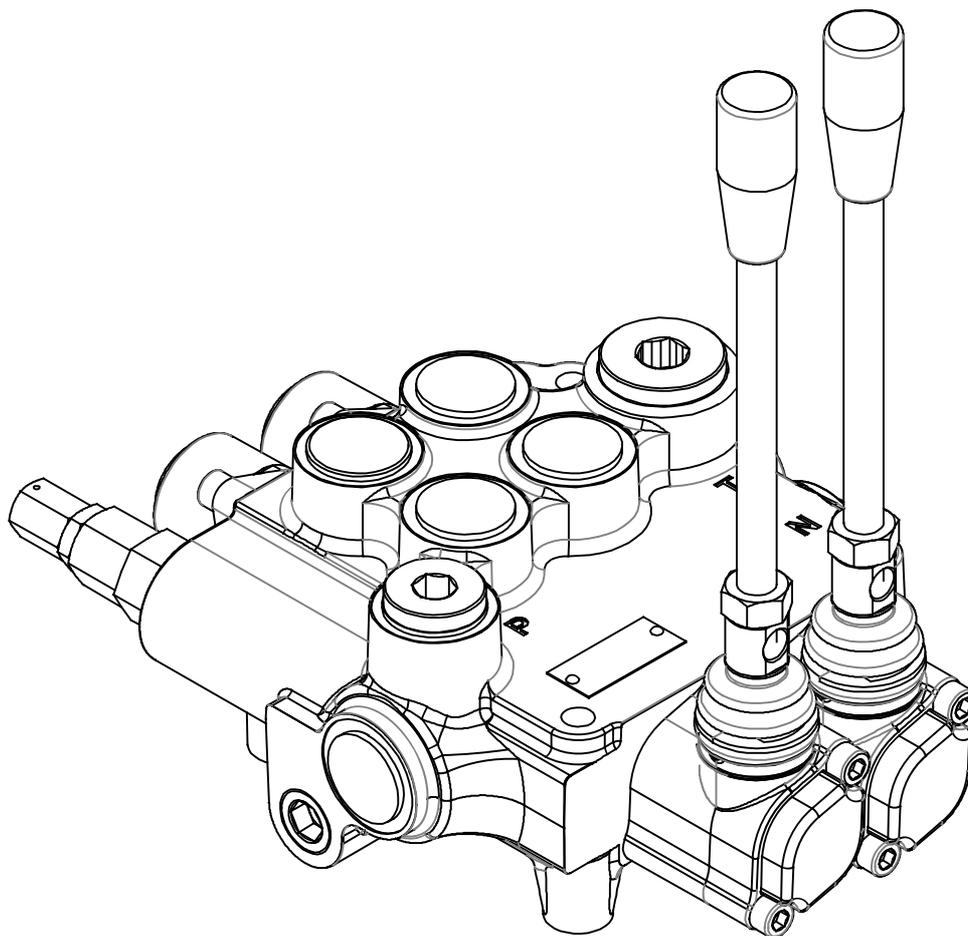


HYDRAULIC DIRECTIONAL CONTROL VALVES



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 гидротрассах, разгрузки насоса в нейтральной позиции золотников.

Specifications / Основные показатели

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

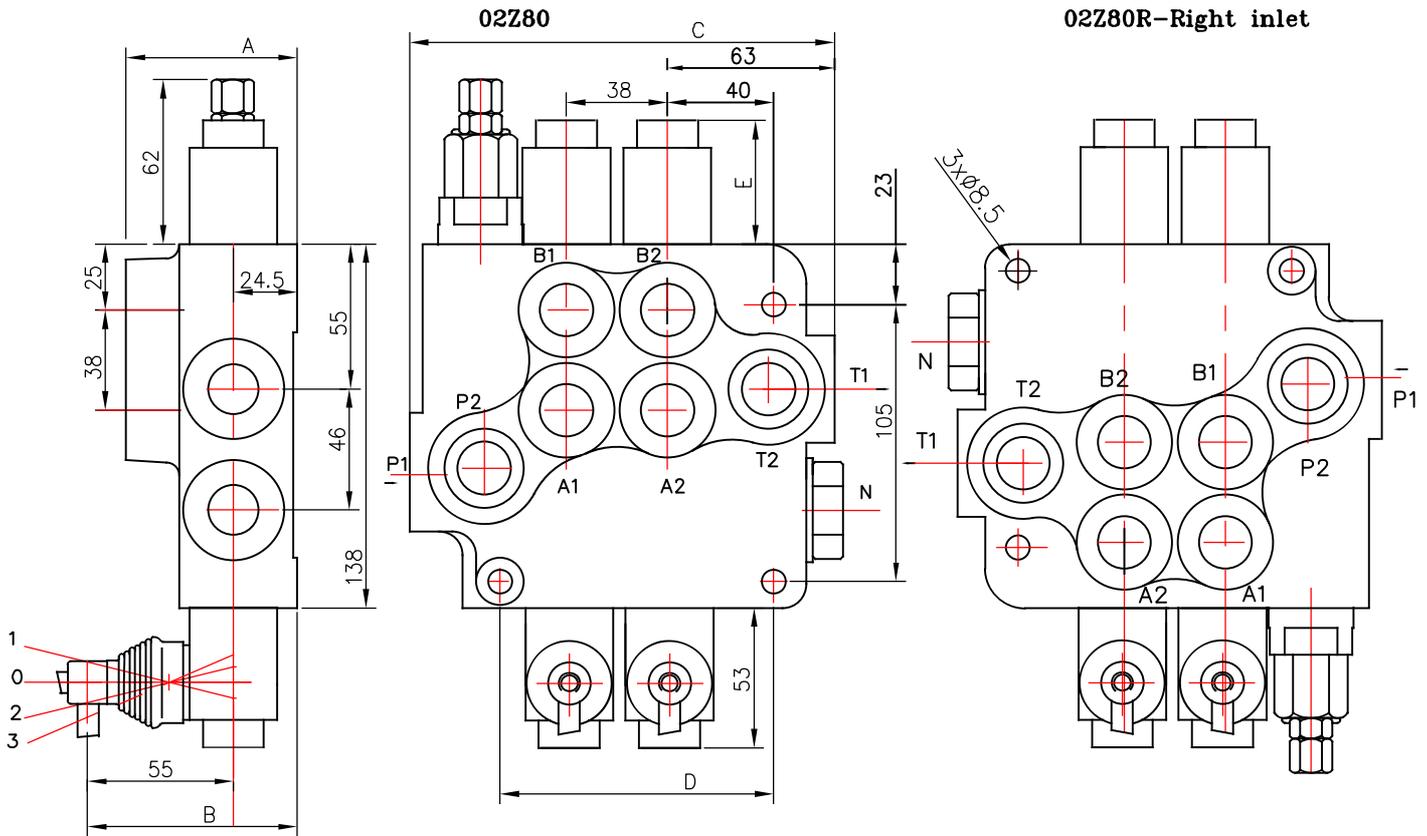


Table 1

	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

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

relief valve; -standard setting 175 bar(50-210); without indication

(4) Spring for 160 to 315 bar; setting 220 bar; red;
(svp) relief valve blanking plug; без предопр. клапана

A 1 A 1 G

first spool distribution type
характеристика первого золотника

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

1 A 1 G

second spool distribution type
тип второго золотника

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

KZ1 T P E C2 11

ports /treads/
резьбовые отверстия

general operation feature
тип ручного управления

with "teton"
исполнение ручного управления с "тетон"

operation feature /pneumatic, .../
другое управление

with electric switch
с электрическим выключателем

high pressure carry over
продолжител потока высокого давления

connection ports in use
присоединительные отверстия

INLET RELIEF OPTIONS

way of distribution – parallel; распределение – параллельное

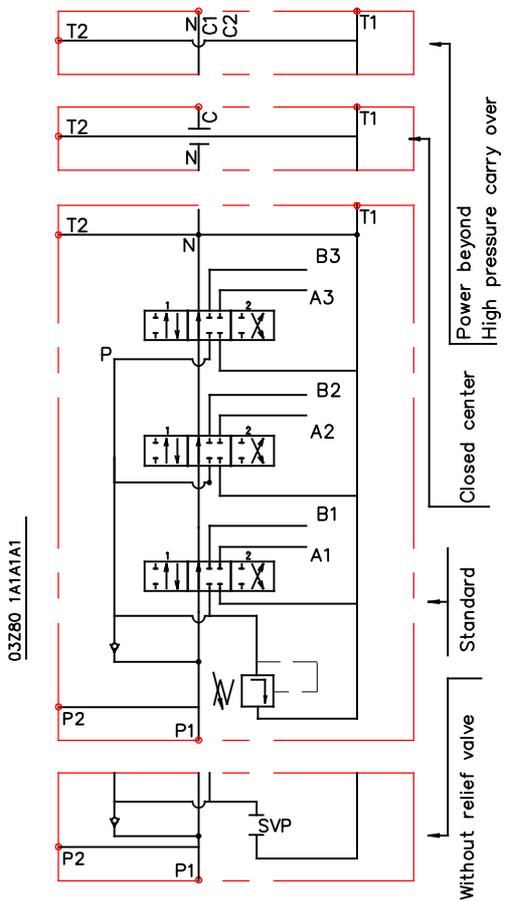
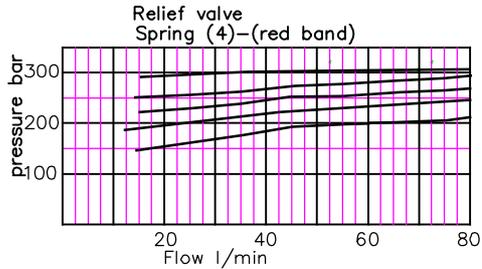
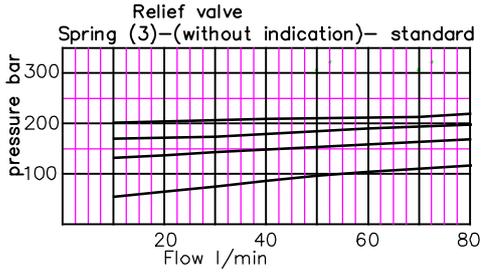


Table 3

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	

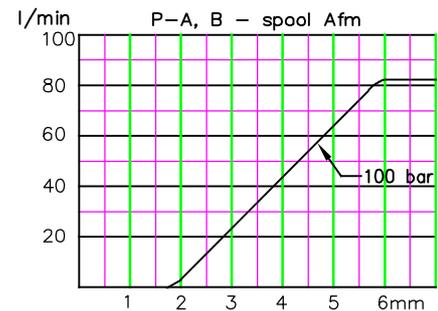
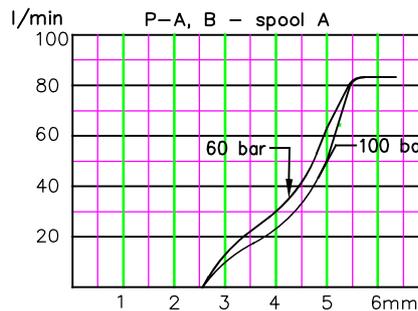


Table 5

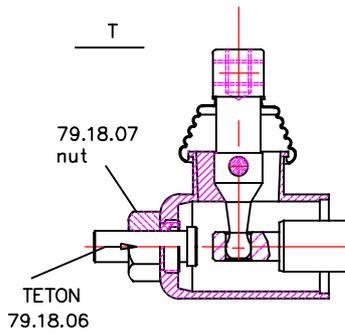
code	с микро шалпер ; incorporated microswitch	
E		mikroswitch type Omron-V 165 I C5

Table 6

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

Z80

Table 7

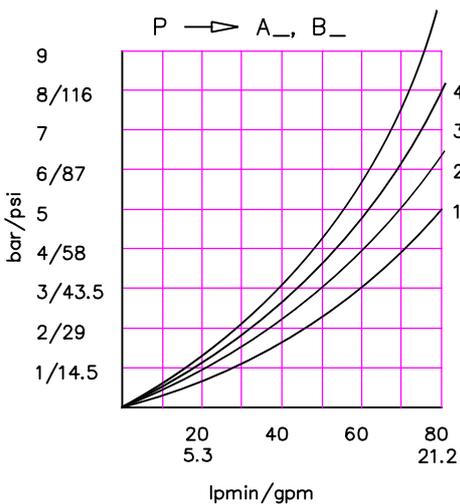
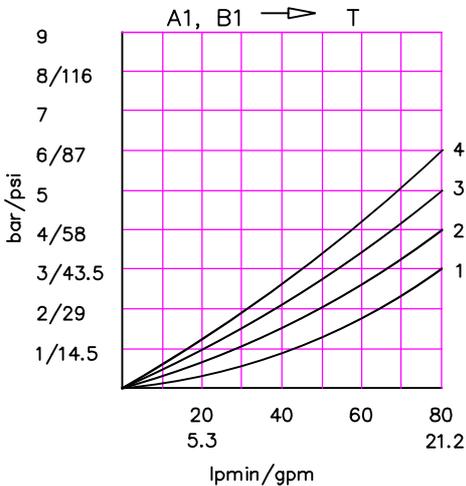
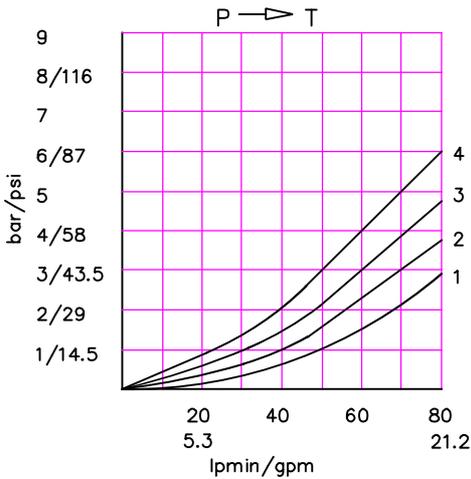


code	ports (treads) ; присоединительные отверстия				
	P	A ; B	T	N	C2
M	M22x1.5	M22x1.5	M26x1.5	M26x1.5	M26x1.5
G	G1/2	G1/2	G3/4	G3/4	G3/4
S	7/8-14UNF	7/8-14UNF	1 1/16-14UNF	1 1/16-14UNF	1 1/16-14UNF

kind of hand control ; вид ручного управления

Table 10

..Z80 directional control valve – A



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

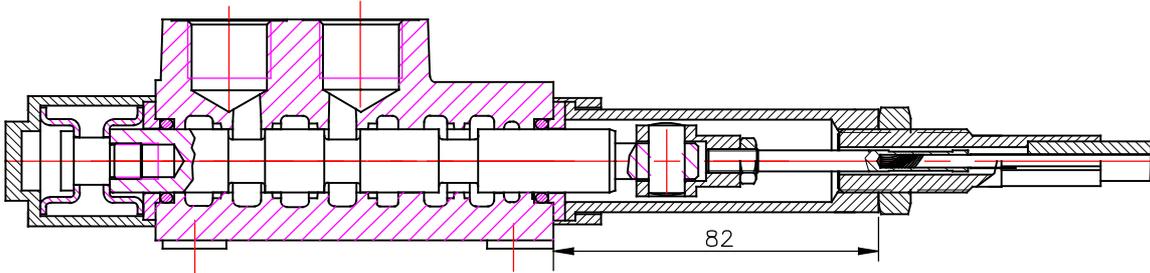
Table 11

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	

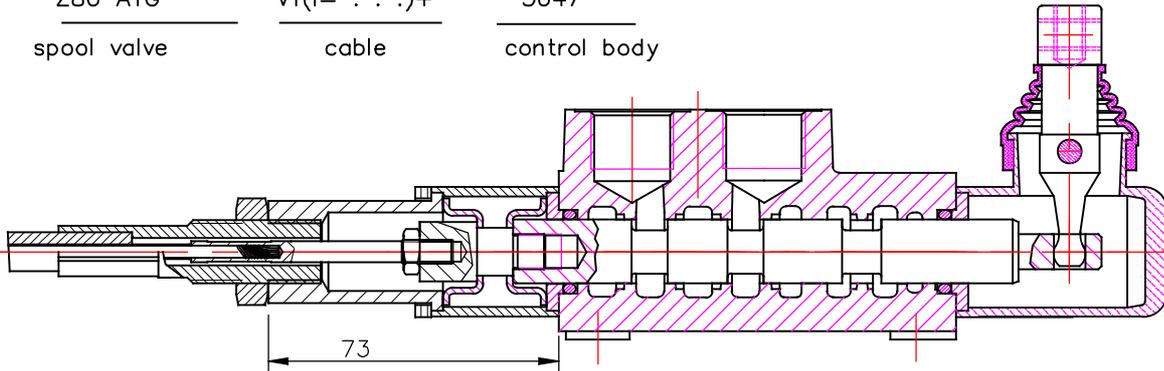
Table 12

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

REMOTE CONTROL
Управление тросом



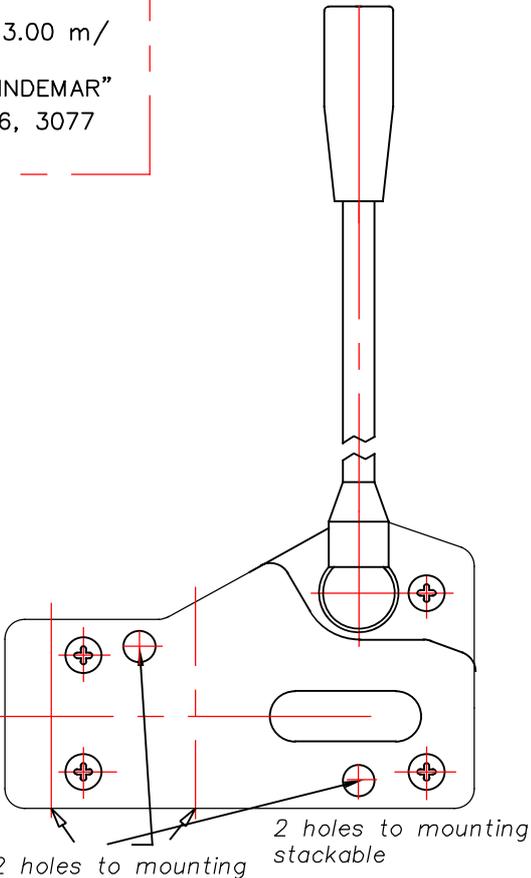
Z80 A1G V1(I= . . .)+ 3047
spool valve cable control body



Z80 A1G V2KZ1(I= . . .)+ 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

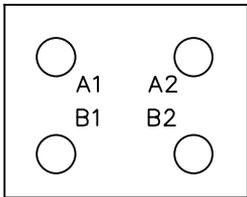
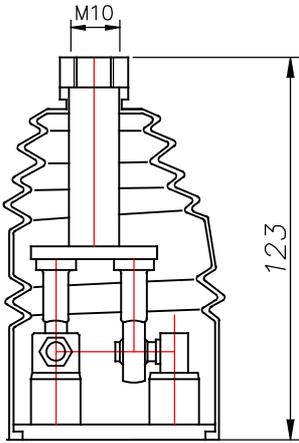


High solidity controls for easy mounting on every type of distributor. They can be mounted stand alone or

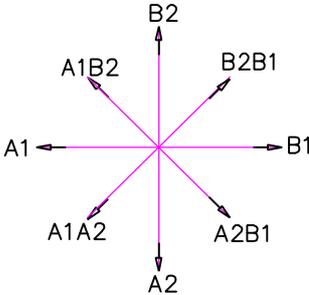
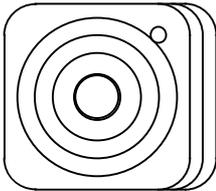
They use push-pull heavy duty cables that provide a positive smooth operating lever and are manufactured in a three different models to meet different needs of Clients.

JOYSTICK "+"

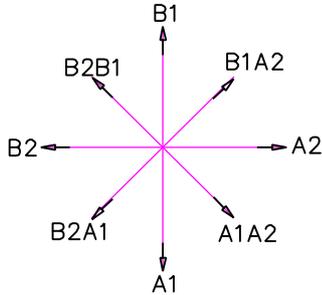
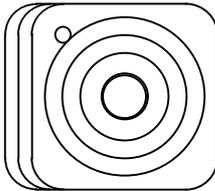
This control gives the possibility to operate, at the same time two spools with a "+" movement.



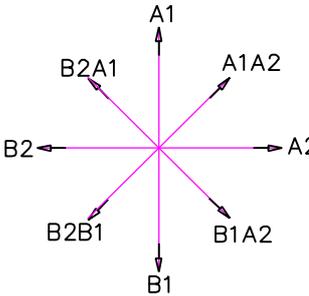
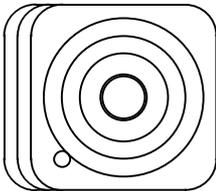
standard version 1



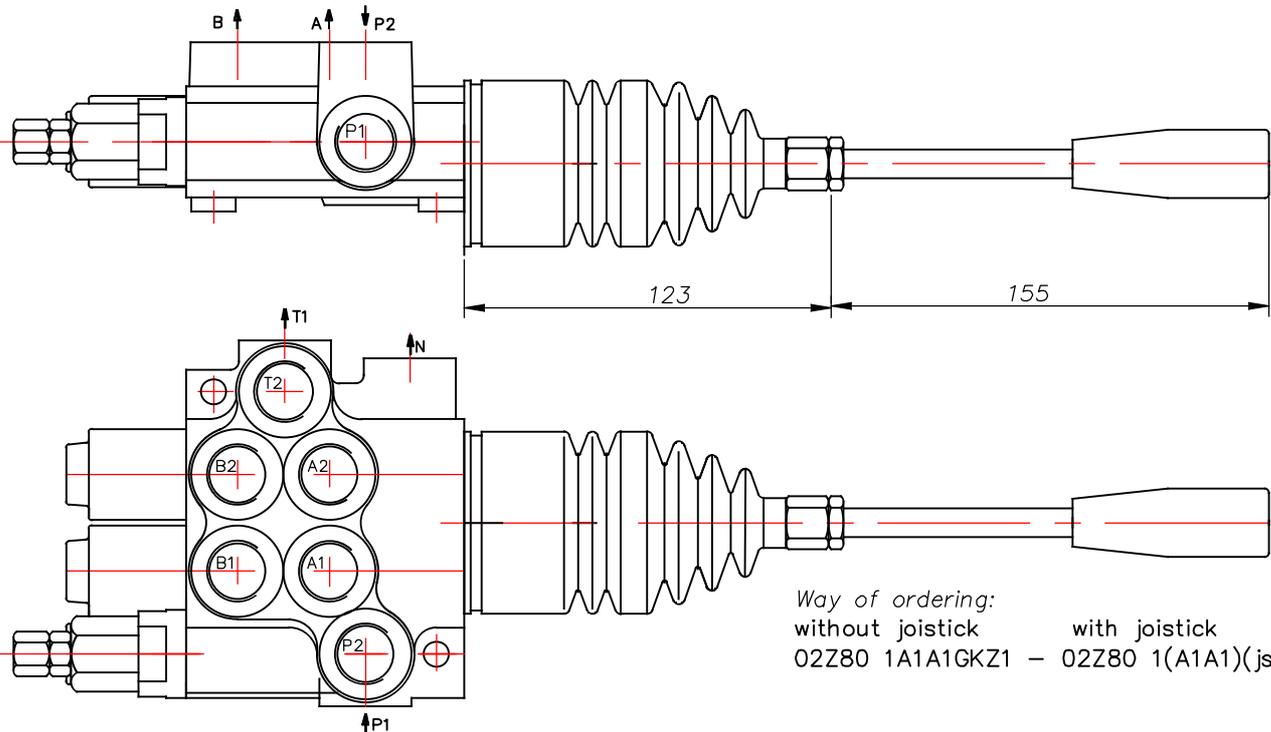
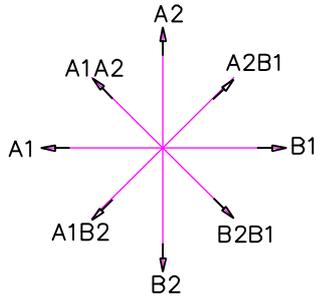
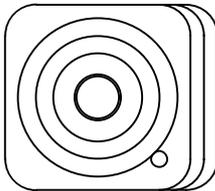
standard version 2



standard version 3



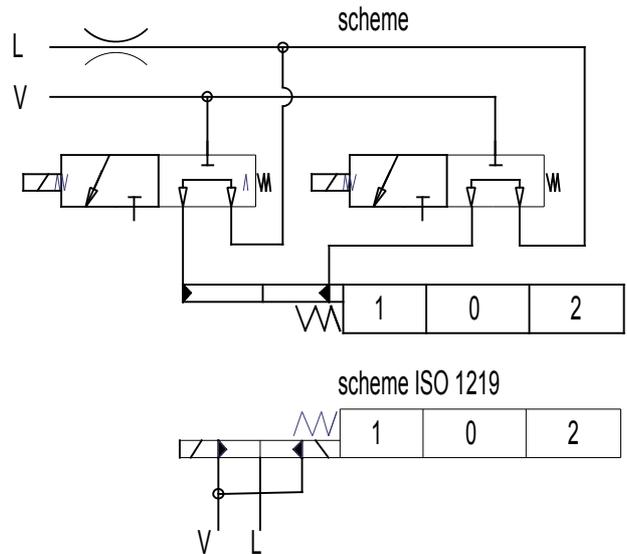
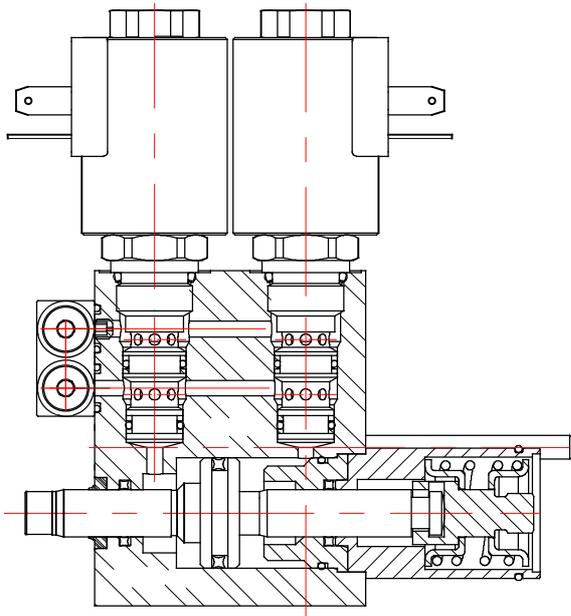
standard version 4



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

directional control valve ..Z80

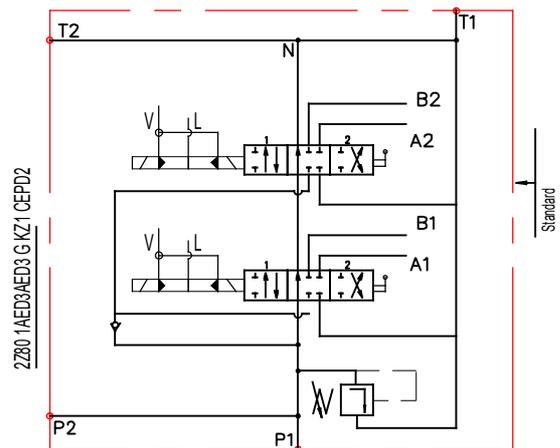
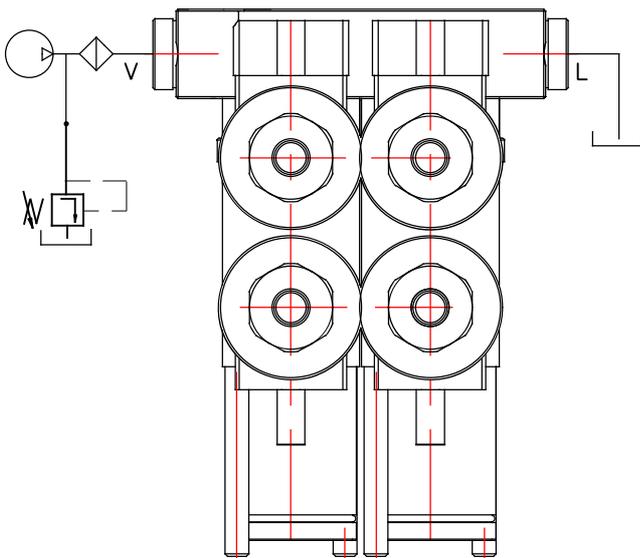
ED3 – electro-hydraulic control ON-OFF
 Электрогидравлический контрол ON-OFF



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



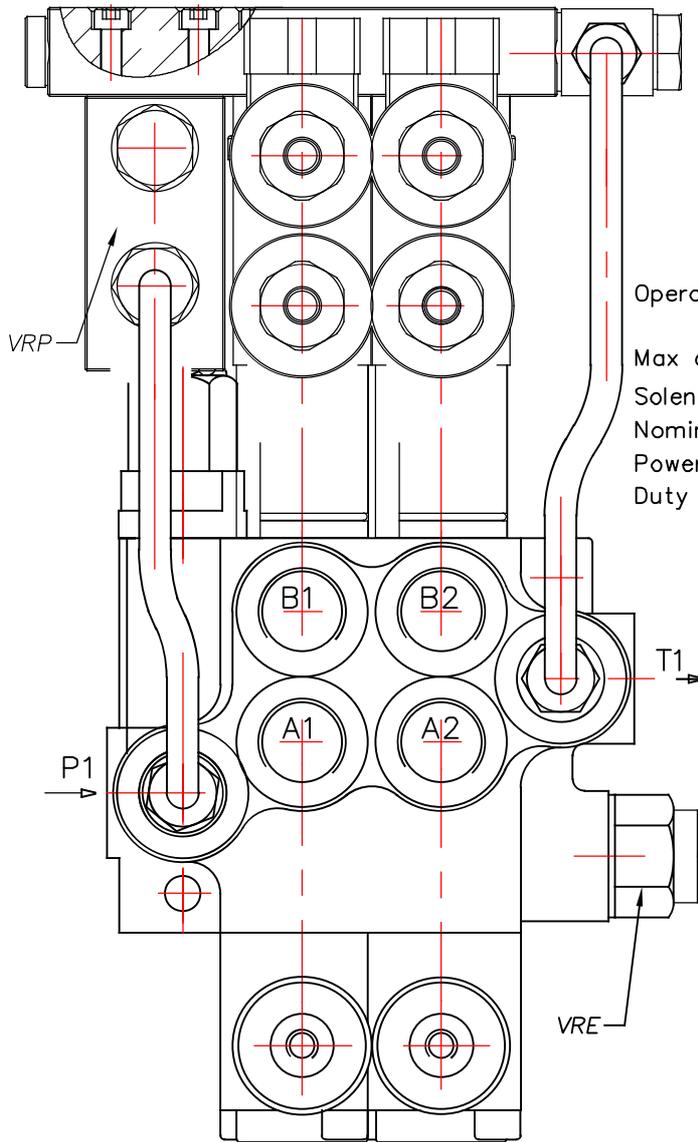
Ordering example
 02Z80 1A1ED3A1ED3 G KZ1-CEED2-12VDC

Ordering codes (BSP threads)

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

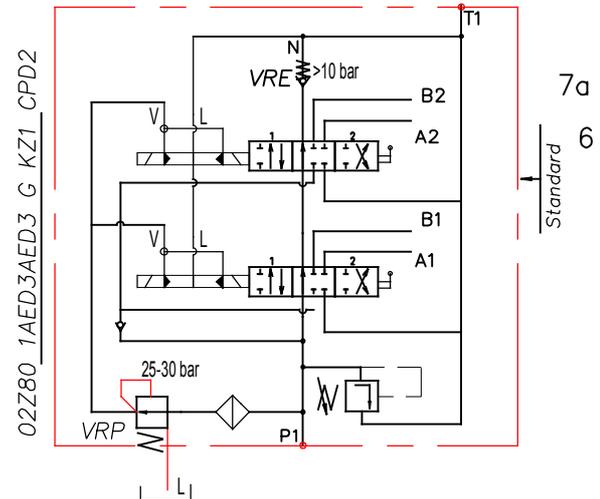
directional control valve ..Z80

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 %



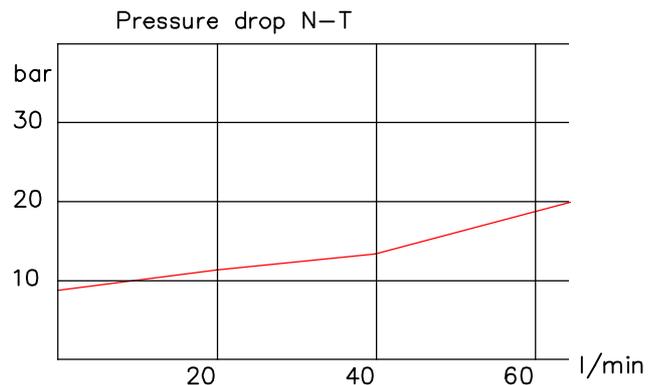
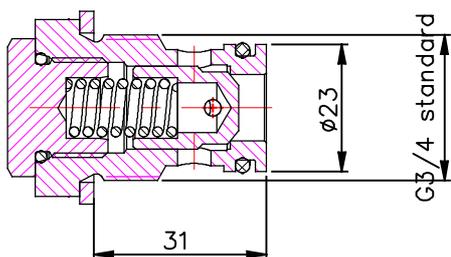
Ordering example

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

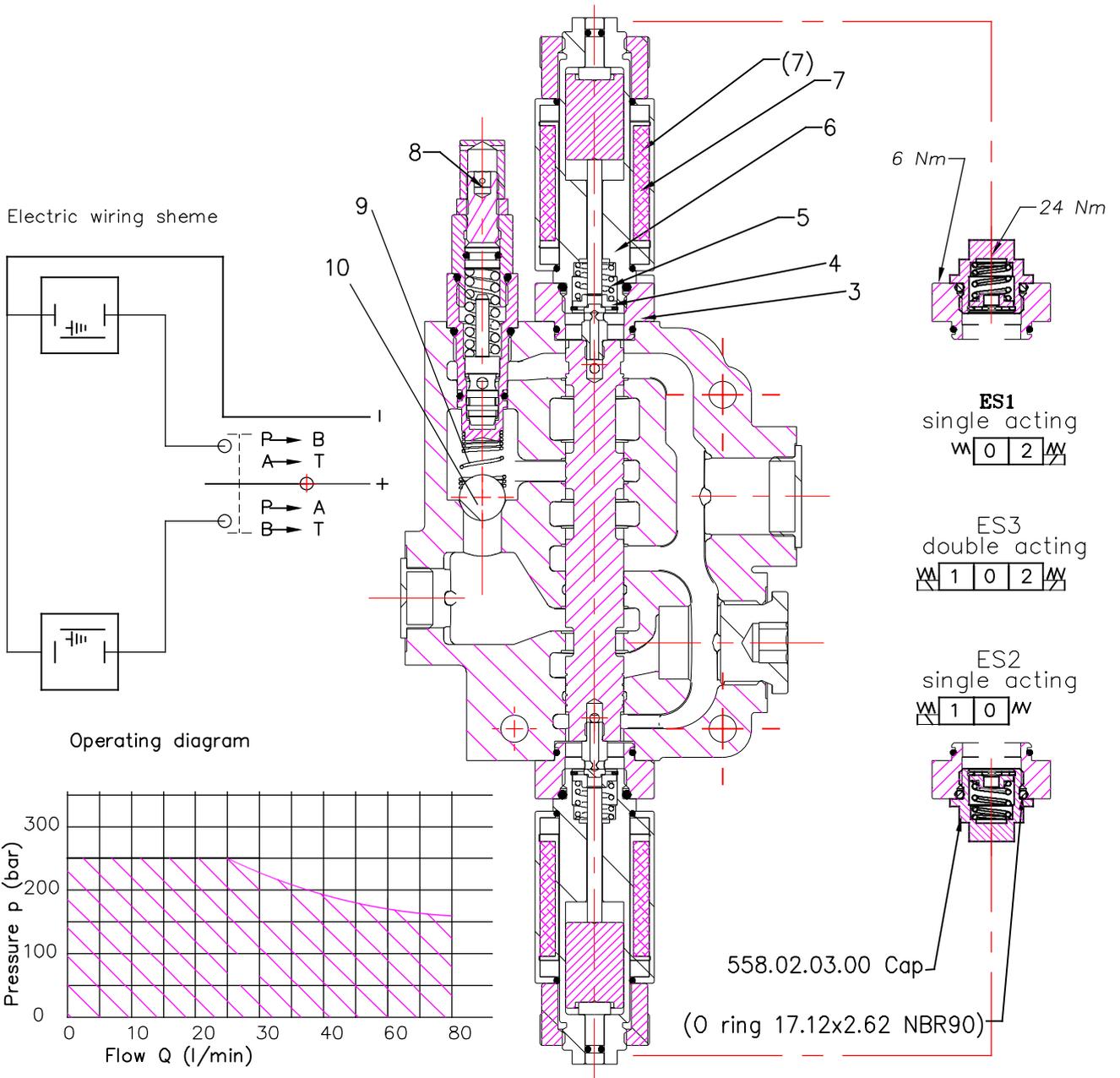
Collector kit - BSP threads
 Ordering codes

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



directional control valve Z80
ES ... SOLENOID DIRECT CONTROL



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)

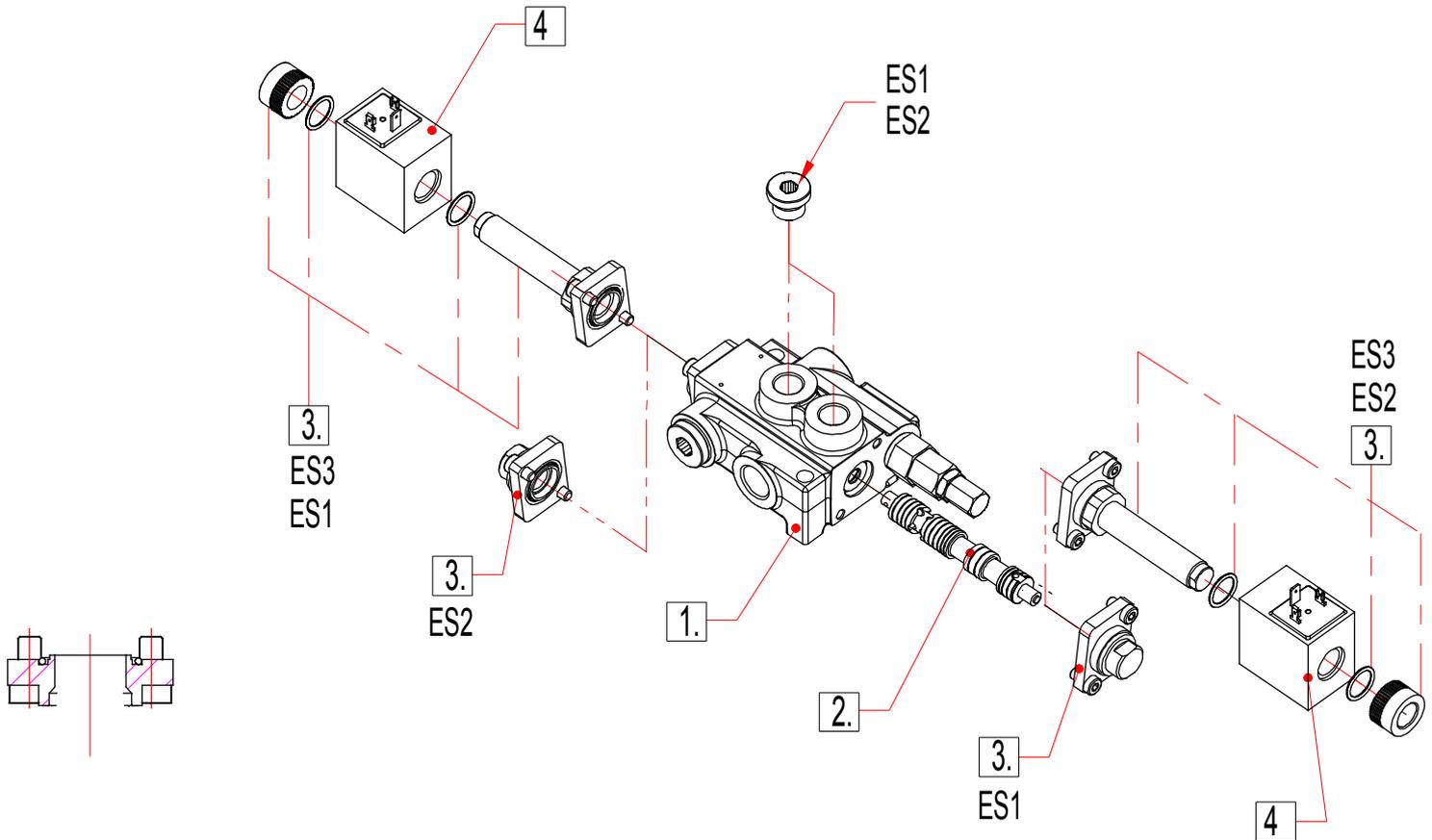
Coil
Nominal voltage tolerance ±10%
Power rating 60 W
Coil insulation class H
Duty cycle 100%
Connector ISO 4400
Emergency manual override

pos.	Part.No	Description	Quantity
10		Ball 14.288	1
9	123.00.57	Spring	1
8	79.04.00	Relief valve	1
7	C37D024DCX01	Solenoid coil	(2)
7	C37D012DCX01	Solenoid coil	2
6	GM7042/BD	Solenoid Tube 22	2
5	558.02.04.05	Spring	2
4	558.02.04.03	Washer	2
3	511.02.06.00	Intermediate unit	2
2		Spool ...	1
1		Body ...	1

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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