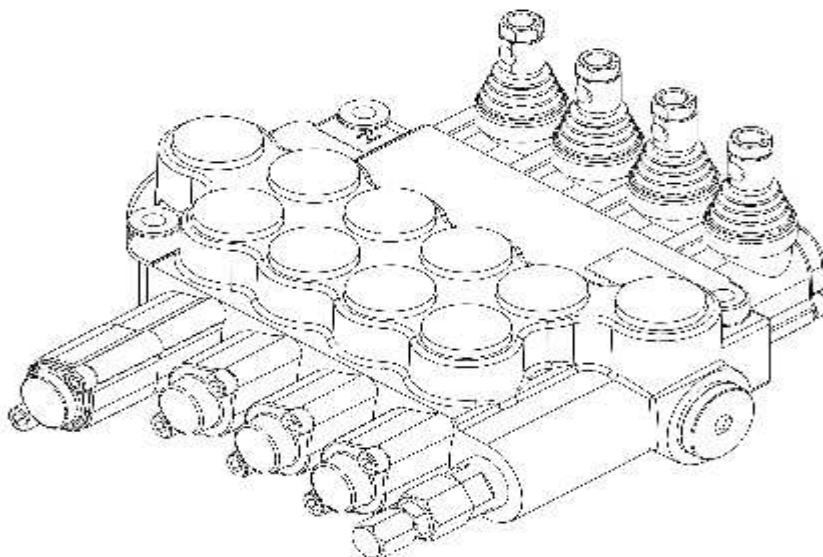




HYDRAULIC DIRECTIONAL CONTROL VALVES  
РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



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 гидролиниях, разгрузки насоса в нейтральной позиции золотников.

Specifications / Основные показатели

1. Valve monoblock

Конструктивное выполнение

моноблок

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<sup>2</sup>/s permissible range

Кинематическая вязкость

20 - 100 mm<sup>2</sup>/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<sup>2</sup>/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

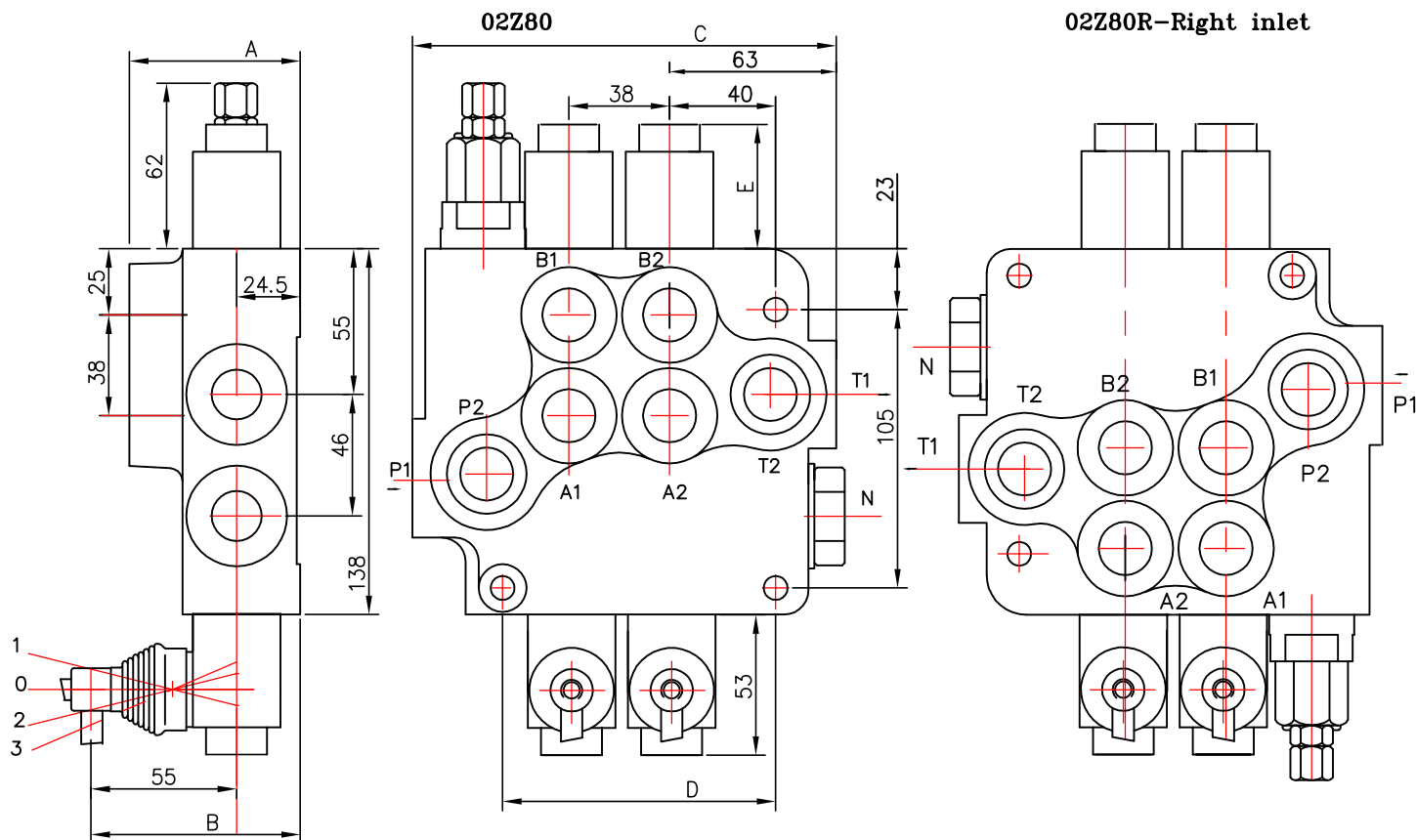


Table 1

	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** \_\_\_\_\_  
block with common check valve  
распределитель с общим клапаном

**2** \_\_\_\_\_  
number of spools  
количество золотников

**Z80** \_\_\_\_\_  
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 estr./  
контроль золотника/фиксация и грузе/

**A** \_\_\_\_\_  
second spool distribution type  
тип второго золотника

**1** \_\_\_\_\_  
spool control/detend and estr./  
контроль золотника/фиксация и грузе/

**G** \_\_\_\_\_  
ports/treads/  
резьбовые отверствия

**KZ1** \_\_\_\_\_  
general operation feature  
вид ручного управления

**T** \_\_\_\_\_  
with "teton"  
исполнение ручного управления с "тетон"

**P** \_\_\_\_\_  
operation feature /pneumatic, .../  
грузе управление

**E** \_\_\_\_\_  
with electric switch  
с электрическим выключателем

**C2** \_\_\_\_\_  
high pressure carry over  
продолжител потока високого давления

**11** \_\_\_\_\_  
connection ports in use  
присоединительные отверствия



way of distribution – parallel; распределение – параллельное

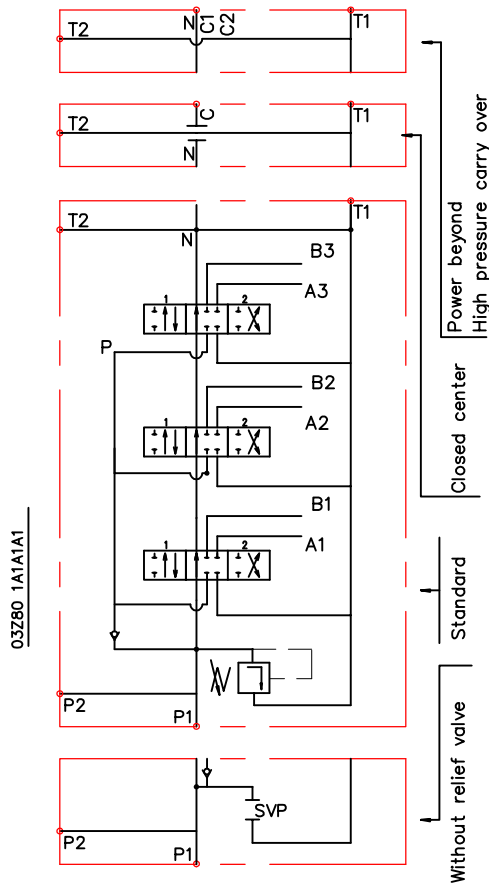


Table 3

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	

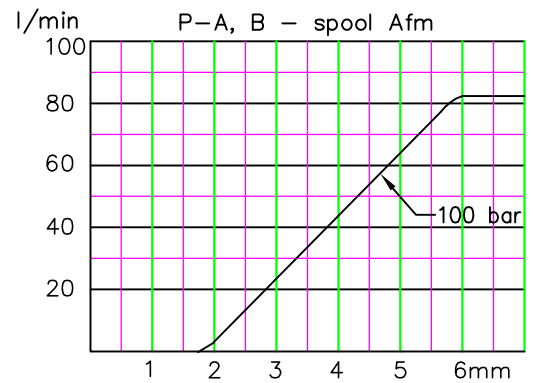
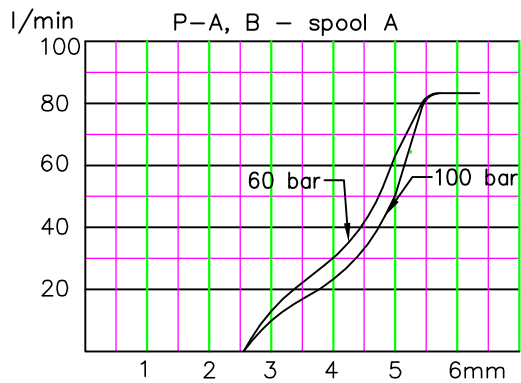


Table 5

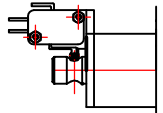
code	с микро шалтер ; incorporated microswitch	
E		mikroswitch type Omron-V 165 I C5 

Table 6

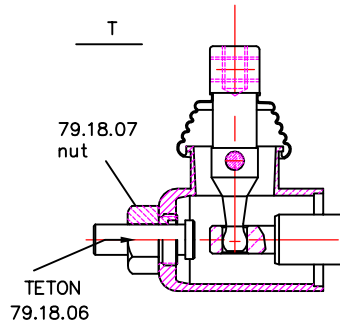
code	грузое управление ; operation feature	
P		пневматическое on-off pneumatic control; 5–10 bar ; ports NPTF 1/8–27
H		гидравлическое on-off hydraulic control ; pn = 5 – 20 bar ; ports G1/4



Z80

Table 7

code	ports (threads) ; присоединительные отверстия				
	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				

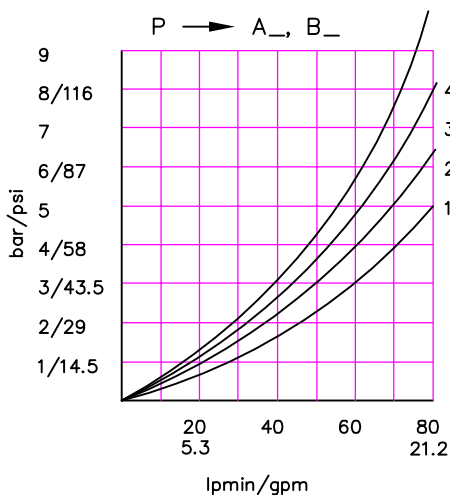
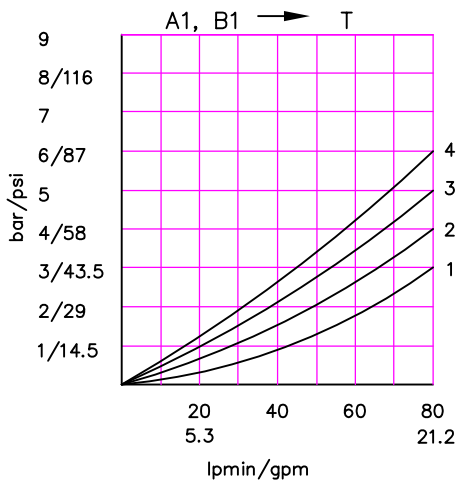
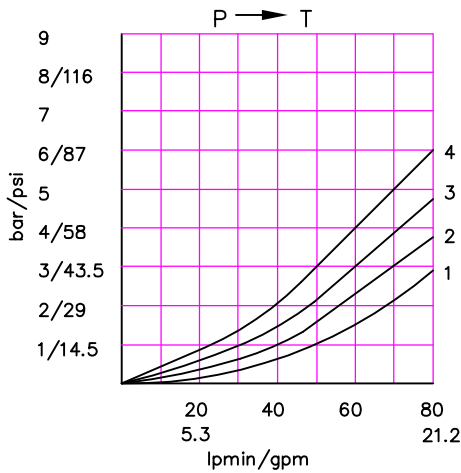
Table 11

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

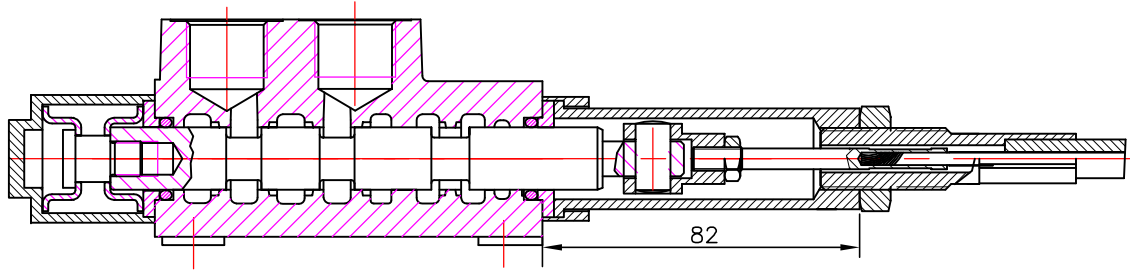
code	used connection ports ; присоединительные отверстия
11	P1 ; T1
12	P1 ; T2
21	P2 ; T1
22	P2 ; T2

..Z80 directional control valve - A

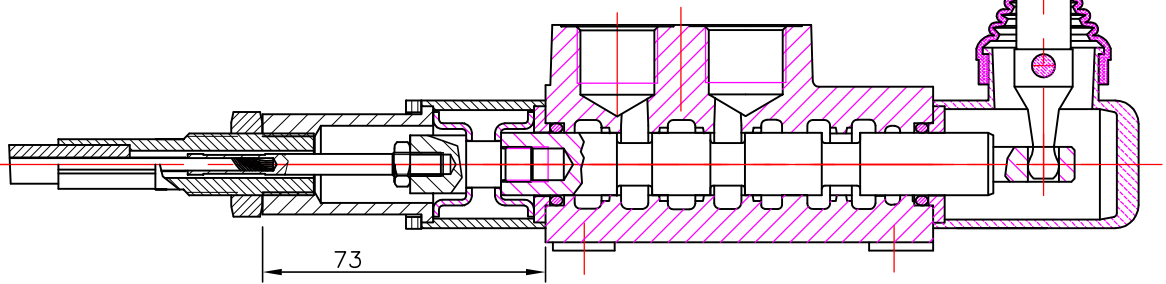




REMOTE CONTROL  
Управление тросом



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



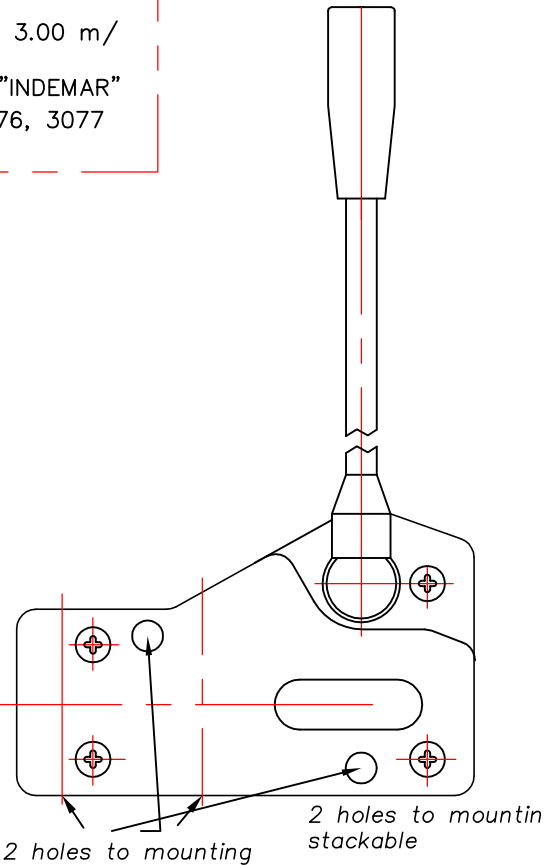
Z80 A1G      V2KZ1(l= . . .)+      3047  
spool valve      cable      control body

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.

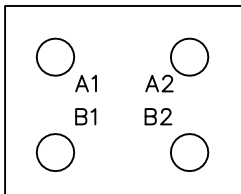
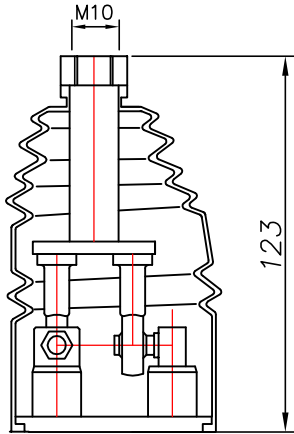
They use push-pull heavy duty cables that provide a positive smooth operating lever and are manufactured in a three different models to meet different needs of Clients.



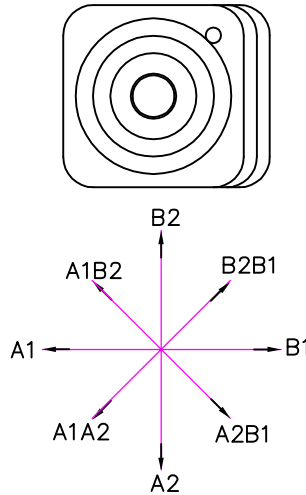


JOYSTICK "+"

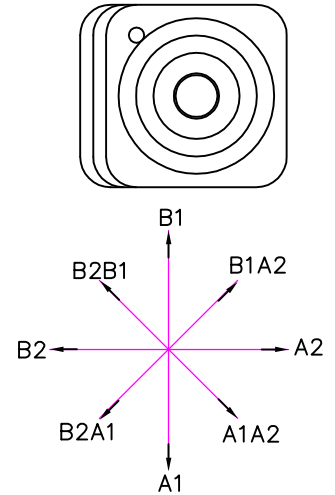
This control gives the possibility to operate, at the same time two spools with a "+" movement.



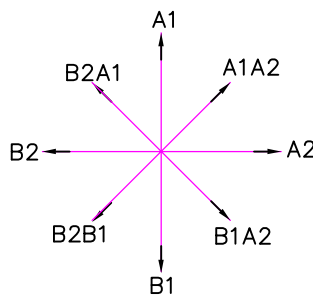
standard version 1



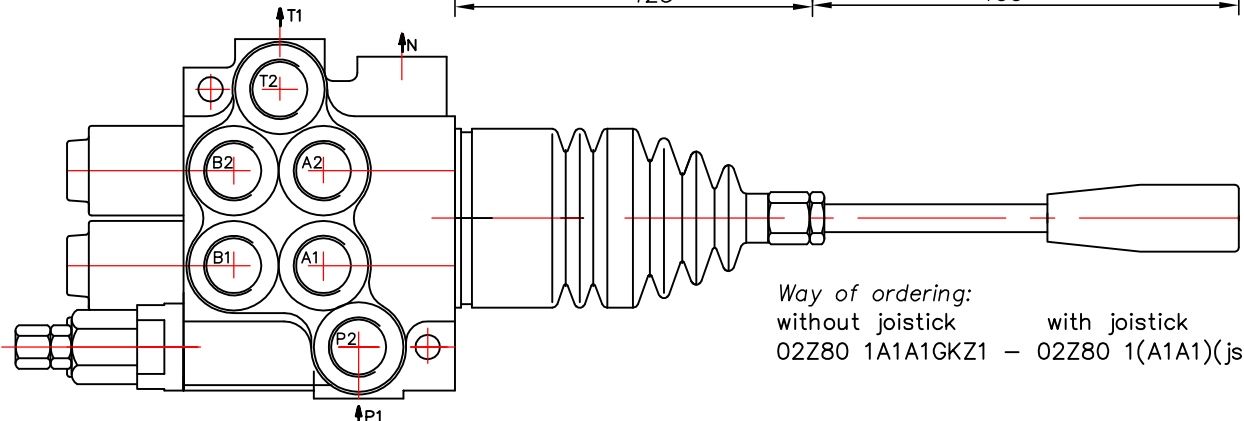
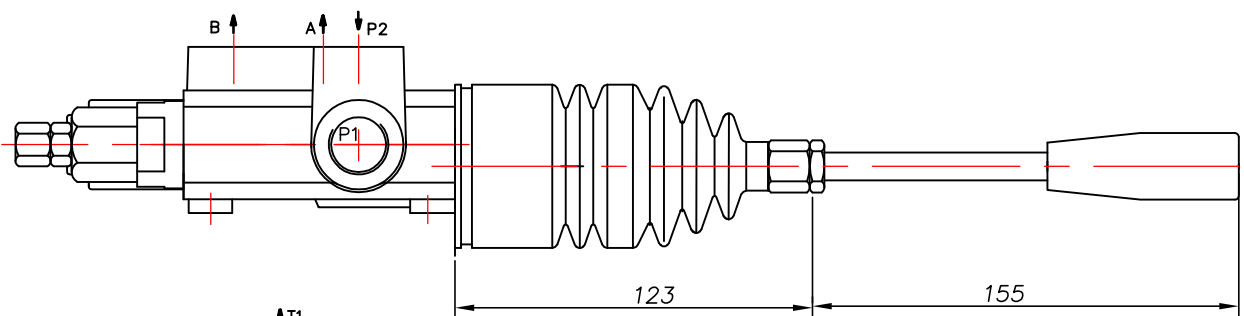
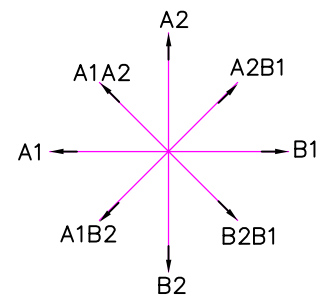
standard version 2



standard version 3



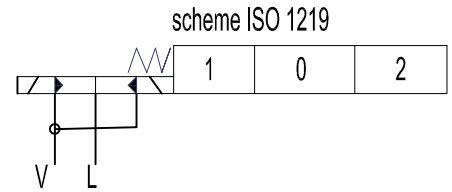
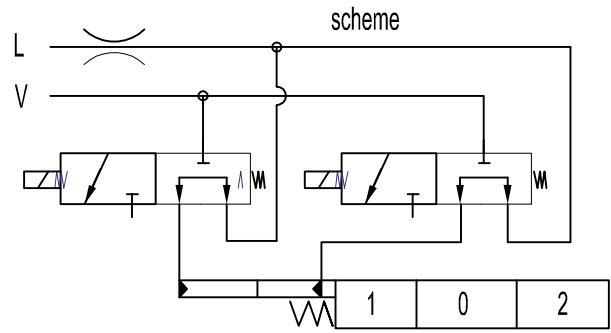
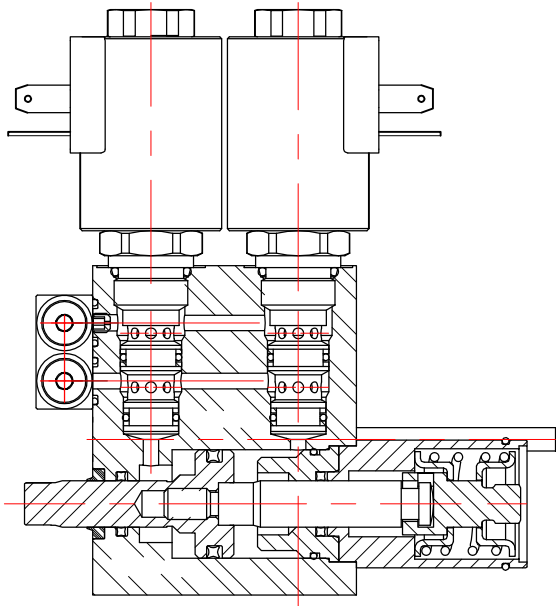
standard version 4



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



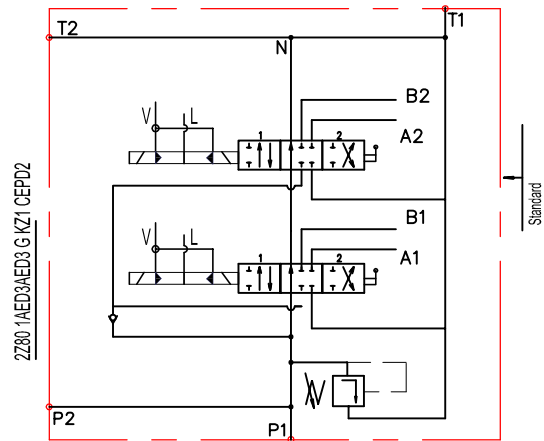
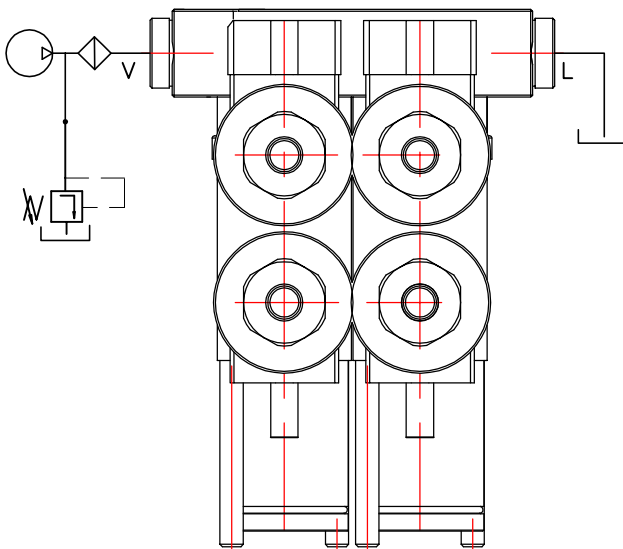
ED3 – electro-hydraulic control ON-OFF  
Электрогидравлический контрол ON-OFF



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



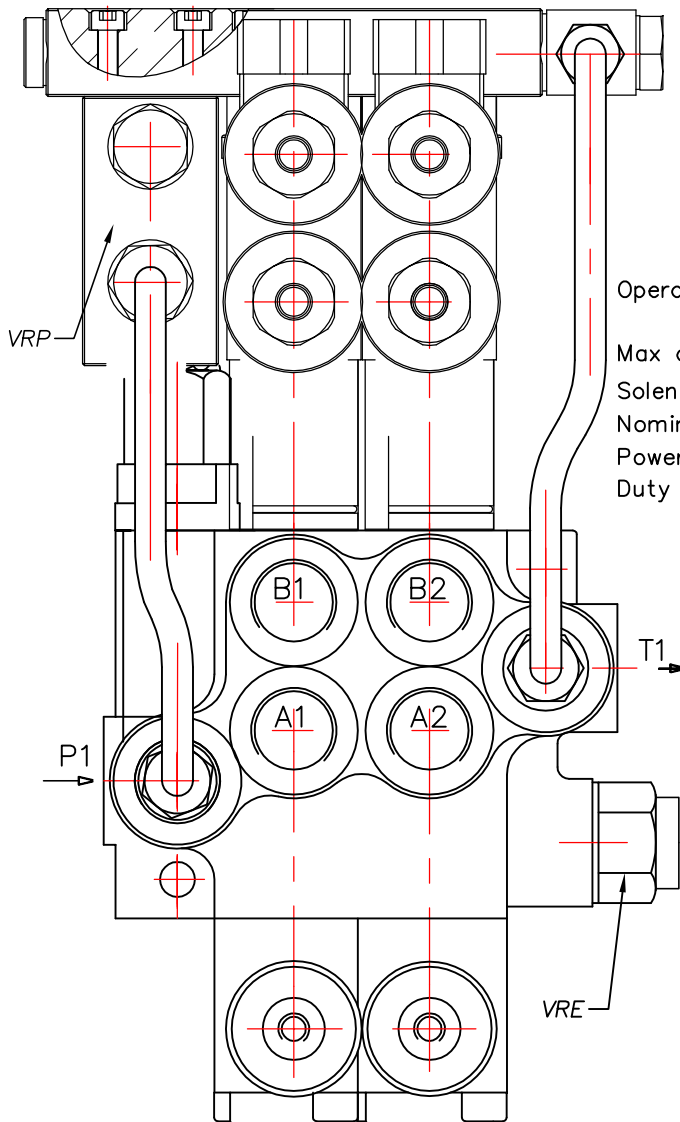
Ordering example  
02Z80 1A1ED3A1ED3 G KZ1-CEED2-12VDC

Ordering codes (BSP threads)

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

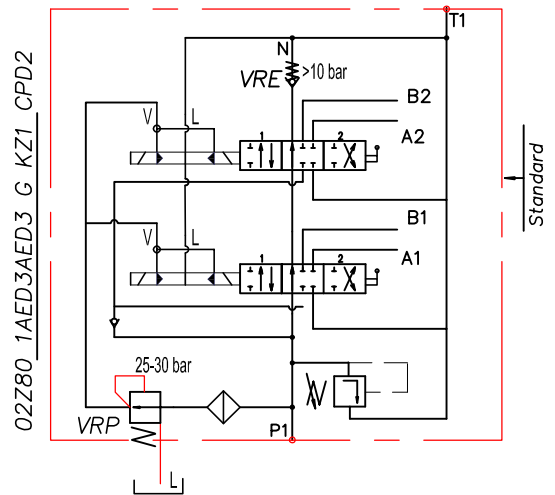


ED3 – electro-hydraulic control ON-OFF  
Электрогидравлический контрол ON-OFF



Order codes  
3-way solenoid valve-LSV2-08-3C-NNN  
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

02Z80 VRP 1A1ED3A1ED3 G KZ1-CED2-VRE-12VDC

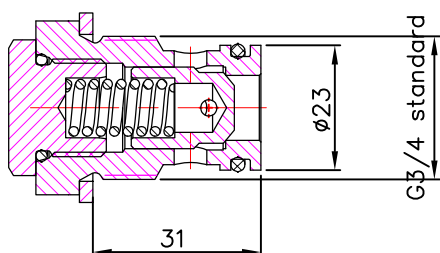
Colector kit

BSP threads  
Ordering codes

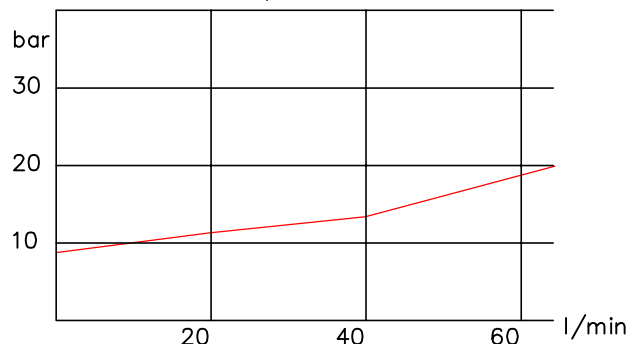
CED1P80  
CED2P80  
CED3P80  
CED480  
...

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

Back pressure valve VRE-P80  
Клапан подпора



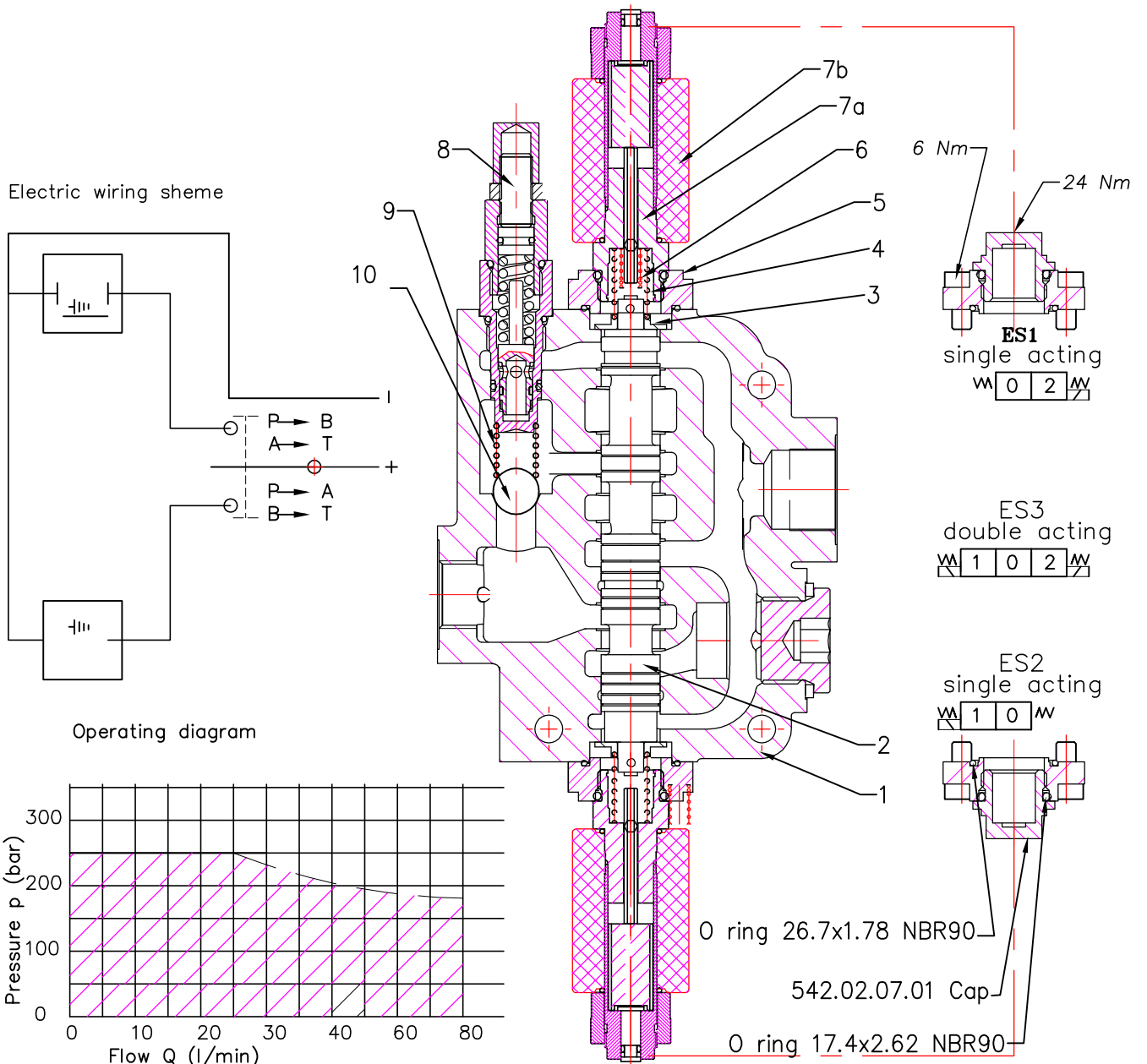
Pressure drop N-T







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 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

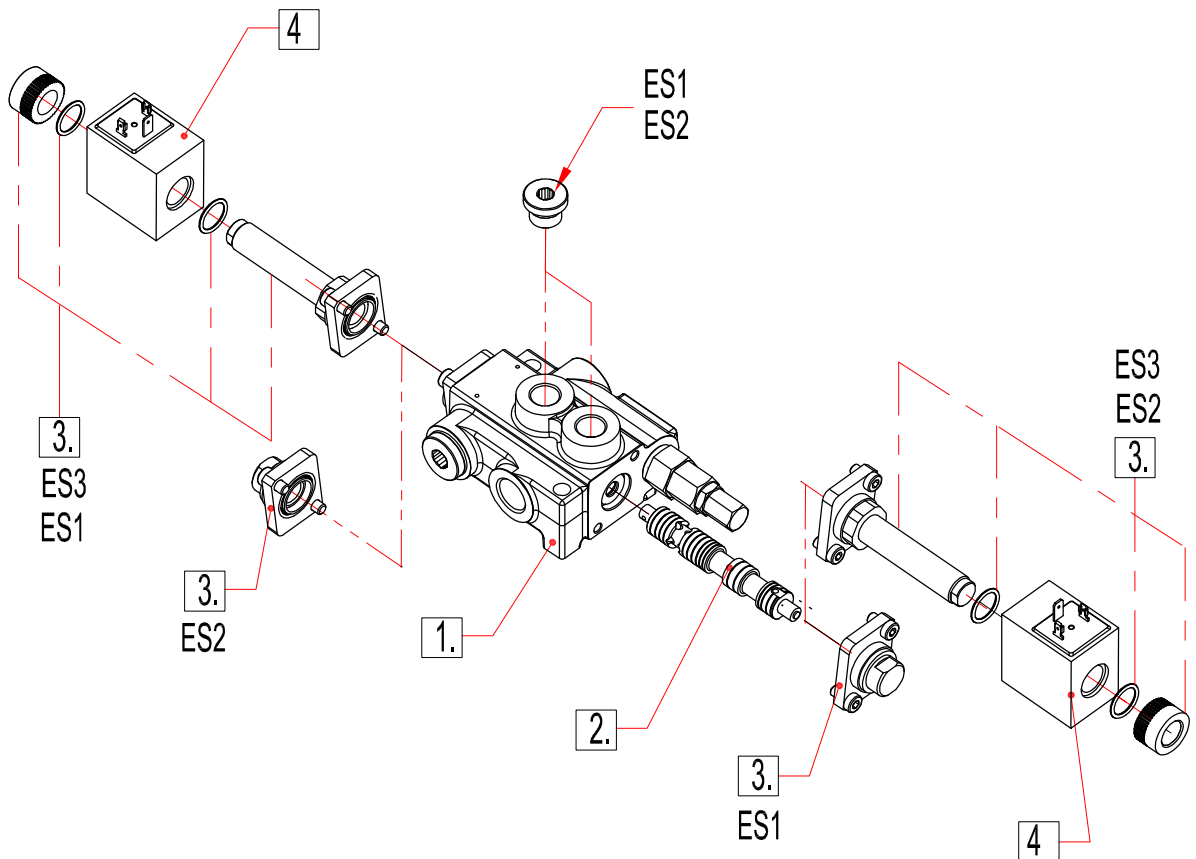


ES ... SOLENOID DIRECT CONTROL

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
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