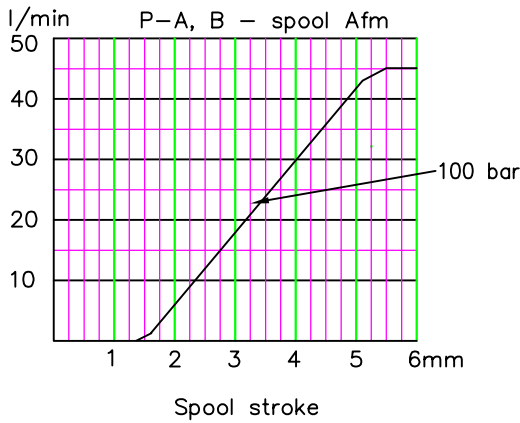
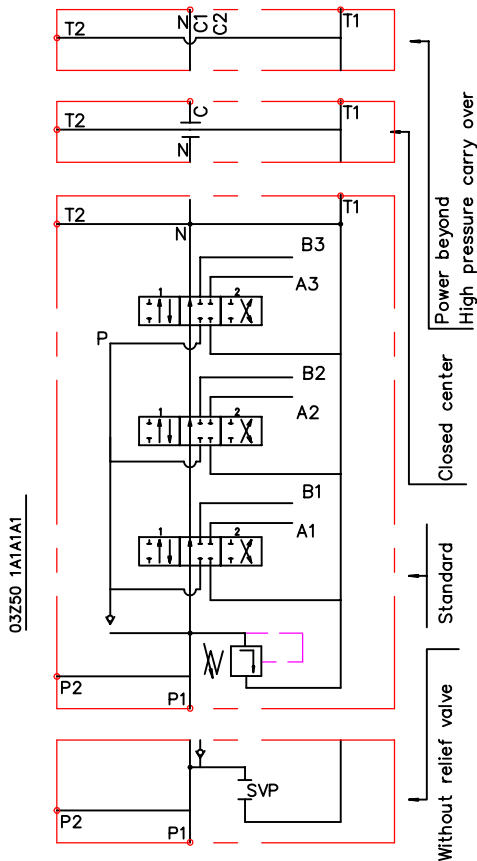


Table 4

code	way of distribution ; распределение потока
1	parallel ; параллельное

Table 5

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

Table 6

code	spool control
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
* 15	
* 16	
** 12	
** 13	

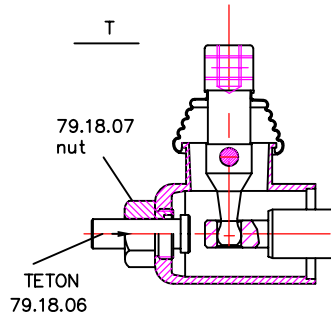
\* только при вход слева (дуг) only for left hand configuration  
\*\* только при вход справа (дуг) only for right hand configuration  
\*\*\* Spool Afm – fine metering

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 control; 5–10 bar ; ports NPTF 1/8–27
H	 гидравлическое on-off hydraulic control ; pn = 5 – 20 bar ; ports G1/4



Z50

Table 9

code	ports (treads) ; присоединительные отверстия				
	P	A ; B	T	N	C2
M	M22x1.5	M18x1.5	M22x1.5	M22x1.5	M22x1.5
G	G1/2	G3/8	G1/2	G1/2	G1/2
S	7/8-14UNF	3/4-16UNF	7/8-14UNF	7/8-14UNF	7/8-14UNF

kind of hand control ; вид ручного управления

Table 10

code	ескюз feature	code	ескюз feature	code	ескюз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZO		KYO		KIO	
KZ01		KY01		KI01	
-	without hand control ; без ричажная система управления				

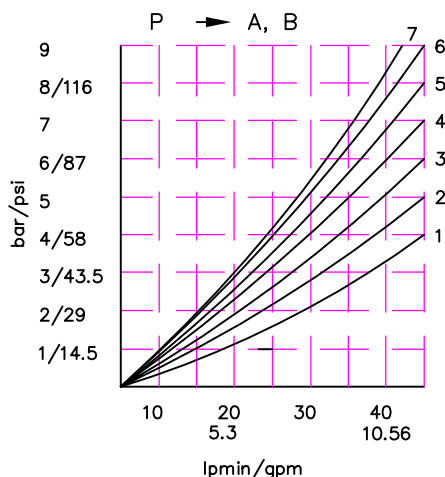
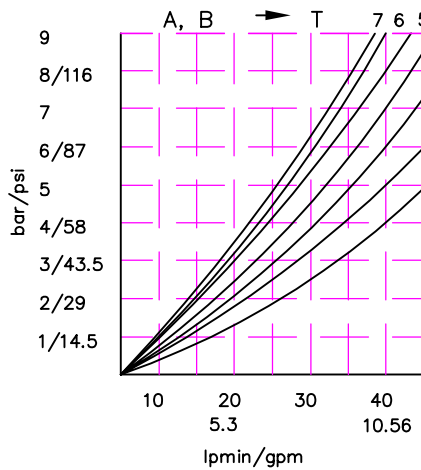
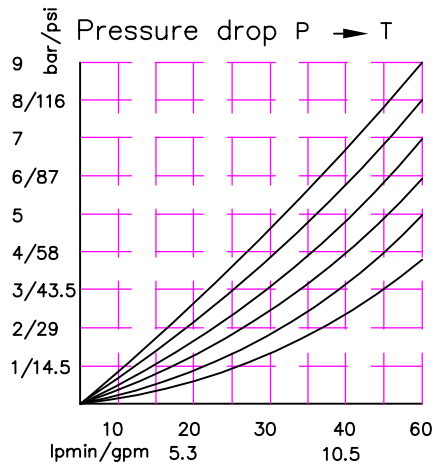


Table 11

code	вид прогължение на дебита	
C	отвор "N" затворен closed center	
C2	отвор "N" прогължава за следващ консуматор part for power beyond sleeve(carry over)	
-	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	

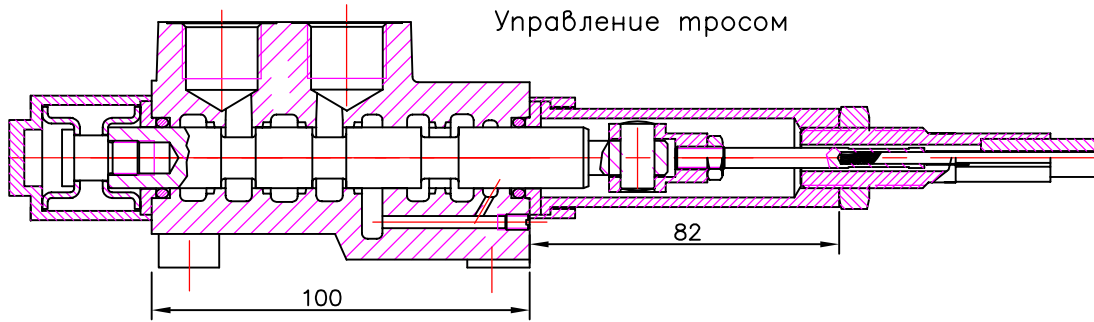
Table 12

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

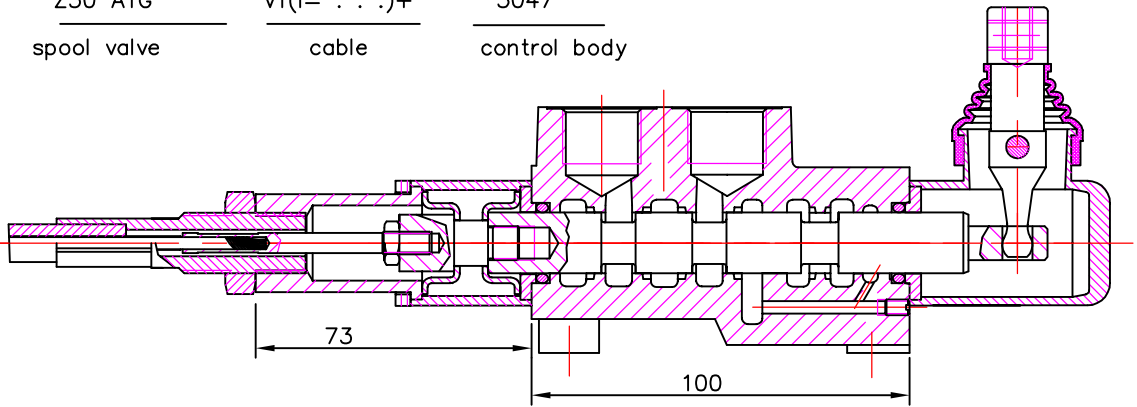


REMOTE CONTROLS

Управление тросом



Z50 A1G spool valve      V1(l= . . .)+ cable      3047 control body

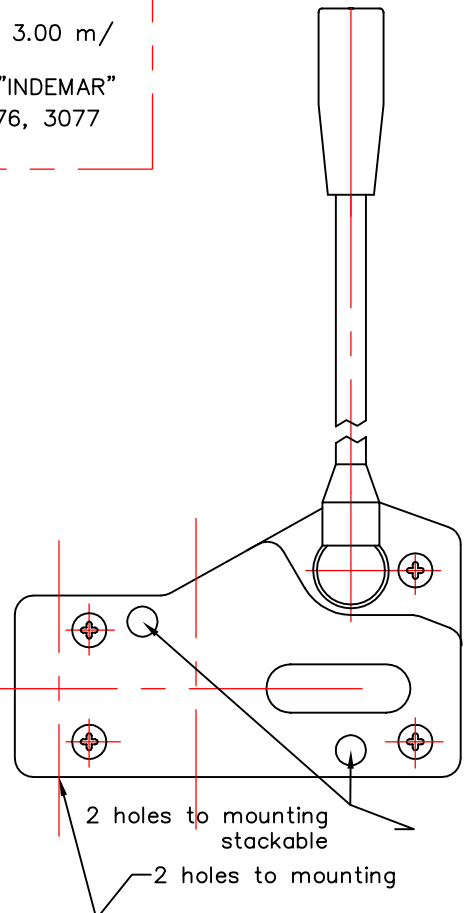


Z50 A1GKZ spool valve      V2(l= . . .)+ cable      3047 control body

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

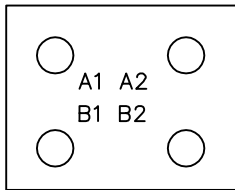
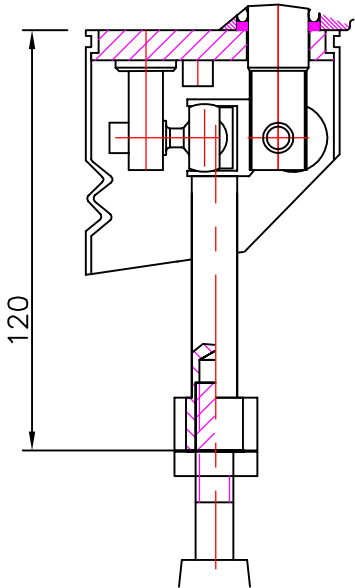
High solidity controls for easy mounting on every type of distributor. They can be mounted stand alone or packed together. They use push-pull heavy duty cables that provide a positive smooth operating lever and are manufactured in a three different models to meet different needs of Clients.



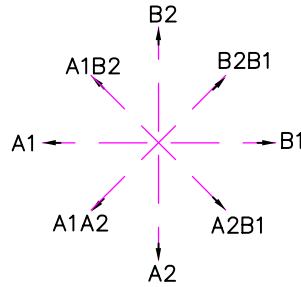
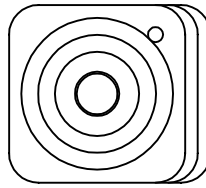


JOYSTICK "+"

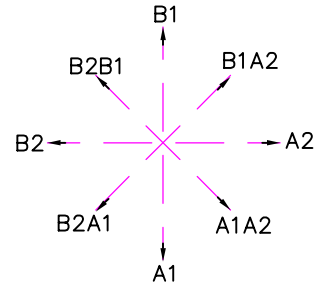
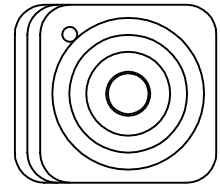
This control gives the possibility to operate, at the same time two spools with a "+" movement.



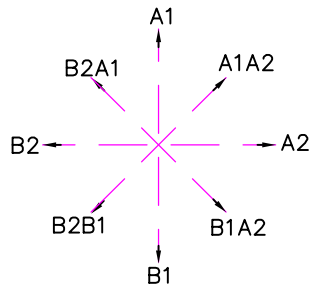
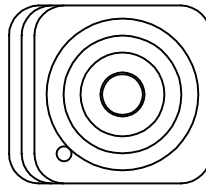
standard version 1



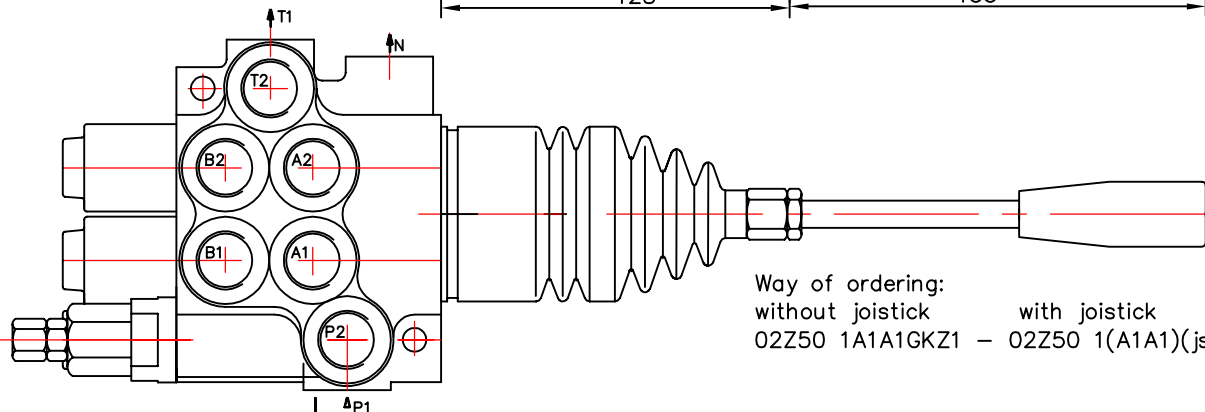
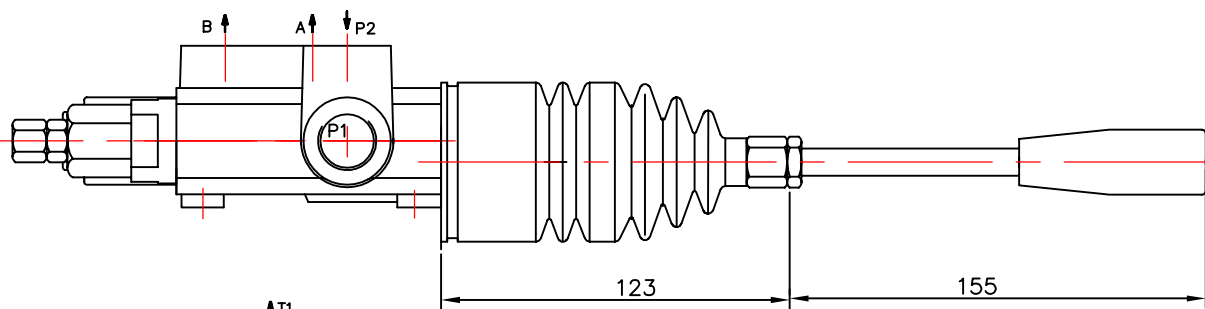
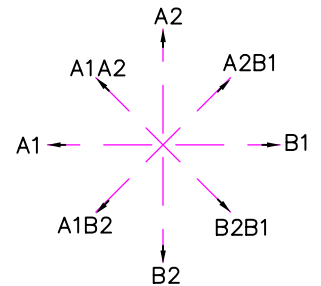
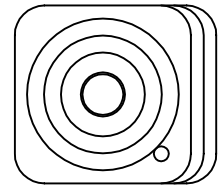
standard version 2



standard version 3



standard version 4

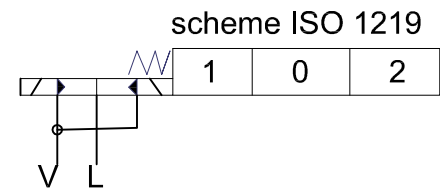
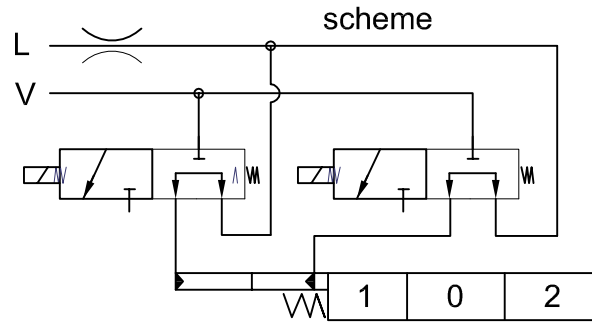
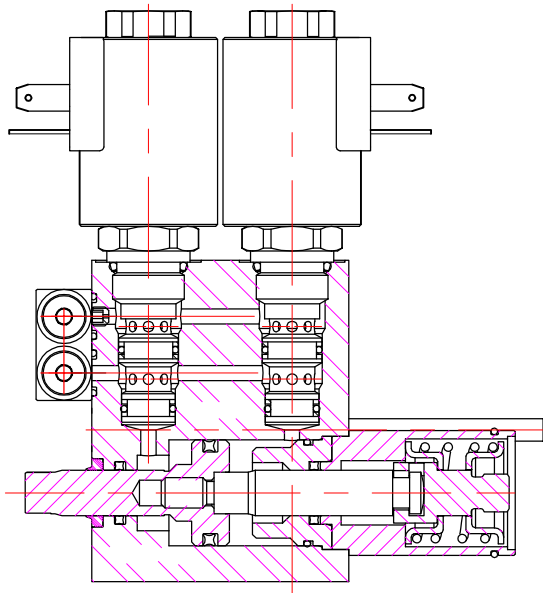


Way of ordering:  
without joystick      with joystick  
02Z50 1A1A1GKZ1 - 02Z50 1(A1A1)(js+3)G



directional control valve Z50

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

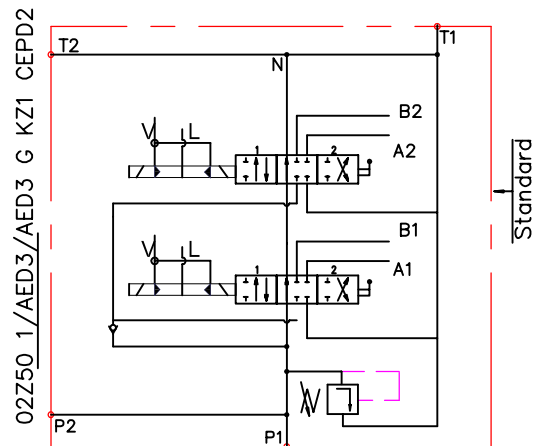
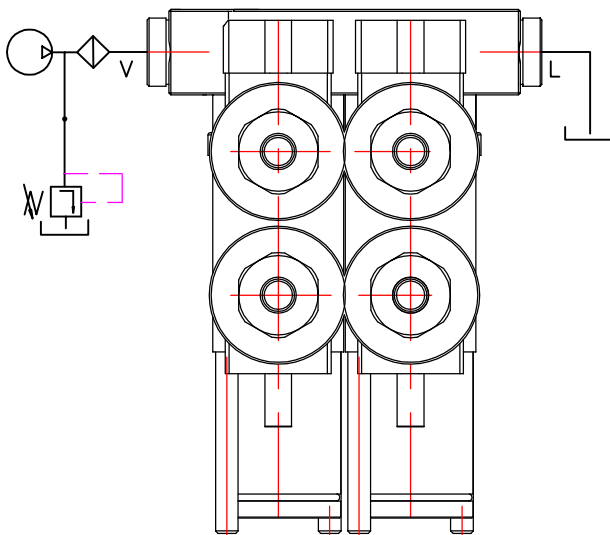


Operating pressure min 10 bar(145 psi)  
max 50 bar(725 psi)  
Max operating pressure in L (T line) 25 bar(360 psi)

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

02Z50-1/A1ED3/A1ED3 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 section  
.....



directional control valve Z50

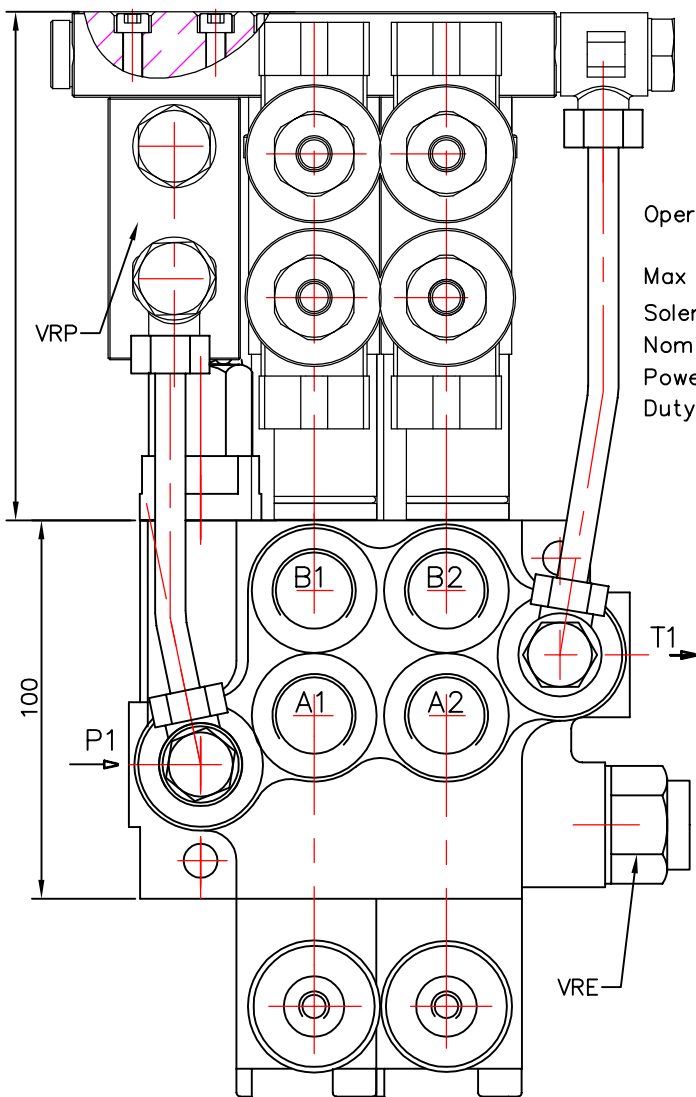
ED3 – electro-hydraulic control ON-OFF  
Электрогидравлический контрол ON-OFF

Order codes

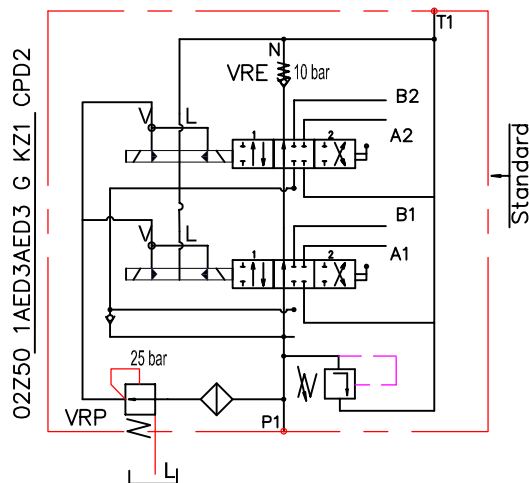
3-wai solenoid valve-LSV2-08-3C

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 %



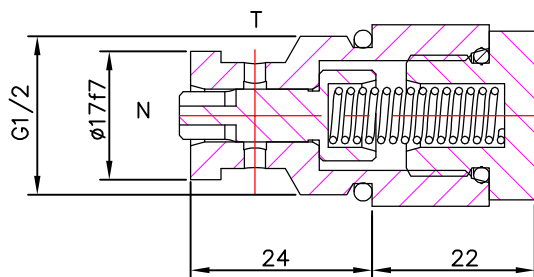
Ordering example

02Z50-VRP- 1/A1ED3/A1ED3 G KZ1-CED2-VRE-12VDC

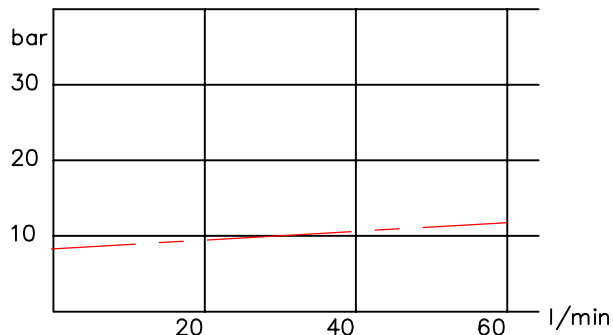
Collector kit - BSP threads  
Ordering codes

CED1	Kit for 1 section
CED2	Kit for 2 section
CED3	Kit for 3 section
CED4	Kit for 4 section
.....	

Back pressure valve VRE-P40  
Клапан погнорний на слив



Pressure drop N-T



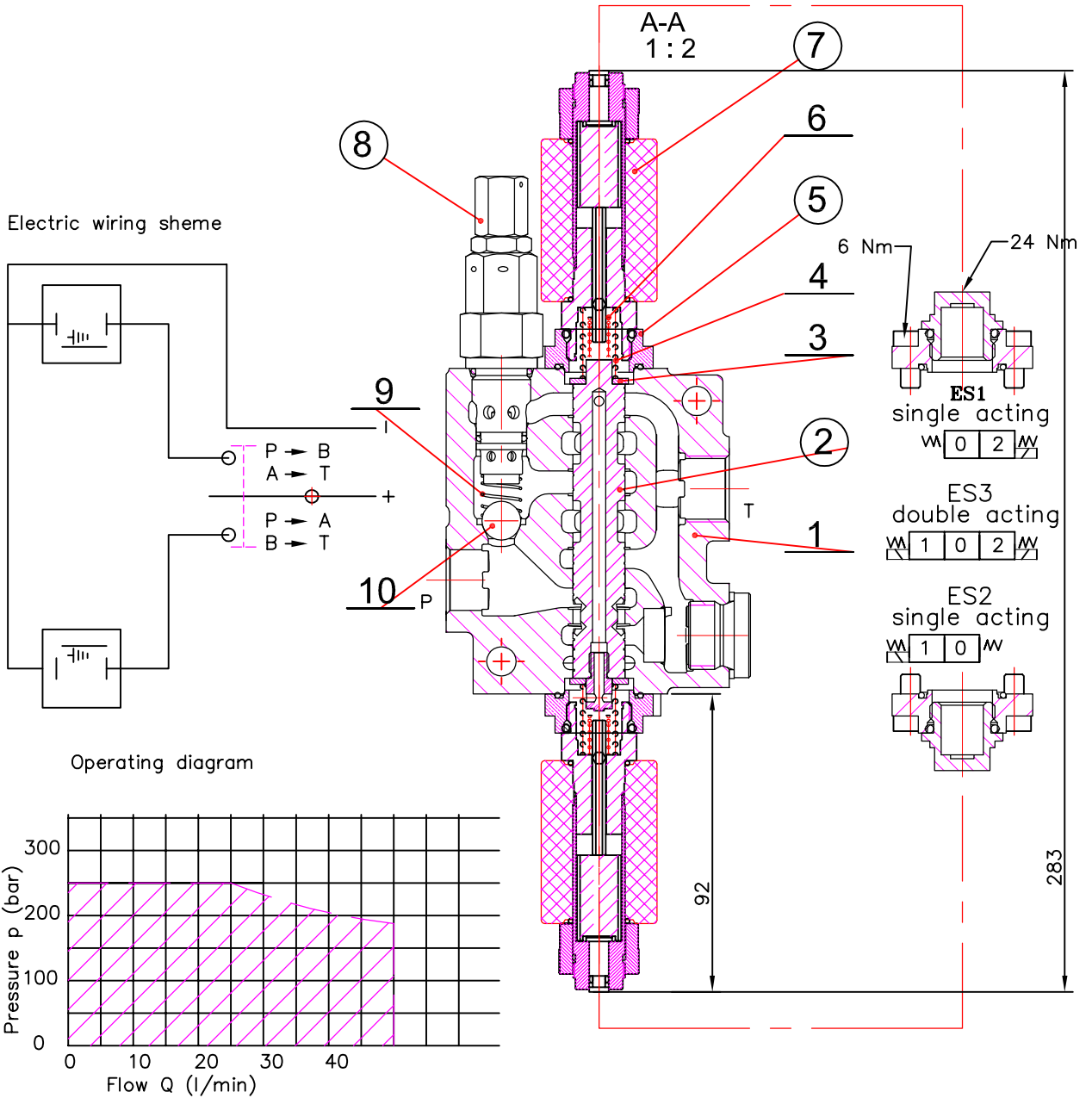
135





directional control valve Z50

ES ... SOLENOID DIRECT CONTROL



Operating features

Технические примечания

Control

Internal leakage A(B) → T  
 (p=120 bar, Viscosity=32 mm<sup>2</sup>/s : max 30 ccm/min)  
 Fluid temperature – –20°C(short time) ... 80°C  
 Max. back pressure on outlet port T – 25 bar(360 psi)

Coil

Nominal voltage tolerance . . . . . ±10%  
 Power rating . . . . . 37 W  
 Coil insulation . . . . . class H  
 Duty cycle . . . . . 100%  
 Connector ISO 4400  
 Emergency manual override

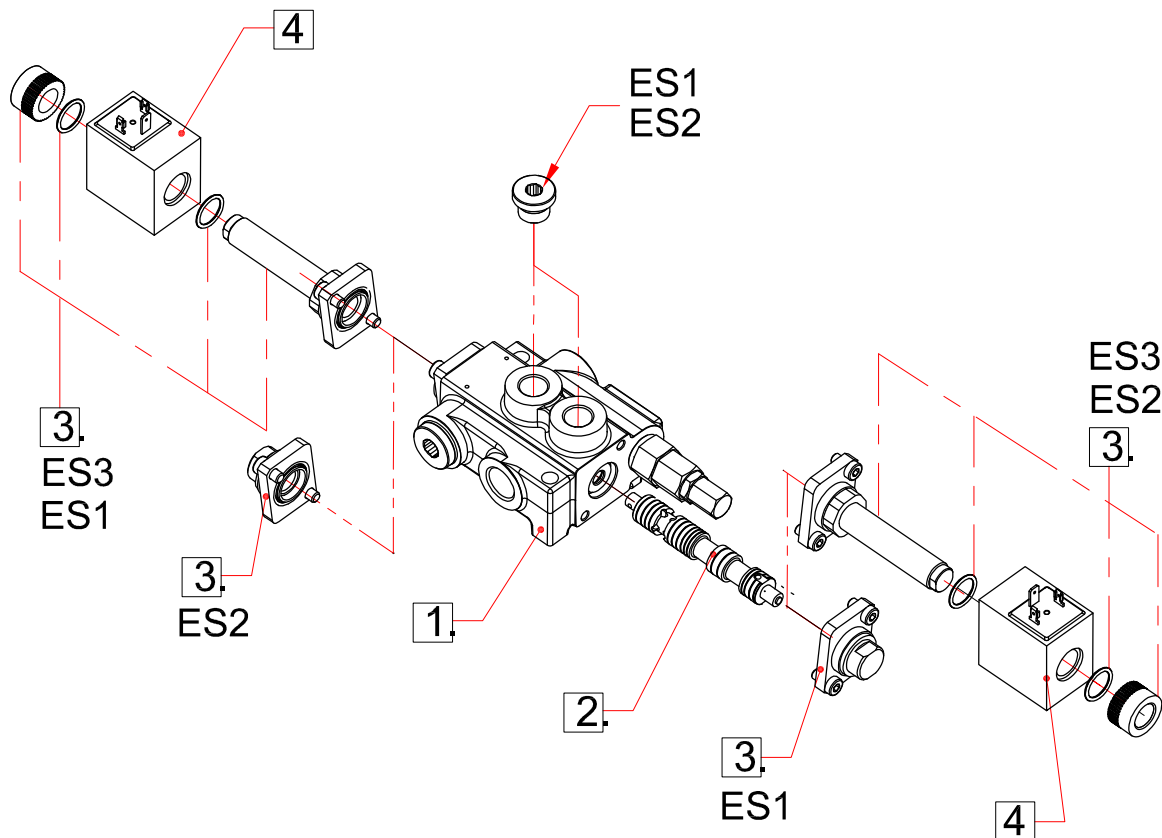
pos.	Part.No	Description	Quantity
10		Ball 12	1
9	79.00.03	Spring	1
8	79.04.00	Relief valve	1
7b	C35D012RC P01	Solenoid coil	2
7a	GM4060/BD	Solenoid Tube	2
6	542.02.00.07	Additional spring	2
5	542.02.03.00	Intermediate unit	2
4	542.02.00.04	Spring	2
3	542.02.00.02	Washer	2
2		Spool ...	1
1		Body ...	1

directional control valve Z50  
ES ... SOLENOID DIRECT CONTROL

Solenoid direct control with spring return to neutral position.  
Needs special spools and special body Z50.

ORDERING EXAMPLE

Z50	A	ES3	12VDC	G
1	2	3	4	5



1.Body kit

Type	Description
Z50	1 spool
02Z50	2 spool
03Z50	3 spool
04Z50	4 spool
05Z50	5 spool
06Z50	6 spool

2.Spool options

Type	Description
A	Double acting, 3 positions with A and B closed in neutral position
D	Double acting, 3 positions with A and B open to Tank in neutral position

3.Control kit

Type	Description
ES1	Single acting P – A with spring return in neutral position
ES2	Single acting P – B with spring return in neutral position
ES3	Double acting P – A (B) with spring return in neutral position

4.Coils

Type	Description
(with connector ISO 4400)	
12VDC	Nominal voltage 12VDC
24VDC	Nominal voltage 24VDC

5.Threads

G P, T – G1/2; A, B – G3/8