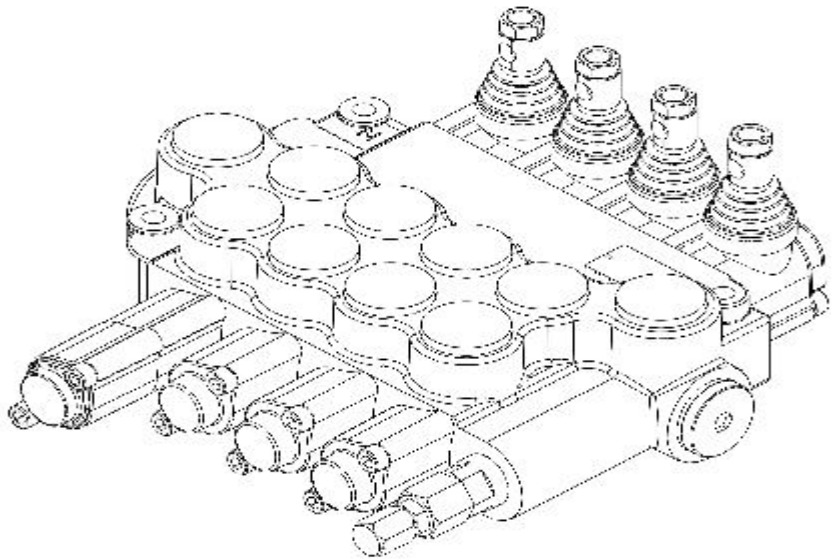


HYDRAULIC DIRECTIONAL CONTROL VALVES
 РАСПРЕДЕЛИТЕЛИ ГИДРАВЛИЧЕСКИЕ



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 гидрелиниях, 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 | |

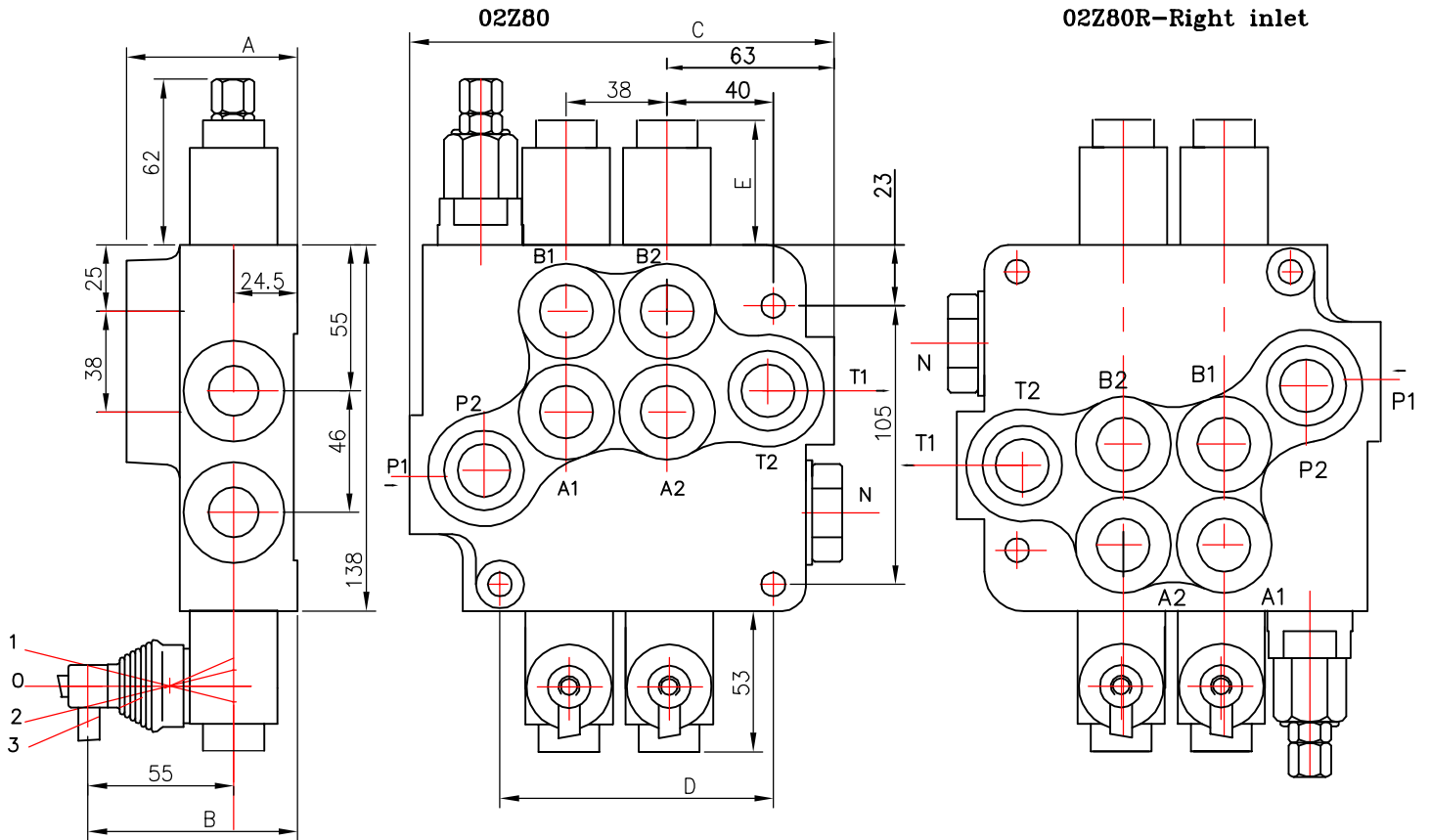


Table 1

| | 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 отверстия
- 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 отверстия

way of distribution – parallel; распределение – параллельное

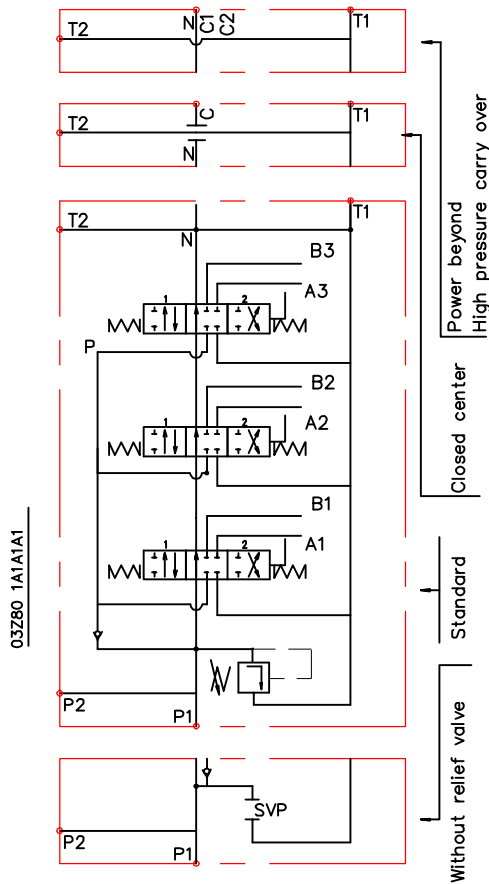


Table 3

| 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 | |

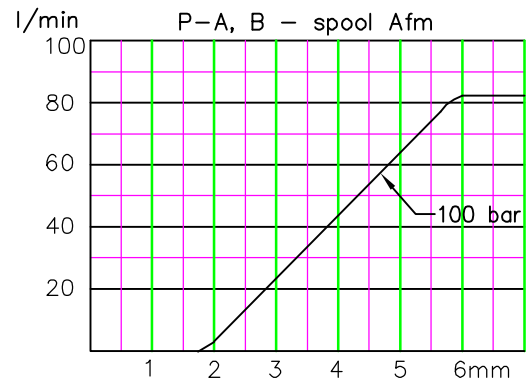
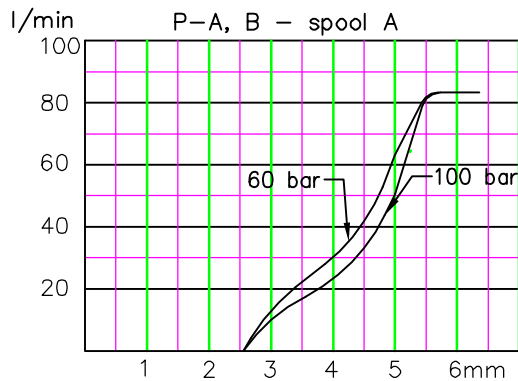


Table 5

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

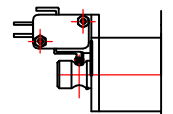


Table 6

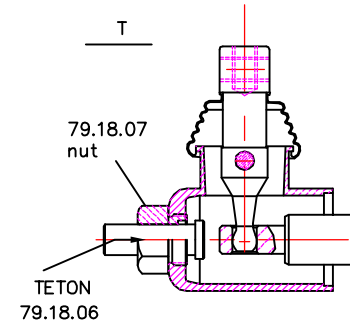
| code | грубое управление ; operation feature | |
|------|---------------------------------------|---|
| P | | пневматическое on-off pneumatic control; 5–10 bar ; ports NPTF 1/8–27 |
| H | | гидравлическое on-off hydraulic control ; pn = 5 – 20 bar ; ports G1/4 |

directional control valve ..Z80

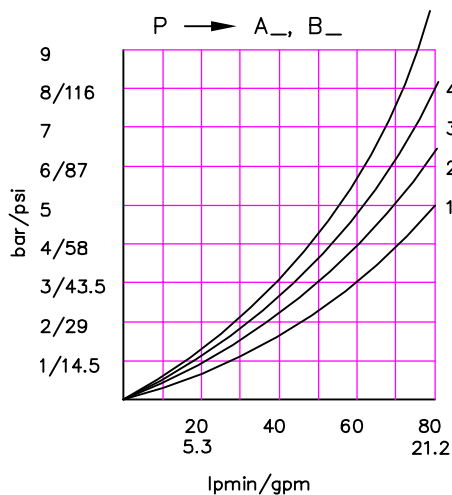
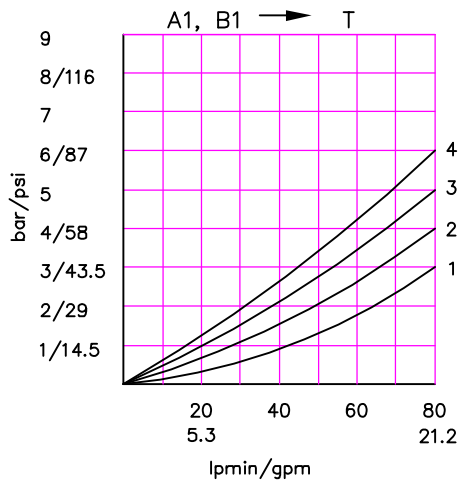
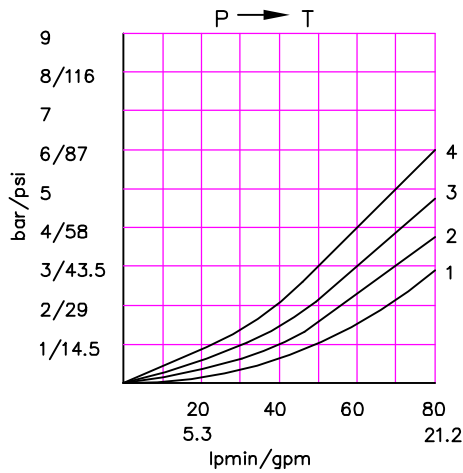
Z80

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 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 | | | | |

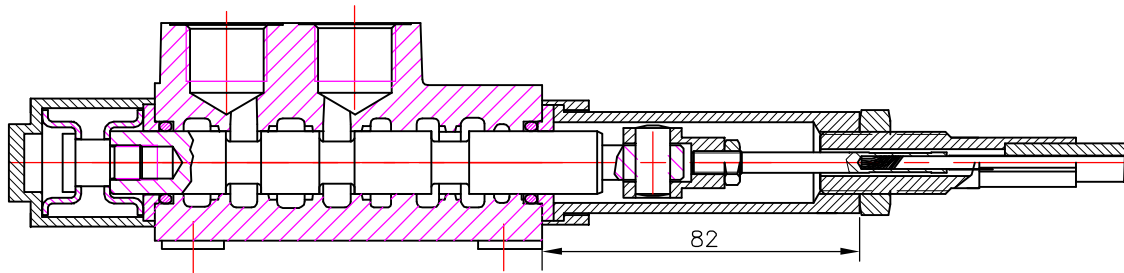
Table 11

| 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 | |

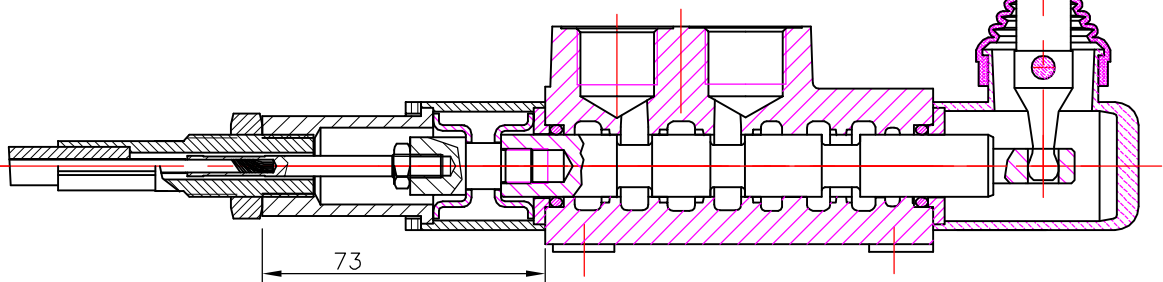
Table 12

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

REMOTE CONTROL
Управление тросом



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



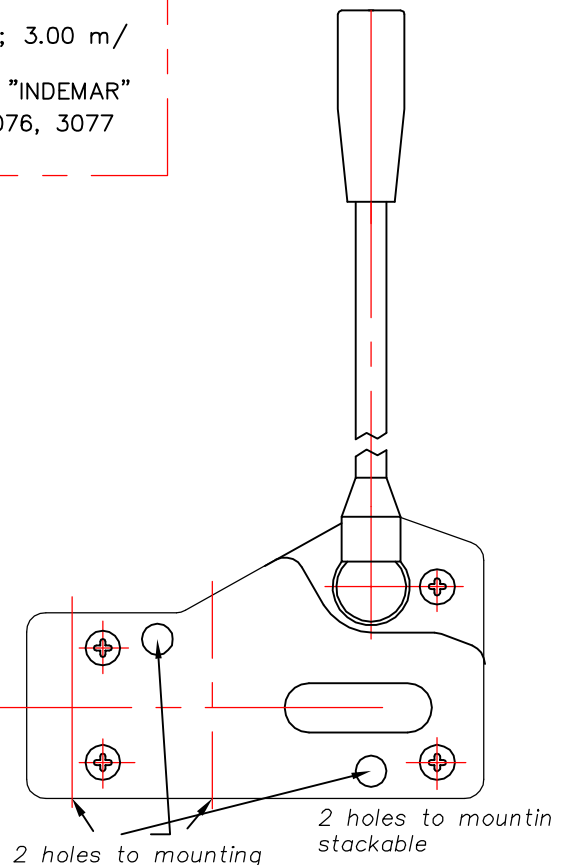
Z80 A1G V2KZ1(l= . . .)+ 3047
spool valve cable control body

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 |

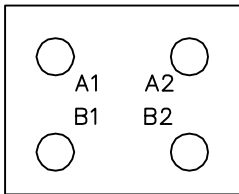
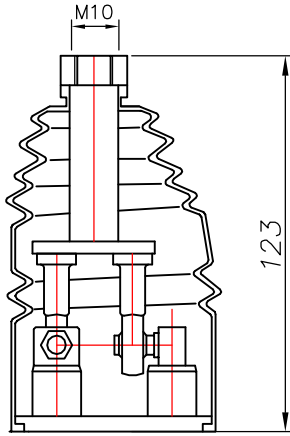
High solidity controls for easy mounting on every type of distributor. They can be mounted stand alone or packed together.

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.

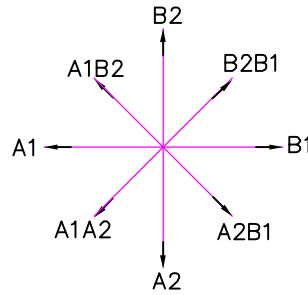
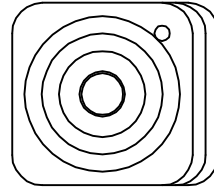


JOYSTICK "+"

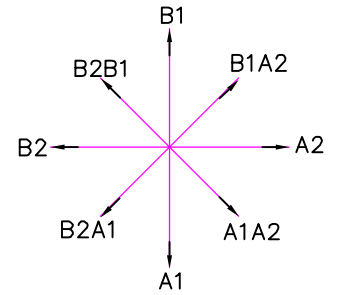
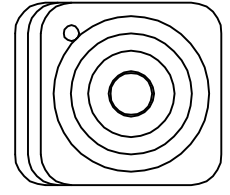
This control gives the possibility to operate, at the same time two spools with a "+" movement.



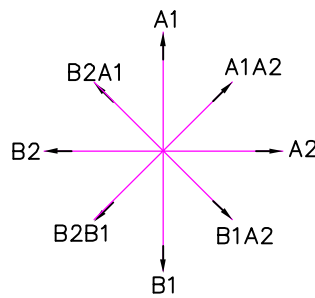
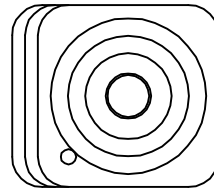
standard version 1



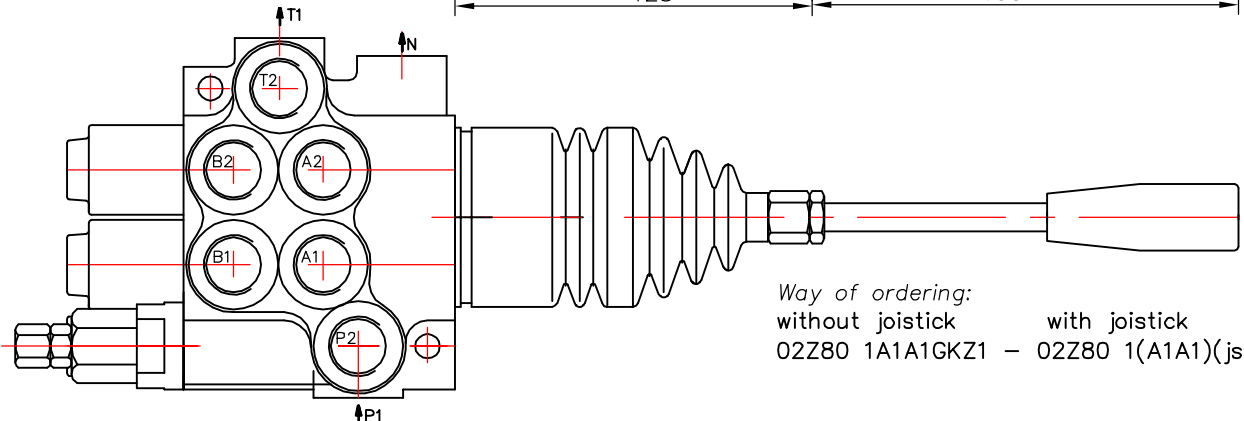
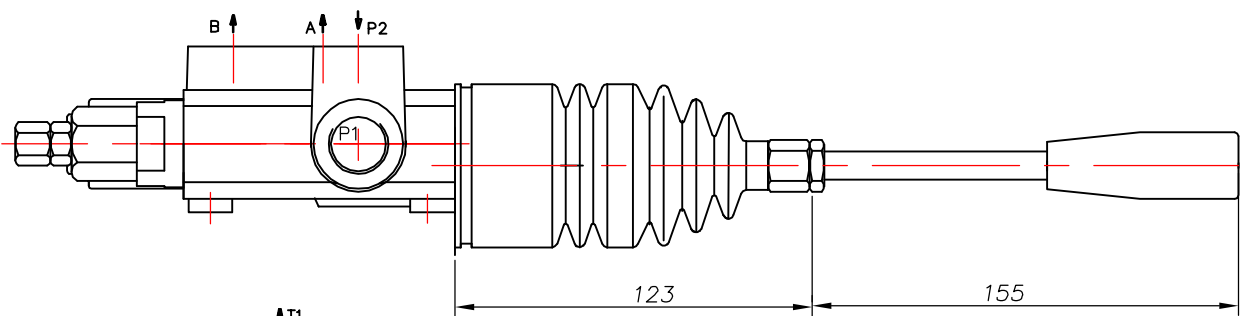
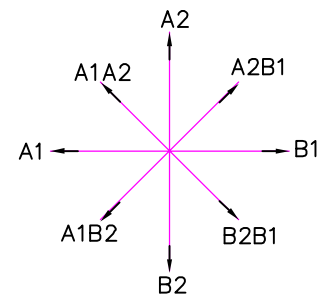
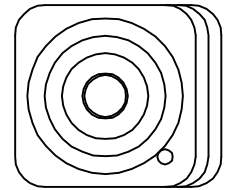
standard version 2



standard version 3



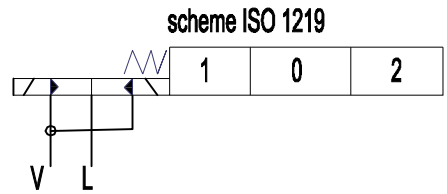
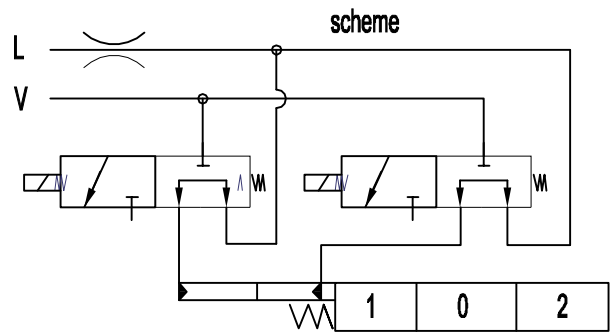
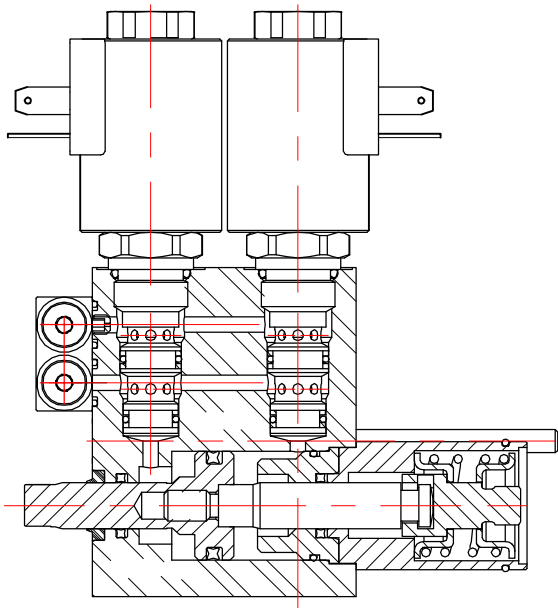
standard version 4



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

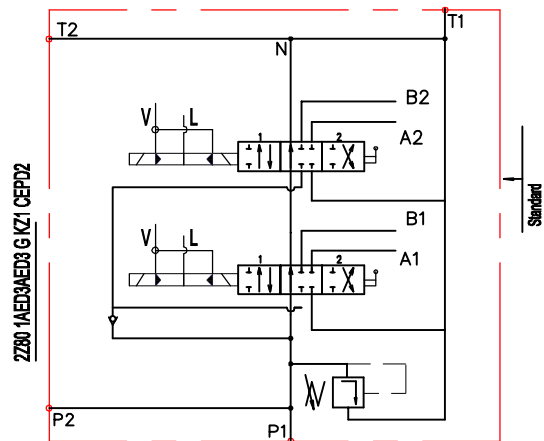
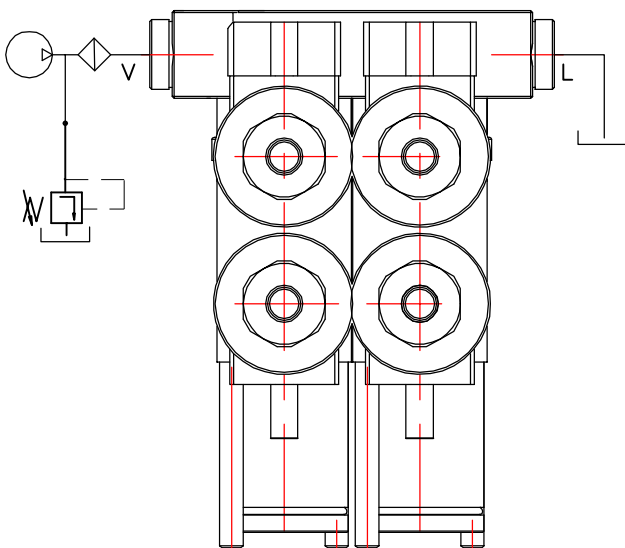


Operating pressure min 10 bar(145 psi)
 max 50 bar(725 psi)
 Max operating pressure in L (T line) 25 bar(360 psi)

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

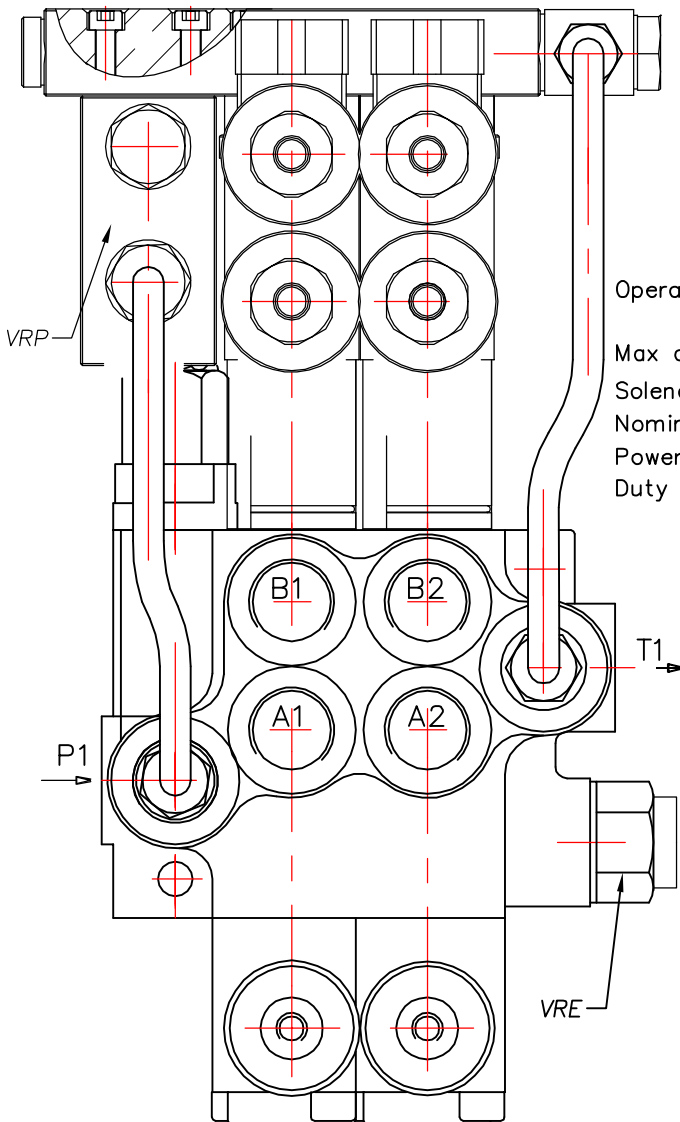


Ordering example
 02Z80 1A1ED3A1ED3 G KZ1-CEED2-12VDC

Ordering codes (BSP threads)

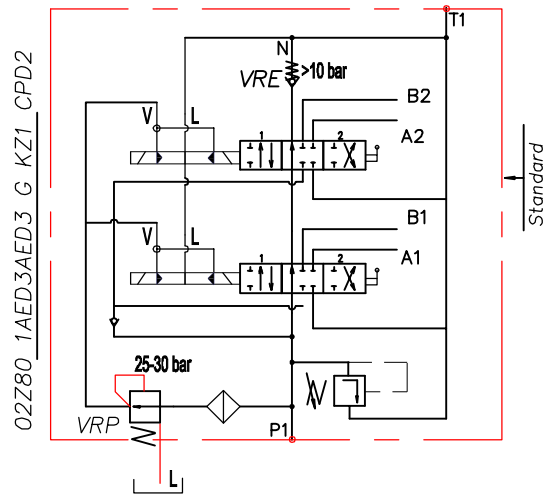
| | |
|----------|-------------------|
| CEED1P80 | Kit for 1 section |
| CEED2P80 | Kit for 2 section |
| CEED3P80 | Kit for 3 section |
| CEED480 | Kit for 4 sektion |
| | |

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 %



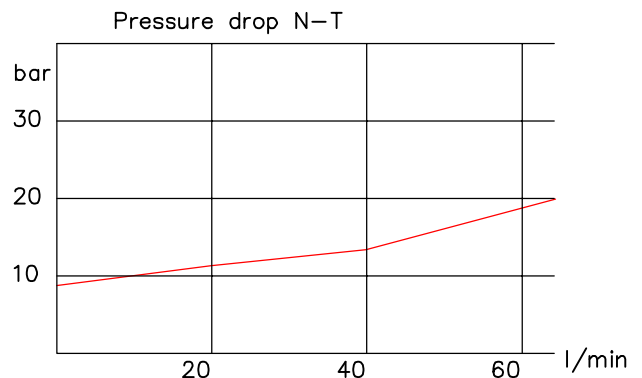
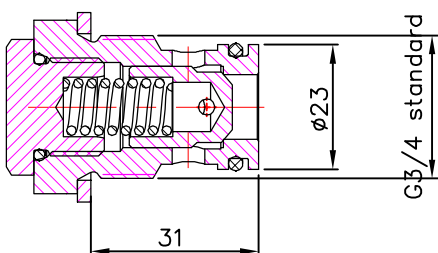
Ordering example

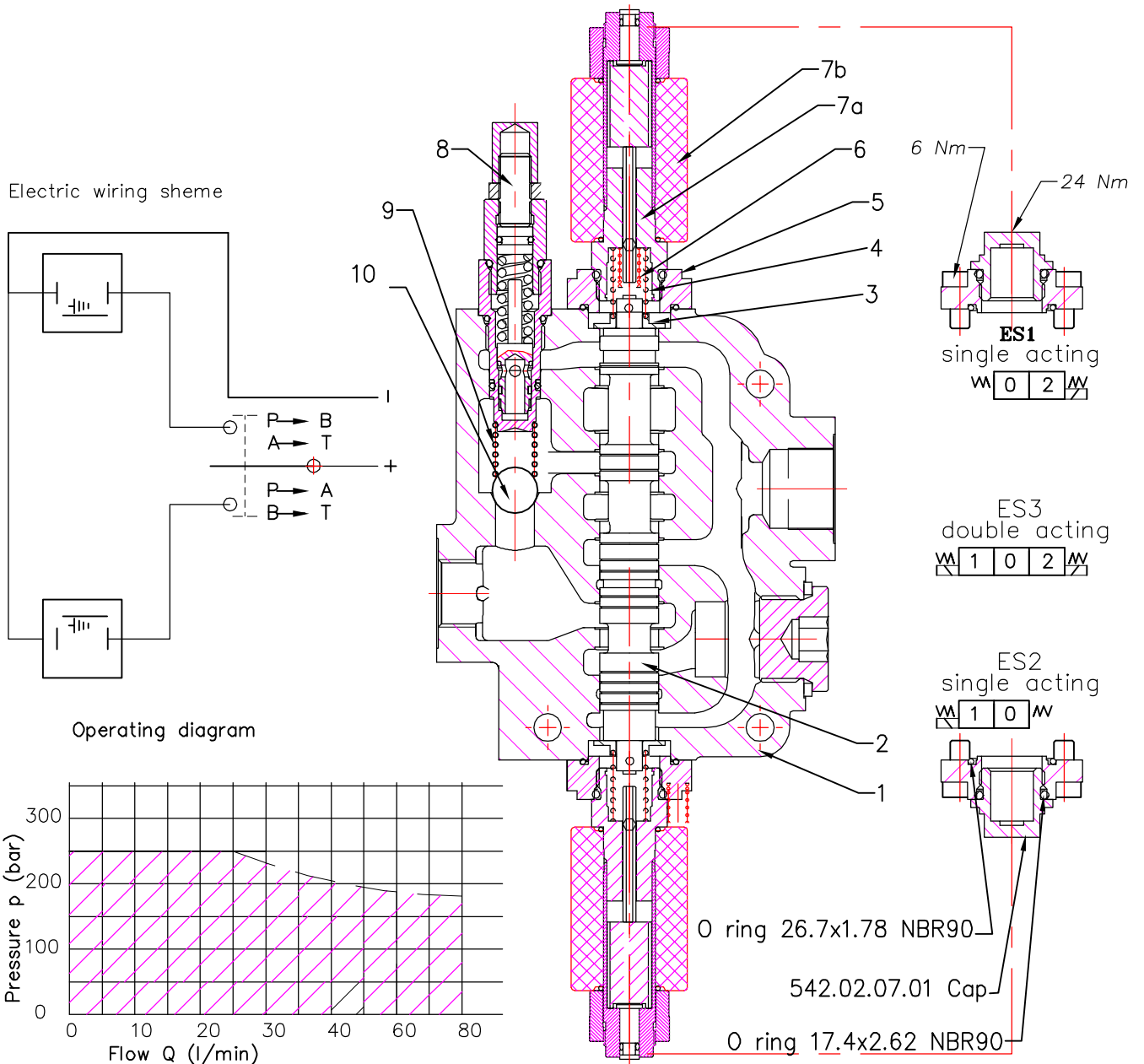
02Z80 VRP 1A1ED3A1ED3 G KZ1-CED2-VRE-12VDC

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

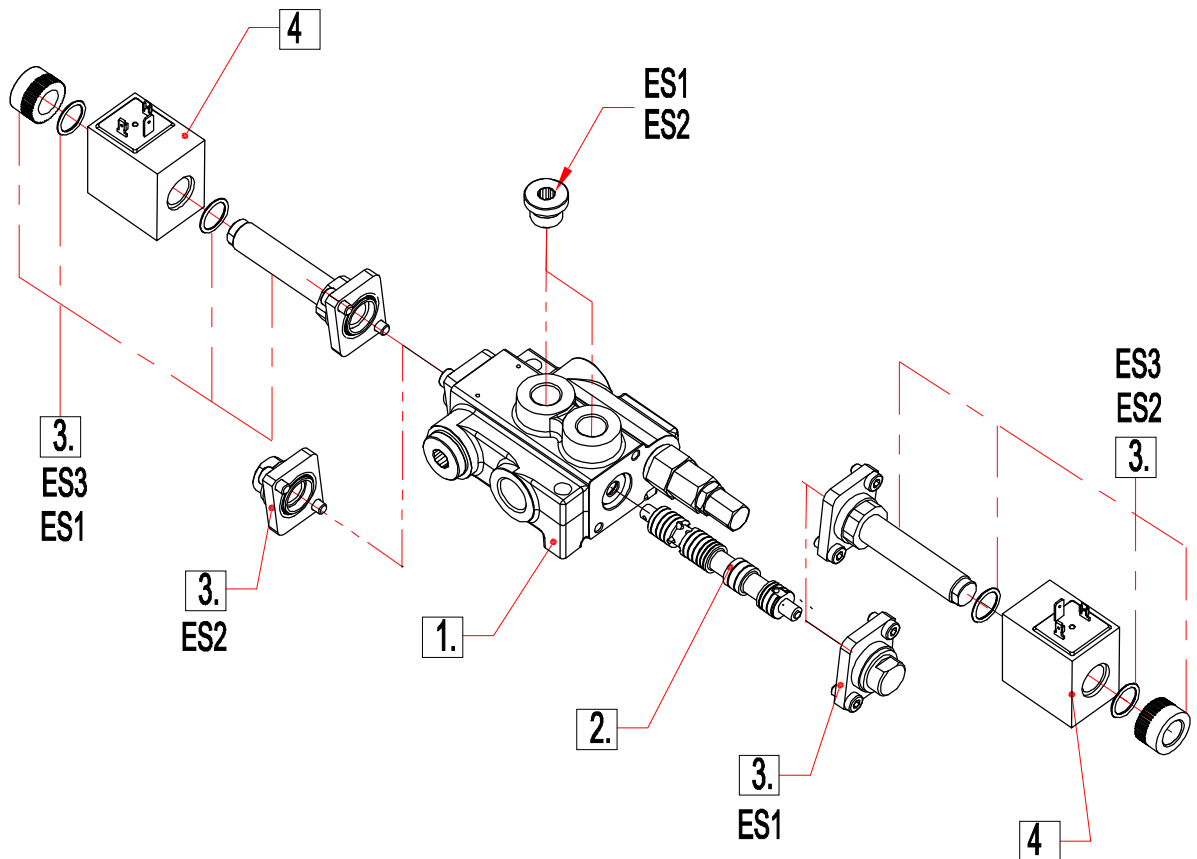
Nominal voltage tolerance ±10%
 Power rating 37 W
 Coil insulation class H
 Duty cycle 100%
 Connector ISO 4400
 Emergency manual override

| 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 |

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 |
|---|--------------------------|