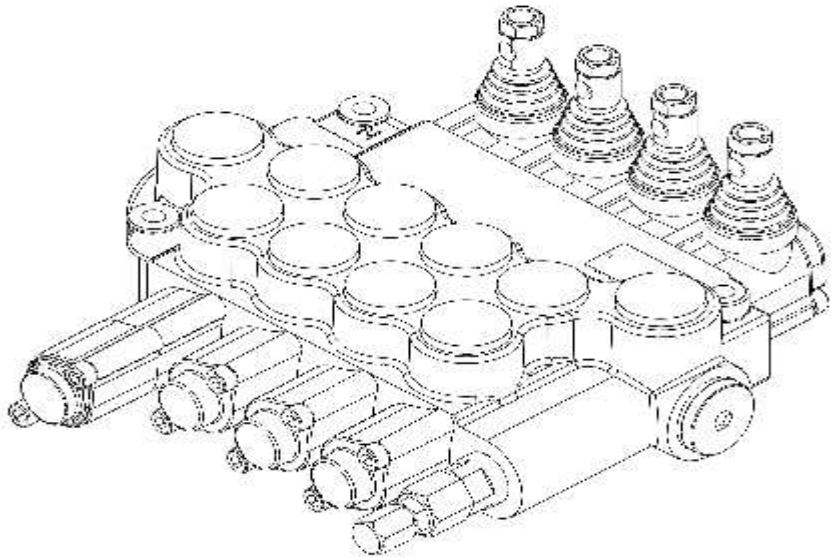


HYDRAULIC DIRECTIONAL CONTROL VALVES
 РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



Description

Назначение и область применения

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

Specifications / Основные показатели

1. Valve monoblock	моноблок
Конструктивное выполнение	
2. Mounting / Крепление	3 bolts M8
3. Pressure connections / присоединительные отверстия	internal threads
4. Ambient temperature	-40 - +60°C
Температура воздуха	
5. Medium	mineral oil based hydraulic oil
Рабочая жидкость	
6. Viscosity	12 - 800 mm ² /s permissible range
Кинематическая вязкость	20 - 100 mm ² /s recommended range
7. Fluid temperature	-20 - +80°C
8. Filtration	Oil contamination 10 to NAS 1683
9. Max. operating pressure	P = 250 bar
	A, B = 300 bar
	T < 50 bar
	6 ccm/min at 100 bar
10. Internal leakage at 46 mm ² /s	
A, B to T	
11. Nominal flow	80 l/min
12. Spool stroke	± 7 mm
Ход золотника	
13. Actuating force	< 220 N in spool axis direction

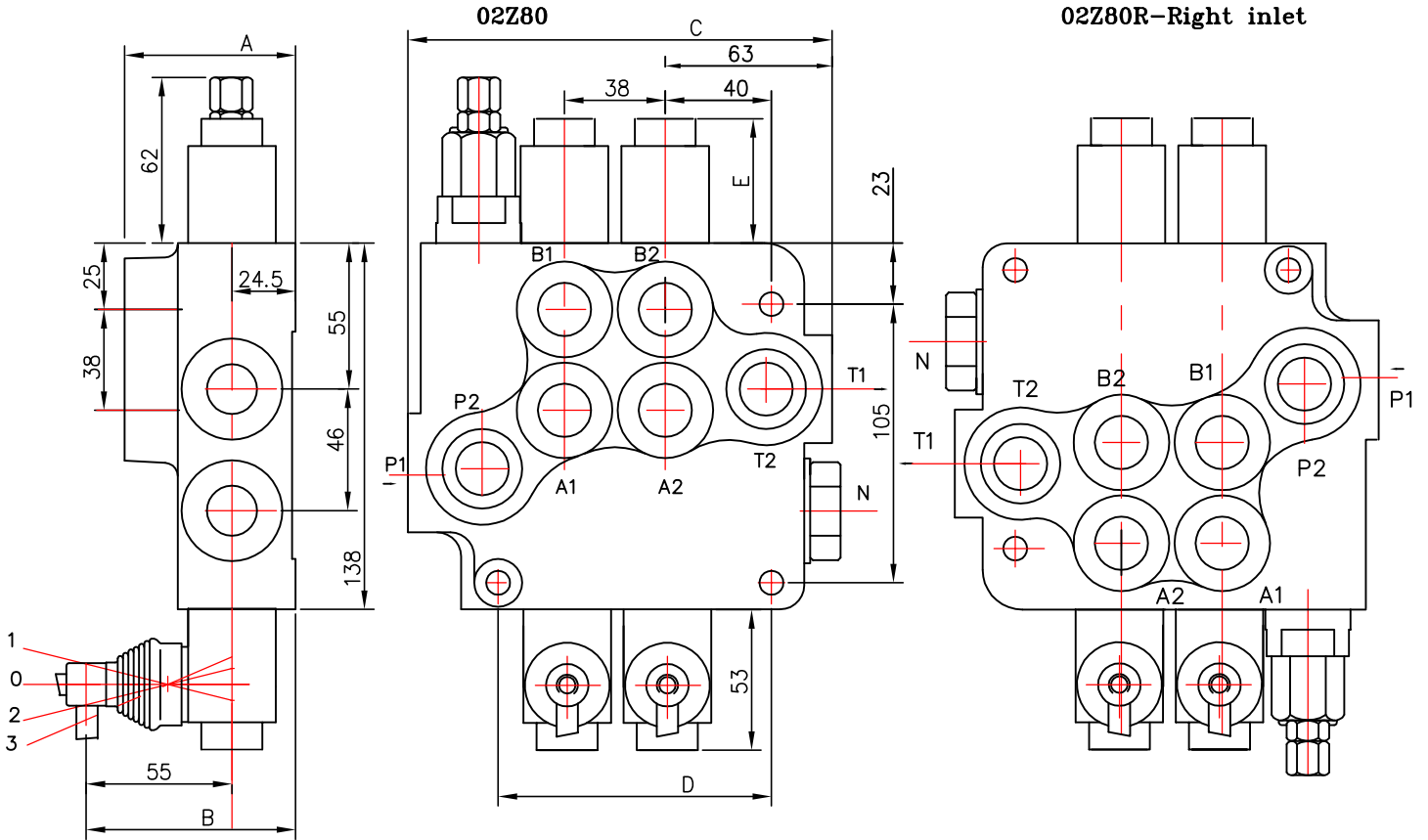


Table 1

	A	B	C	D	P1	P2	T1	T2
01Z80	67	80	122	65	*	*	-	-
02Z80	67	80	160	103	*	*	*	*
03Z80	67	80	198	141	*	*	*	*
04Z80	67	80	236	179	*	*	*	*
05Z80	67	80	274	217	*	*	*	*
06Z80	67	80	312	255	*	*	*	*

Table 2

Spool control	E
1, 4, 5, 6, 7, 8, 9, 10, 11,	40
2, 3, 12, 14	72
13	44

0 2 Z80 R A 1 A 1 G KZ1 T P 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

 first spool distribution type
 характеристика первого золотника

 spool control/detend and estr./
 контрол золотника/фиксация и грузе/

 second spool distribution type
 вид второго золотника

 spool control/detend and estr./
 контрол золотника/фиксация и грузе/

 ports /treads/
 резьбовые отверствия

 general operation featurе
 вид ручного управления

 with "teton"
 исполнение ручного управления с "тетон"

 operation featurе /pneumatic, .../
 грузе управление

 with electric switch
 с электрическим выключателем

 high pressure carry over
 продолжител потока високого давления

 connection ports in use
 присоединительные отверствия

way of distribution – parallel; распределение – параллельное

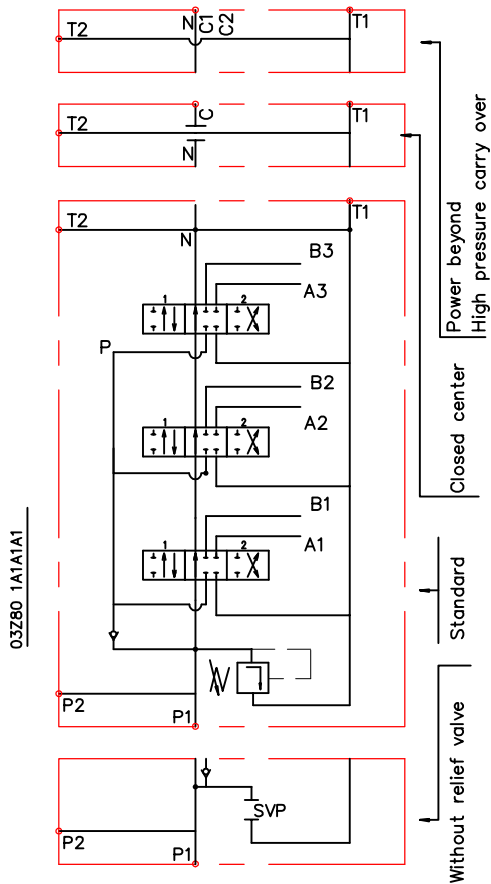


Table 3

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

Table 4

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

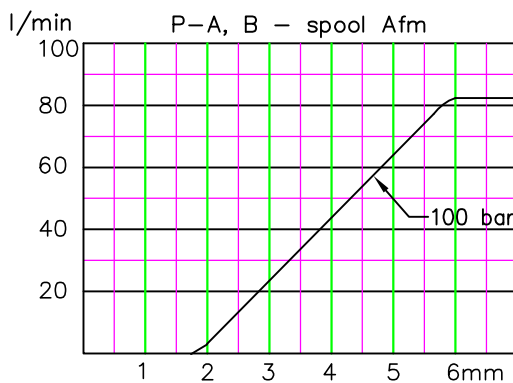
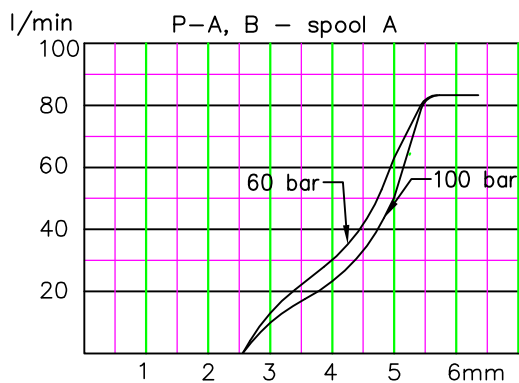


Table 5

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

Table 6

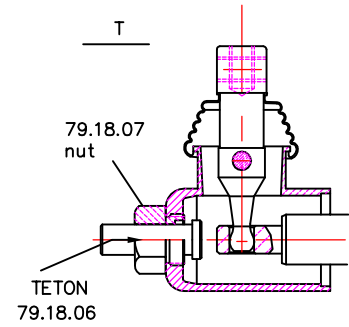
code	грузое управление ; operation feature	
P		пневматическое on-off pneumatic control; 5–10 bar ; ports NPTF 1/8–27
H		гидравлическое on-off hydraulic control ; pn = 5 – 20 bar ; ports G1/4

directional control valve ..Z80

Z80

Table 7

code	ports (treads) ; присоединительные отверствия				
	P	A ; B	T	N	C2
M	M22x1.5	M22x1.5	M26x1.5	M26x1.5	M26x1.5
G	G1/2	G1/2	G3/4	G3/4	G3/4
S	7/8-14UNF	7/8-14UNF	1 1/16-14UNF	1 1/16-14UNF	1 1/16-14UNF



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 ричажная система управления				

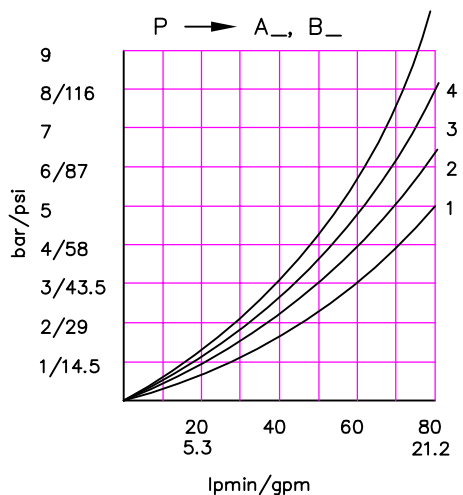
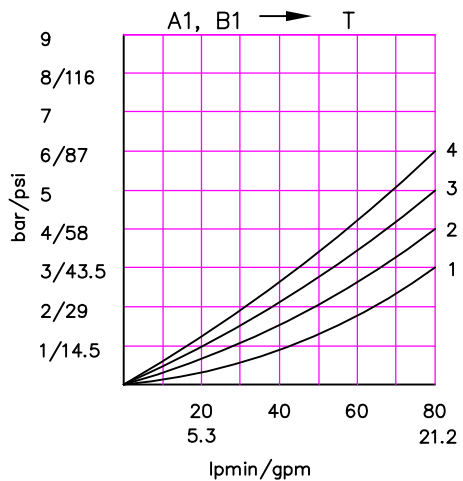
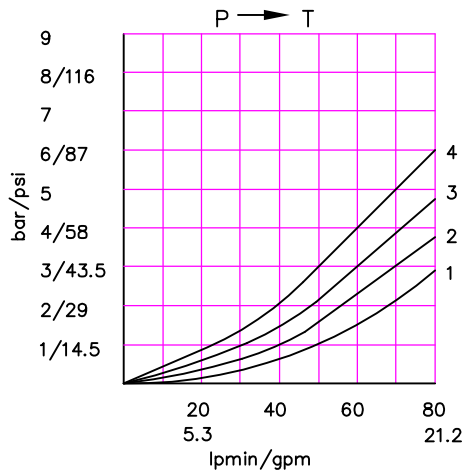
Table 11

code	вид продължение на дебита	
C	отвор "N" затворен closed center	
C2	отвор "N" продължава 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	

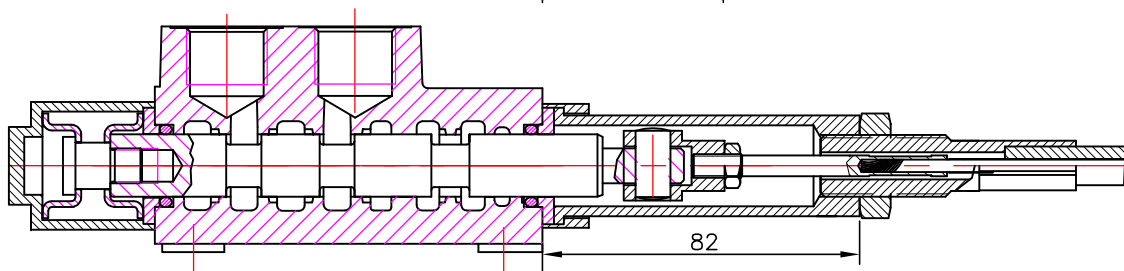
Table 12

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

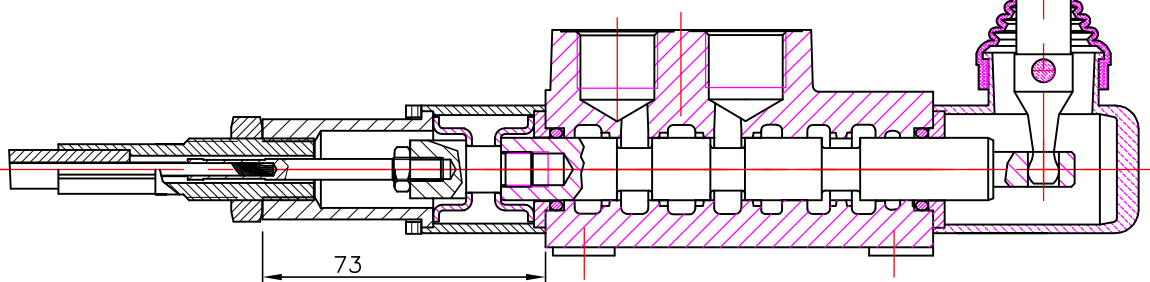
..Z80 directional control valve - A



REMOTE CONTROL
Управление тросом



Z80 A1G V1(l= . . .)+ 3047
spool valve cable control body

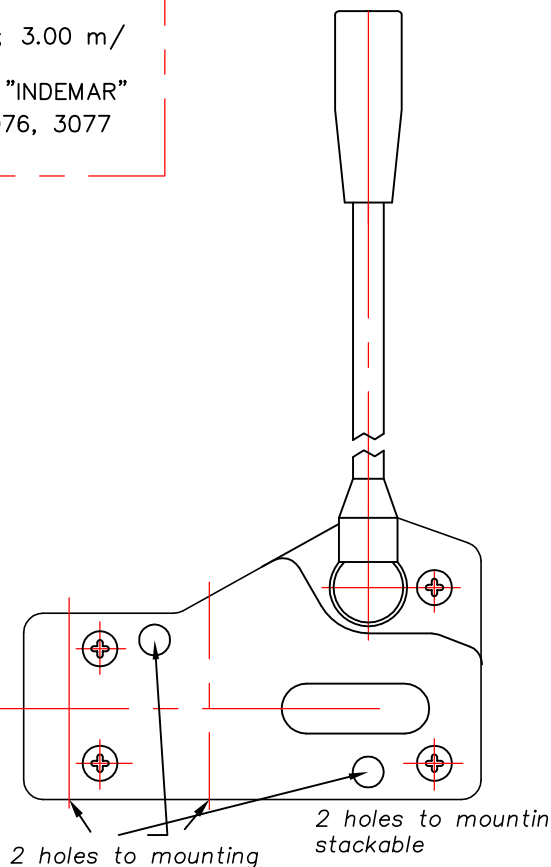


Z80 A1G V2KZ1(l= . . .)+ 3047
spool valve cable control body

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

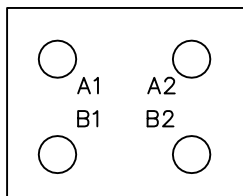
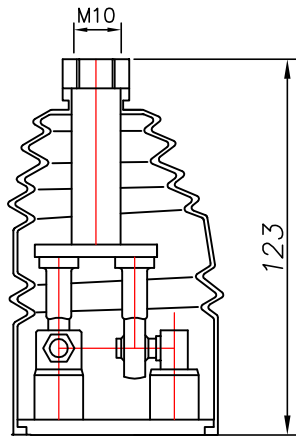
Technical specifications			
	3047	3076	3077
Stroke	13+13 mm	13+13 mm	13+13 mm
Max. load	45 kg	45 kg	45 kg
Level ratio	10:1	10:1	10:1
Lock in neutral	No	No	Yes
Antireverse lock	No	Yes	No
Body colour	Black	Black	Black
Cables type	Heavy Duty	Heavy Duty	Heavy Duty
Operating temperature	-40/+80C	-40/+80C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

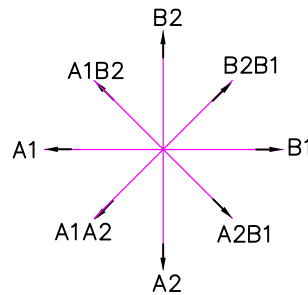
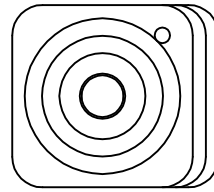


JOYSTICK "+"

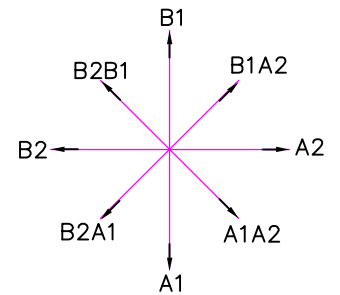
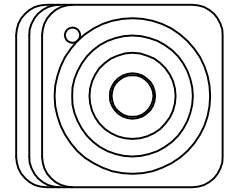
This control gives the possibility to operate, at the same time two spools with a "+" movement.



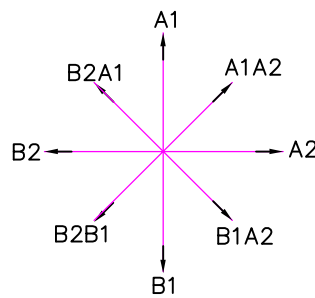
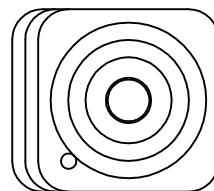
standard version 1



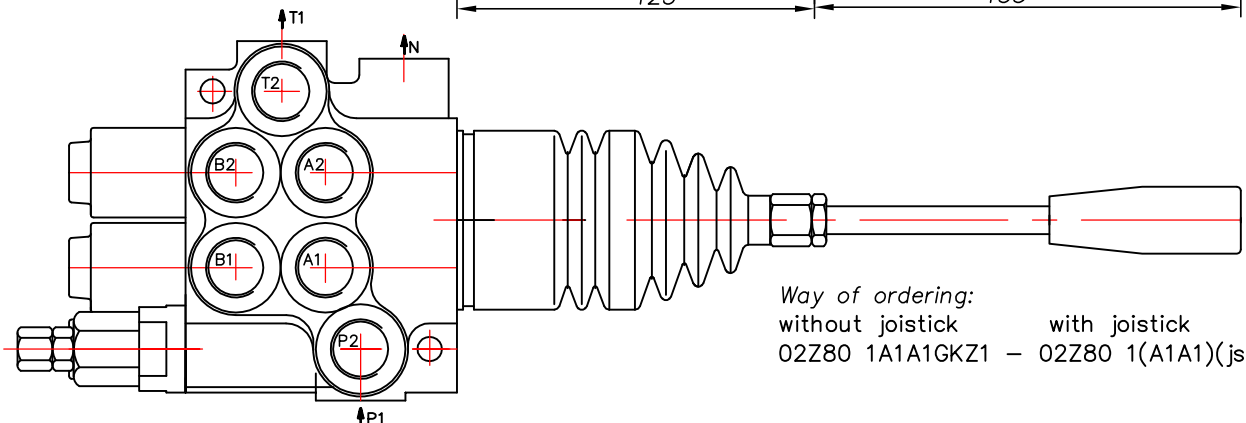
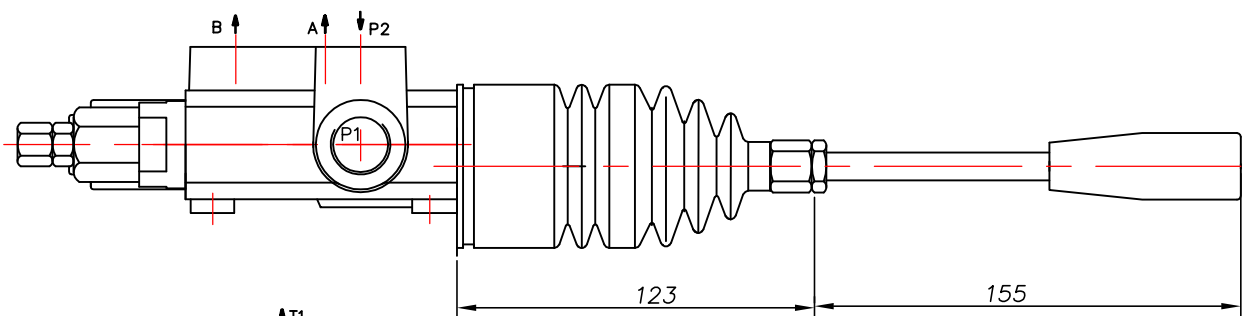
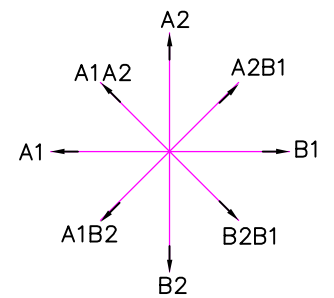
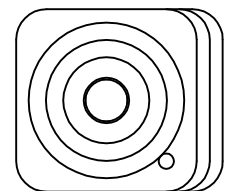
standard version 2



standard version 3



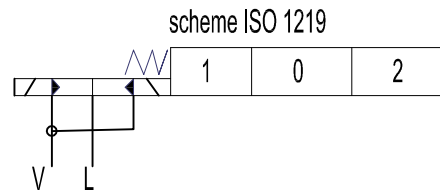
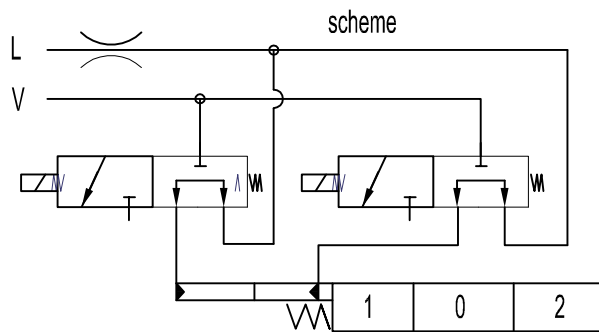
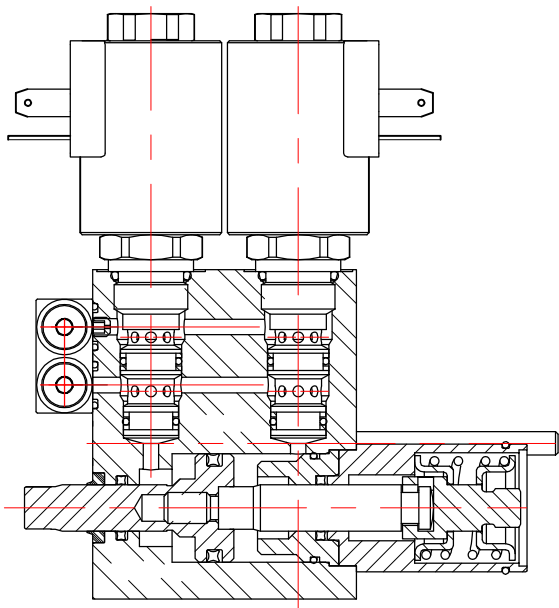
standard version 4



Way of ordering:
 without joystick with joystick
 02Z80 1A1A1GKZ1 - 02Z80 1(A1A1)(js+3)G

directional control valve ..Z80

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

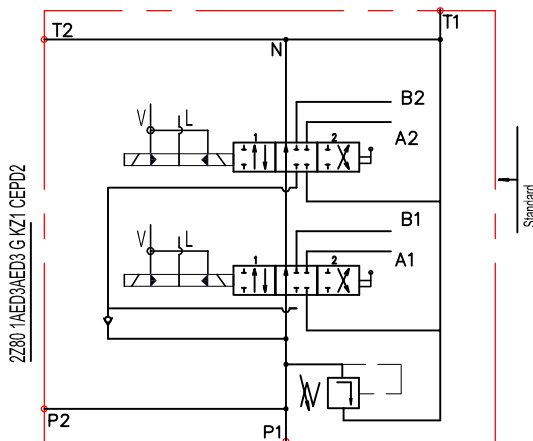
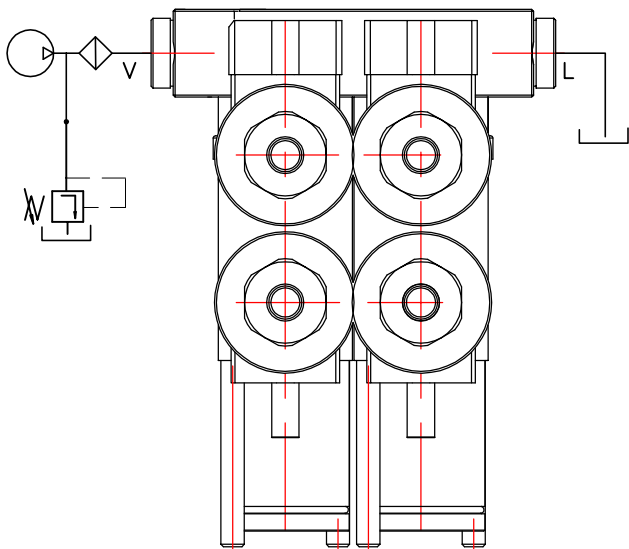


Ordering codes
 3-way solenoid valve-SV08-33
 coil P40ED3-G-12VDC
 coil P40ED3-G-24VDC

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 %

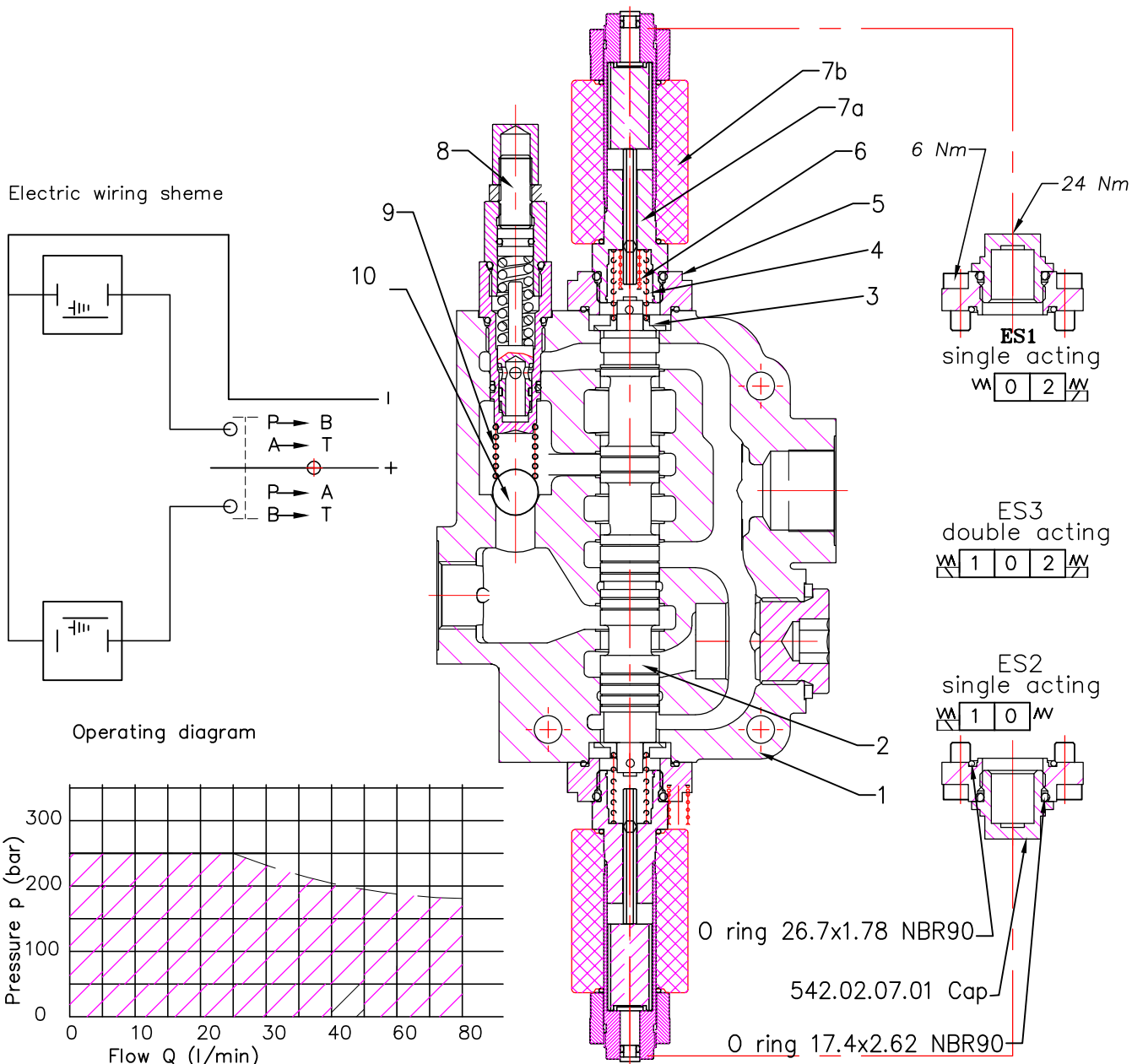
Collector kit for external pilot and drain – CEED...(1,2,3 ...)
 Коллектор для внешнего питания управления и слив



Ordering example
 02Z80 1A1ED3A1ED3 G KZ1-CEED2-12VDC

Ordering codes (BSP threads)

CEED1P80	Kit for 1 section
CEED2P80	Kit for 2 section
CEED3P80	Kit for 3 section
CEED480	Kit for 4 sektion
...	



Operating features

Технические примечания

Control

Internal leakage A(B) → T
 (p=120 bar, Viscosity=32 mm²/s : max 40 ccm/min)
 Fluid temperature - -20°C(short time) ... 80°C
 Max. back pressure on outlet port T - 25 bar (360psi)

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 14.28	1
9	123.00.47	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	511.02.02.00	Intermediate unit	2
4	542.02.00.04	Spring	2
3	511.02.00.02	Washer	2
2		Spool ...	1
1		Body ...	1

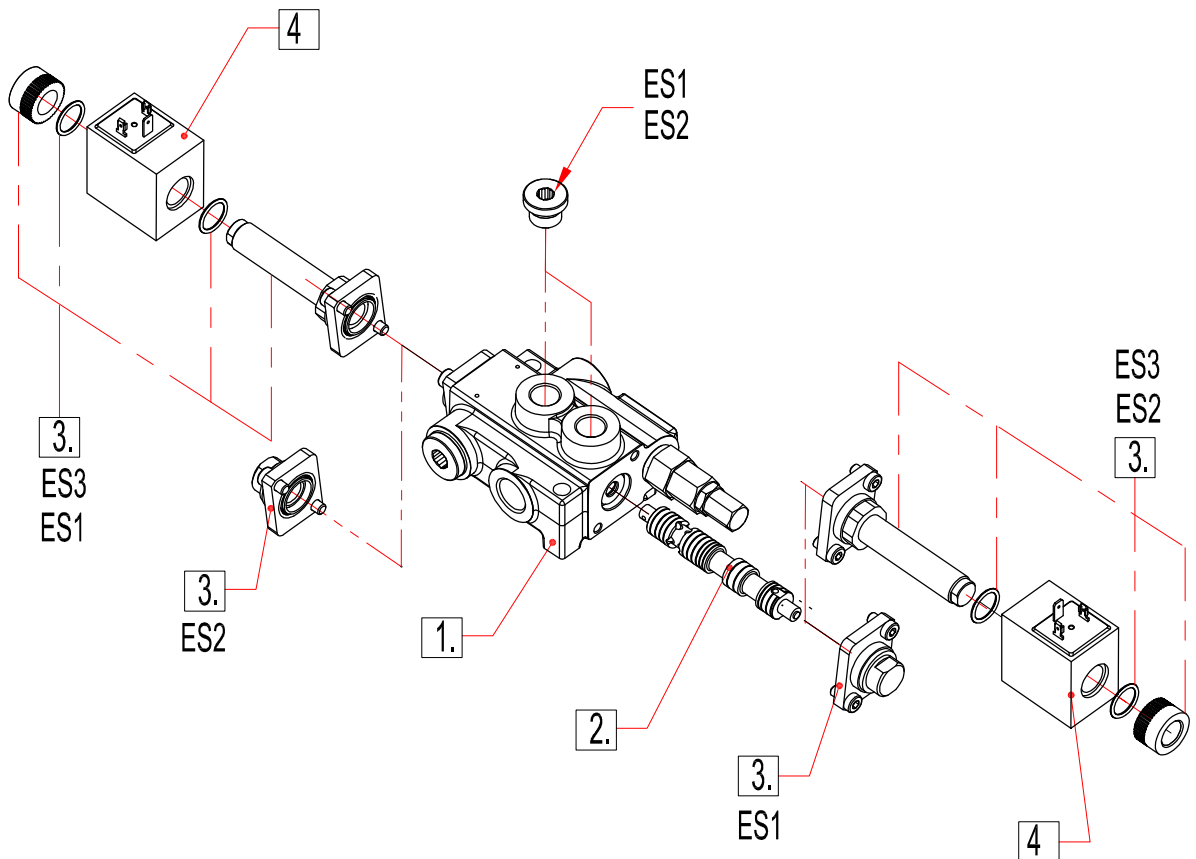
directional control valve Z80

ES ... SOLENOID DIRECT CONTROL

Solenoid direct control with spring return to neutral position.
Needs special spools and special body Z80.

ORDERING EXAMPLE

Z80	A	ES3	12VDC	G
1	2	3	4	5



1.Body kit

Type	Description
01Z80	1 spool
02Z80	2 spool
03Z80	3 spool
04Z80	4 spool
05Z80	5 spool
06Z80	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 – G3/4; A, B – G1/2
---	--------------------------