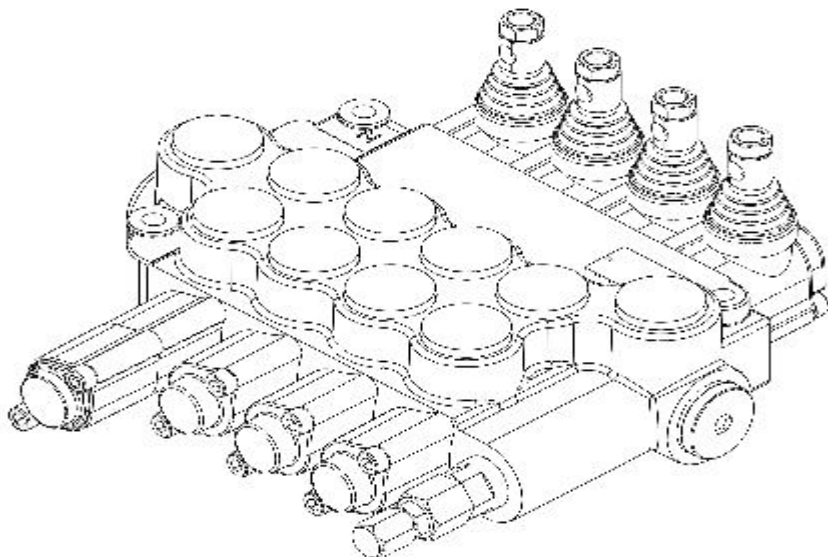


HYDRAULIC DIRECTIONAL CONTROL VALVES
 РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



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 гидрولىниях, разгрузки насоса в нейтральной позиции золотников.

Specifications

Основные показатели:

1. Valve monoblock	моноблок
Конструктивное выполнение	3 bolts M8
2. Mounting	
Крепление	internal thread
3. Pressure connections	внутренние резьбы
Присоединительные отверстия	-40C...+60C
4. Ambient temperature	
Температура воздуха	mineral oil based hydraulic oil
5. Pressure medium	
Рабочая жидкость	12...800 mm ² /s permissible range
6. Viskosity	20...100 mm ² /s recommended range
Кинематическая вязкость	- 15C...+80C
7. Fluid temperature	Oil contamination 10 to NAS1638
8. Filtration	P = 250 bar
9. Max. operating pressure	T = 50 bar
Давление max. bar	A, B = 300 bar
	18 cm ³ /min at 120 bar
10. Leakage	
Внутренние потери (A, B – T)	80 l/min (see “operating” diagram)
11. Nominal flow	
Разход рабочей жидкости	± 7 mm
12. Spool stroke	
Ход золотника	< 220 N in spool axis direction
13. Actuating force	

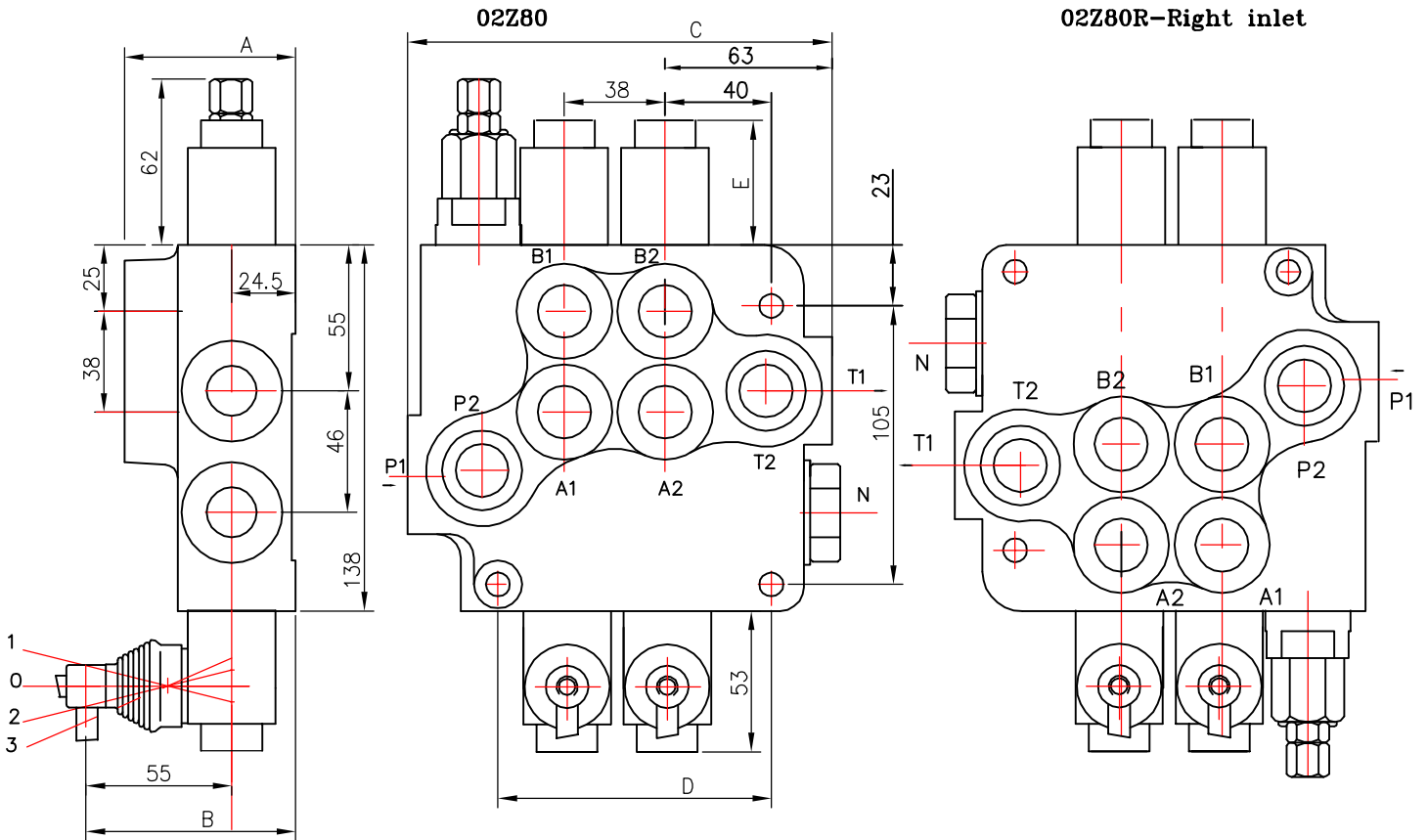


Table 1

	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./
 контрол золотника/фиксация и грузе/

A _____
 second spool distribution type
 вид второго золотника

1 _____
 spool control/detend and estr./
 контрол 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

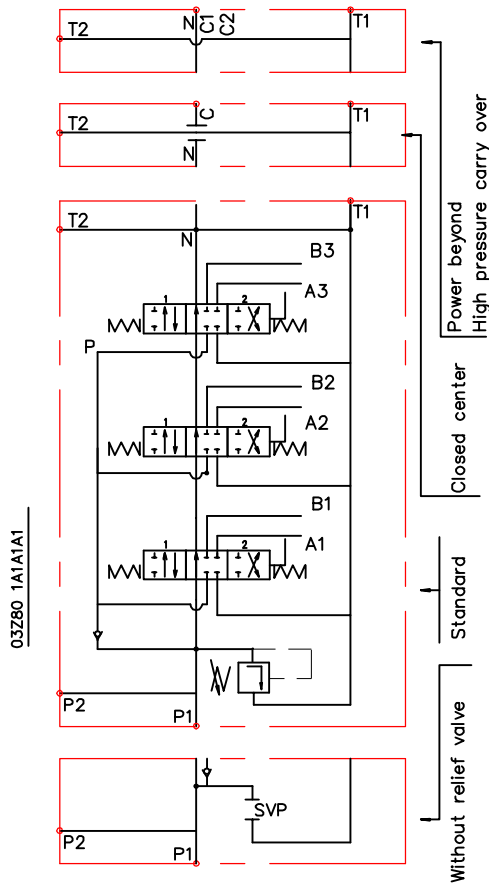
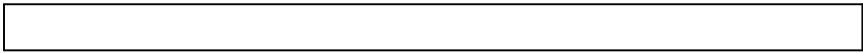


Table 3

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	

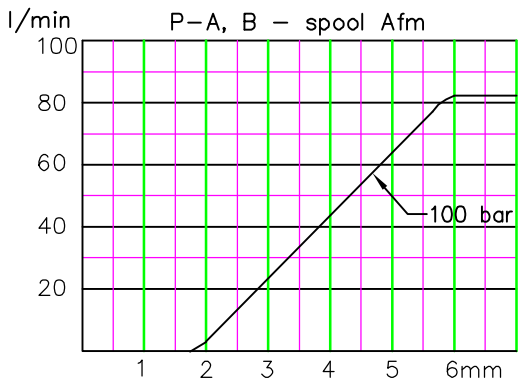
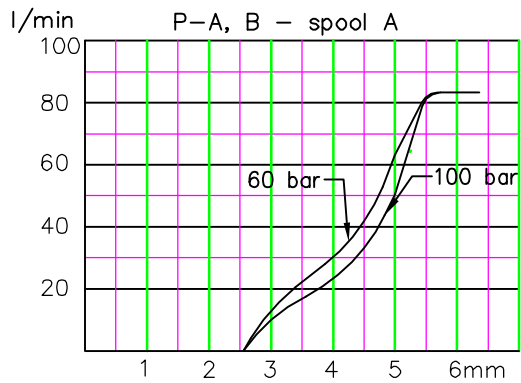


Table 5

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

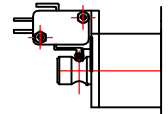


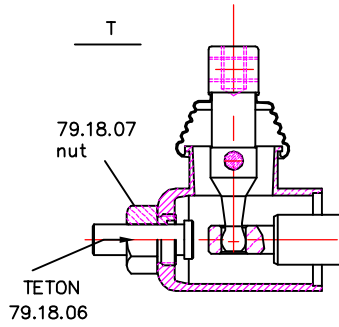
Table 6

code	грубое 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				

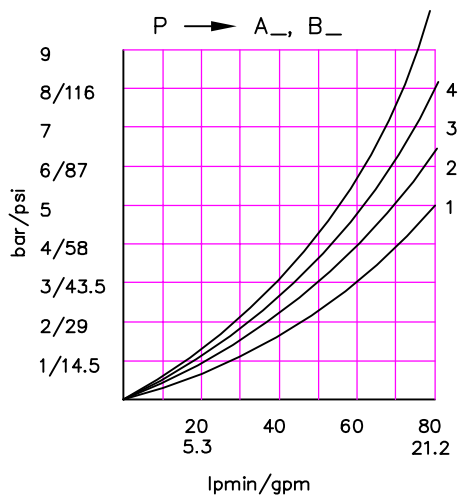
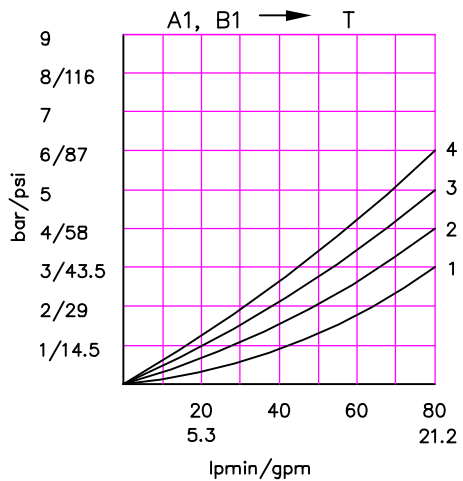
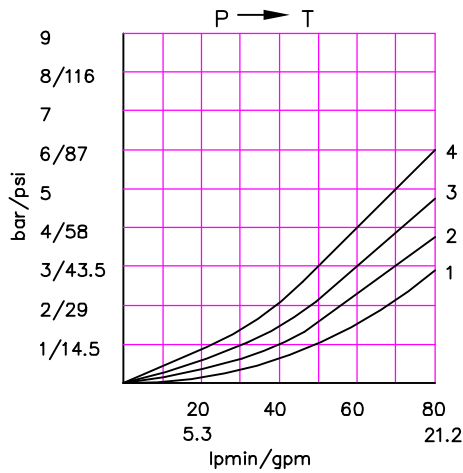
Table 11

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	

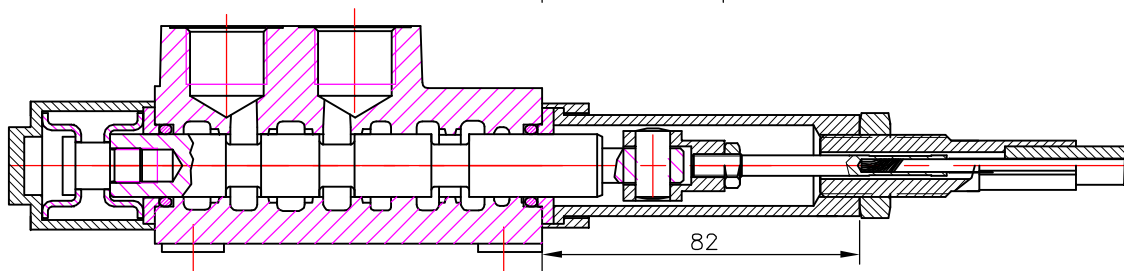
Table 12

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

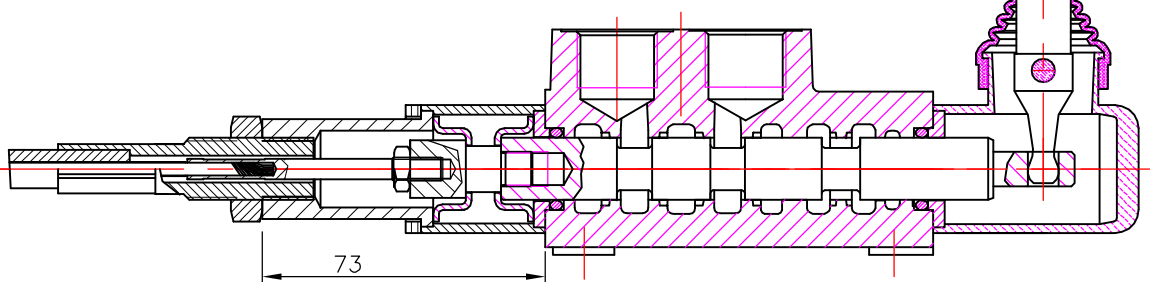
..Z80 directional control valve - A



REMOTE CONTROL
 Управление тросом



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



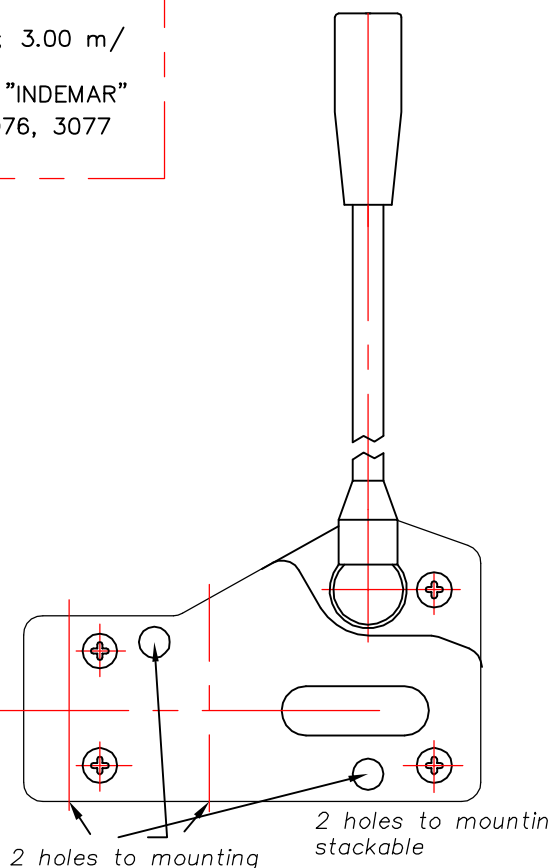
Z80 A1G V2KZ1(l= . . .)+ 3047
 spool valve cable control body

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

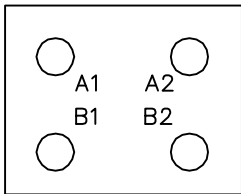
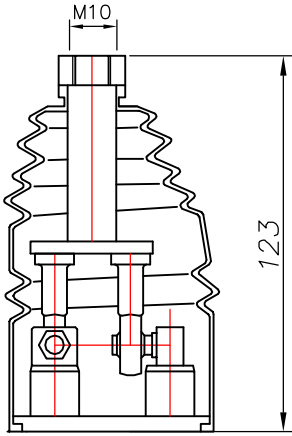
High solidity controls for easy mounting on every type of distributor. They can be mounted stand alone or packed together.

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.

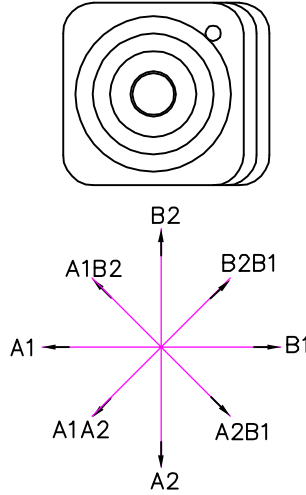


JOYSTICK "+"

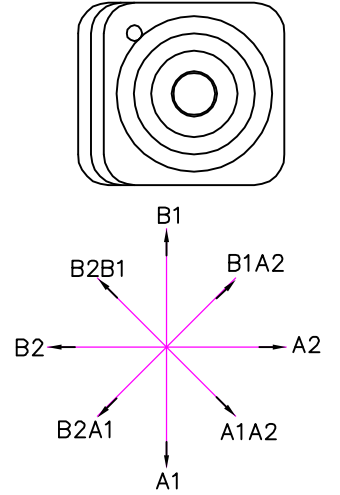
This control gives the possibility to operate, at the same time two spools with a "+" movement.



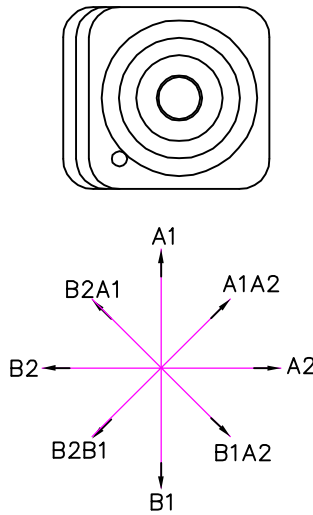
standard version 1



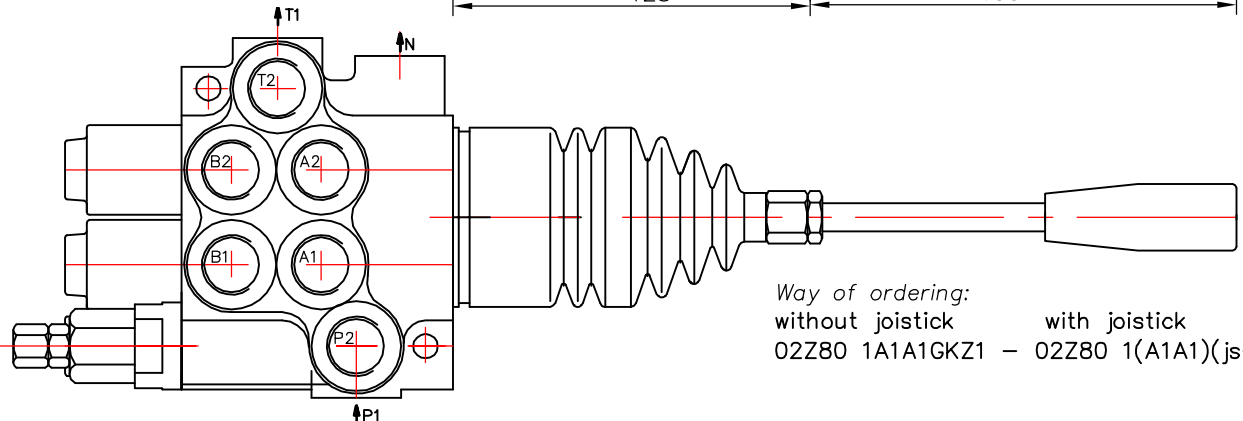
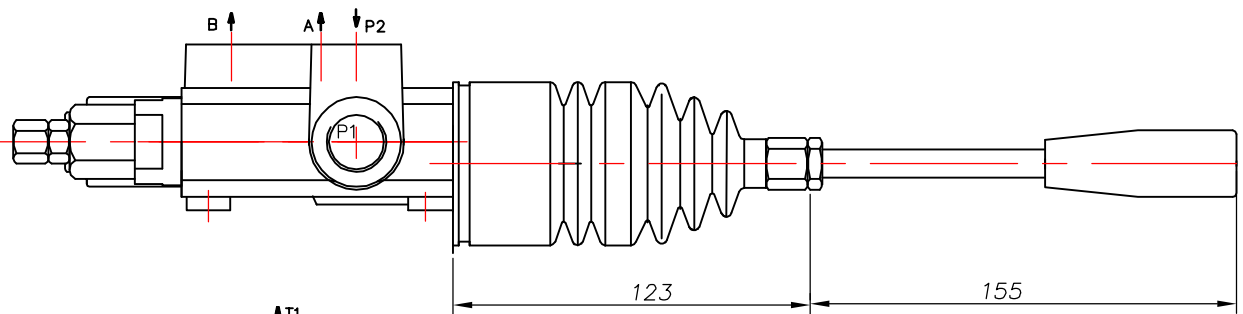
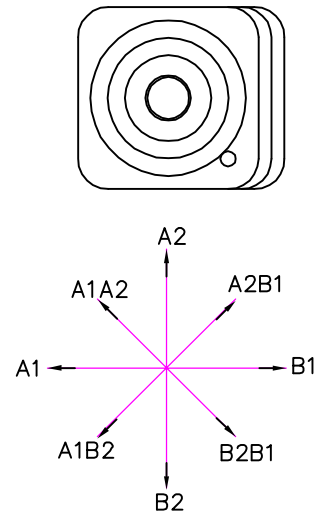
standard version 2



standard version 3

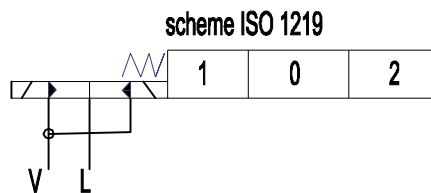
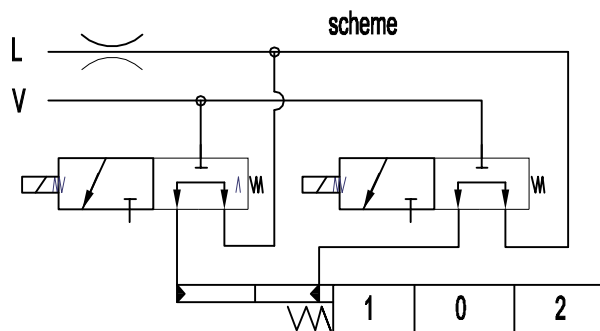
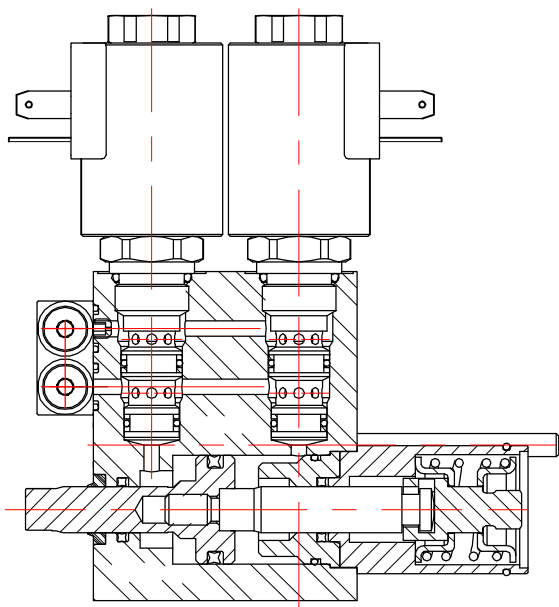


standard version 4



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

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

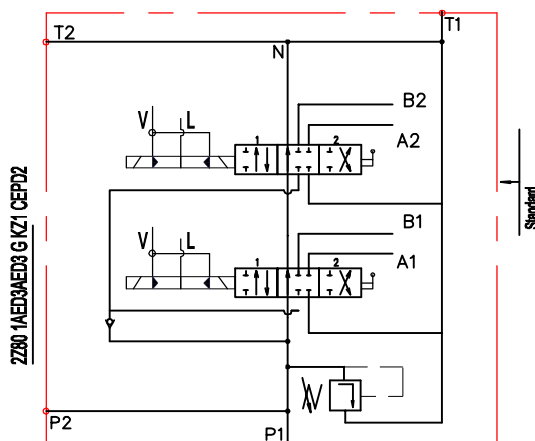
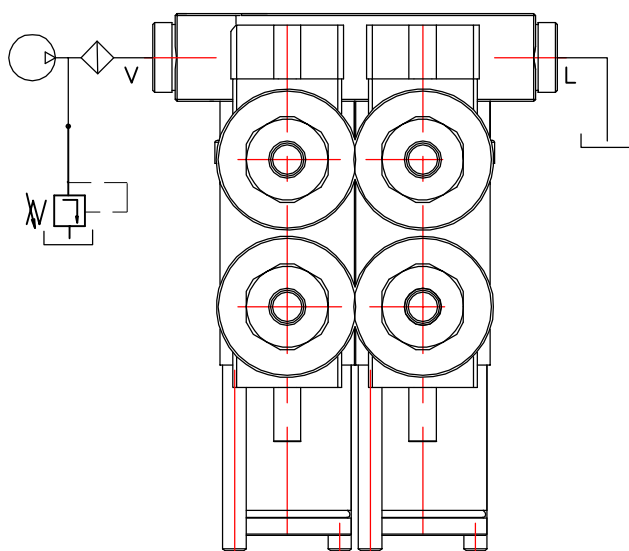


Ordering codes
 3-way solenoid valve-SV08-33
 coil P40ED3-G-12VDC
 coil P40ED3-G-24VDC

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 $\pm 10\%$
 Power rating 24W
 Duty cycle 100 %

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

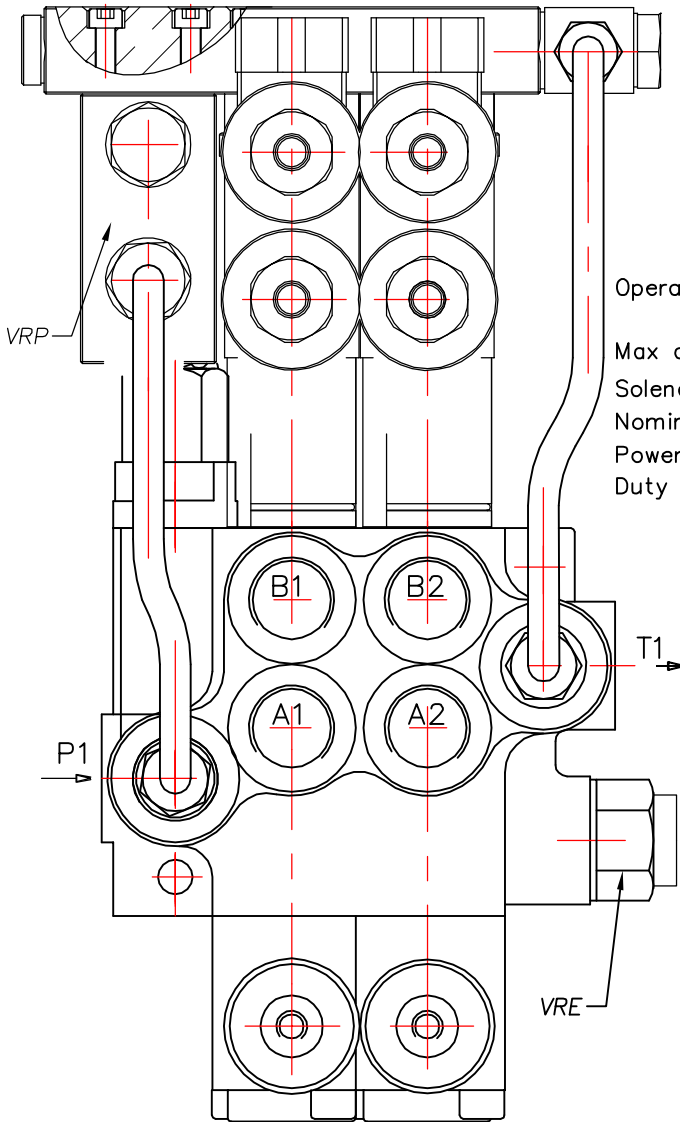


Ordering example
 02Z80 1A1ED3A1ED3 G KZ1-CEED2-12VDC

Ordering codes (BSP threads)

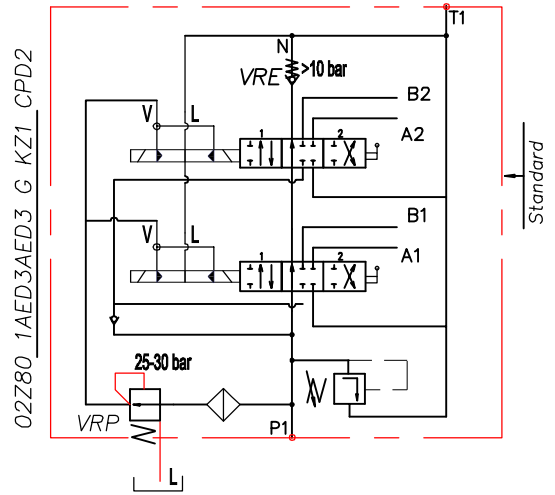
CEED1P80	Kit for 1 section
CEED2P80	Kit for 2 section
CEED3P80	Kit for 3 section
CEED480	Kit for 4 sektion
.....	

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 %



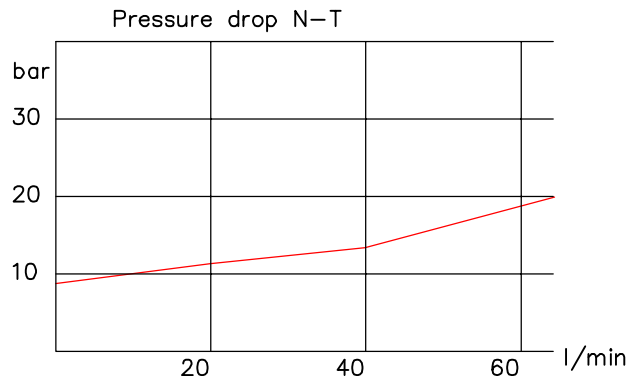
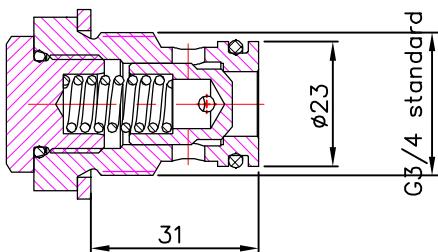
Ordering example

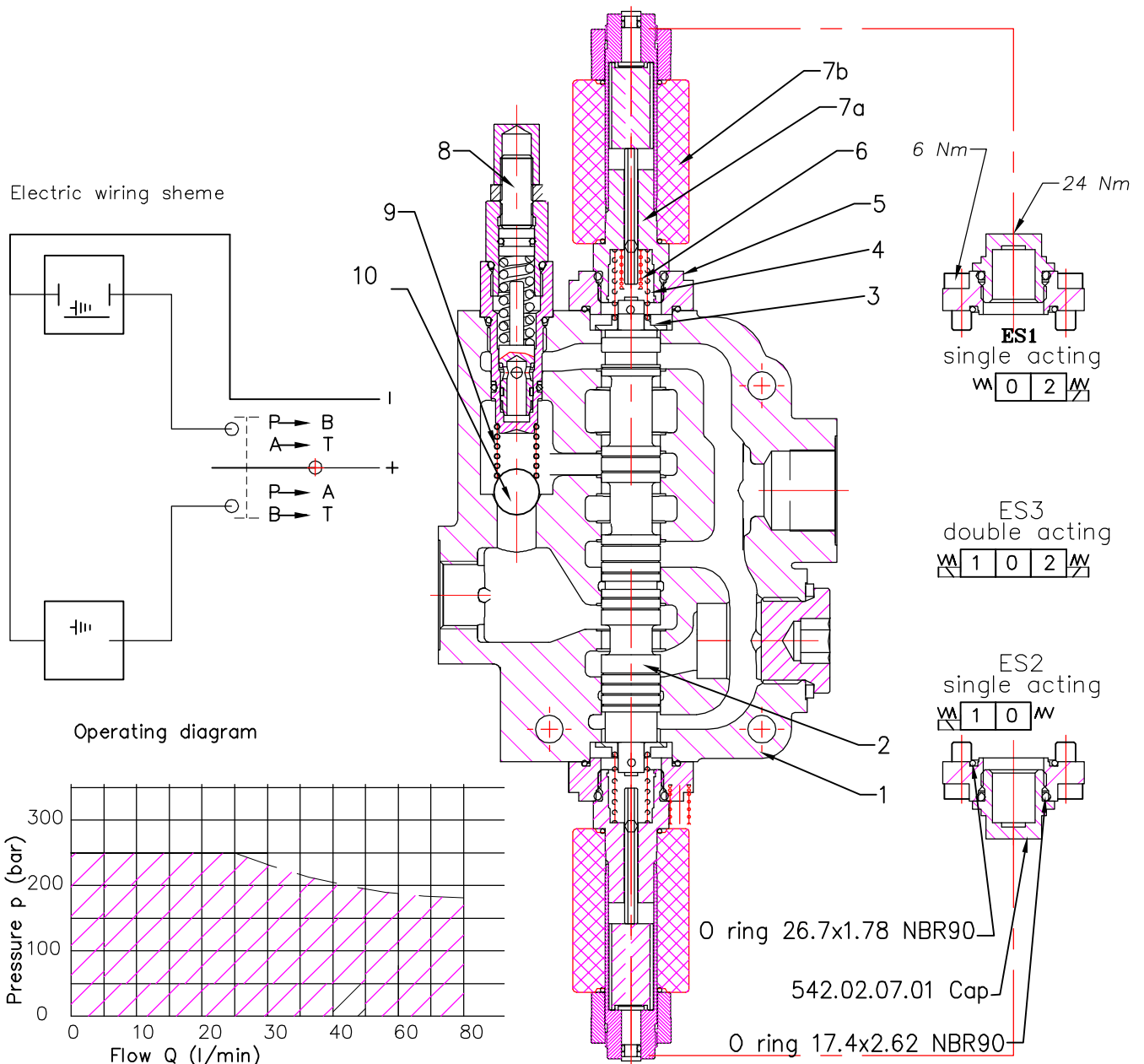
02Z80 VRP 1A1ED3A1ED3 G KZ1-CED2-VRE-12VDC

Collector kit – BSP threads
 Ordering codes

CED1P80 Kit for 1 section
 CED2P80 Kit for 2 section
 CED3P80 Kit for 3 section
 CED480 Kit for 4 sektion

Back pressure valve VRE-P80
 Клапан подпора





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

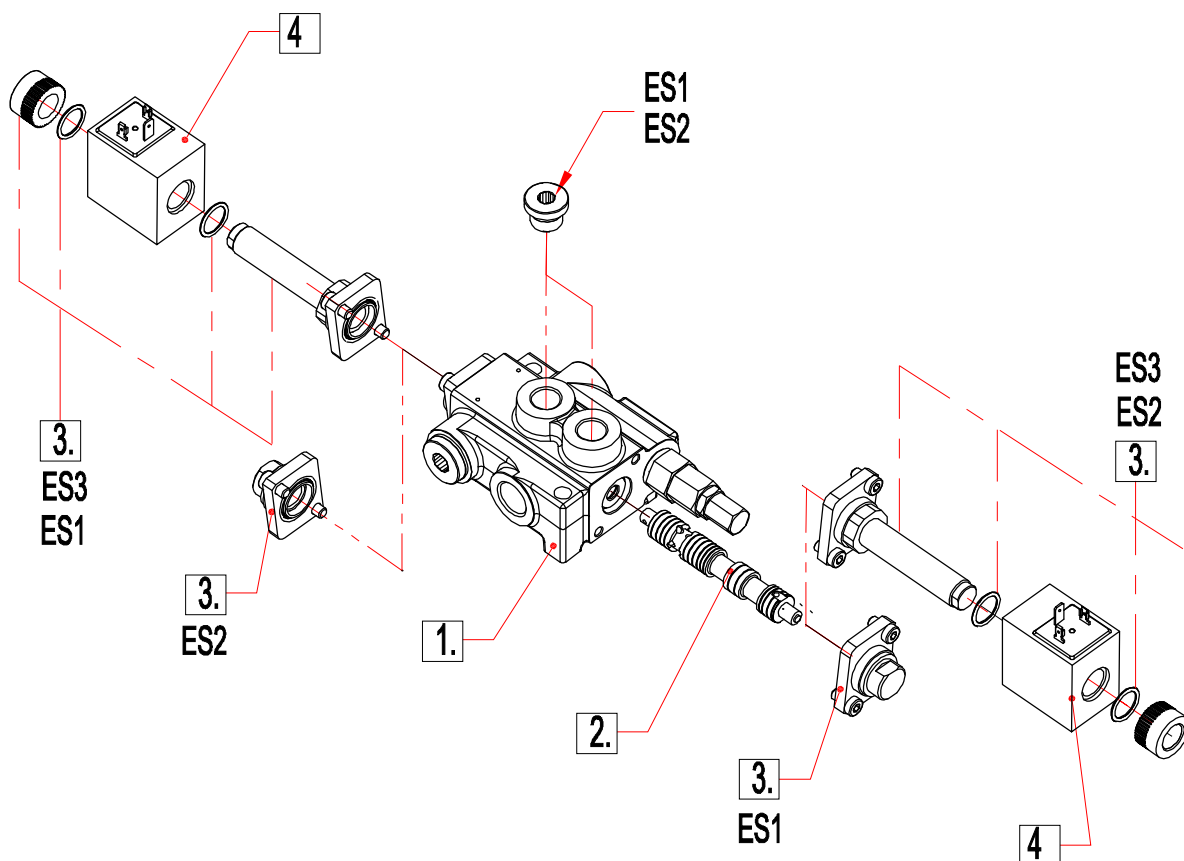
pos.	Part.No	Description	Quantity
10		Ball 14.28	1
9	123.00.47	Spring	1
8	79.04.00	Relief valve	1
7b	C35D012RC P01	Solenoid coil	2
7a	GM4060/BD	Solenoid Tube	2
6	542.02.00.07	Additional spring	2
5	511.02.02.00	Intermediate unit	2
4	542.02.00.04	Spring	2
3	511.02.00.02	Washer	2
2		Spool ...	1
1		Body ...	1

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, A, B – G1/2; T – G3/4
---	--------------------------