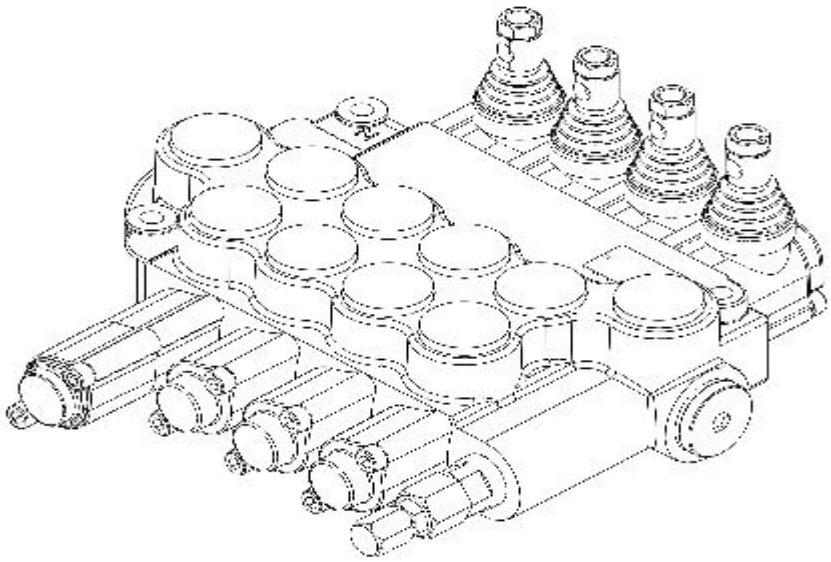
HYDRAULIC DIRECTIONAL CONTROL VALVES
РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



Description
Назначение и область применения
For starting, controlling and stopping the working fluid between the generator of pressured flow, the consumers ai the Tank.Предназначен для изменения направления потока, ограничения давления рабочей жидкости 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 thread внутренние резби
4.Ambient temperature Температура воздуха	-40C…+60C
5.Pressure medium Рабочая жидкость	mineral oil based hydraulic oil
6.Viskosity Кинематическая вязкость	12…800 mm²/s permissible range 20…100 mm²/s recommended range
7.Fluid temperature	- 15C…+80C
8.Filtration	Oil contamination 10 to NAS1638
9. Max. operating pressure Давление max. bar	P = 250 bar T = 50 bar A, B = 300 bar
10.Leakage Внутренние потери (A, B – T)	18 cm³/min at 120 bar
11.Nominal flow Разход рабочей жидкости	80 l/min (see “operating” diagram)
12.Spool stroke Ход золотника	± 7 mm
13.Actuating force	< 220 N in spool axis direction

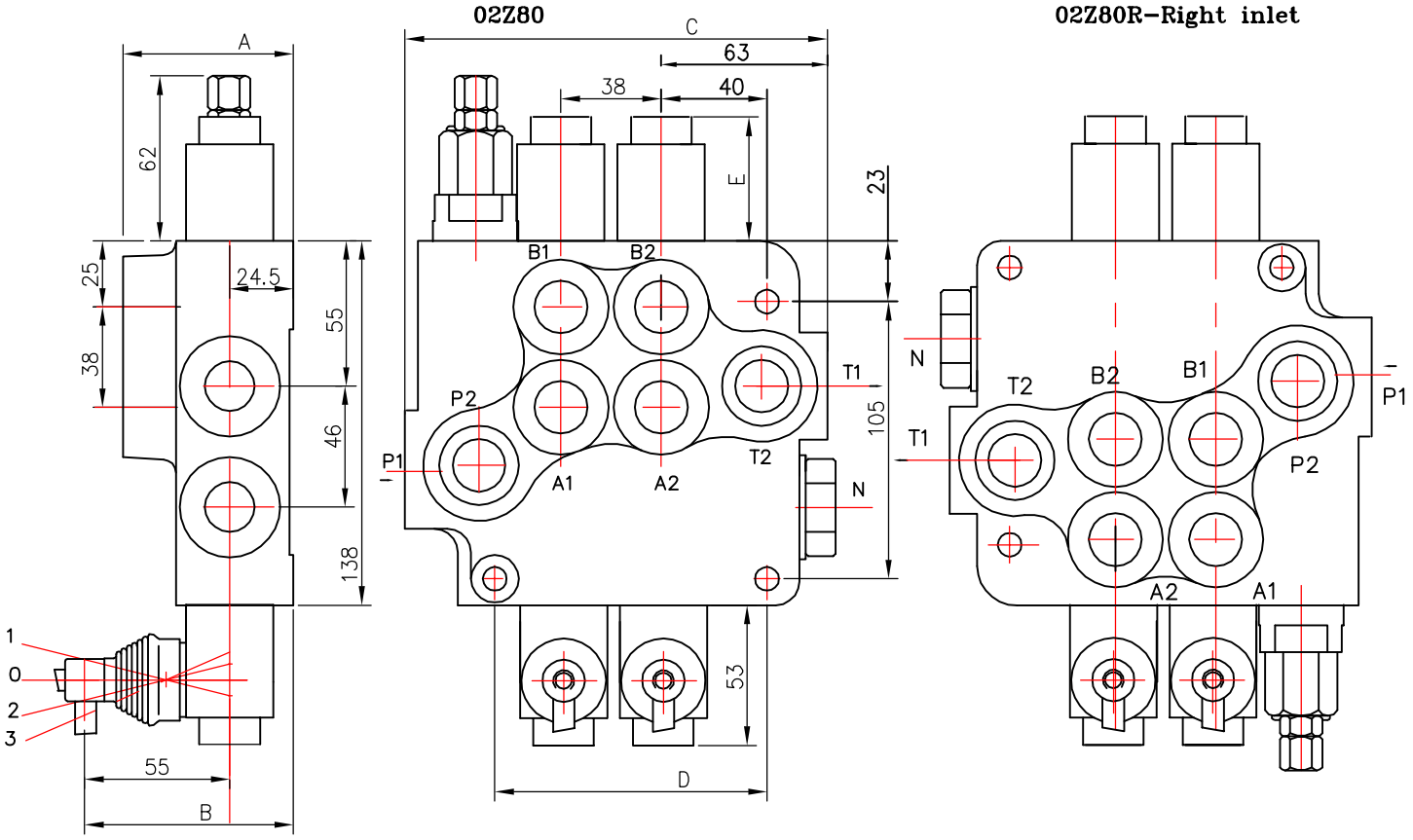


Table 1

	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 ets./ контрол золотника/фиксации и другие/	second spool distribution type вид второго золотника	spool control/detend and estr./ контрол золотника/фиксации и другие/	ports /treads/ резбовие отверстия	general operation feature вид ручного управления	with "teton" исполнение ручного управления с "метон"	operation feature /pneumatic, .../ другое управление	with electric switsh с електическим виключателем	high pressure carry over продолжител потока високого давления	connection ports in use присоединительные отверстия

way of distribution – parallel; распределение – паралелное

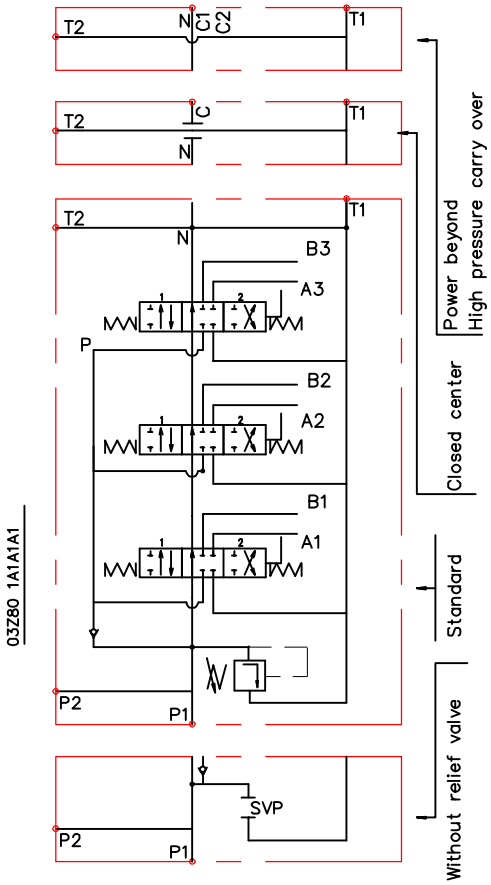
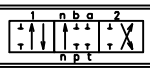
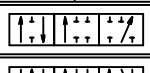


Table 3

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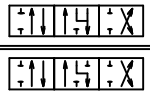
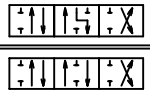
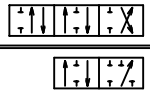
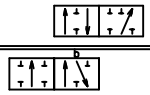
D	
E	
F	
G	
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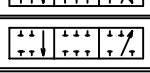
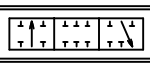
M	
N	
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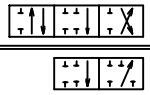
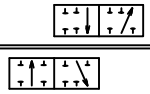
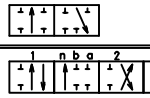
P	
Q	
R	
S	
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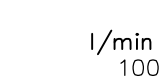
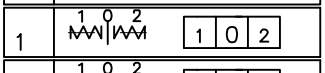
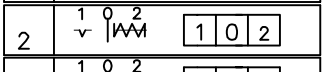
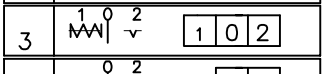
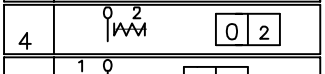
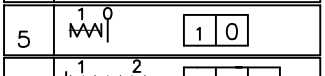
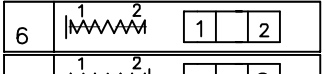
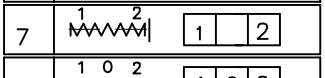
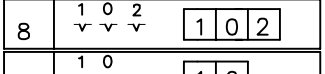
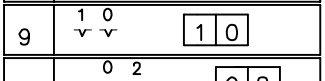
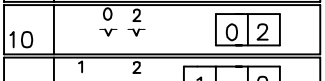
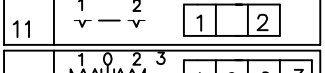
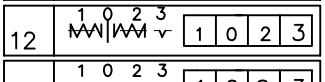
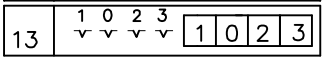
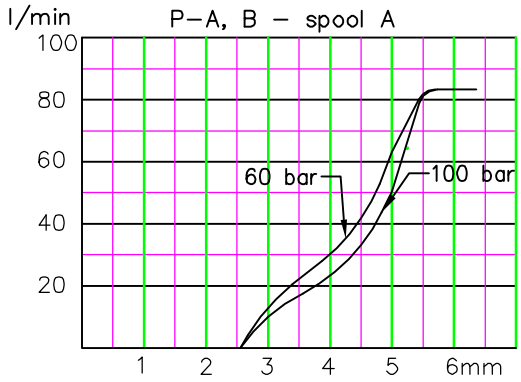
L	

Table 4

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



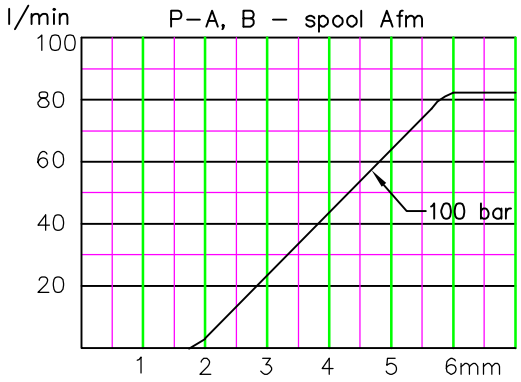


Table 5

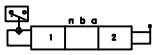
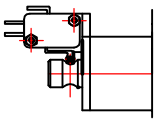
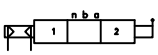
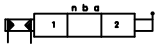
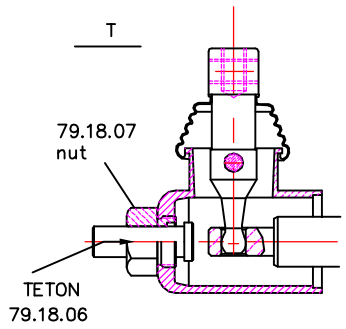
code	с микро шалтер ; incorporated microswitch	
E		mikroswitch type Omron–V 165 I C5 

Table 6

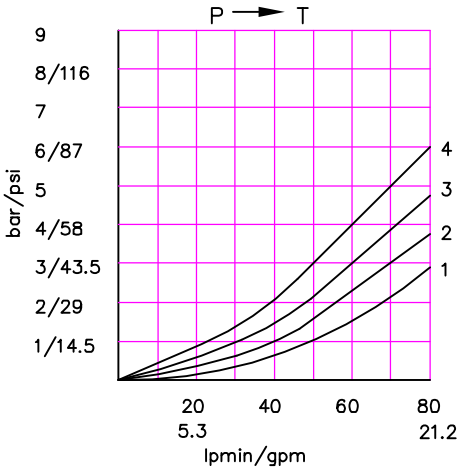
code	другое управление ; operation feature	
P		пневматическое on–off pneumatic contol; 5–10 bar ; ports NPTF 1/8–27
H		гидравлическое on–off hydraulic control ; pn = 5 – 20 bar ; ports G1/4

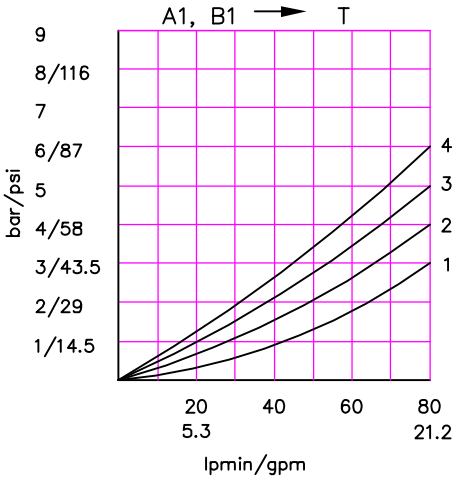


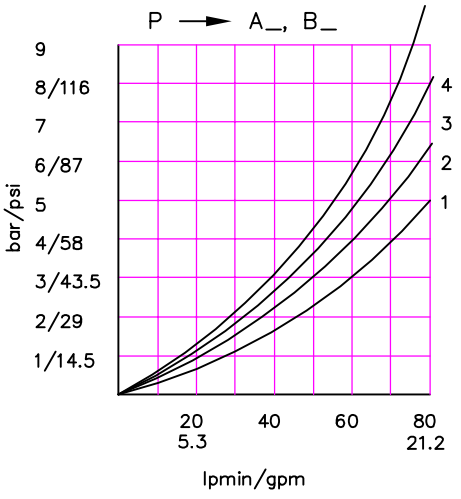
Z80 Table 7

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

..Z80 directional control valve – A







kind of hand control ; вид ръчного управления Table 10

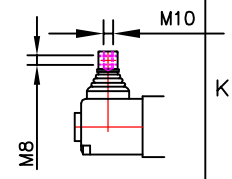
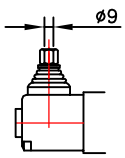
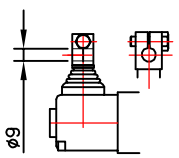
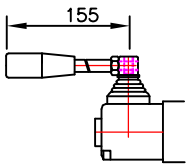
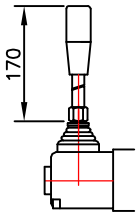
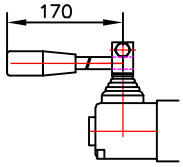
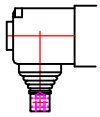
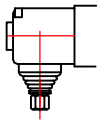
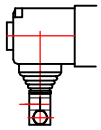
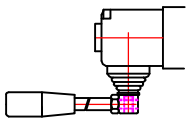
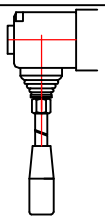
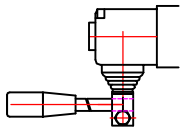
code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
_	without hand control ; без ричажная система управления				

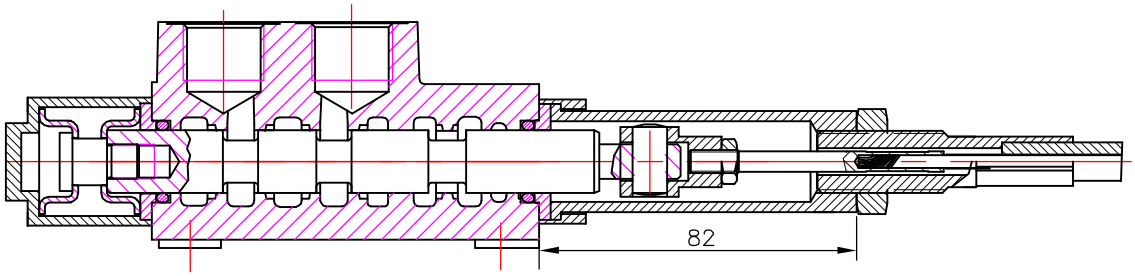
Table 11

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

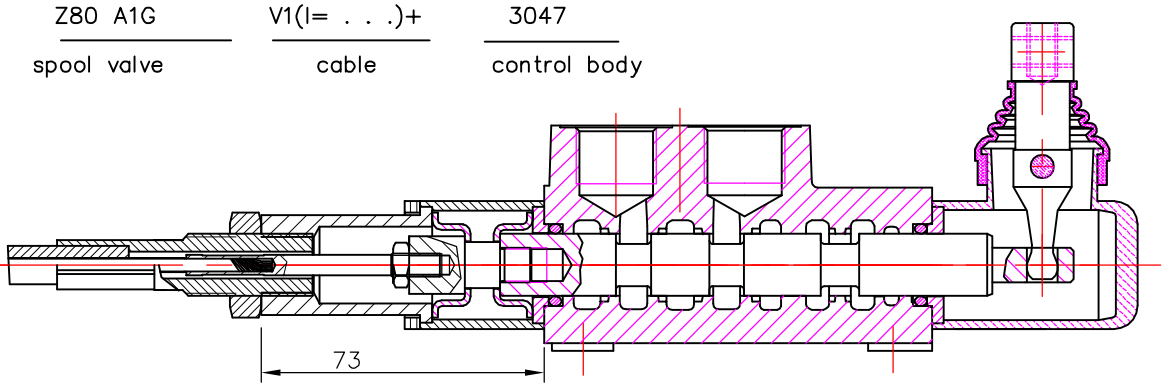
Table 12

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

REMOTE CONTROL
Управление тросом



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

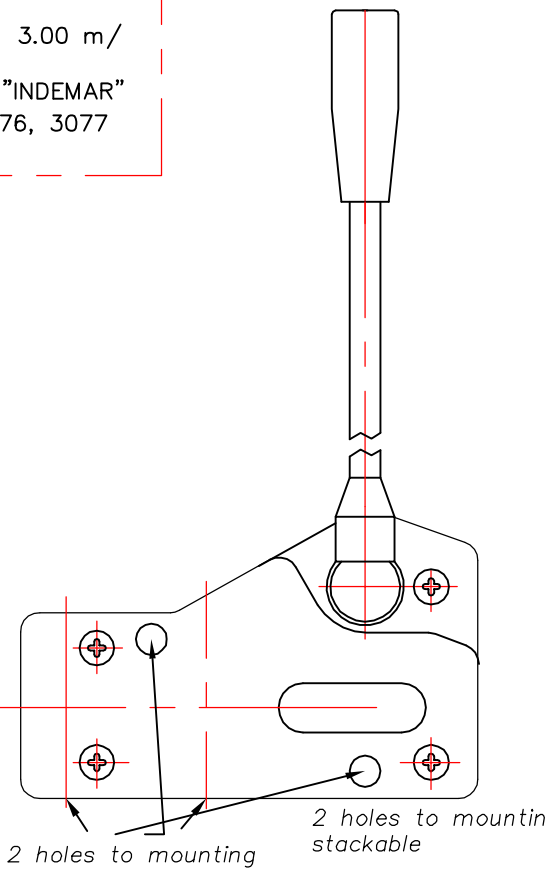


Z80 A1G — spool valve
V2KZ1(l= . . .)+ — cable
3047 — control body

Cable "INDEMAR" Cod. IT 3056 /l=1.00; 1.50; 2.00; 2.50; 3.00 m/

+control body "INDEMAR"
code 3047, 3076, 3077

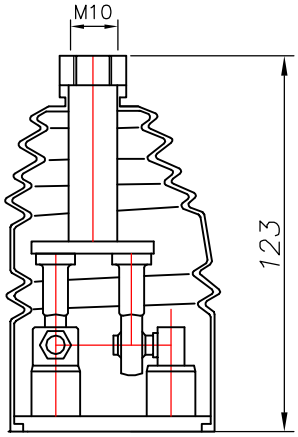
Technical specifications			
	3047	3076	3077
Stroke	13+13 mm	13+13 mm	13+13 mm
Max. load	45 kg	45 kg	45 kg
Level ratio	10:1	10:1	10:1
Lock in neutral	No	No	Yes
Antireverse lock	No	Yes	No
Body colour	Black	Black	Black
Cables type	Heavy Duty	Heavy Duty	Heavy Duty
Operating temperature	–40/+80C	–40/+80C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

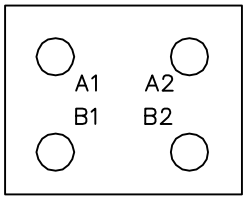


High solidity controls for easy mounting on every type of distributor.They can by mounted stand alone or packed together.
They use push–pull heavy duty cables that provide a positive smooth operating lever and are manifactured in a three differents models to meet different needs of Clients.

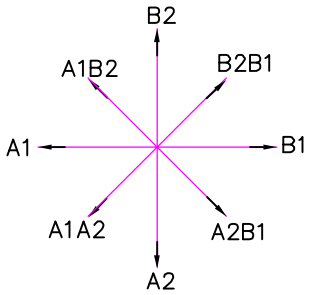
JOYSTICK "+"

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

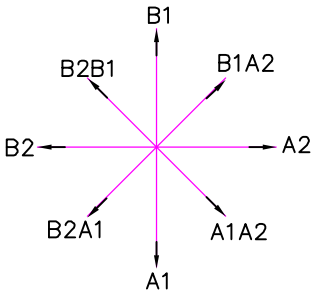




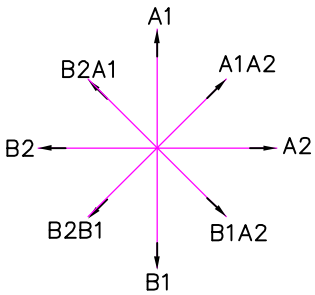
standard version 1



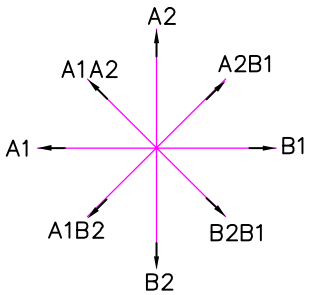
standard version 2

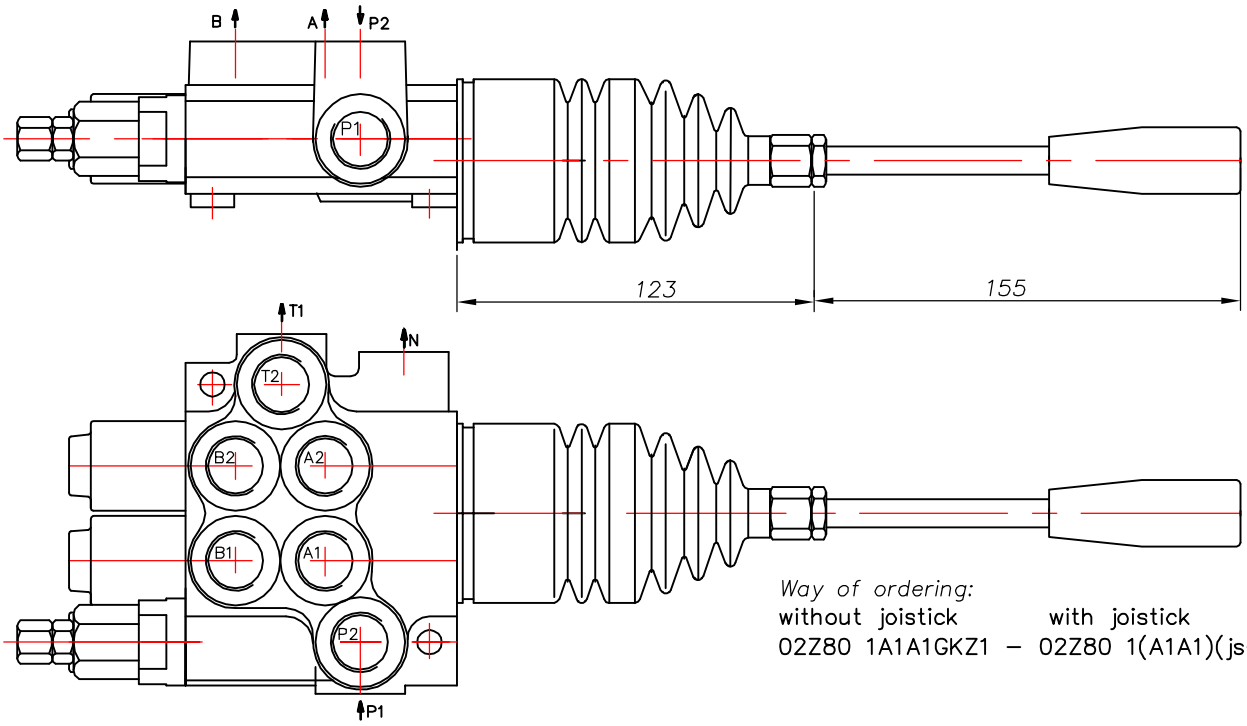


standard version 3



standard version 4

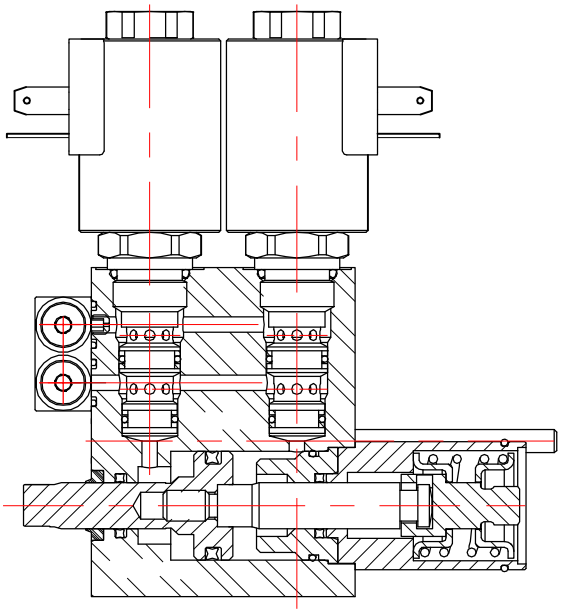


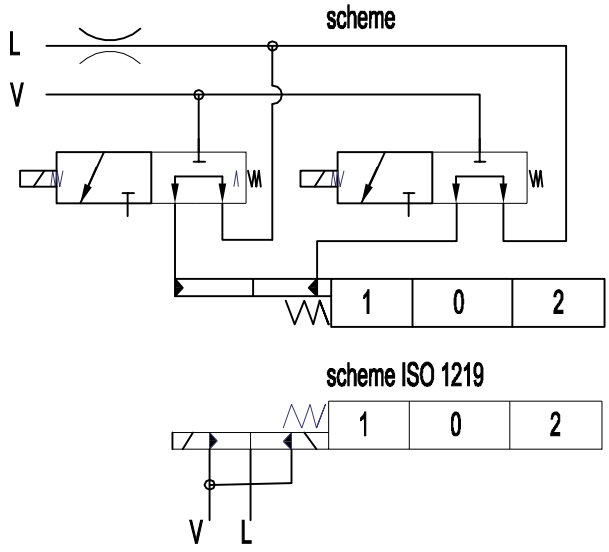


Way of ordering:
without joistick with joistick
02Z80 1A1A1GKZ1 – 02Z80 1(A1A1)(js+3)G

directional control valve ..Z80

ED3 – electro–hydraulic control ON–OFF
Електрогидравлический контрол ON–OFF



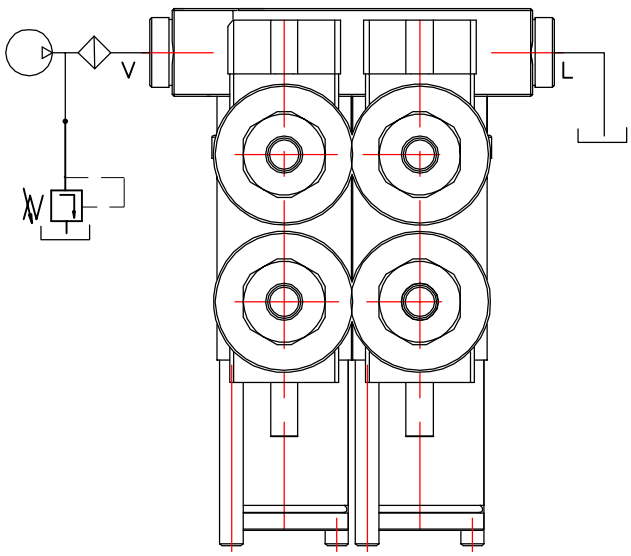


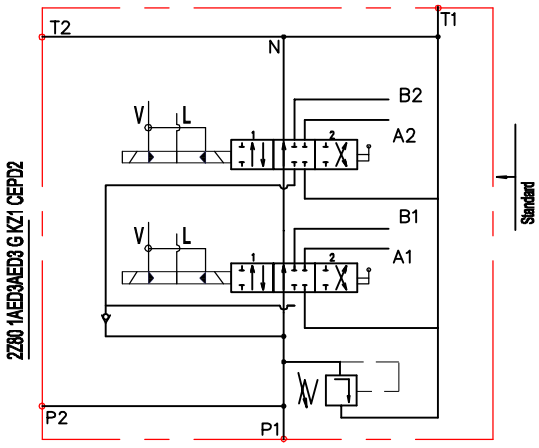
Operating pressure	min 10 bar(145 psi) max 50 bar(725 psi)
Max operating pressure in L (T line)	25 bar(360 psi)

Ordering codes
3–way 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 ...)
Коллектор для внешнего питания управления и слив





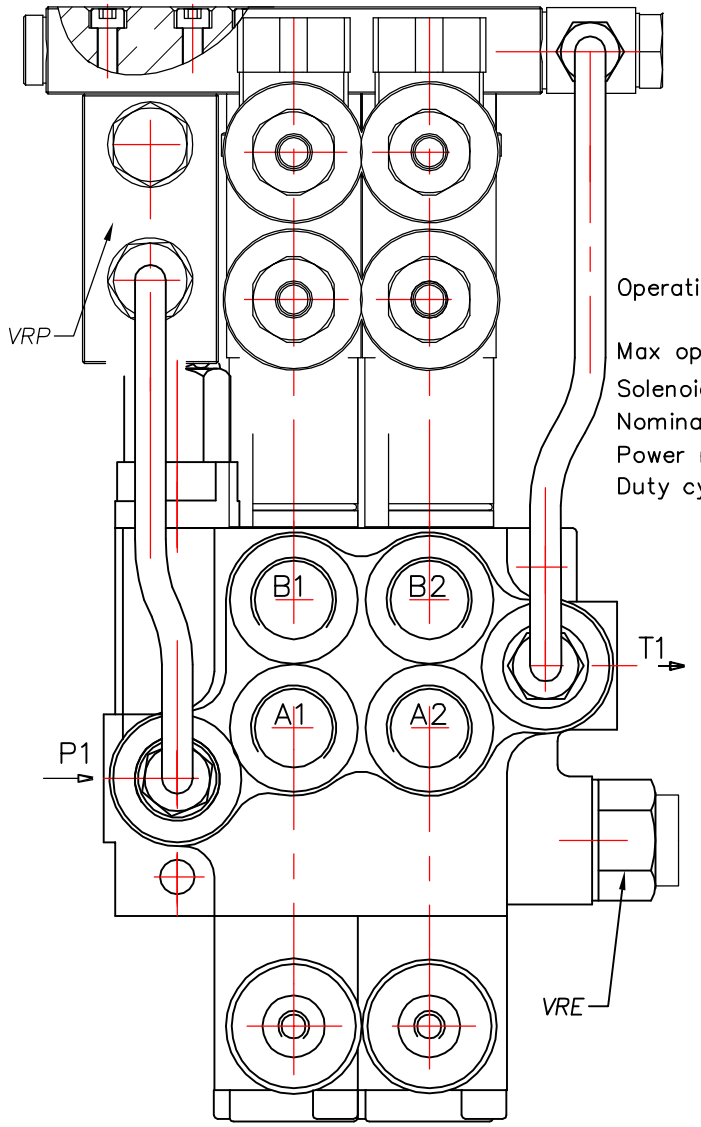
Ordering example
02Z80 1A1ED3A1ED3 G KZ1–CEED2–12VDC

Ordering codes (BSP threads)

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

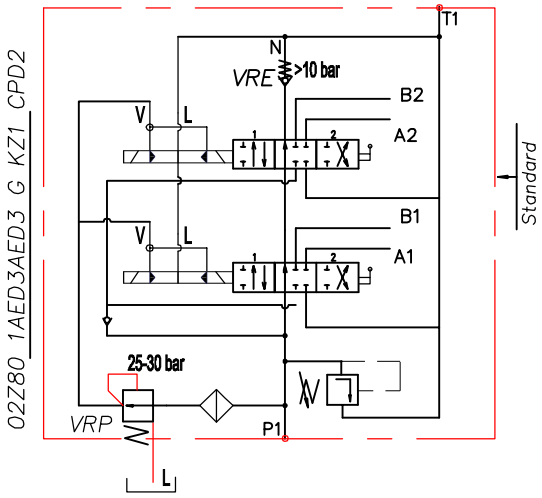
directional control valve ..Z80

ED3 – electro–hydraulic control ON–OFF
Електрогидравлический 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 %



BSP threads

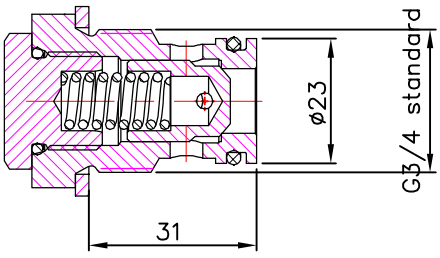
Ordering example

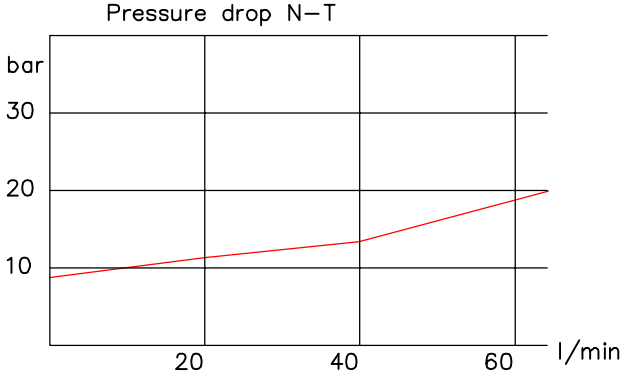
02Z80 VRP 1A1ED3A1ED3 G KZ1–CED2–VRE–12VDC

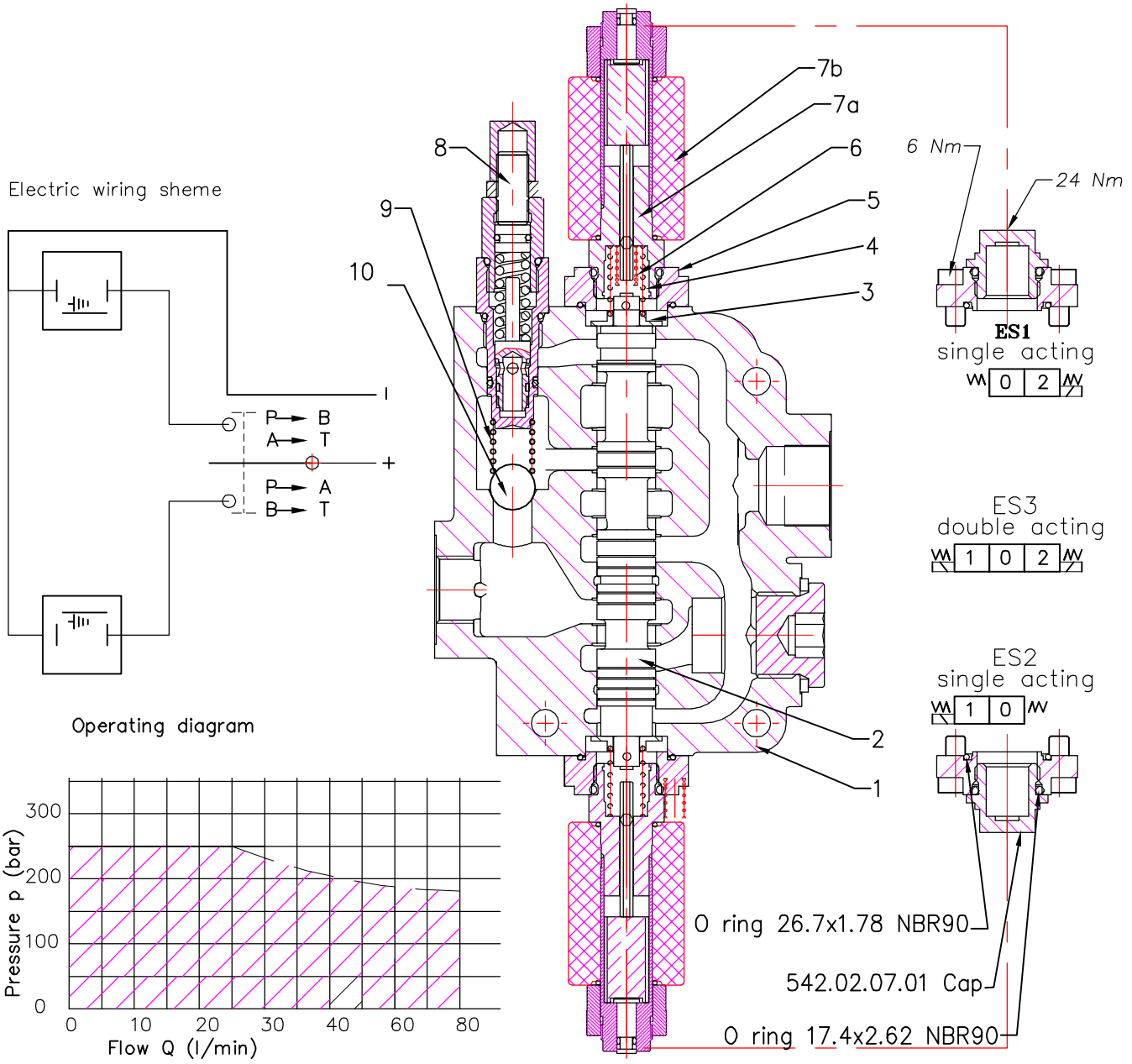
Colector kit – Ordering codes

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 поднора







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 insulance . . . . . class H
Duty cicle 100%
Connector ISO 4400
Imergency manual override

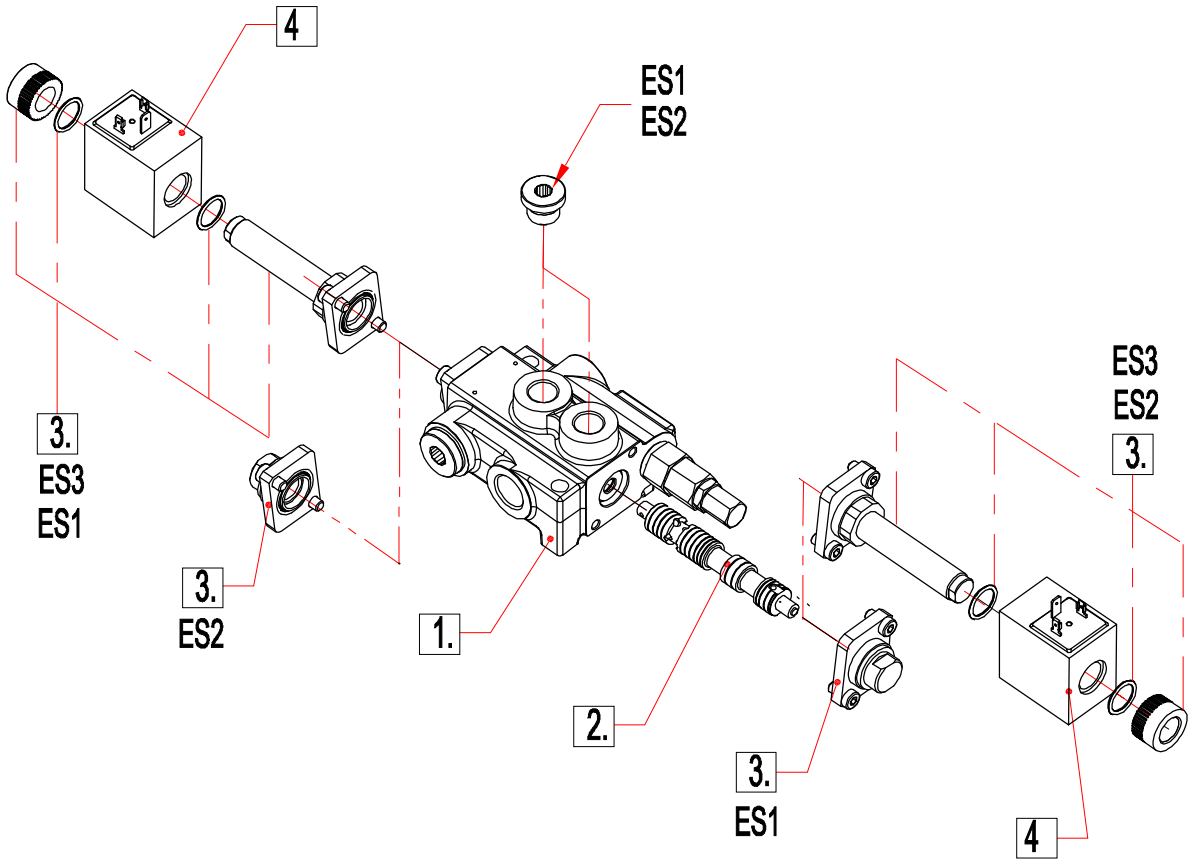
pos.	Part.No	Description	Quantity
10		Ball 14.28	1
9	123.00.47	Spring	1
8	79.04.00	Relief valve	1
7b	C35D012RC P01	Solenoid coil	2
7a	GM4060/BD	Solenoid Tube	2
6	542.02.00.07	Additional spring	2
5	511.02.02.00	Intermediate unit	2
4	542.02.00.04	Spring	2
3	511.02.00.02	Washer	2
2		Spool ...	1
1		Body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