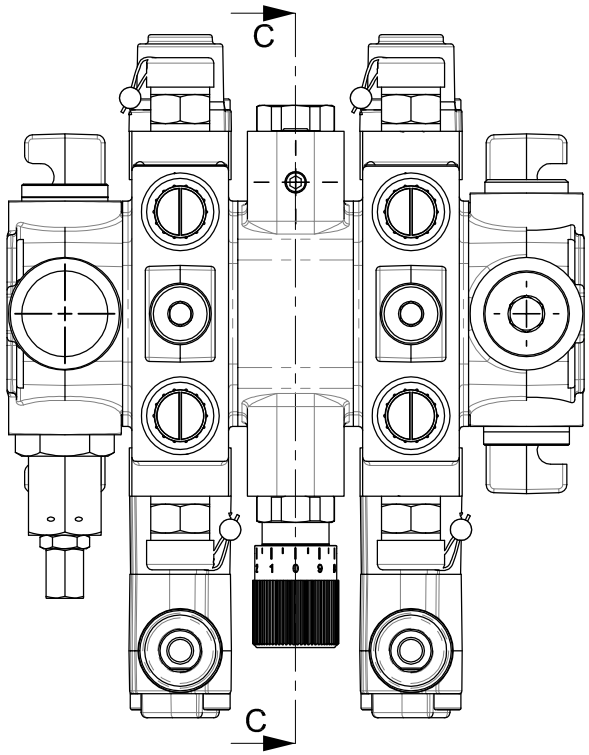
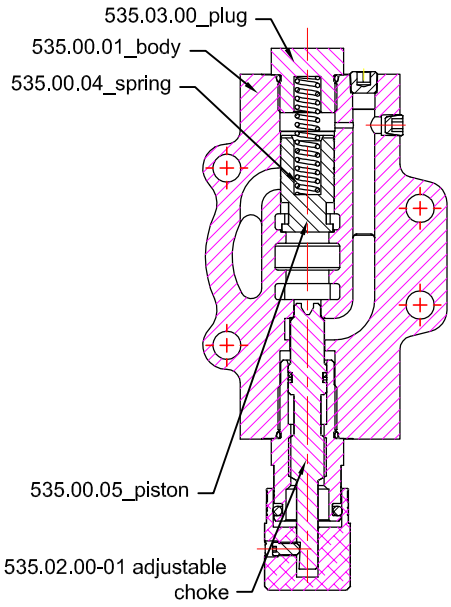
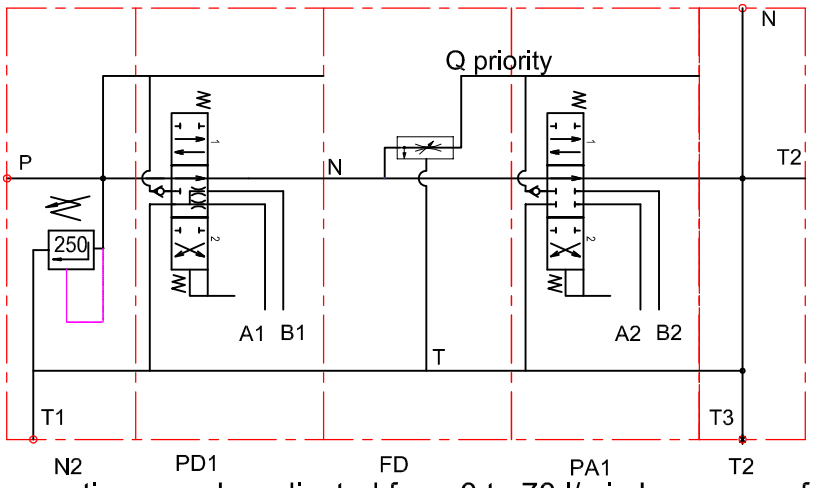
BADESTNOST AD
6200 Chirpan, Bulgaria, Tel: 00359 416 930 12, Fax: 00359 416 955 34
E -mail:badestnost@hydraulic-vlv.com www.hydraulic-vlv.com





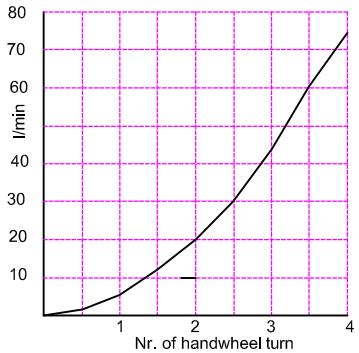
2PC70/N2/PD1/DF/PA1/T2/G/KZ1

Hydraulic circuit

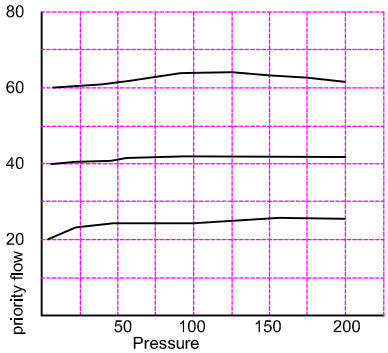


The flow on the downstream sections can be adjusted from 0 to 70 l/min by means of graduated handwheel. Residual flow goes to tank.

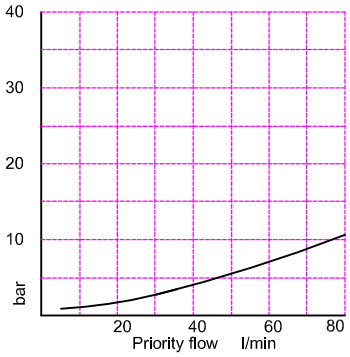
Flow regulation diagram
Qn = 80 l/min ; P = 100 bar



Pressure-flow diagram
Qn = 80 l/min



Pressure drop
P in - P out



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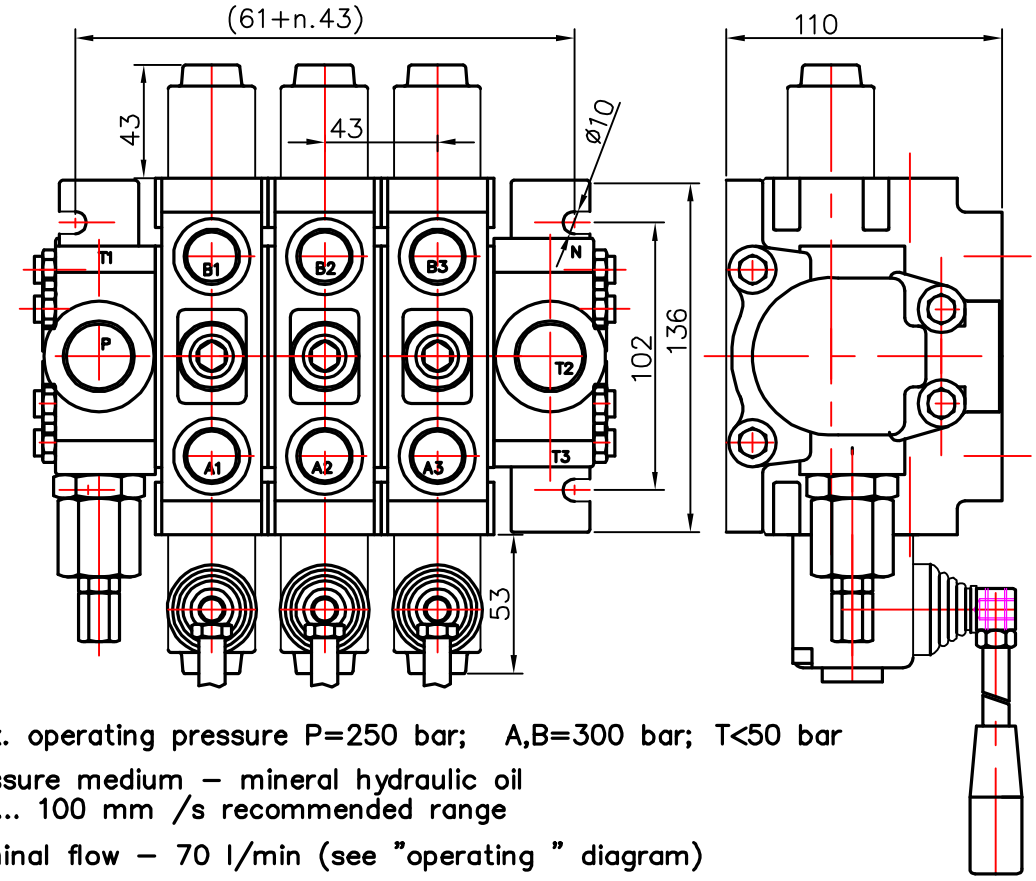
Распределитель гидравлический ZC 70
Directional control valve ZC 70



max. operating pressure P=250 bar; A,B=300 bar; T<50 bar

pressure medium – mineral hydraulic oil
20 ... 100 mm /s recommended range

nominal flow – 70 l/min (see "operating " diagram)

n – number of sections – max 8

Структура обозначения распределителя
Order code

3 ZC70 R N2/PA1/PA8AyBz/PD1/T2 /G KZ1 P E C2

количество золотников number of spools	3
распределитель типа directional control valve	ZC70
вход давления с правой стороны inlet high pressure – right	R
тип напорной секции type of the inlet cover	N2
характеристика первого золотника first spool distribution type	PA1
характеристика второго золотника second spool distribution type	PA8AyBz
характеристика третего золотника tird spool distribution	PD1
тип сливной секции (T) type of the outlet cover (T port)	T2
размер присоединительных отверстий threads (P, A, B, T, N)	/G
вид ручного управления lever options	KZ1
управление другого вида operation feature	P
с електро шалтер with microswitsh	E
наконечник продолжения потока high pressure carry over	C2

* Фиксация в рабочих позициях с гидропредохранением заказиваются текстом.
* All detend in operating positions, provided with hydraulic control, have to be ordered explanative.

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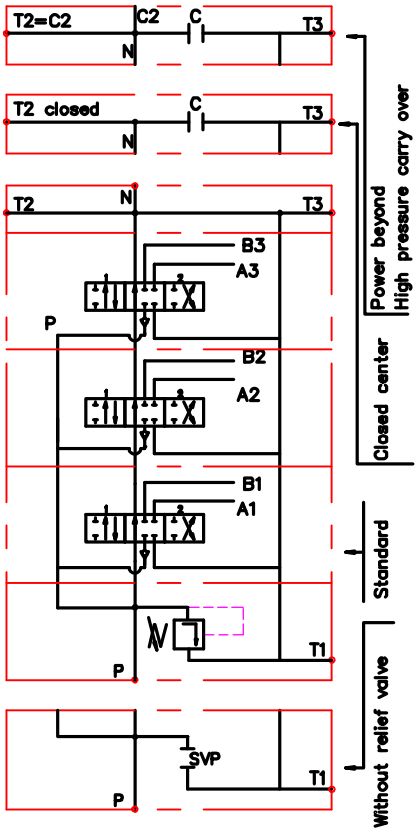
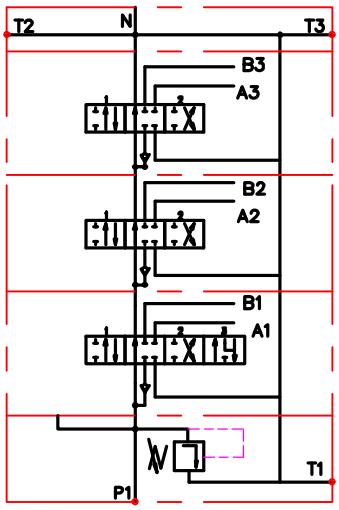
Directional control valve ZC 70

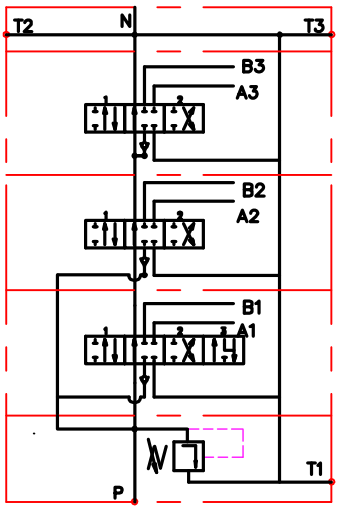
параллельное распределение
parallel circuit
3ZC70 N2/ PA1/PA1/PA1/T2



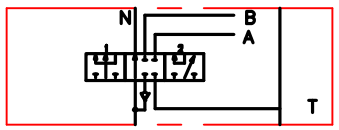
тандемное распределение
tandem circuit
3ZC70 N1/ TL12/TA1/TA1



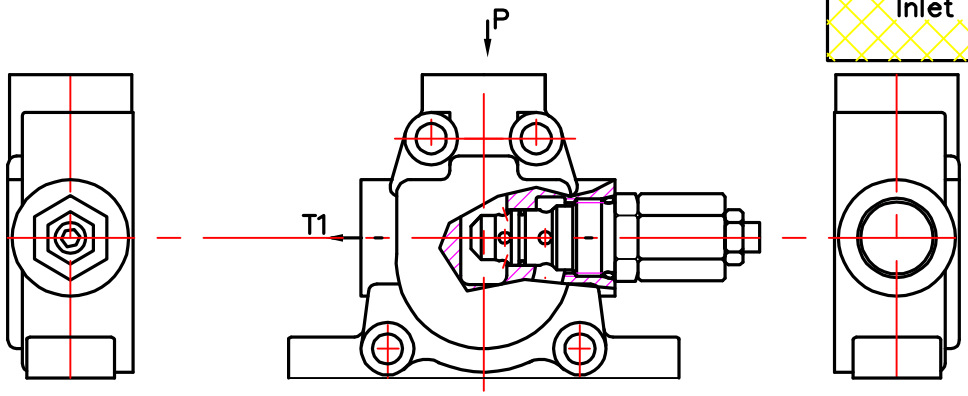
мешаное распределение
mixed circuit
3ZC70 N1/ PL12/PA1/TA1

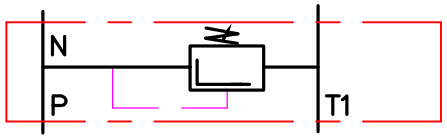
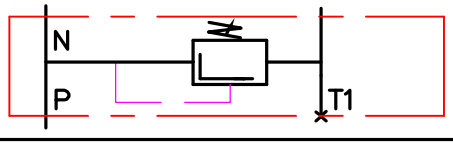
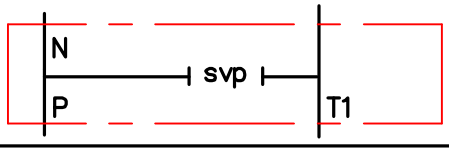


series directional valve element



Напорная секция
Inlet cover



code	напорная секция / inlet cover
N1	
N2	
N1svp or N2svp	

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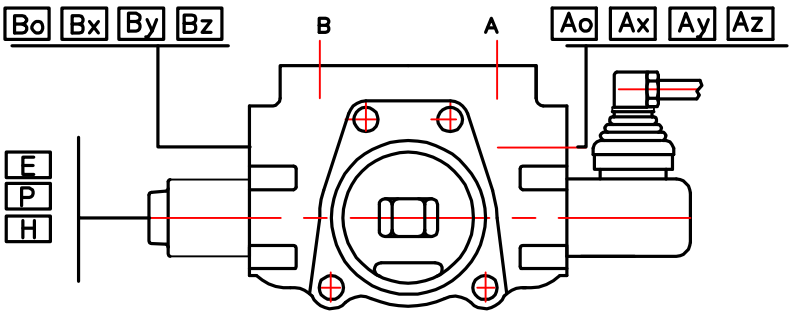
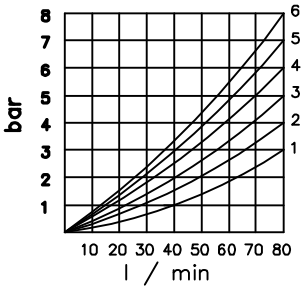
Directional control valve ZC 70



распределительная секция
control valve

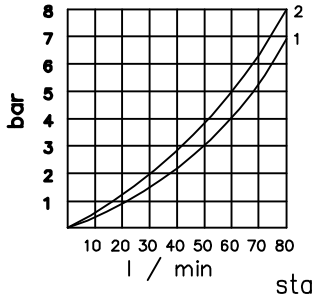
code	способ фиксации spool control
1	1 0 2
2	1 0 2
3	1 0 2
4	0 2
5	1 0
6	1 2
7	1 2
8	1 0 2
9	1 0
10	0 2
11	1 2
12	1 0 2 3
13	1 0 2 3

P→T

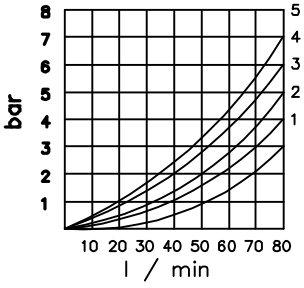


code	вид золотника spool type
A	
B	
C	
D	
E	
F	
G	
H	
L	

P→A, B



A, B → T



code	резьбовие отверстия thread ports			code	способ разпределения потока way of distribution of oil
	P,A,B	T	N	P	паралелное / parallel
standard G	1/2"	3/4"	M26x1.5	T	тандем / tandem
M2	M22x1.5	M26x1.5		S	серийно/ series

code	с електро шалтер with electric switch	
E		микро шалтер Omron – V 165 I C5 mikroswitch Omron – V 165 I C5

code	другое управление operation feature		
P		пневматическое pneumatic	pn = 6 bar ports – NPTF 1/8–27
H		гидравлическое hydraulic	pn = 6 – 20 bar ports – G 1/4 DIN 3852/1

Ao	Bo	пробка соответно к A и/или B plug for A and/or B
Ax	Bx	антикавитационний клапан соответно к A и/или B anti cavitation valve for A and/or B
Ay	By	предохранительний клапан соответно к A и/или B sek. pressure relief valve for A and/or B
Az	Bz	шок абсорбер к A и/или B shockabsorber valve for A and/or B

operating diagrams
for hand operated
control valve

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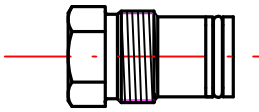
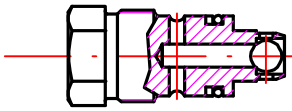
Directional control valve ZC 70

вторичные клапани/ second valves

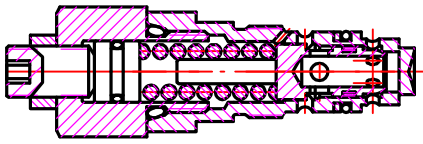
plug "o"



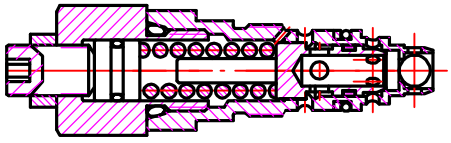
anticavitation valve "x"



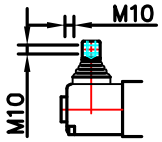
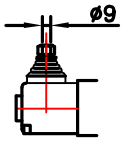
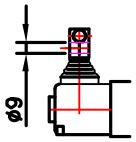
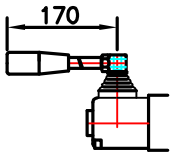
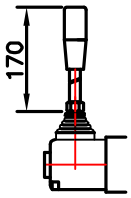
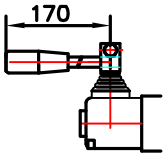
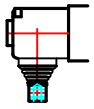
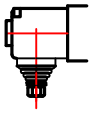
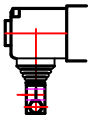
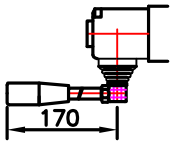
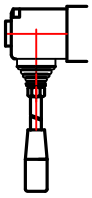
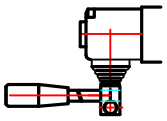
second relief valve "y"



combined part relief and anticavitation valve "z"

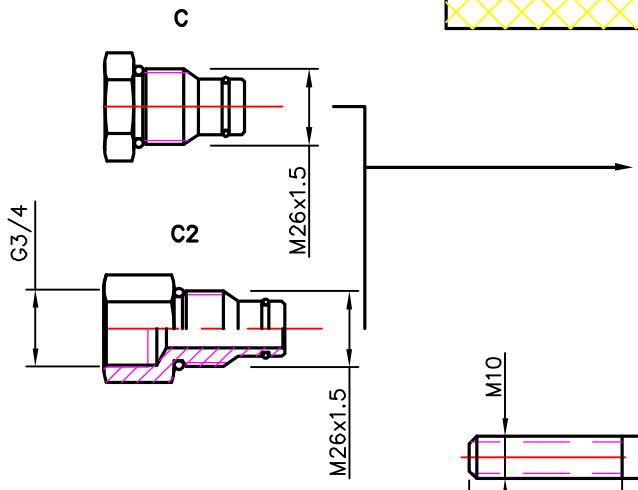


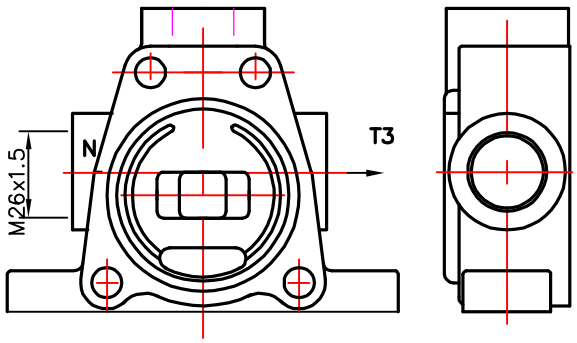
вид ручного управления / general operation feature

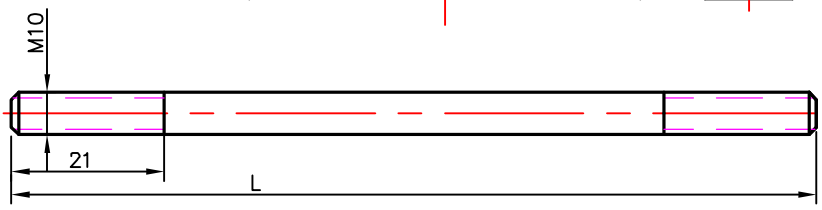
code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
–	без система управления / without lever system				

сливная секция
end plate

T2
or
(T2=C2) high pressure carry over
продолжитель поток





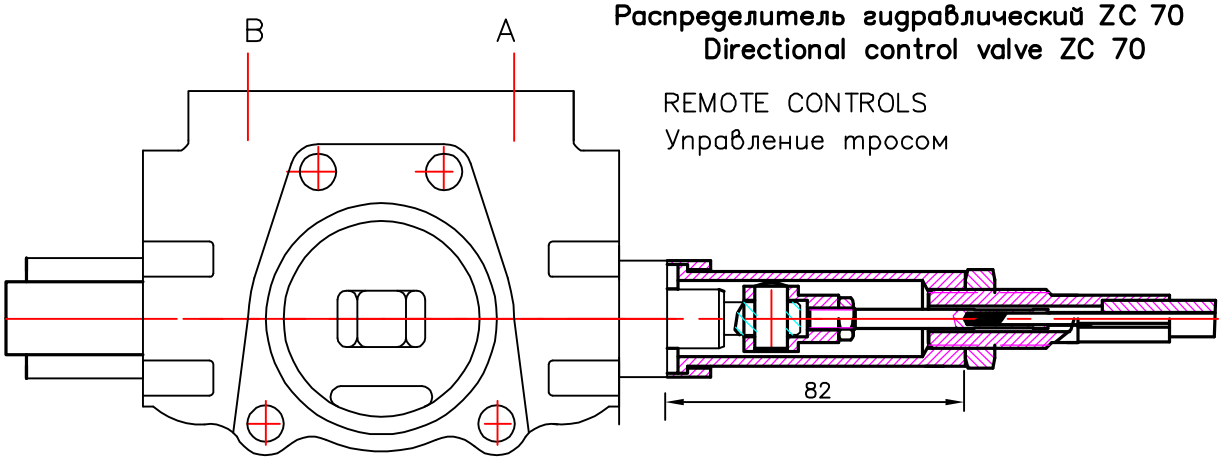


*C – C in port N+plug in T2–closed center
**(T2=C2)– C in port N–carry over in T2
***C2–C2 in port N+Plug in T2– carry over in N

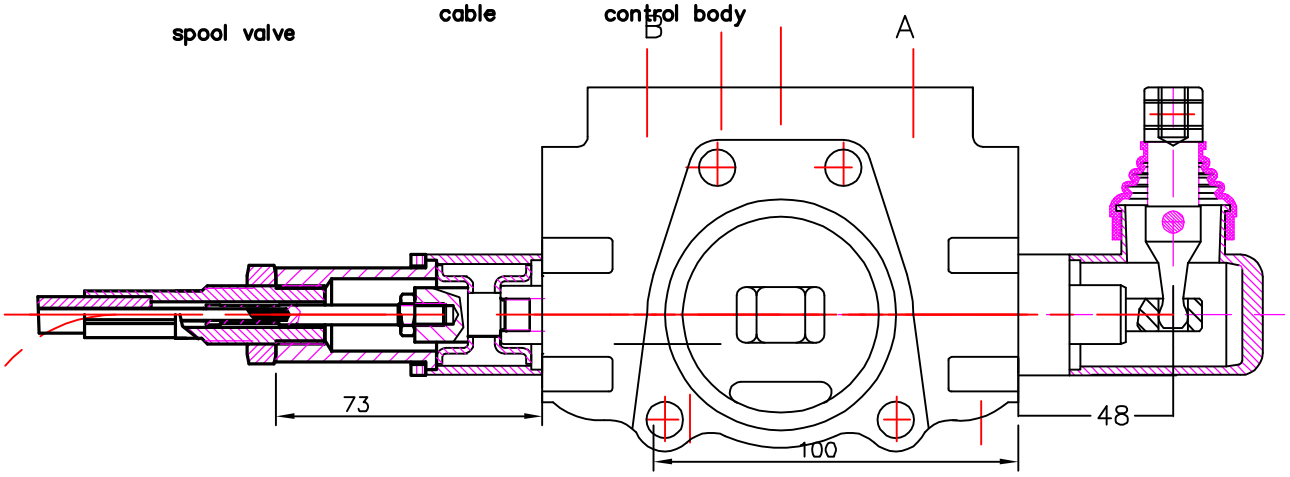
брой золотников number of spools	1	2	3	4	5	6	7	8
L	145	188	230	275	320	360	405	445

Распределитель гидравлический ZC 70
Directional control valve ZC 70

REMOTE CONTROLS
Управление тросом



P40 A1G — spool valve
V1(l= . . .)+ — cable
3047 — control body

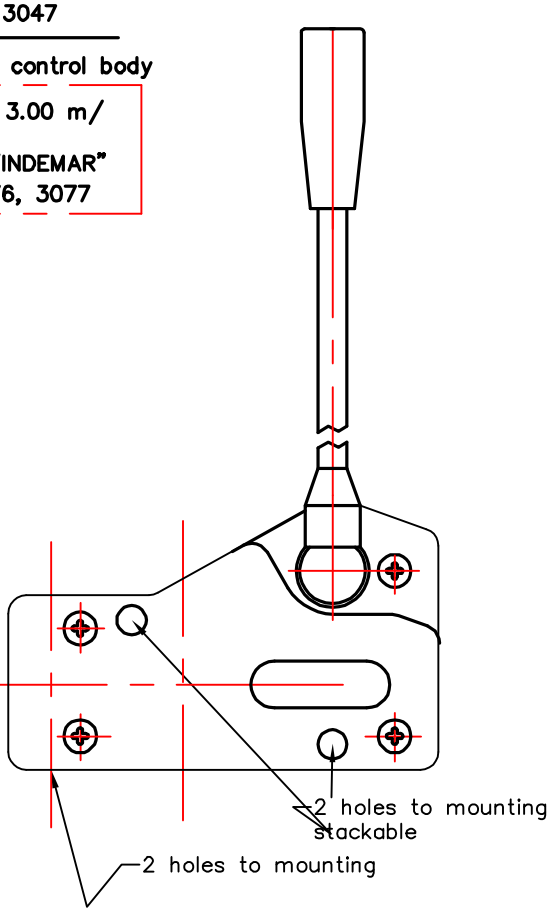


P40 A1GKZ — spool valve
V2(l= . . .)+ — cable
3047 — control body

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

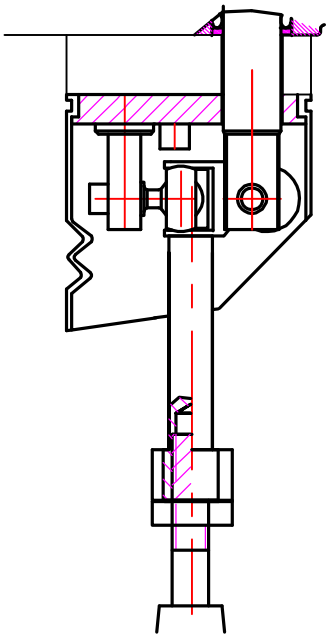


High solidity controls for easy mounting on every type of distributor.They can by mounted stand alone or packed together.
They use push–pull heavy duty cables that provide a positive smooth operating lever and are manifactured in a three differents models to meet different needs of Clients.

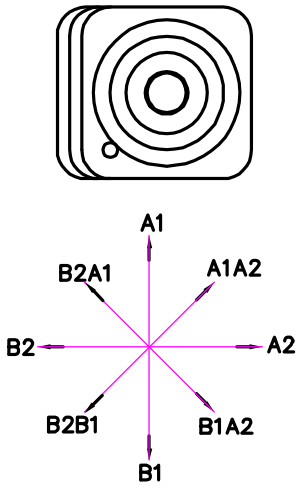
Распределитель гидравлический ZC 70
Directional control valve ZC 70

JOYSTICK "+"

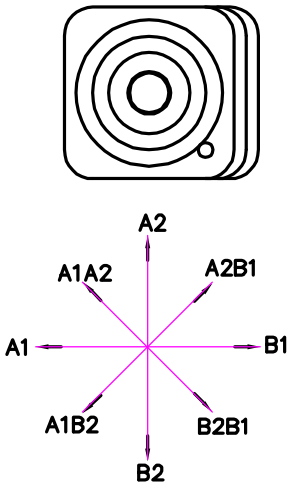
This control gives the possibility to operate, at the same time two spools with a"+"movement.

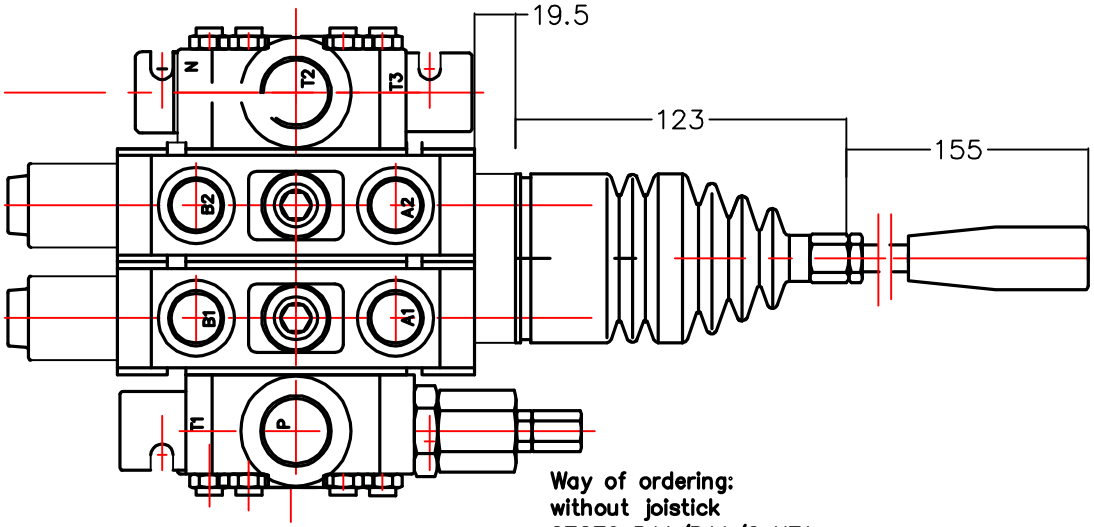


standard version 3



standard version 4

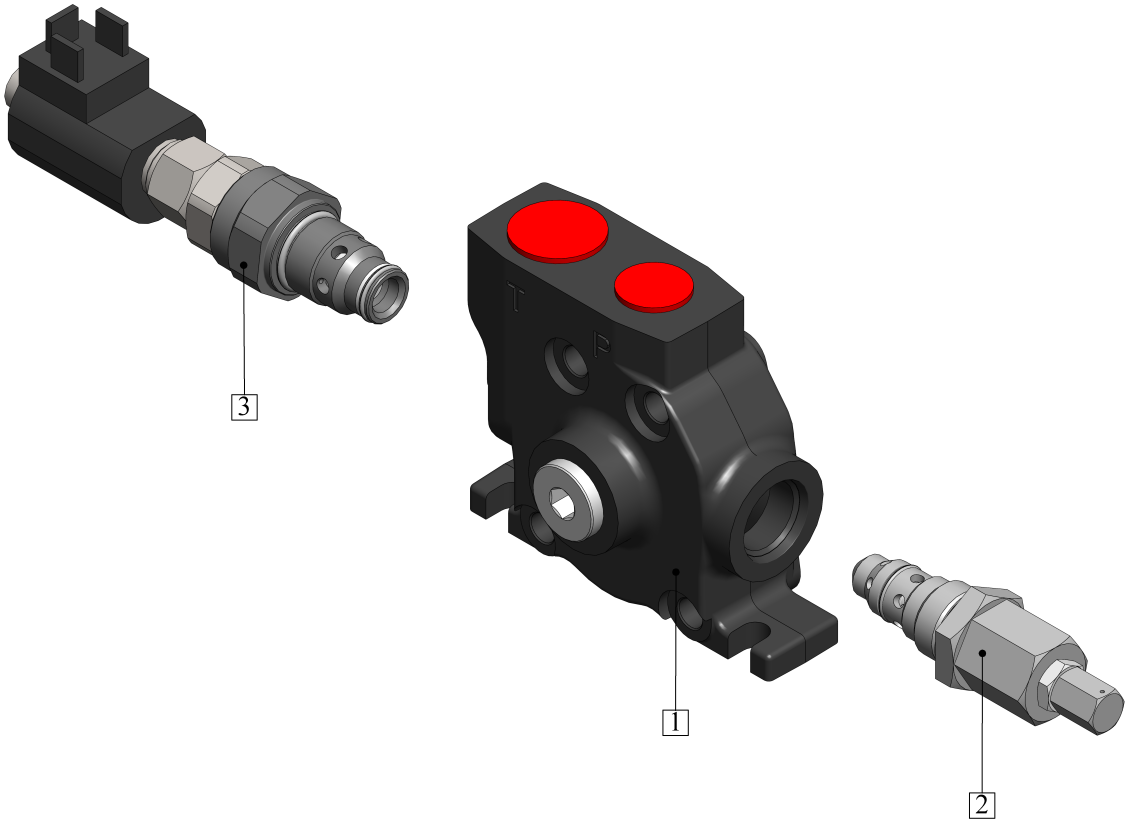




Way of ordering:
without joistick
2ZC70 PA1/PA1/G KZ1

with joistick
2ZC70 (A1A1)(js+3)G

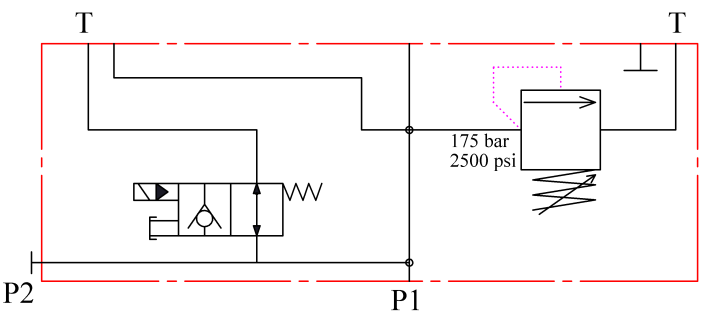
NEW INLET COVER - L
for directional control valve PC70, ZC70, PC100, ZC100



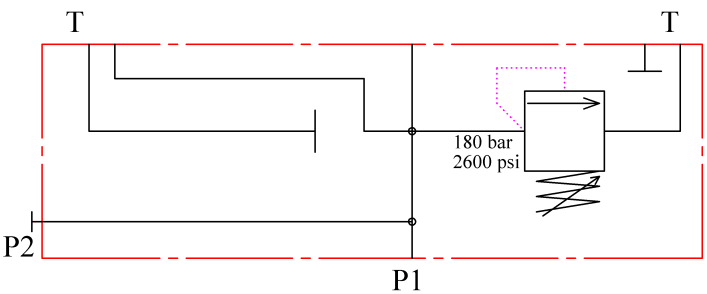
Features:
- Max. operating pressure - 300 bar.
- Side inlet P1.
- Flexible positioning of the relief valve both front and back
- Different thread specifications

Available with:
- Pilot operated main relief valve
- Direct operated main relief valve
- Solenoid unloader valve

Sample order code for inlet cover with unloader valve
L1(175)/ELP24VDC/G34



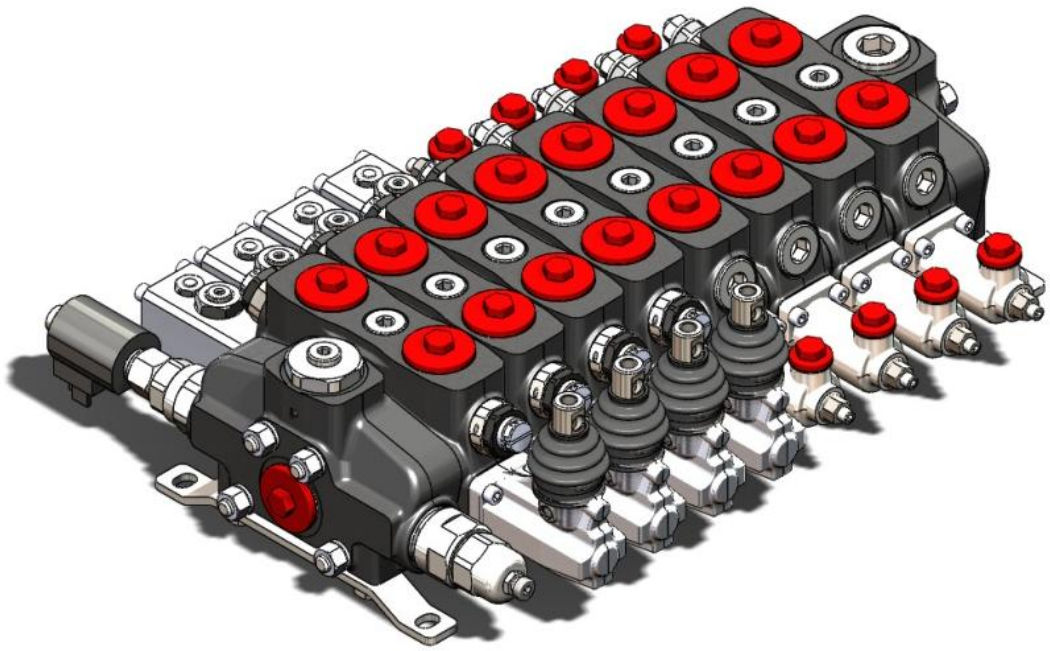
Sample order code for inlet cover without unloader valve
L1/G34



KS180

Badestnost
hydraulic components

1 to 12 sectional directional control valve



- Fitted with a main pressure relief valve and a load check valve on every working section.
- Available with parallel circuit.
- Optional carry-over
- Variety of port valves (auxiliary valves)
- Available manual, pneumatic, and hydraulic spool control kits.

NEW PRODUCT

NEW PRODUCT

KS180

WORKING CONDTIONS

This catalogue shows technical specifications and diagrams measured with mineral oil of 32 mm^2/s – 32 cSt at 40 °C – 104 °F temperature.

Nominal flow rating		160 l/min	42 US gpm
Operating pressure (max.)		315 bar	4600 psi
Back pressure (max.)	outlet port T	25 bar	360 psi
Internal leakage (max.) A(B)→T	Δp = 100 bar (1450 psi) fluid and valve at 40 °C (104 °F)	15 cm^3/min	0.91 in^3/min
Fluid		Mineral based oil	
Fluid temperature	with NBR	from -20 °C to 80 °C	from -4 °F to 176 °F
	with FPM	from -20 °C to 100 °C	from -4 °F to 212 °F
Viscosity	operating range	from 15 to 75 mm^2/s	from 15 to 75 cSt
	min.	12 mm^2/s	12 cSt
	max.	400 mm^2/s	400 cSt
Max contamination level		-/19/16 - ISO 4406	NAS 1683 - class 10
Ambient temperature for working conditions	with mechanical devices	from -40 °C to 60 °C	from -40 °F to 140 °F
	with pneumatic and hydraulic devices	from -30 °C to 60 °C	from -22 °F to 140 °F
	with electric devices	from -20 °C to 50 °C	from -4 °F to 122 °F

Note – for different conditions please contact Sales department

STANDARD THREADS

Reference standard

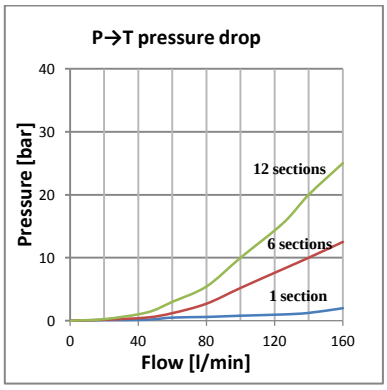
		BSP	**UN-UNF**	**NPTF**
THREAD ACCORDING TO		ISO 228/1	ISO 263	ANSI B1.20.3
		BS 2779	ANSI B1.1 unified	
CAVITY DIMENSION ACCORDING TO	ISO	1179	11926-1	
	SAE		J1926-1	J476a
	DIN	3852-2		

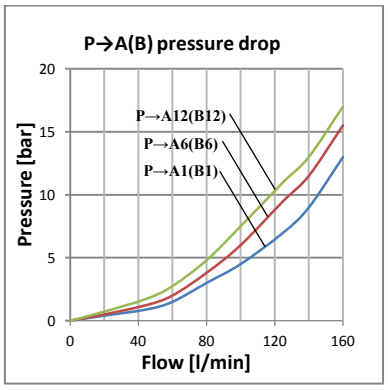
Ports

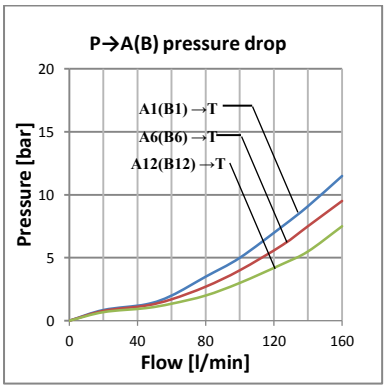
	BSP		**UN-UNF**
Order code	G34	G1	SAE
Inlet P	G 3/4	G 1	1 5/16-12 (SAE16)
Ports A and B	G 3/4		1 1/16-12 (SAE12)
Outlet T and carry-over C	G 1		1 5/16-12 (SAE16)
Hydraulic pilots	G 1/4		9/16-18 (SAE6)
Pneumatic pilots	NPTF 1/8-27		

PERFORMANCE DATA

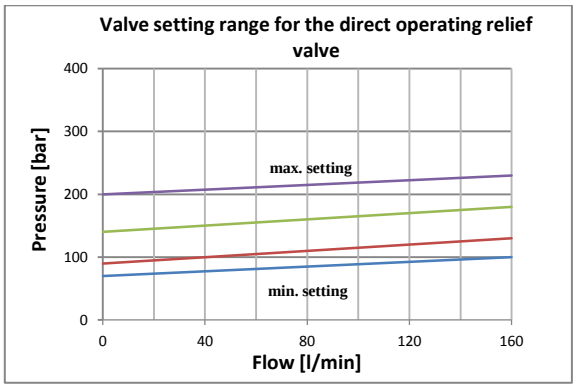
General

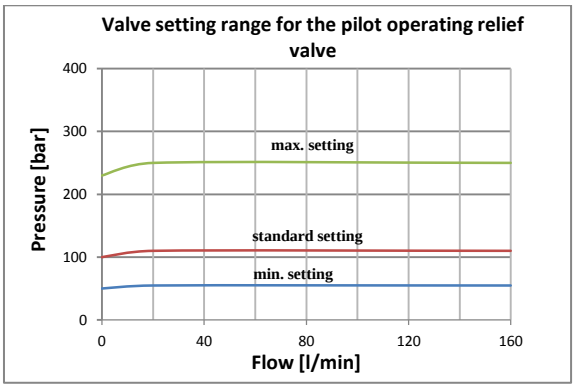




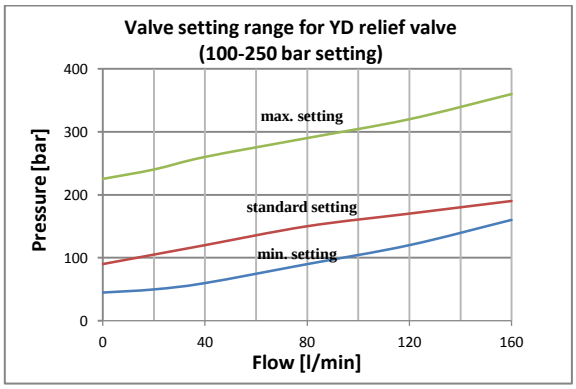


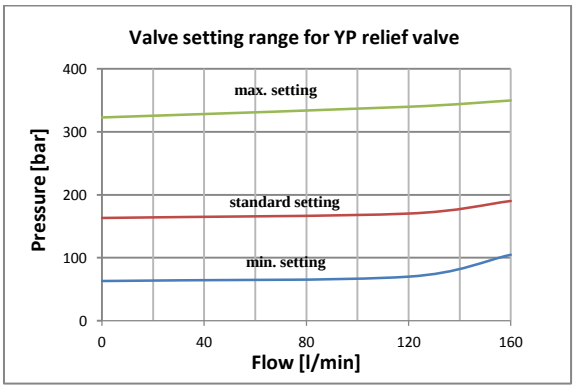
Main pressure relief valve





Auxiliary valves

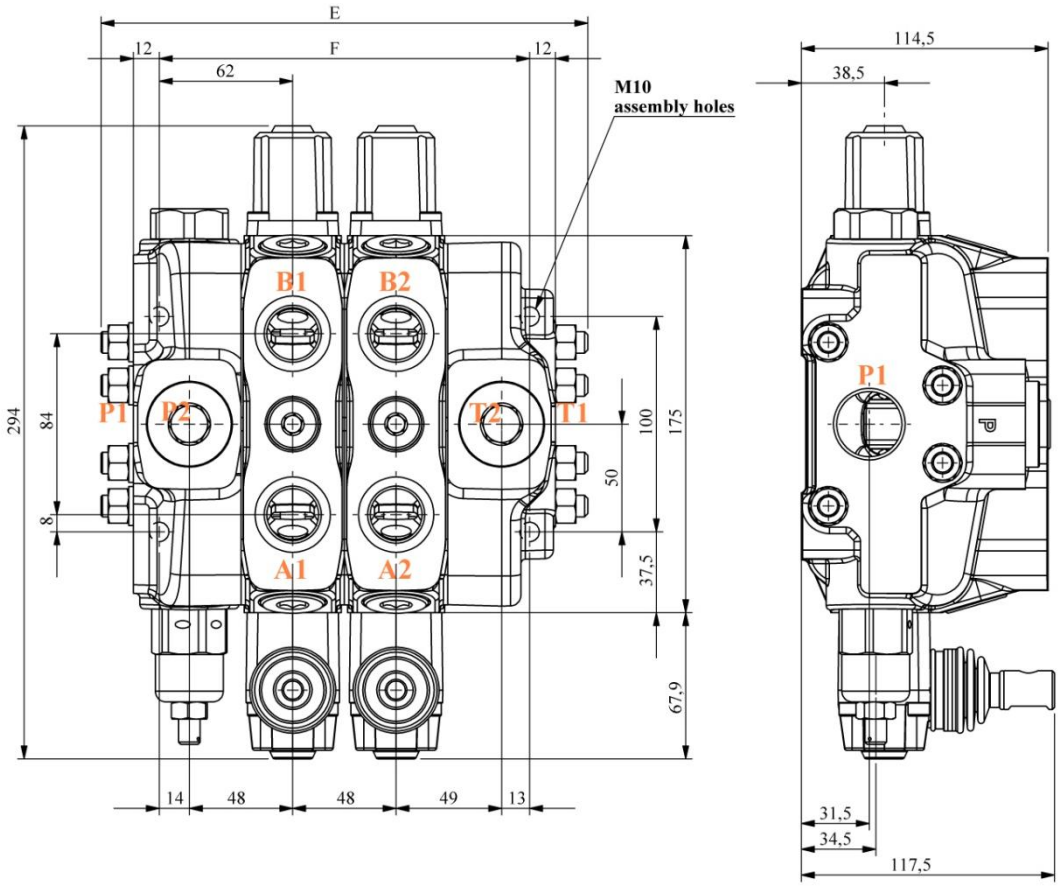




NEW PRODUCT

KS180

DIMENSIONAL DATA

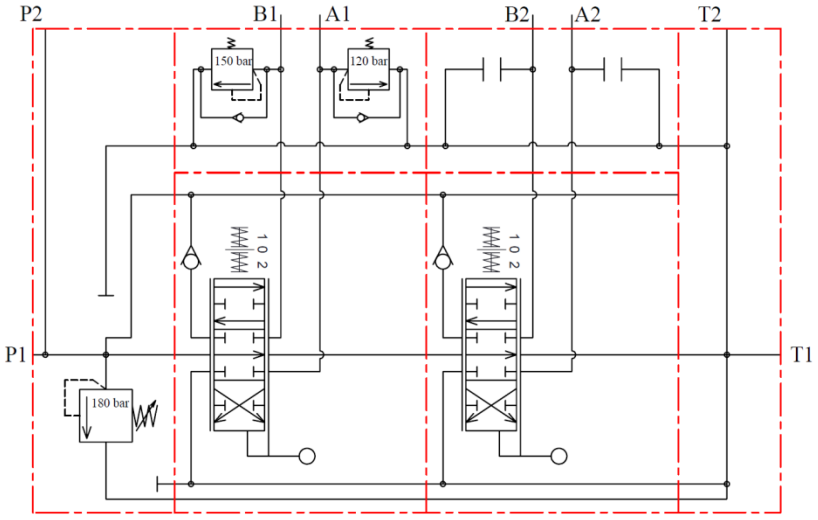


Type	E		F	
	mm	*in*	mm	*in*
KS180	176	*6,93*	124	*4,88*
2KS180	224	*8,82*	172	*6,77*
3KS180	272	*10,71*	220	*8,66*
4KS180	320	*12,60*	268	*10,55*
5KS180	368	*14,49*	316	*12,44*
6KS180	416	*16,38*	364	*14,33*

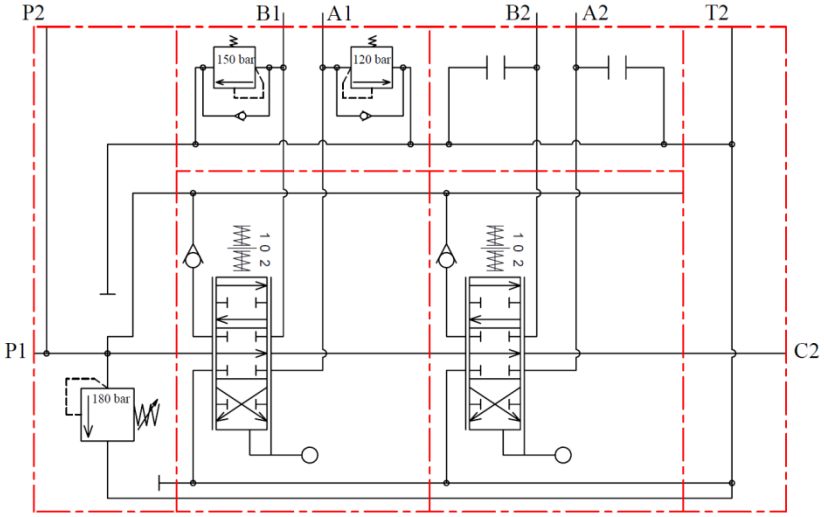
Type	E		F	
	mm	*in*	mm	*in*
7KS180	464	*18,27*	412	*16,22*
8KS180	512	*20,16*	460	*18,11*
9KS180	560	*22,05*	508	*20,00*
10KS180	608	*23,94*	556	*21,89*
11KS180	656	*25,83*	604	*23,78*
12KS180	704	*27,72*	652	*25,67*

HYDRAULIC CIRCUIT

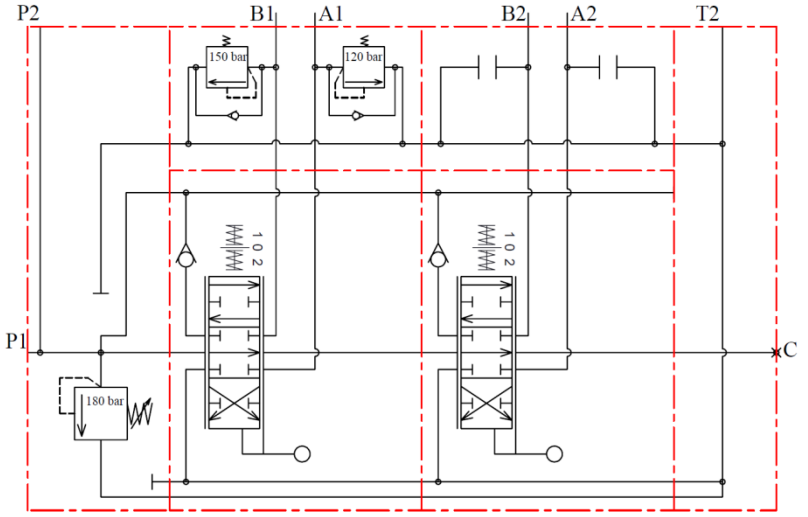
Open center configuration



Carry-over configuration



Closed center configuration



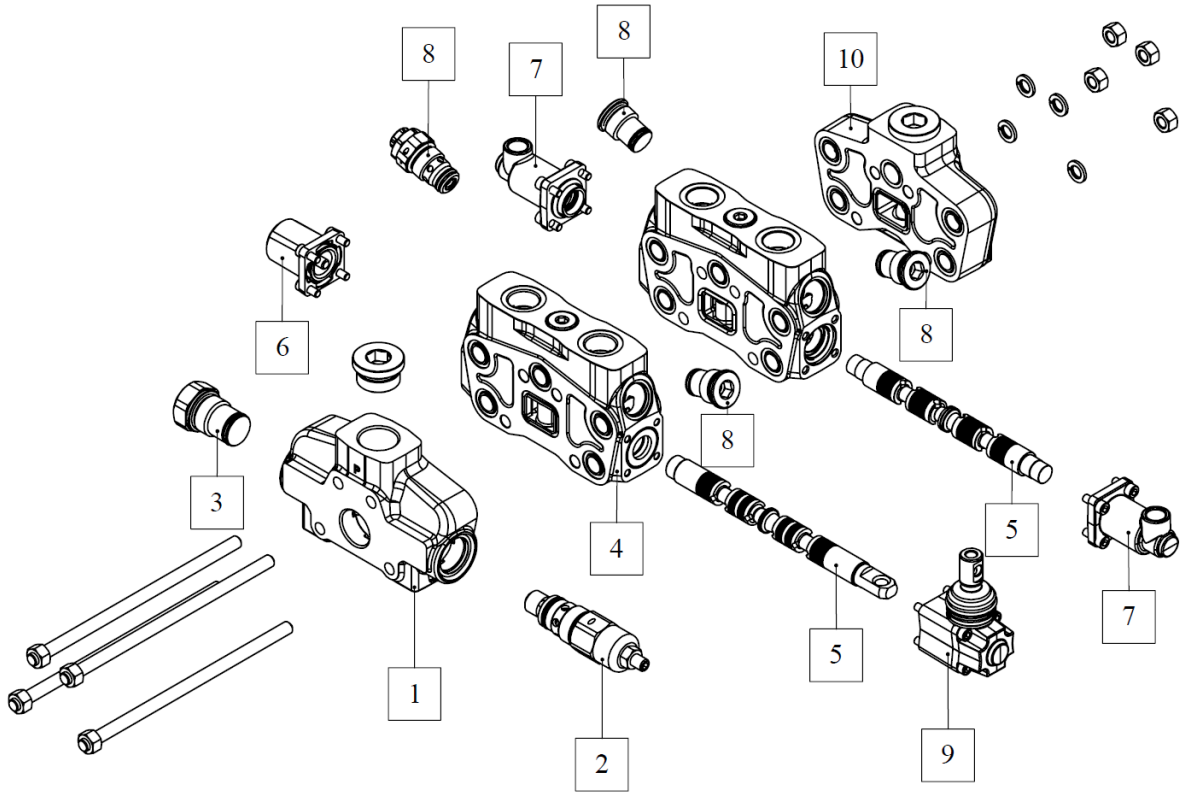
NEW PRODUCT

KS180

DESCRIPTION COMPOSITION

1 2 3 4 5 6 8 9 7 10 11

2/KS180/L1(D-120)-/PA1(AoByD-100)KZ1/PA1H(AoBo)/T1/G1



1 Inlet section

L1: Inlet section with side port
L2: Inlet section with upper port
R1: Right inlet section with side port
R2: Right inlet section with side port

2 Pressure relief valve

(svp): Relief valve blanking plug

Direct type D:

(D-80): Setting range from 63 to 125 bar (900 to 1800 psi), standard setting 80 bar (1160 psi).
(D-120): Setting range from 100 to 200 bar (1450 to 2900 psi), standard setting 175 bar (2500 psi).
(D-250): Setting range from 160 to 320 bar (2300 to 4650 psi), standard setting 250 bar (3600 psi).

Pilot operated type P:

(P-120): Setting range from 60 to 250 bar (870 to 3600 psi), standard setting 120 bar (1750 psi).

3 Inlet valve options

-: Blanking plug (omit in description)
F: Inlet anticavitational valve
L: Hydraulic pilot unloader valve

EL: Solenoid operated unloader valve:

ELN: Without emergency
ELP: Push-button emergency
ELV: Screw type emergency
ELT: Push and twist type with detent emergency

Coils for EL:

12VDC: Coil type KETA, ISO 4400 12 V DC
24VDC: Coil type KETA, ISO 4400 24 V DC

4 Working section

P: Parallel circuit with port valves arrangemen

5 Spools

A: Double acting, 3 positions, with A and B closed in neutral position.
Af: Same as A, more sensitive.
B: Single acting on A, 3 positions, B plugged.
C: Single acting on B, 3 positions, A plugged.
D: Double acting, 3 positions, with A and B open to tank in neutral position.
E: Double acting, 3 positions, with B open to tank in neutral position.
F: Double acting, 3 positions, with A open to tank in neutral position.

6 Spool positioners

1: With spring return in neutral position.
2: With detent in position 1 and spring return in neutral position.
3: With detent in position 2 and spring return in neutral position.
4: 2 positions, position 2 and spring return in neutral position.
5: 2 positions, position 1 and spring return in neutral position.
6: 2 positions, position 1 and spring return in position 2.
7: 2 positions, position 2 and spring return in position 1.
8: Detent in position neutral, 1 and 2.
9: 2 positions, detent in positions 1 and neutral.
10: 2 positions, detent in positions 2 and neutral.
11: 2 positions, detent in positions 1 and 2.

7 Complete controls

1H: Double side proportional hydraulic control with spring return to neutral

8 Auxiliary valves

o: Valve blanking plug

Antishock valve

YD-63: Setting range from 63 to 125 bar (900 to 1800 psi), standard setting 63 bar (900 psi).
YD-100: Setting range from 100 to 250 bar (1450 to 3600 psi), standard setting 100 bar (1450 psi).
YD-200: Setting range from 200 to 315 bar (2900 to 4600 psi), standard setting 200 bar (2900 psi).

Antishock and anticavitational valve

ZD-63: Setting range from 63 to 125 bar (900 to 1800 psi), standard setting 63 bar (900 psi).
ZD-100: Setting range from 100 to 250 bar (1450 to 3600 psi), standard setting 100 bar (1450 psi).
ZD-200: Setting range from 200 to 315 bar (2900 to 4600 psi), standard setting 200 bar (2900 psi).

Antishock pilot operated valve

YP: Setting range from 63 to 300 bar (900 to 4350 psi), standard setting 175 bar (2550 psi).

Antishock and anticavitational pilot operated valve

ZP: Setting range from 63 to 300 bar (900 to 4350 psi), standard setting 175 bar (2550 psi).

9 Manual control options

- : Without lever box, with dust-proof plate
KZ1: Standard lever box
V1: CD flexible cable connection

10 Outlet sections

T1: With side outlet.
T2: With upper outlet.
TC1: With closed center.
TC2: With upper outlet and side carry over.

11 Threading specifications

Specify thread type, please, refer to page 2 to see codes for it.

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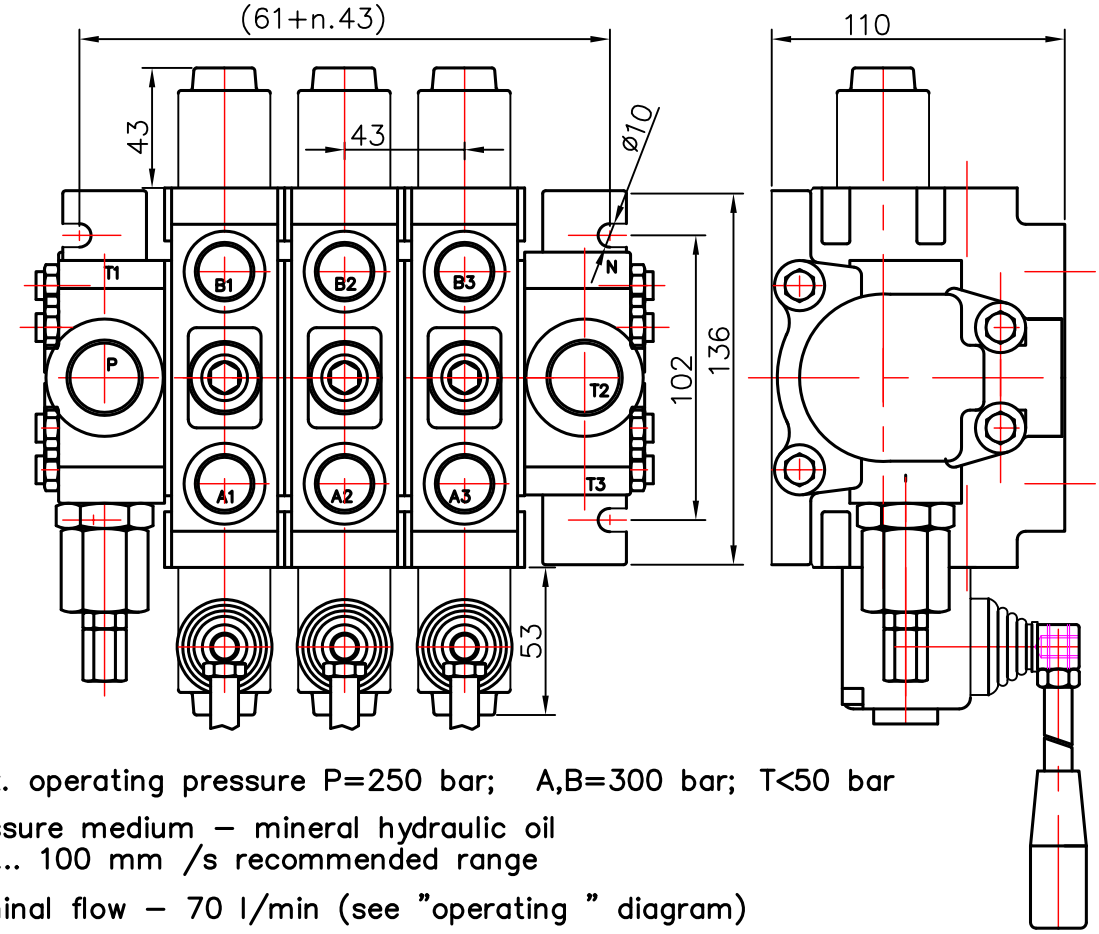
E –mail: badestnost@hydraulic–vlv.com www.hydraulic–vlv.com

Распределитель гидравлический РС 70
Directional control valve PC 70



max. operating pressure P=250 bar; A,B=300 bar; T<50 bar

pressure medium – mineral hydraulic oil
20 ... 100 mm /s recommended range

nominal flow – 70 l/min (see "operating " diagram)

n – number of sections – max 8

Структура обозначения распределителя
Order code

3 PC70 R N2/PA1/PA8AyBz/PD1/T2 /G KZ1 P E C2

количество золотников number of spools	3
распределитель типа directional control valve	PC70
вход давления с правой стороны inlet high pressure – right	R
тип напорной секции type of the inlet cover	N2
характеристика первого золотника first spool distribution type	PA1
характеристика второго золотника second spool distribution type	PA8AyBz
характеристика третего золотника tird spool distribution	PD1
тип сливной секции (T) type of the outlet cover (T port)	T2
размер присоединительных отверстий threads (P, A, B, T, N)	/G
вид ручного управления lever options	KZ1
управление другого вида operation feature	P
с електро шалтер with microswitsh	E
наконечник продолжения потока high pressure carry over	C2

* Фиксация в рабочих позициях с гидропредохранением заказиваются текстом.
* All detend in operating positions, provided with hydraulic control, have to be ordered explanative.

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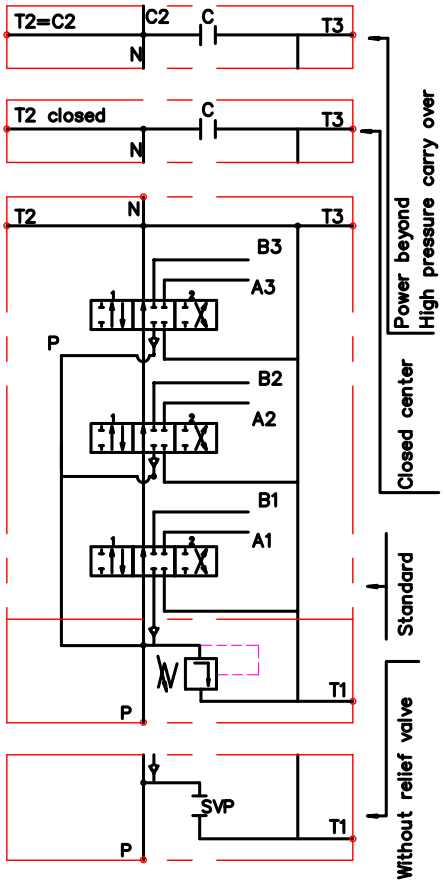
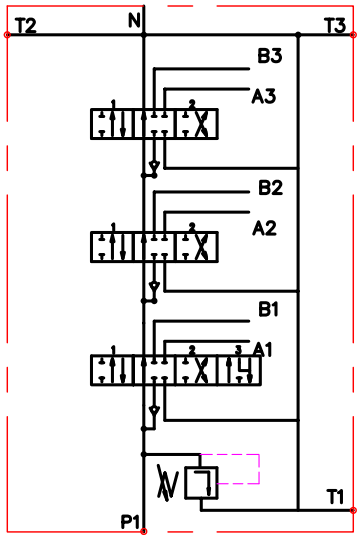
Распределитель гидравлический PC 70
Directional control valve PC 70

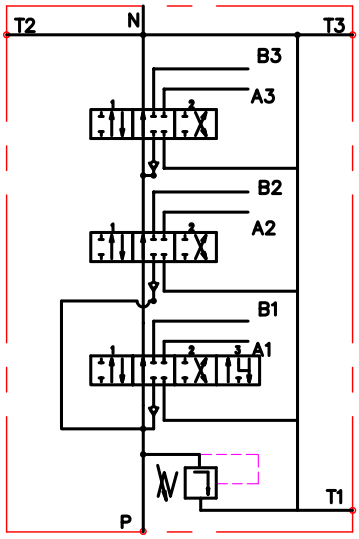
паралельное распределение
parallel circuit
3PC70 N2/ PA1/PA1/PA1/T2



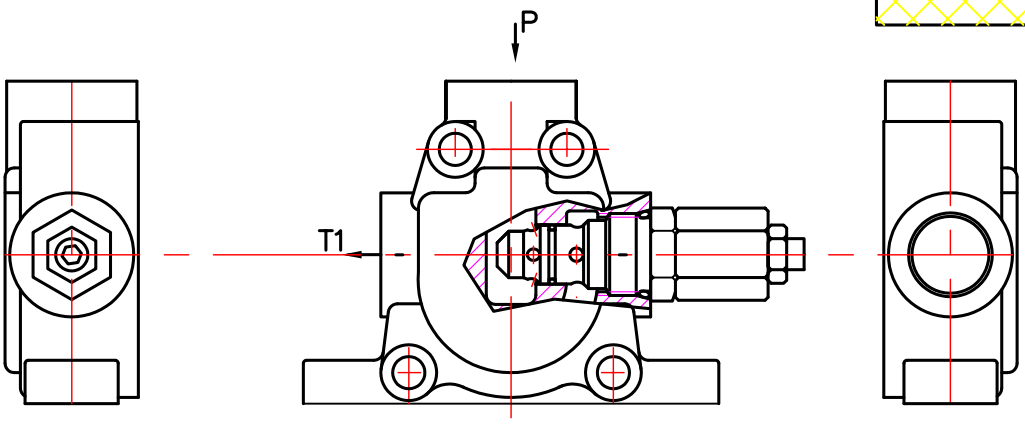
тандемное распределение
tandem circuit
3PC70 N1/ TL12/TA1/TA1

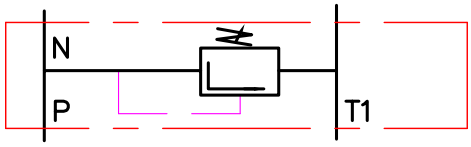
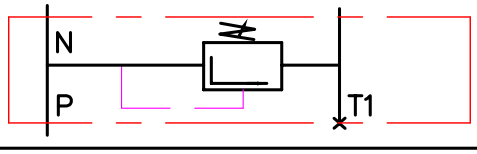
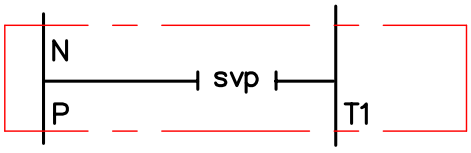


мешаное распределение
mixed circuit
3PC70 N1/ PL12/PA1/TA1



Напорная секция
Inlet cover



code	напорная секция / inlet cover
N1	
N2	
N1svp or N2svp	

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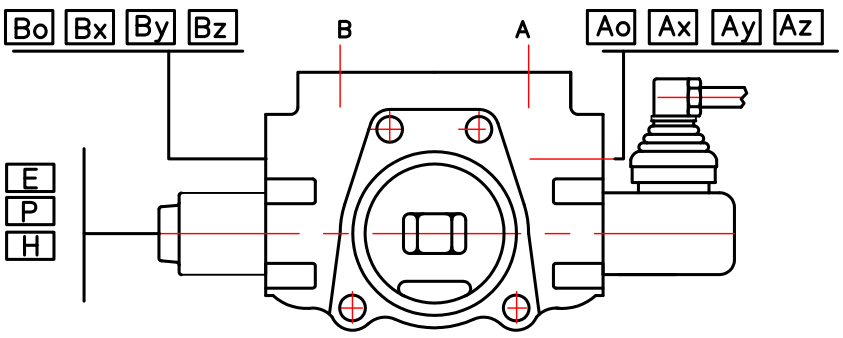
E – mail: badestnost@hydraulic–vlv.com www.hydraulic–vlv.com

Распределитель гидравлический РС 70
Directional control valve PC 70

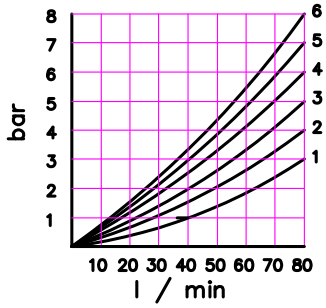


распределительная секция
control valve

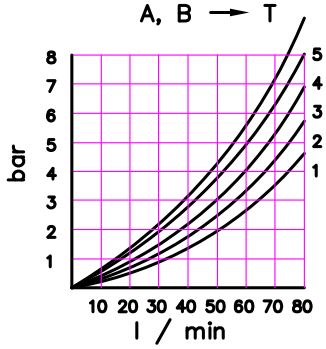
code	способ фиксации spool control
1	1 0 2
2	1 0 2
3	1 0 2
4	0 2
5	1 0
6	1 2
7	1 2
8	1 0 2
9	1 0
10	0 2
11	1 2
12	1 0 2 3
13	1 0 2 3

code	вид золотника spool type
A	
B	
C	
D	
E	
F	
G	
H	
L	

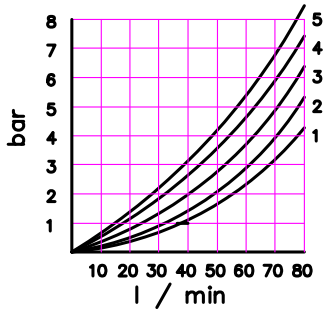
P → T



A, B → T



P → A, B



operating diagrams

code	резьбовие отверстия threads			code	способ разпределения потока way of distribution of oil
	P,A,B	T	N	P	паралелное / parallel
standard G	1/2"	3/4"	M26x1.5	T	тандем / tandem
M	M22x1.5	M26x1.5			

code	с електро шалтер with electric switch	
E		микро шалтер Omron – V 165 I C5 mikroswitch Omron – V 165 I C5

code	другое управление operation feature		
P		пневматическое pneumatic	pn = 6 bar
H		гидравлическое hydraulic	pn = 6 – 20 bar

Ao	Bo	пробка соответно к A и/или B plug for A and/or B
Ax	Bx	антикавитационний клапан соответно к A и/или B anti cavitation valve for A and/or B
Ay	By	предохранительний клапан соответно к A и/или B sek. pressure relief valve for A and/or B
Az	Bz	шок абсорбер к A и/или B shockabsorber valve for A and/or B

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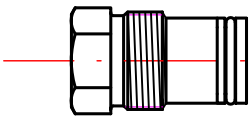
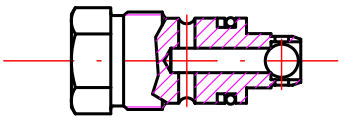
Распределитель гидравлический РС 70
Directional control valve PC 70

вторичные клапани/ second valves

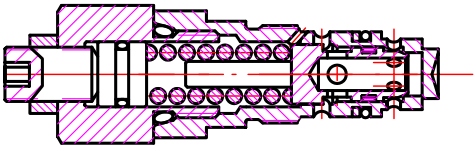
plug "o"



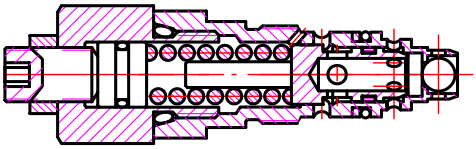
anticavitation valve "x"



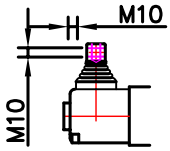
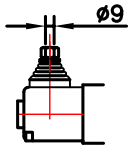
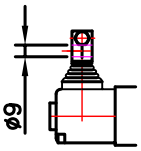
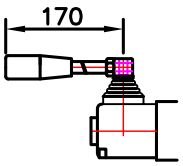
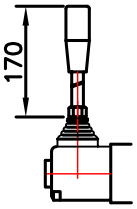
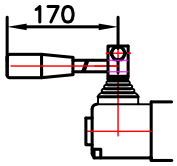
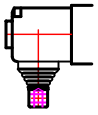
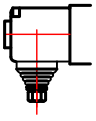
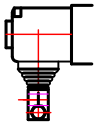
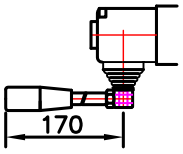
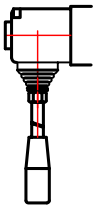
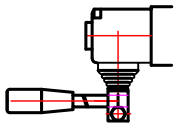
second relief valve "y"



combined part relief and anticavitation valve "z"

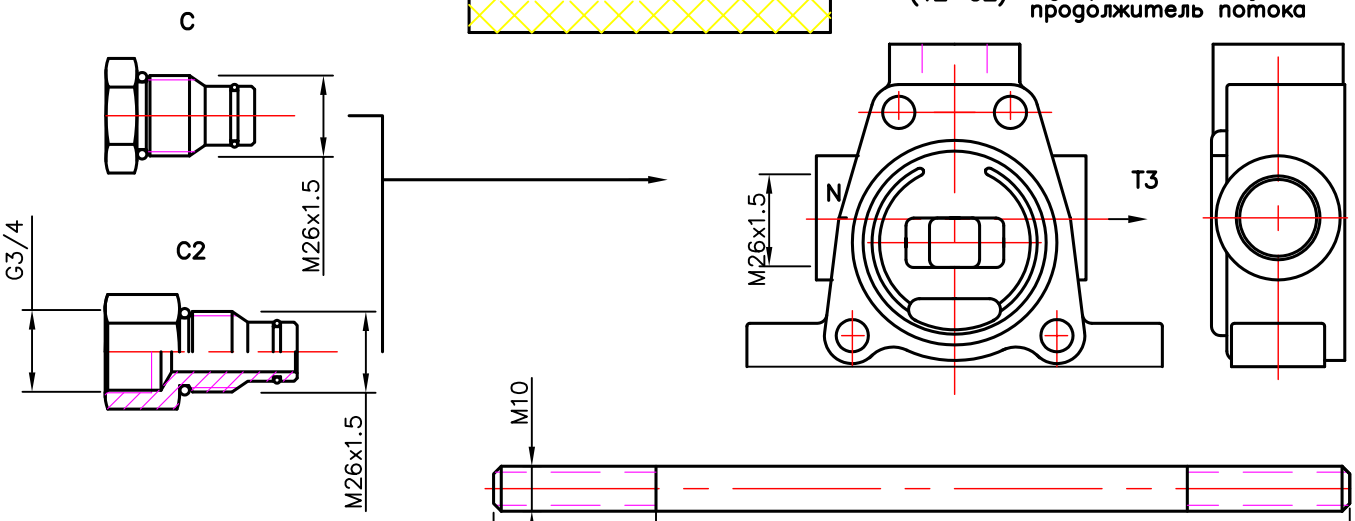


вид ручного управления / general operation feature

code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
–	без система управления / without lever system				

сливная секция
end plate

T2
or
(T2=C2) high pressure carry over
продолжитель поток



*C – C in port N–+plug in T2–closed center
**(T2=C2)– C in port N–carry over in T2
***C2–C2 in port N+Plug in T2– carry over in N

брой золотников number of spools	1	2	3	4	5	6	7	8
L	145	188	230	275	320	360	405	445

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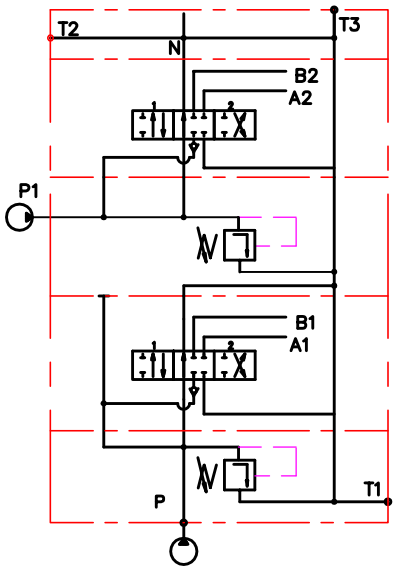
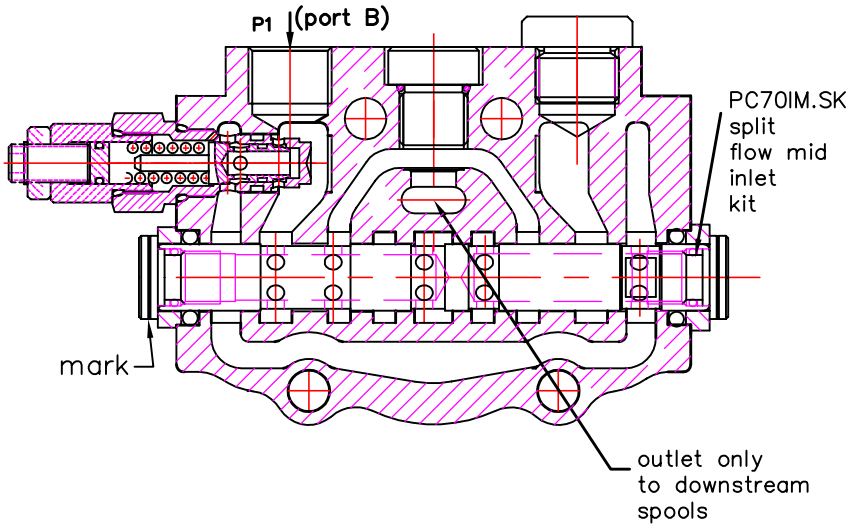
Распределитель гидравлический PC 70
Directional control valve PC 70
Mid inlet PC70IM...

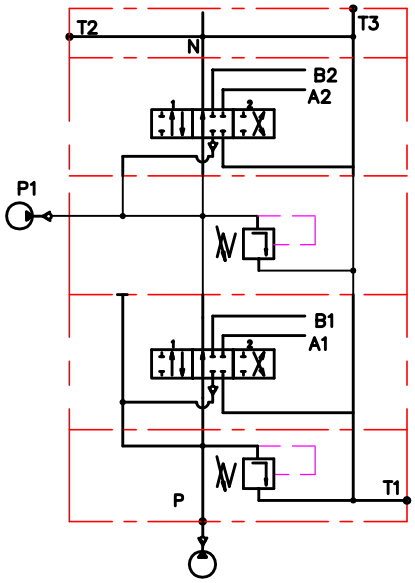
Sheme with
PC70IM.S_ – Split Flow Mid–Inlet



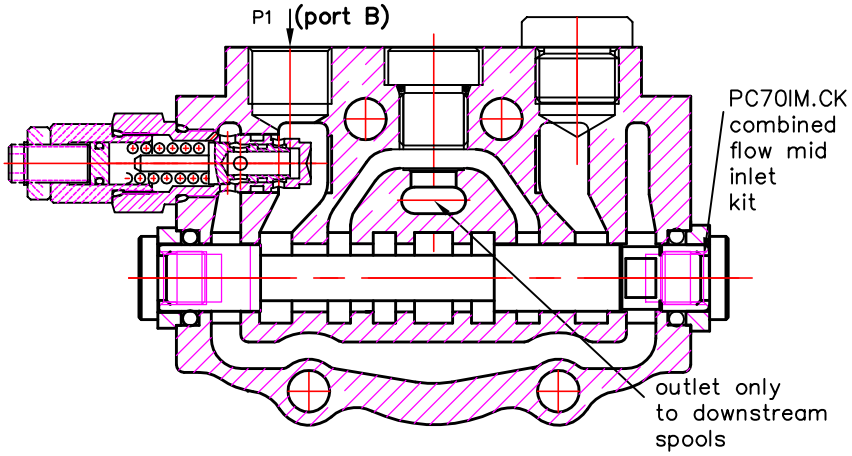
PC70IM.S...G/byway of example/



Sheme with
PC70IM.C_– Combined Flow Mid–Inlet



PC70IM.C...S /byway of example/



Description

A Mid–Inlet provides an inlet port for a second pump mid stream in the valve stack.

A relief valve can be provided in this section.

The split flow inlet completely separates the two pump flows. The common tank passage is shared between the two pump flows.

With the combined flow inlet the flow from both pumps is available to the downstream section when all the work sections upstream are in neutral.

PC70IM.XXX

- G – Port size G1/2
  S – Port size #10 (7/8–14UNF)
- (svp) – No relief valve
  Blank– Adjustable relief valve 50–250 bar(setting 180 at 35 l/min)
  Out of standard relief pressure – text
- S – Split flow mid–inlet
  C – Combined flow mid–inlet

* Section appearances are of parallel section – special body..

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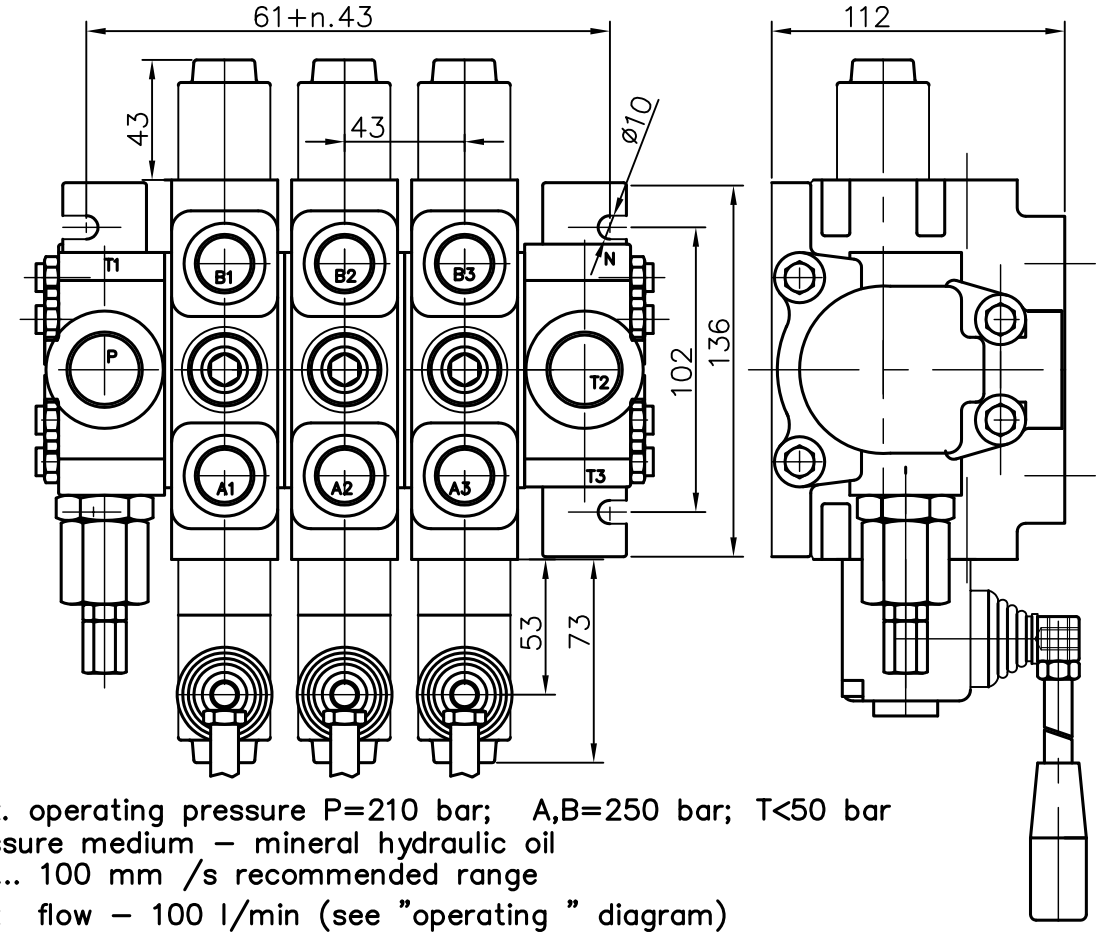
Распределитель гидравлический РС 100
Directional control valve PC 100



max. operating pressure P=210 bar; A,B=250 bar; T<50 bar
pressure medium – mineral hydraulic oil
20 ... 100 mm /s recommended range
max flow – 100 l/min (see "operating " diagram)
nominal flow – 80 l/min (see "operating " diagram)
n – number of sections – max 8

Структура обозначения распределителя
Order code

3 PC 100 R N2 /A1(AzBx)/ A8/ D1/ T2 / G KZ1 P E C2

количество золотников number of spools	3
распределитель типа directional control valve	PC 100
вход давления с правой стороны inlet high pressure – right	R
тип напорной секции type of the inlet cover	N2
характеристика первого золотника first spool distribution type	/A1(AzBx)/
характеристика второго золотника second spool distribution type	A8/
характеристика третего золотника tird spool distribution	D1/
тип сливной секции (T) type of the outlet cover (T port)	T2 /
размер присоединительных отверстий threads (P, A, B, T, N)	G
вид ручного управления lever options	KZ1
управление другого вида operation feature	P
с електро шалтер with microswitsh	E
наконечник продолжения потока high pressure carry over	C2

* Фиксация в рабочих позициях с гидропредохранением заказиваются текстом.
* All detend in operating positions, provided with hydraulic control, have to be ordered explanative.

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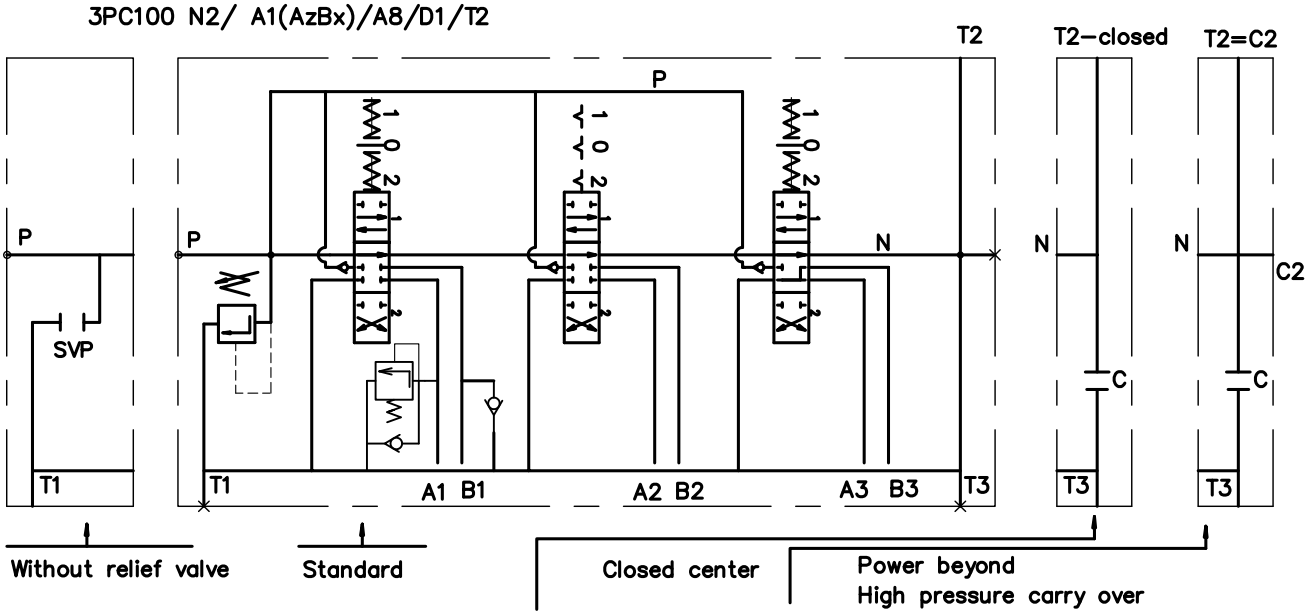
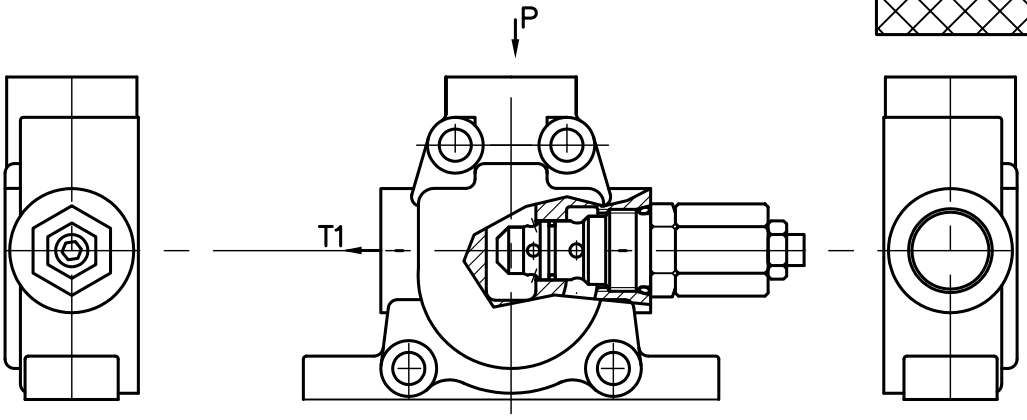
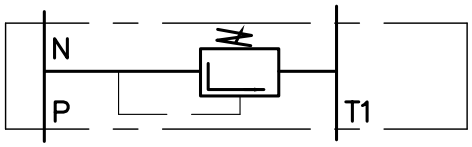
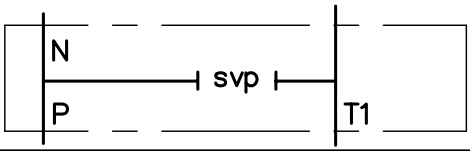
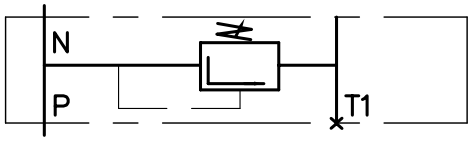
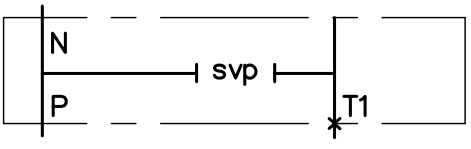
Распределитель гидравлический РС 100
Directional control valve PC 100

паралельное распределение
parallel circuit
3PC100 N2/ A1(AzBx)/A8/D1/T2



Напорная секция
Inlet cover



code	напорная секция / inlet cover
N1	N1 (210 bar) 
N1svp	
N2	N2 (210 bar) 
N2svp	

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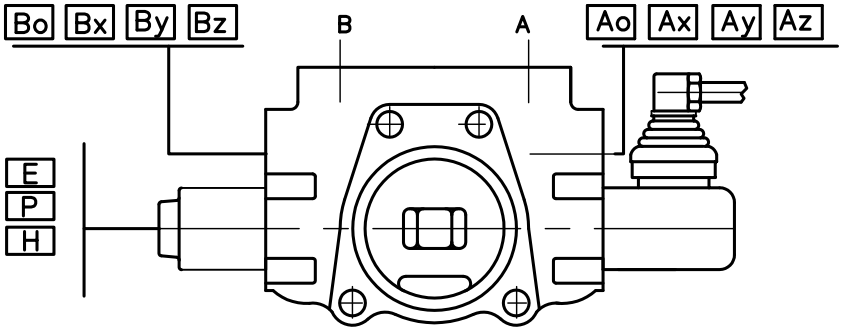
Распределитель гидравлический РС 100
Directional control valve PC 100

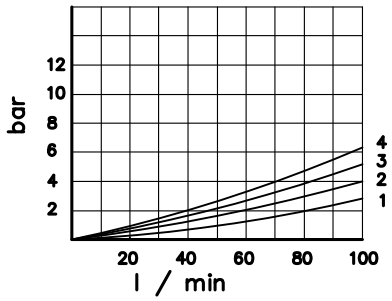


распределительная секция
control valve

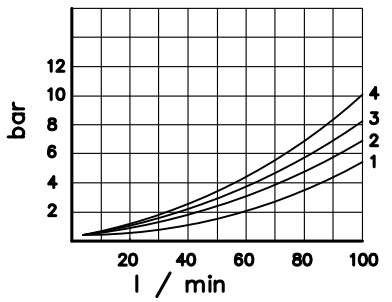
code	код фиксации spool control
1	1 0 2
2	1 0 2
3	1 0 2
4	0 2
5	1 0
6	1 2
7	1 2
8	1 0 2
9	1 0
10	0 2
11	1 2

code std	code met	вид золотника spool type
A	As	
B	Bs	
C	Cs	
D	Ds	
E	Es	
F	Fs	
G		
H		

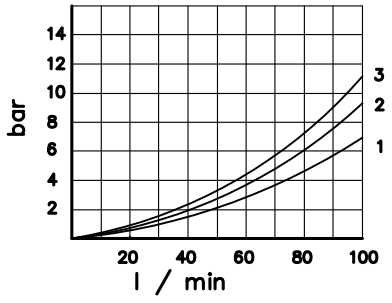
P → T



A, B → T



P → A, B



operating diagrams

code	резьбовие отверстия threads			code	резьбовие отверстия threads		
	P, T	A,B	carry over C2		P, T	A,B	carry over C2
G1	G 3/4	G 1/2	G 3/4	S1	SAE 12	SAE 10	SAE 12
G2	G 3/4	G 3/4	G 3/4	S2	SAE 12	SAE 12	SAE 12

code	с електро шалтер with electric switch	
E		микро шалтер Omron – V 165 I C5 mikroswitch Omron – V 165 I C5

code	другое управление operation feature		
P		пневматическое pneumatic	pn = 6 bar NPTF 1/8–27
H		гидравлическое hydraulic	pn = 6 – 20 bar G 1/4

Ao	Bo	пробка соответно к A и/или B (без означения) plug for A and/or B (without mark)
Ax	Bx	антикавитационний клапан соответно к A и/или B anti cavitation valve for A and/or B
Ay	By	предохранительний клапан соответно к A и/или B secondary pressure relief valve for A and/or B
Az	Bz	шок абсорбер к A и/или B shockabsorber valve for A and/or B

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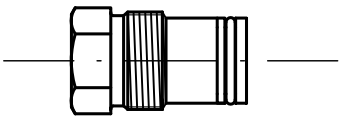
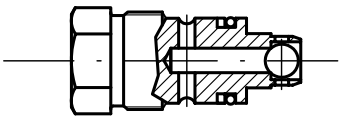
Распределитель гидравлический РС 100
Directional control valve PC 100

вторичные клапани/ second valves

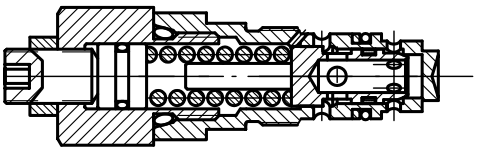
plug "o"



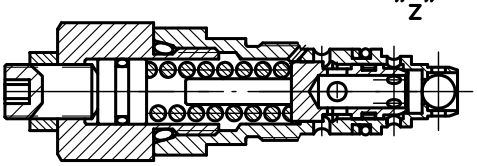
anticavitation valve "x"



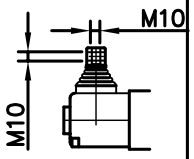
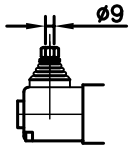
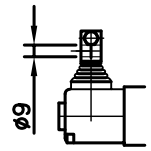
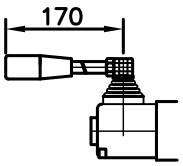
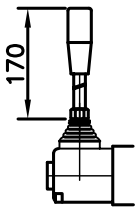
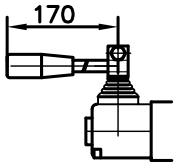
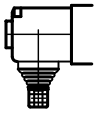
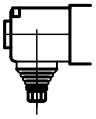
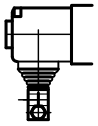
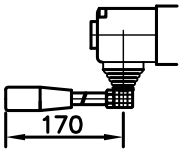
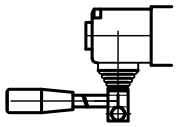
second relief valve "y"



combined part relief and anticavitation valve "z"

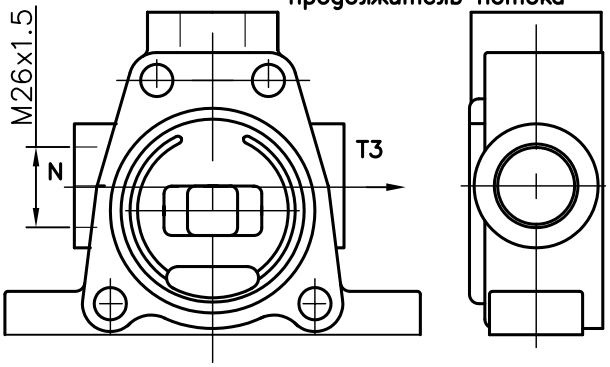


вид ручного управления / general operation feature

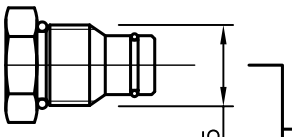
code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
–	без система управления / without lever system				

сливная секция
end plate

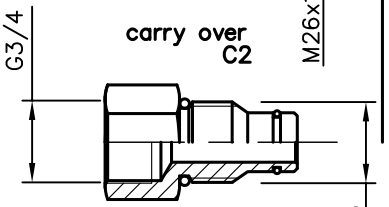
T2
or
(T2=C2) high pressure carry over
продължитель потока

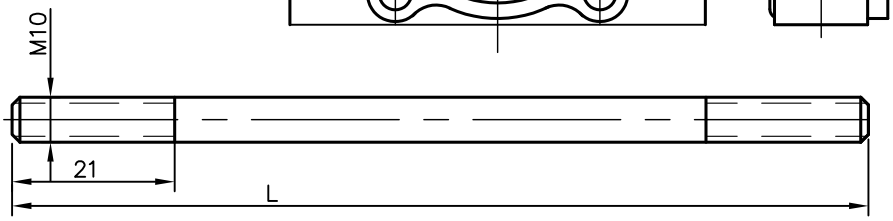


closed center
C



carry over
C2





*"C" in the port N–+plug in T2–closed center
**"C" in the port N–carry over in T2
***"C2"+Plug in the T2– carry over in N

брой золотников number of spools	1	2	3	4	5	6	7	8
L	145	188	230	275	320	360	405	445

HYDRAULIC DIRECTIONAL CONTROL VALVE TYPE PX 346

РАЗПРЕДЕЛИТЕЛ ХИДРАВЛИЧЕН С РЪЧНО УПРАВЛЕНИЕ, ТИП РХ 346

TECHNICAL DATA
ТЕХНИЧЕСКИ ДАННИ

Rated pressure Номинално налягане	20 MPa
Rated flow Номинален дебит	60 l/min
Pressure control range of the relief valve Обхват на регулиране налягането на предпазния клапан	from 7 to 20 MPa от 7 до 20 MPa
Working liquid – hydraulic oil characteristics Работна течност – хидравлични масла с показатели:	
– viscosity вискозитет	10÷400 mm/s
– degree of filtration степен на филтрация	0,063 μm
– temperature – температура на работната течност	-25 ÷ +60C

GENERAL DESCRIPTION
The directional control valve 346 is designed for controlling the working liquid direction between the generators of the pressurized flow (hydraulic pumps), the consumers of pressurized flow (hydraulic pumps), the consumers of pressurized flow (hydraulic cylinders and hydromotors) and the tank.

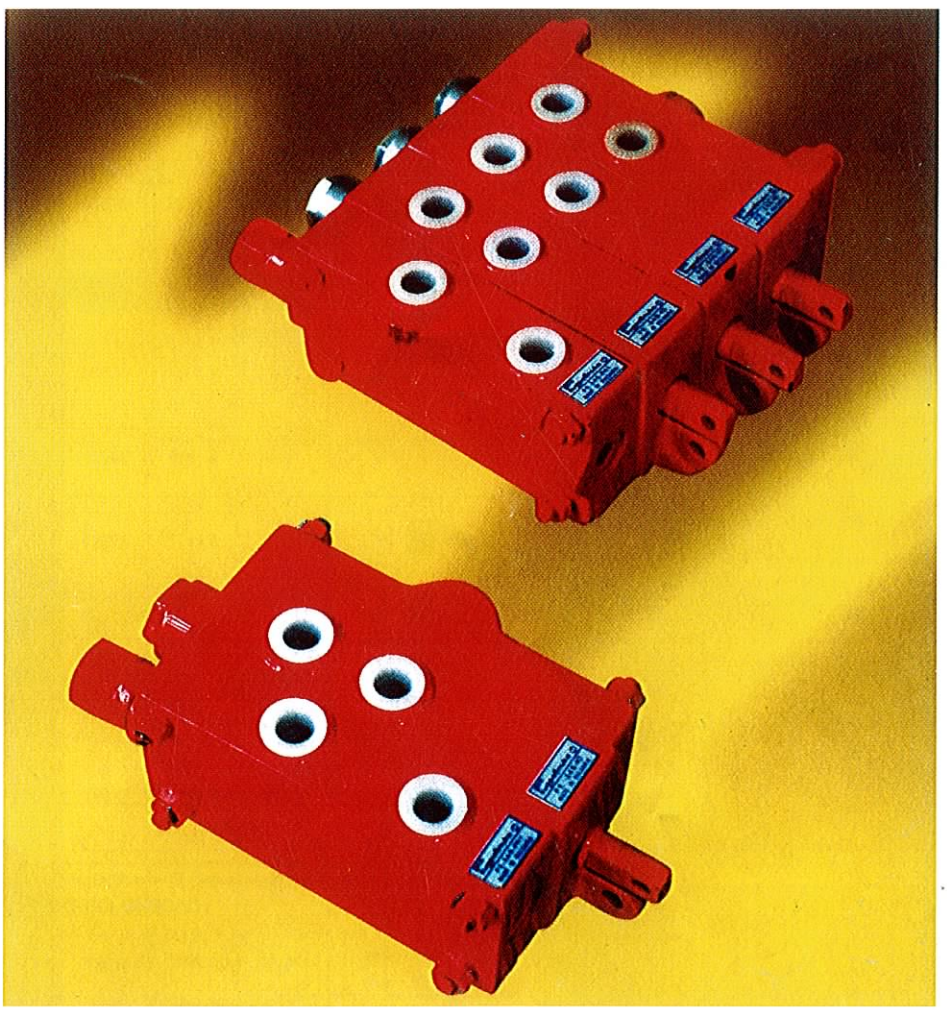
ПРЕДНАЗНАЧЕНИЕ
Разпределител тип 346 служи да управлява посоката на движението на работната течност между генераторите на напорен ток (хидравлични помпи), потребителите на напорен поток (хидравличните цилиндри и хидромоторите) и резервоара.

CONSTRUCTION
Directional control valve 346 is a section type, with manual operation. Provides parallel or serial distribution of the working liquid and its direct flow to the tank without activating the sections. Consists of front cover, with built-in relief valve or flow regulator, a combination of a single-acting and double-acting three-position sections (max 8 pcs) and an end cover.

КОНСТРУКЦИЯ
Разпределител 346 е от батериен тип, с ръчно управление. Осигурява паралелно или последователно разпределение на работната течност и директното ѝ протичане към резервоара при незадействани секции. Състои се от начален капак с вграден предпазен клапан, комбинация от едно- и двойнодействащи трипозиционни секции (най-много 8 броя) и краен капак.

MOUNTING
The directional control valve is mounted by four bolts M8.

ЗАКРЕПВАНЕ
Закрепването на разпределителя към мястото на монтажа се осъществява с 4 болта М8.



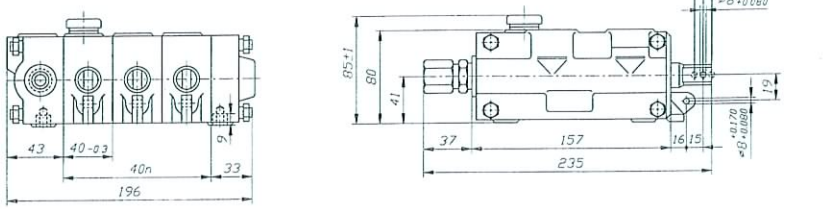
Example:
Пример:

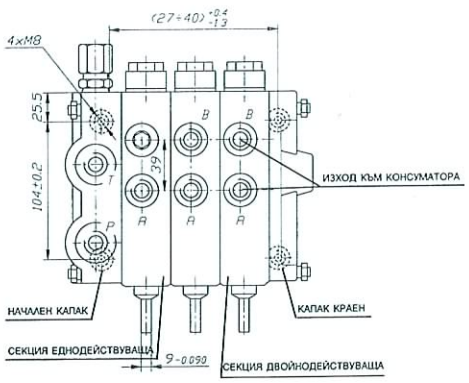
РХ 346 – 4/Вп 1/С1/С1/3/М means: hydraulic directional control valve type РХ 346 with front cover 4 (Table 1), single acting section „Вп" (Table 2) with centering of the spool (Table 3), two double acting sections „5" (Table 2) and an end cover code „3" (Table 4). All connecting outlets are with metric-thread from columns M (Tables 1, 2, 4).

РХ 346 – 4/Бн 1/С 1/С 1/3/М означава разпределител хидравличен Тип РХ 346 с начален капак „4" (Табл. 1), секция еднодействаща „Бн" (Табл. 2) с центриране на плунжера код „1" (Табл. 3), два броя секции двойнодействащи „С" (Табл. 2) с центриране на плунжера код „1" (Табл. 3) и капак краен код „3" (Табл. 4). Всички присъединителни отвори са с метрична резба по колони „М" (Табл. 1, 2, 4).

РХ 346 – 1/К8/К8/К8/К8/К8/1/G/Y means: directional control valve with front cover 1 (Table 1), five double-acting sections „К" (Table2) with centering of spool code 8 (Table3) and an end cover 1 (Table 4). All connectinting outlets are with threads from columns G (Tables 1, 2, 4) and control of the spool code Y (Table 5).

РХ 346 – 1/К 8/К 8/К 8/К 8/К 8/1/6/Y означава разпределител с капак начален „1" (Табл. 2), пет броя секции двойнодействащи „К" (Табл. 2) с центриране на плунжера код „8" (Табл. 3) и капак краен „1" (Табл. 4). Всички присъединителни отвори са с резби от колона „G" (Табл. 1, 2, 4) и управление на плунжера код „Y" (Табл. 5).





HOW TO ORDER
НАЧИН НА ЗАЯВКА:

4 / Бн 1 / С 1 / ... / 3 / М / ...

РХ 346 –
Type of the front cover – Table1
Вид на нач. капак. – Табл. 1

Type of I section – Table 2
Вид на I секция. – Табл. 2

Centering and fixing I spool – Table 3
Центр. и фикс. I пл. – Табл. 3

Type of II section – Table 2
Вид на II секция. – Табл. 2

Centering and fixing II spool – Table 3
Центр. и фикс. II пл. – Табл. 3

Section ordering on choice from Table 2 max 8 pcs with the corresponding fixing scheme from Table 3
Подреждане секциите по избор от Табл. 2 до 8 бр. със съотв. схема на фикс. от Табл. 3

Type of the end cover – Table 4
Вид на крайния капак – Табл. 4

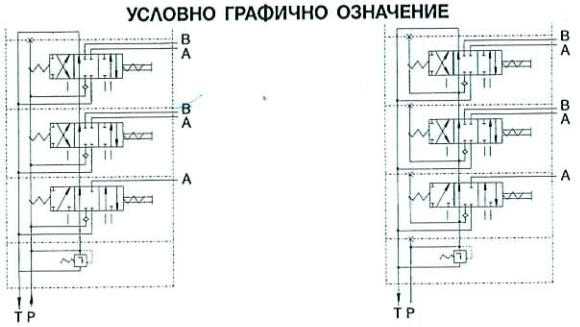
Thread performances of outlets A, B, P, T, N from Table 1, 2, 4
Резбово изпълнение на отвори A, B, P, T, N от Табл. 1, 2, 4

Spools control – Table 5
Управление на плунжери – Табл. 5

NOTE 1: In order to ensure parallel or serial distribution of the working liquid sections with serial or parallel acting are respectively combined.
ЗАБЕЛЕЖКА 1: За да се осигури паралелно или последователно разпределение на работната течност, се комбинират секции съответно с паралелно или последователно действие.

NOTE 2: For realizing of combined acting first have to be arranged the sections with parallel acting followed by those with serial acting.
ЗАБЕЛЕЖКА 2: За осъществяване на комбинирано действие първо се подреждат секциите с паралелно действие и след това с последователно.

УСЛОВНО ГРАФИЧНО ОЗНАЧЕНИЕ



Directional control valve PX 346 is performed in various combinations according to the typeof the front cover, the chosen sections and the end cover. The technical data is given in Tables 1, 2, 5.

Разпределител хидравличен РХ 346 се изпълнява в различни комбинации според вида на началния капак, подбраните секции и крайния капак, данни за които са посочени в Таблици 1, 2, 5.

In table 3 are given the abilities for centering and fixing of the spool and table 6 – ways of driving (lever systems).

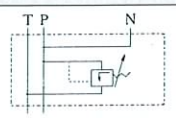
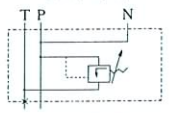
В таблица 3 са посочени възможности за центриране и фиксиране на плунжера, а в Таблица 6 – начина за привеждането му в действие (лостови) системи.

FRONT COVER TABLE 1
КАПАК НАЧАЛЕН ТАБЛИЦА 1

ORDERING FRONT COVER 346 – PK1/G means: Cover front with code 1 and P and T connecting outlets dimensions – 3/8" from column G (Table 1).

ЗАЯВКА НА КАПАК НАЧАЛЕН 346 – РК/1G означава:

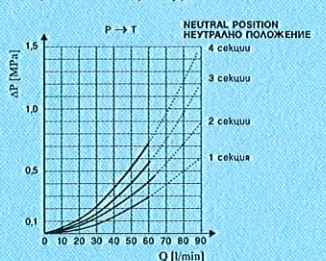
Капак начален със знак за заявка „1" и размери на присъединителните отвори P и T – 3/8" от колона G на Таблица 1.

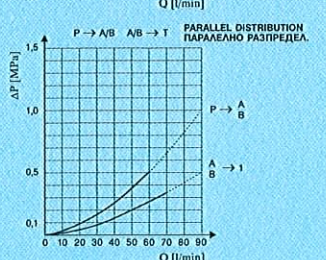
CODE ЗНАК	TYPE ТИП	INDEX ИНДЕКС	CONNECTING OUTLETS ПРИСЪЕДИНИТЕЛНИ ОТВОРИ „M" P	„M" T	„G" P	„G" T	PRESSURE НАЛЯГАНЕ	DESIGNATION УСЛОВНО ОЗНАЧЕНИЕ
1 2	PK 1 PK 2	12050 12051	18x1,5 22x1,5	18x1,5 22x1,5	3/8" 1/2"	3/8" 1/2"	7–20	 за 1, 2, 3, 6
3	PK 3	12052	27x2	27x2	3/4"	3/4"		
4 5	PK 4 PK 5	12053 12056	27x2 18x1,5	– –	3/4" 3/8"	– –		 за 4, 5
6	PK 6	12057	22x1,5	27x2	1/2"	3/4"		

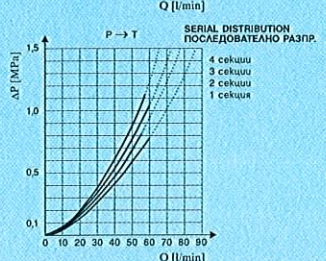
SPOOL SECTION (SINGLE- AND DOUBLE-ACTIING)
СЕКЦИЯ ПЛУНЖЕРНА (ЕДНО- И ДВОЙНОДЕЙСТВАЩА)
TABLE 2
ТАБЛИЦА 2

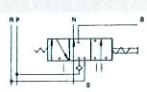
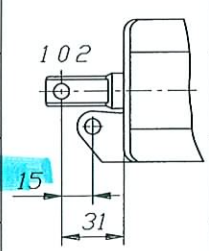
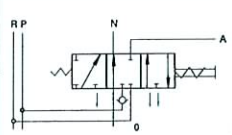
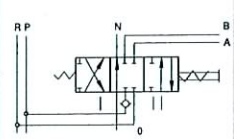
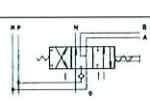
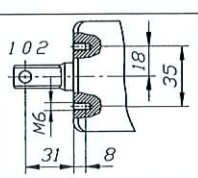
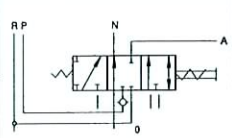
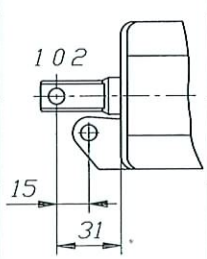
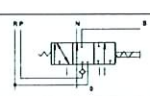
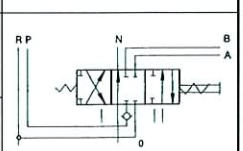
Characteristics Δp=f(Q) viscosity 35 mm²/s and temperature 50°C

Характеристики Δp=f(Q при вискозитет 35 mm²/s и температура 50°C.



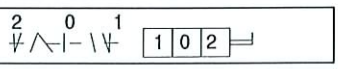
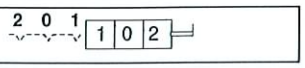
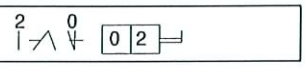
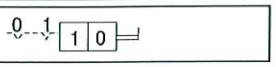
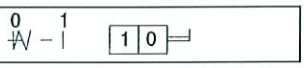
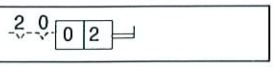
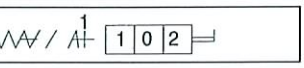
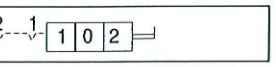
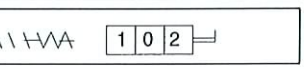




CODE ЗНАК	INDEX ИНДЕКС	ADDITIONAL CHARACTERISTICS ДОПЪЛНИТЕЛНИ ОСОБЕНОСТИ CONNECTING OUTLETS A AND B ПРИСЪЕДИНИТЕЛНИ ОТВОРИ А И В „M"	„G"	WAY OF THE SPOOL DRIVING НАЧИН НА ПРИВЕЖД. В ДЕЙСТВ. НА ПЛУНЖ.	WORKING LIQUID DISTRIBUTION РАЗПР. НА РАБ. ТЕЧНОСТ	DISTRIBUTION SCHEME СХЕМА НА РАЗПРЕДЕЛЕНИЕ
D Д	12070	18x1,5	3/8"		parallel паралелно	
R Р	12071	18x1,5	3/8"		parallel паралелно	
P П	12075	22x1,5	1/2"		parallel паралелно	
J Ж	12080	18x1,5	3/8"		parallel паралелно	
K К	12083	22x1,5	1/2"		parallel паралелно	
E Е	13098	22x1,5	1/2"		parallel паралелно	
Jy Жу	12998	18x1,5	3/8"		parallel паралелно	as 12080 kamo 12080
Bn Бн	12074	22x1,5	1/2"		parallel паралелно	
B Б	12072	18x1,5	3/8"		serial последователно	
W В	12073	18x1,5	3/8"		serial последователно	
Bc Бс	12991	22x1,5	1/2"		serial последователно	as 12074 kamo 12074
Bp Бп	13091	18x1,5	3/8"		serial последователно	
Y Ю	12081	18x1,5	3/8"		serial последователно	
C С	12087	18x1,5	3/8"	as 12074 kamo 12074	serial последователно	

NOTE: The chosen code from Table 3 is written down after each section.
ЗАБЕЛЕЖКА: Изписва се избраният код от Таблица 3 след кода на всяка секция.
Example: – K8, Y1 etc.
Section order: PX 346 – Y1 means:
Section Y with centering code 1 (Table 3) with outlets A and B – M 18x1,5
Пример: – K8, Ю1 и др.
Заявка на секции: PX 346 – Ю1/M означава:
Секция „Ю" с центриране код „1" (Табл. 3) с отвори A и B – M 18x1,5

WAYS OF SPOOL CENTERING AND FIXING – TABLE 3
НАЧИН НА ФИКСИРАНЕ И ЦЕНТРИРАНЕ НА ПЛУНЖЕРА – ТАБЛИЦА 3

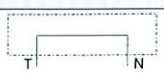
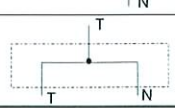
CODE КОД	SPOOL CENTERING ЦЕНТРИРАНЕ НА ПЛУНЖЕРА	CODE КОД	SPOOL CENTERING ЦЕНТРИРАНЕ НА ПЛУНЖЕРА
1		8	
4		9	
5		10	
6		11	
7			

END COVER ORDER: PX 346 – KK3/M means: End cover code 3 (Table 4) with outlets T 27x2 from column M.

ЗАЯВКА НА КАПАК КРАЕН: PX 346 – KK3/M означава:
Капак РК 1 с код „3" (Табл. 4) с отвор T 27x2 от колона „M"

END OVER КАПАК КРАЕН

TABLE 4 ТАБЛИЦА 4

CODE ЗНАК	TYPE ТИП	INDEX ИНДЕКС	CONNECTING OUTLETS ПРИСЪЕДИНИТЕЛНИ ОТВОРИ „M" N	„M" T	„G" N	„G" T	DESIGNATION УСЛОВНО ОЗНАЧЕНИЕ
1	KK 1	12060	–	–	–	–	
2	KK 2	12061	18x1,5	–	1/2"	–	
5	KK 5	12065	27x2	–	3/4"	–	
6	KK 6	12066	22x1,5	–	1/2"	–	
3	KK 3	12063	–	27x2	–	3/4'	
4	KK 4	12064	–	18x1,5	–	1/2"	
7	KK 7	12067	–	22x1,5	–	1/2"	

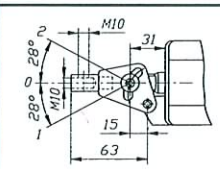
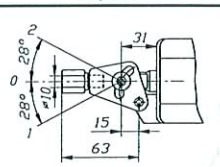
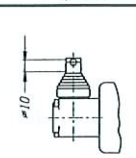
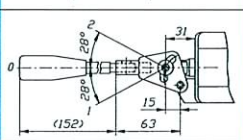
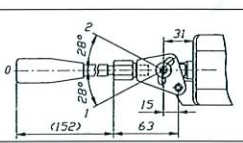
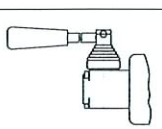
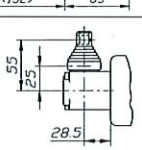
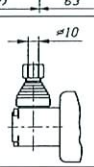
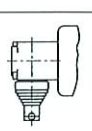
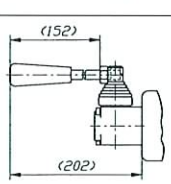
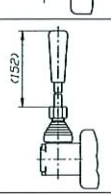
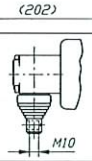
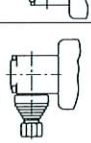
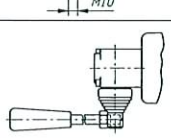
NOTE: The use of symbols M or G in an order of a front cover, a section or an end cover means that the connecting dimensions of the outlets will be performed with dimensions given in columns in tables 1, 2, 4.
When ordering elements or directional control valves with dimensions that differ from those in columns M and G in tables 1, 2, 4 the dimensions are written down after the letter designation and the perfomance becomes special.

ЗАБЕЛЕЖКА: Използването на символите „M" или „G" при заявка на капак начален, секция или капак краен означава, че присъединителните размери на отворите ще бъдат изпълнени в размерите, посочени съответно в колони „M" или „G" на Таблици 1, 2, 4.
При заявка на елементи или разпределители с размери, различни от тези в колони „M" или „G" на Таблици 1, 2, 4, те се изписват задължително след буквеното означение и изпълнението става специално.

ORDER OF A SECTION WITH DRIVING FROM TABLE 5
EXAMPLE: RH 346 – Y1/M/Y means:
Section Y with spool centering code 1 (Table 3) with connecting outlets A and B – thread M18x1,5 and driving of the spool code Y (Table 5).
ЗАЯВКА НА СЕКЦИЯ С КОМАНДВАНЕ ОТ ТАБЛ. 5.
ПРИМЕР: PX 346 – Ю1/M/У означава:
секция „Ю" с центриране на плунжера код „1" (Табл. 3) с присъединителни отвори A и B – резба M 18x1,5 и управление на плунжера код „У" (Табл. 5).

SPOOLS CONTROL УПРАВЛЕНИЕ НА ПЛУНЖЕРА

TABLE 5 ТАБЛИЦА 5

CODE КОД	WITH THREAD С РЕЗБА	CODE КОД	WITH CANGE С ЦАНГА	CODE КОД	WITH CANGE С ЦАНГА
Z		Y		KI	
Z1		Y1		KI 1	
KZ		KY		KI 0	
KZ1		KY1		KI 10	
KZ0		KY0			
KZ10		KY10			
–	WITHOUT LEVER SYSTEM (БЕЗ ЛОСТОВА СИСТЕМА)				

HYDRAULIC DIRECTIONAL CONTROL VALVE TYPE PX 348

РАЗПРЕДЕЛИТЕЛ ХИДРАВЛИЧЕН С РЪЧНО УПРАВЛЕНИЕ, ТИП PX 348

TECHNICAL DATA
ТЕХНИЧЕСКИ ДАННИ

Rated pressure P, A, B (T) Номинално налягане в отвори P, A, B (T)	20 (3) MPa
Rated flow Номинален дебит	30 l/min
Working liquid – hidraulic oils with the following characteristics: Работна течност – хидравлични масла с показатели	
– viscosity вискозитет	10÷400 mm^2/s
– degree of filtration степен на филтрация	25 μm
– temperature температура	-20÷80°C
Ambient temperature Температура на околната среда	-20÷60°C
Maximum flow, see the characteristics internal leakage, at Δ p = f (Q) Вътрешни обемни загуби при p = 12 MPa и вискозитет 35 mm/s	
– for valve section за клапанна секция	to 1,2 sm^3/min
– for spool sections – за плунжерна секция	to 18 sm^3/min

GENERAL DESCRIPTION
The directional control valve type PX 348 is designated to control the direction of the working liquid flow between the generators of pressurized flow (hydraulic pumps), consumers of such a flow (hydraulic cyllinders, etc.) and the tank.

ПРЕДНАЗНАЧЕНИЕ
Разпределител хидравличен тип PX 348 служи да управлява посоката на движение на работната течност между генераторите на напорен поток /хидравлични помпи/, потребителите на напорен поток /хидравлични цилиндри и др./ и резервоара.

CONSTRUCTION
The directional control valve is a section type with manual operaion. It provides parallel distribution of the working liquid and directs flow to the tank at non-actuated sections. It comprises a front cover with built-in adjustable or non-adjustable pressure relief valve, a combination of single-acting (valve or spool) and double-acting (spool) three-position sections (maximum eight numbers) and end cover.

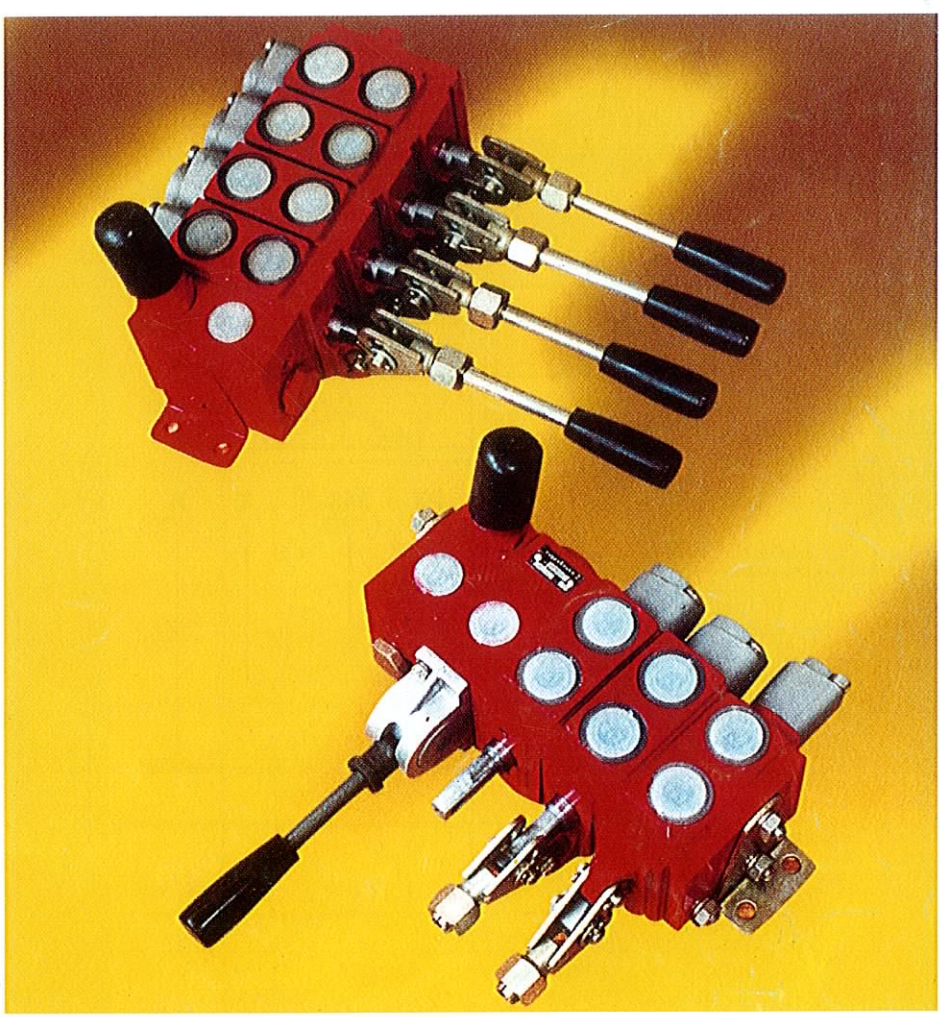
КОНСТРУКЦИЯ
Разпределител PX 348 е от батериен тип, с ръчно управление. Осигурява паралелно разпределение на работната течност и директното ѝ протичане към резервоара при незадействувани секции. Състои се от начален капак с вграден предпазен клапан, комбинация от едно- и двойнодействуващи трипозиционни секции /до 8 броя/ и краен капак.

MOUNTING
The directional control valve is mounted by four bolts M8.

ЗАКРЕПВАНЕ
Закрепването на разпределителя към мястото на монтажа се извършва с четири болта M8.

CONNECTION
To the pipelines of the hydraulic system by means of threaded outlets M18 x1,5.

ПРИСЪЕДИНЯВАНЕ
Присъединяването на разпределителя към хидравличната система е с резбови отвори M 18x1,5 /3,8"/.

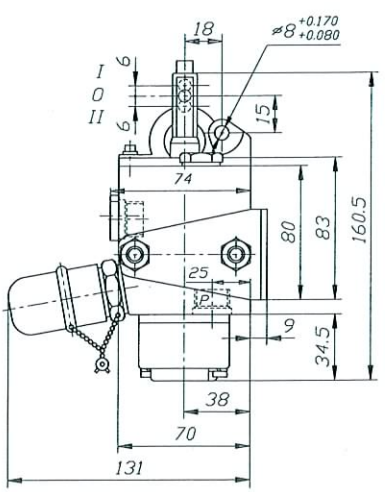


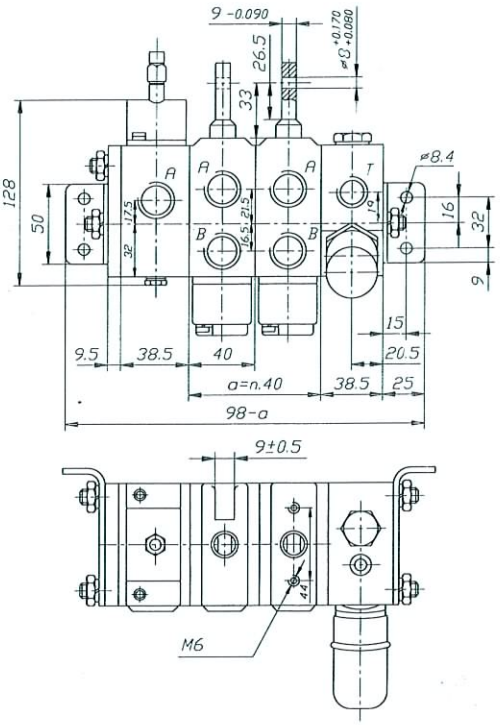
EXAMPLE: 348 – 2IIM means: hydraulic directional control valve 348, with front cover – 2 and two spool sections „I“, one section valve type „M“.

ПРИМЕР: РХ 348 – 2 ΛΛМ / IIM означава: разпределител хидравличен, тип 348 начален капак „2“ /Табл.1/, два броя секции плунжерни „Л“ („Т“) /Табл.3/, един брой секция клапанна „М“ /Табл.2/.

EXAMPLE: RH 348 – 2 LF1M means: directional hydraulic control valve, type 348, front cover 2 – Table 1, spool section L – Table 3, flow separator F1 – Table 4, valve section M – Table 2. The flow separator F from Table 4 is mounted between the sections in order requested by the customer and it provides the requested amount of flow to the sections located before the separator. The flow separator is designed in two variants – Table 4: with adjustable flow F1 and with built-in blend, providing the corresponding flow amount through it self F2, F3, F4, F5.

ПРИМЕР: РХ 348 – 2 ΛF1M означава: разпределител хидравличен, тип 348, начален капак „2“ /Табл.1/, секция плунжерна „Л“ /Табл.3/, отделител на дебит „F1“ /Табл.4/, секция клапанна „М“ /Табл.2/. Отделителят на дебит се изпълнява в два варианта /Табл.4/: с регулируем дебит F1 и с вградена бленда, осигуряваща съответно количество дебит през себе си F2, F3, F4, F5.





HOW TO ORDER
НАЧИН НА ЗАЯВКА

VARIANT I – without flow separator
ВАРИАНТ I – без отделител на дебит

РХ 348 2 ΛΛМ

Hydraulic directional control valve
Разпределител хидравличен

type тип на разпределителя

Ordering code of the front cover – Table 1
Вид на началния капак – Табл. 1

Code for the chosen sections – Table 2; 3
Вид и последователност на секциите – Табл.2; 3 (до 8 броя)

VARIANT II – with built-in flow separator
ВАРИАНТ II – с вграден отделител на дебит (F)

РХ 348 2 Л F1 М

Hydraulic directional control valve
Разпределител хидравличен

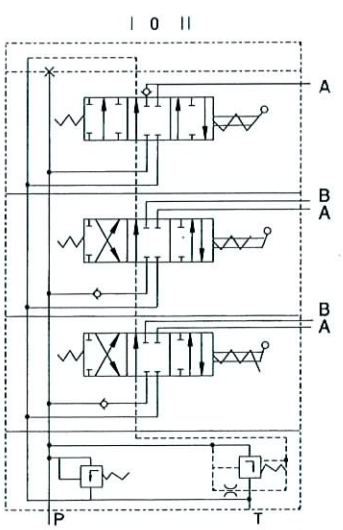
type тип на разпределителя

Ordering code of the front cover – Table 1
Вид на началния капак – Табл. 1

Code for the chosen sections – Table 2; 3 before the flow separator
Вид на секциите – Табл.2; 3 преди отдел. на дебит

Flow separator – Table 4
Отделител на дебит – Табл.4

Code of the chosen sections – Table 2; 3 after the flow separator
Вид на секциите по Табл.2; 3 след отделителя на дебит



NOTE: On requests the directional control valve with sections with cyrrilic and latin designation, is taken only the one (on choice).

ЗАБЕЛЕЖКА: При заявка на разпределител със секция, чието означение е на кирилица и латиница, се работи с едното означение по избор.

HOW TO ORDER: PX 348 – KH...
Front cover code – Table 1

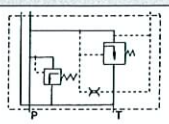
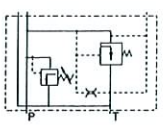
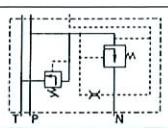
НАЧИН НА ЗАЯВКА НА КАПАК НАЧАЛЕН: PX 348 – KH ...
Код на началния капак Табл.1

EXAMPLE: PX 348 – KH3 means: Front cover with code 3 – Table 1 for a directional control valve 348.

ПРИМЕР: PX 348 – KH3 означава: Капак начален, със знак за заявка „3" /Tabl.1/ за разпределител PX 348

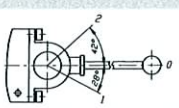
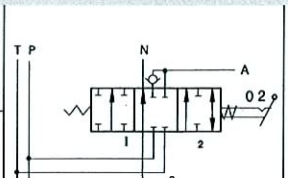
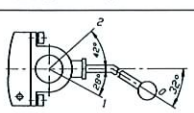
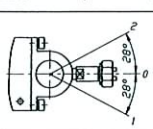
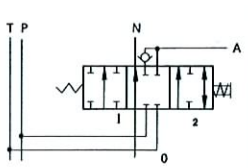
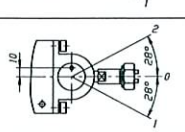
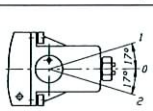
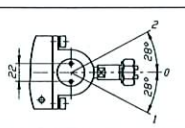
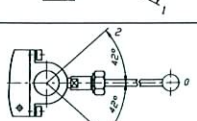
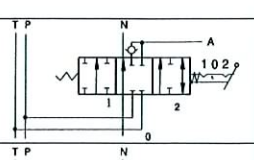
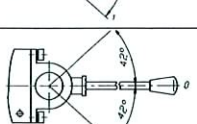
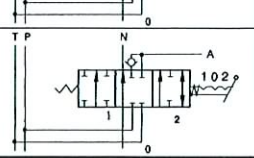
FRONT COVER
КАПАК – НАЧАЛЕН

TABLE 1
ТАБЛИЦА 1

DESIG-NATION ЗНАК ЗА ЗАЯВКА	INDEX ИНДЕКС	ADJUSTMENT RANGE MPa ОБХВАТ НА РЕГУЛИРАНЕ MPa	GRAPHICAL REPRESENTATION УСЛОВНО ОЗНАЧЕНИЕ
1	120 00	UNADJUSTABLE /15 MPa/ НЕРЕГУЛИРУЕМ /15 MPa/	
2	120 06	7 – 18	
3	120 07	4 – 10	
4	120 08	5 – 12	
5	120 09	14 – 16	
6	128 90	7 – 18	

SINGLE-ACTING SECTION
СЕКЦИЯ ЕДНОДЕЙСТВУВАЩА КЛАПАННА

TABLE 2
ТАБЛИЦА 2

DESIG-NATION ЗНАК ЗА ЗАЯВКА	INDEX ИНДЕКС	TYPE OF THE LEVER SYSTEM ВИД НА ЛОСТОВАТА С-МА	DISTRIBUTION SCHEME AND FIXING СХЕМА НА РАЗПРЕДЕЛ. И ФИКСИРАНЕ	OTHER SPECIALITIES ДРУГИ ОСОБЕНОСТИ
T	120 10			
X	120 11			
Ш /CH/	120 14			
P	120 15			WITH EL. CONTROL PLUG С ЩИФТ ЗА ЕЛ. УПРАВЛЕНИЕ
M	120 16			WITH EL. CONTROL PLUG С ЩИФТ ЗА ЕЛ. УПРАВЛЕНИЕ
C	120 17			WITH 2 EL. CONTROL PLUGS С 2 ЩИФТА ЗА ЕЛ. УПРАВЛ.
A	120 18			
N	120 19			

HOW TO ORDER SECTION:
PX 348 – section ...
Ordering code – Table 2, 3

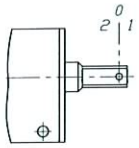
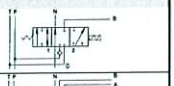
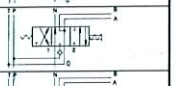
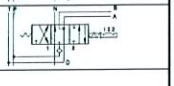
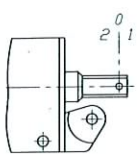
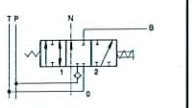
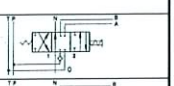
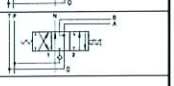
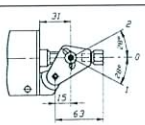
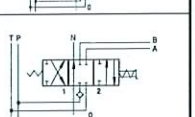
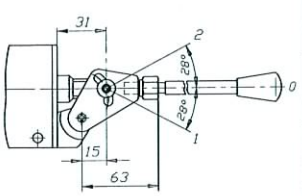
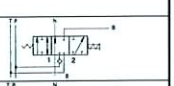
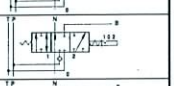
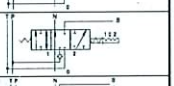
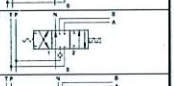
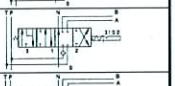
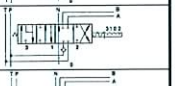
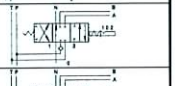
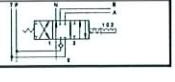
НАЧИН НА ЗАЯВКА НА СЕКЦИЯ: PX 348 – Секция ...
Знак за заявка – Табл. 2, 3

EXAMPLE: PX 348 – section I means: Double-acting section „I" /Table 3/ for the directional control valve PX 348

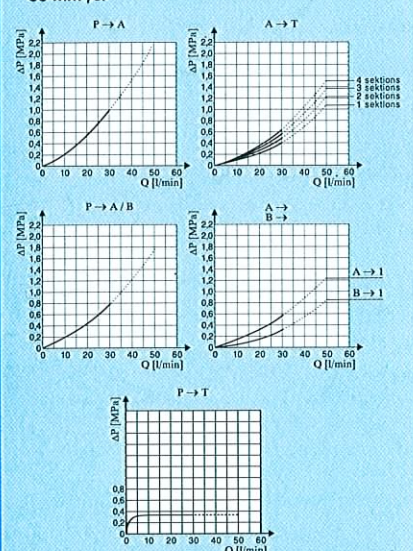
ПРИМЕР: PX 348 – Секция Л означава: Секция двойнодействуваща „Л" /Табл. 3/ за разпределител PX 348.

SPOOL SECTION
СЕКЦИЯ ПЛУНЖЕРНА

TABLE 3
ТАБЛИЦА 3

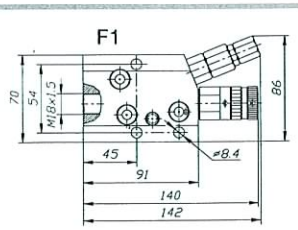
DESIG-NATION ЗНАК ЗА ЗАЯВКА	INDEX ИНДЕКС	CHARACTERISTICS FITTING ХАРАКТЕРНИ ОСОБЕНОСТИ ЗАХВАЩАНЕ	OTHER ДРУГИ	DISTRIBUTION SCHEME СХЕМА НА РАЗПРЕДЕЛЕНИЕ
B	120 21			
Л(I)	120 33			
H	120 35			
Б(U)	120 20			
O	120 22		WITH STRETCHED SPOOL С УДЪЛЖЕН ПЛУНЖЕР	
Ж(J)	120 30			
Ю(Y)	120 31			
K	120 32			
Д(D)	120 34		WITH STRETCHED SPOOL С УДЪЛЖЕН ПЛУНЖЕР	
Q	120 23			
W	128 94			
V	128 95			
R	120 36			
L 12	120 37			
L 13	120 37-01			
S	128 97			
G	128 98			

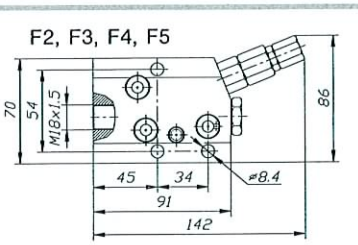
The performances of Δp=f(Q) at oil with viscosity 35 mm²/s.
Характеристики Δp=f(Q) при вискозитет 35 mm²/s.

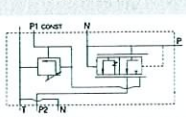
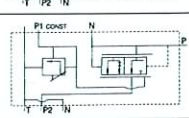


TRANSITIONAL SECTION WITH FLOW SEPARATOR
МЕЖДИННА СЕКЦИЯ С ОТДЕЛИТЕЛ НА ДЕБИТ

TABLE 4
ТАБЛИЦА 4





DESIG-NATION ЗНАК ЗА ЗАЯВКА	INDEX ИНДЕКС	Q L/min Q L/min	P /bar/ P /bar/	CONSTRUCTIONAL CHARACTERISTICS КОНСТРУКТИВНИ ОСОБЕНОСТИ	SYMBOL DESIGNATION СИМВОЛИЧНО ОЗНАЧЕНИЕ
F1	97 00 00	3 – 13	30 – 200	REGULATED FLOW РЕГУЛИРАН ДЕБИТ	
F2 F3 F4 F5		3 6 9 12		CONSTANT FLOW ПОСТОЯНЕН ДЕБИТ	

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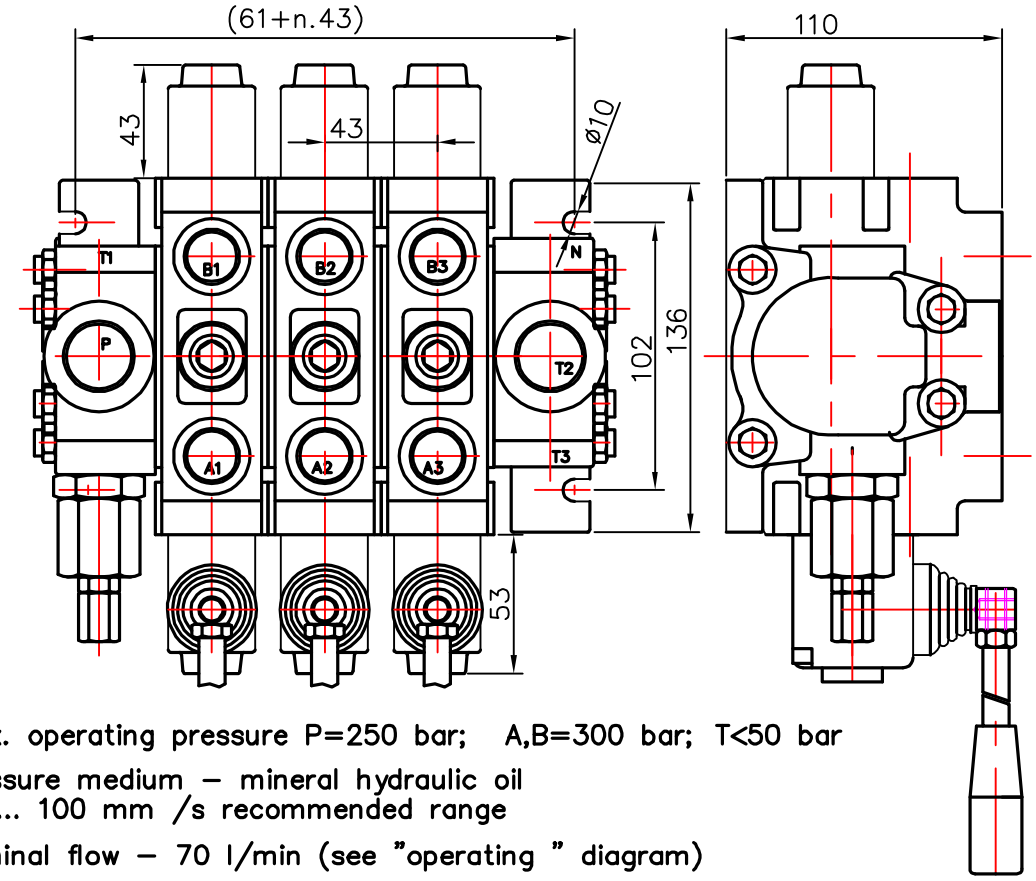
E –mail: badestnost@hydraulic–vlv.com www.hydraulic–vlv.com

Распределитель гидравлический ZC 70
Directional control valve ZC 70



max. operating pressure P=250 bar; A,B=300 bar; T<50 bar

pressure medium – mineral hydraulic oil
20 ... 100 mm /s recommended range

nominal flow – 70 l/min (see "operating " diagram)

n – number of sections – max 8

Структура обозначения распределителя
Order code

3 ZC70 R N2/PA1/PA8AyBz/PD1/T2 /G KZ1 P E C2

количество золотников number of spools	3
распределитель типа directional control valve	ZC70
вход давления с правой стороны inlet high pressure – right	R
тип напорной секции type of the inlet cover	N2
характеристика первого золотника first spool distribution type	PA1
характеристика второго золотника second spool distribution type	PA8AyBz
характеристика третего золотника tird spool distribution	PD1
тип сливной секции (T) type of the outlet cover (T port)	T2
размер присоединительных отверстий threads (P, A, B, T, N)	/G
вид ручного управления lever options	KZ1
управление другого вида operation feature	P
с електро шалтер with microswitsh	E
наконечник продолжения потока high pressure carry over	C2

* Фиксация в рабочих позициях с гидропредохранением заказиваются текстом.
* All detend in operating positions, provided with hydraulic control, have to be ordered explanative.

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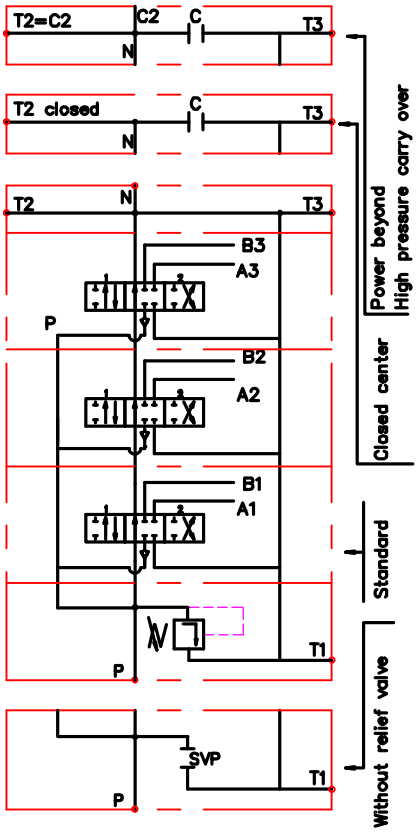
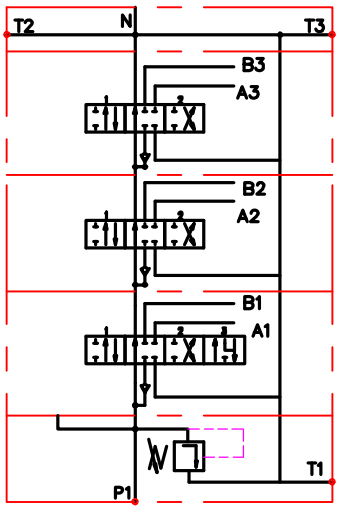
Распределитель гидравлический ZC 70
Directional control valve ZC 70

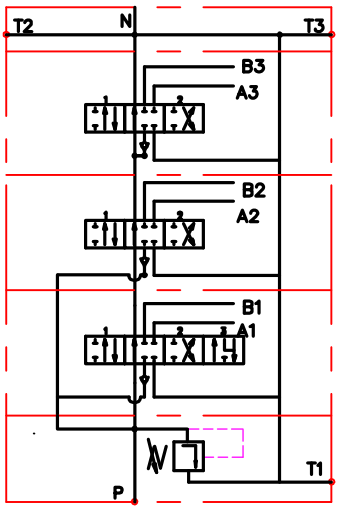
параллельное распределение
parallel circuit
3ZC70 N2/ PA1/PA1/PA1/T2



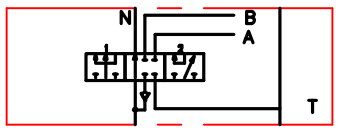
тандемное распределение
tandem circuit
3ZC70 N1/ TL12/TA1/TA1



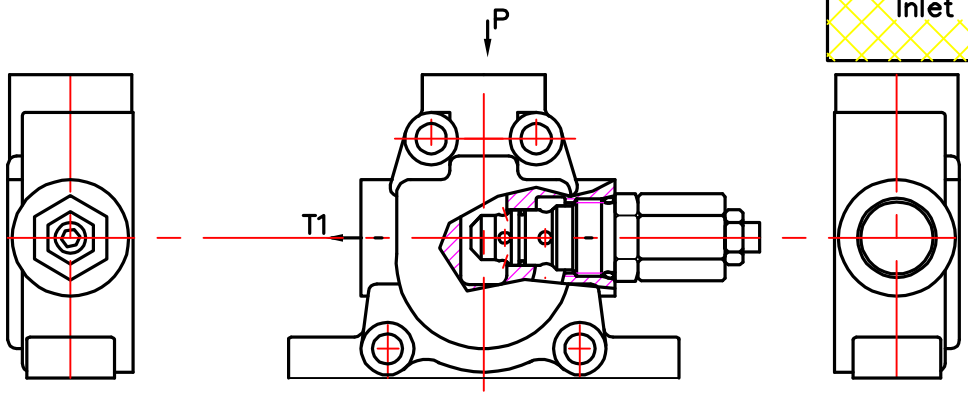
мешаное распределение
mixed circuit
3ZC70 N1/ PL12/PA1/TA1

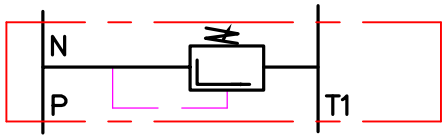
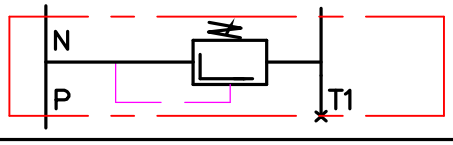
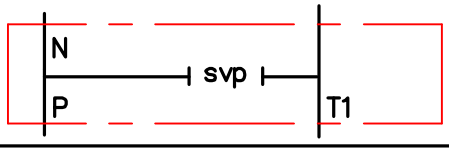


series directional valve element



Напорная секция
Inlet cover



code	напорная секция / inlet cover
N1	
N2	
N1svp or N2svp	

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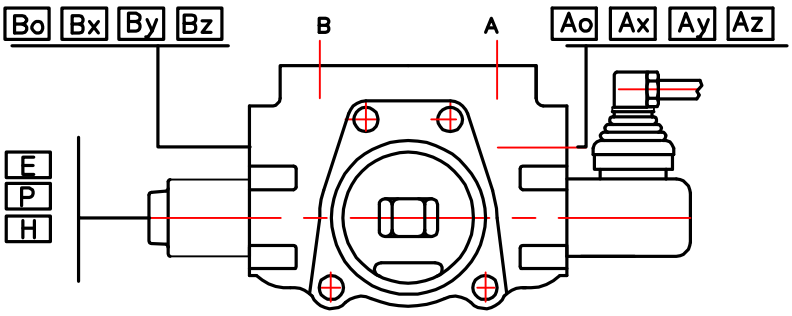
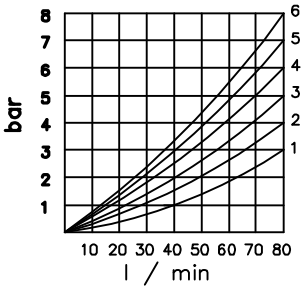
Распределитель гидравлический ZC 70
Directional control valve ZC 70



распределительная секция
control valve

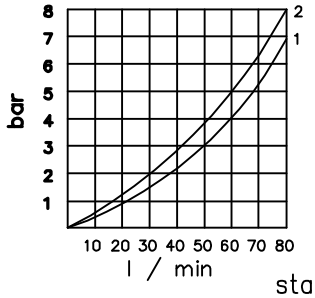
code	способ фиксации spool control
1	1 0 2
2	1 0 2
3	1 0 2
4	0 2
5	1 0
6	1 2
7	1 2
8	1 0 2
9	1 0
10	0 2
11	1 2
12	1 0 2 3
13	1 0 2 3

P→T

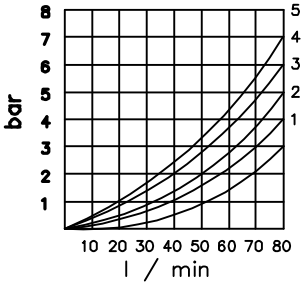


code	вид золотника spool type
A	
B	
C	
D	
E	
F	
G	
H	
L	

P→A, B



A, B → T



code	резьбовие отверстия thread ports			code	способ разпределения потока way of distribution of oil
	P,A,B	T	N	P	паралелное / parallel
standard G	1/2"	3/4"	M26x1.5	T	тандем / tandem
M2	M22x1.5	M26x1.5		S	серийно/ series

code	с електро шалтер with electric switch	
E		микро шалтер Omron – V 165 I C5 mikroswitch Omron – V 165 I C5

code	другое управление operation feature		
P		пневматическое pneumatic	pn = 6 bar ports – NPTF 1/8–27
H		гидравлическое hydraulic	pn = 6 – 20 bar ports – G 1/4 DIN 3852/1

Ao	Bo	пробка соответно к A и/или B plug for A and/or B
Ax	Bx	антикавитационний клапан соответно к A и/или B anti cavitation valve for A and/or B
Ay	By	предохранительний клапан соответно к A и/или B sek. pressure relief valve for A and/or B
Az	Bz	шок абсорбер к A и/или B shockabsorber valve for A and/or B

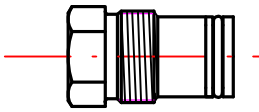
operating diagrams
for hand operated
control valve

BADESTNOST AD 6200 Chirpan, Bulgaria, Tel: 00359 416 930 12, Fax: 00359 416 955 34
E – mail: badestnost@hydraulic–vlv.com www.hydraulic–vlv.com

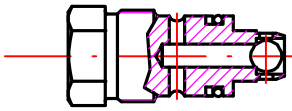
Распределитель гидравлический ZC 70
Directional control valve ZC 70

вторичные клапани/ second valves

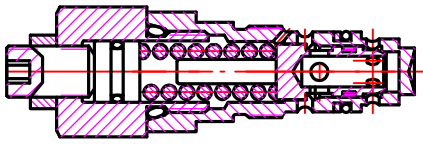
plug "o"



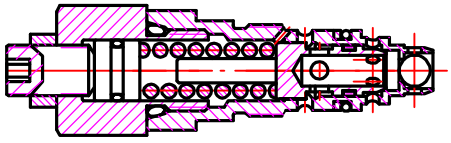
anticavitation valve "x"



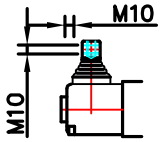
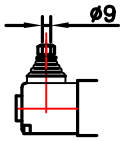
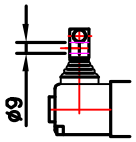
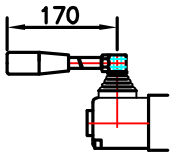
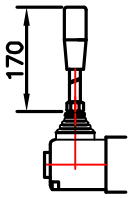
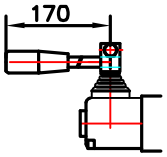
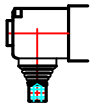
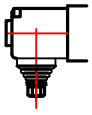
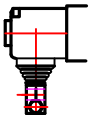
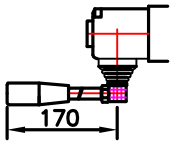
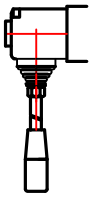
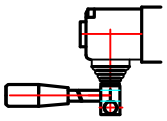
second relief valve "y"



combined part relief and anticavitation valve "z"

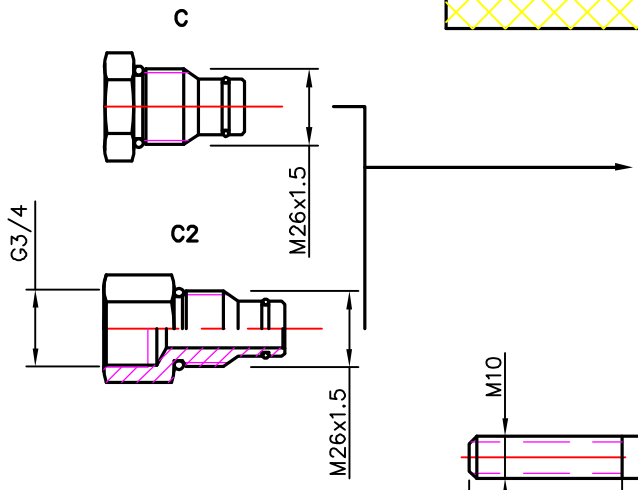


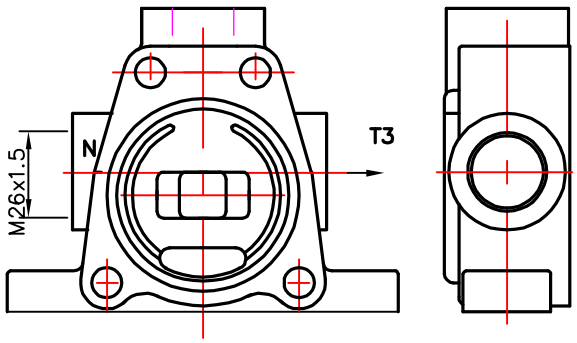
вид ручного управления / general operation feature

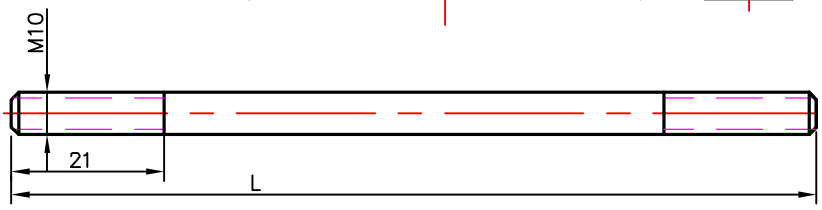
code	ескиз feature	code	ескиз feature	code	ескиз feature
KZ		KY		KI	
KZ1		KY1		KI1	
KZ0		KY0		KI0	
KZ01		KY01		KI01	
–	без система управления / without lever system				

сливная секция
end plate

T2
or
(T2=C2) high pressure carry over
продолжитель поток





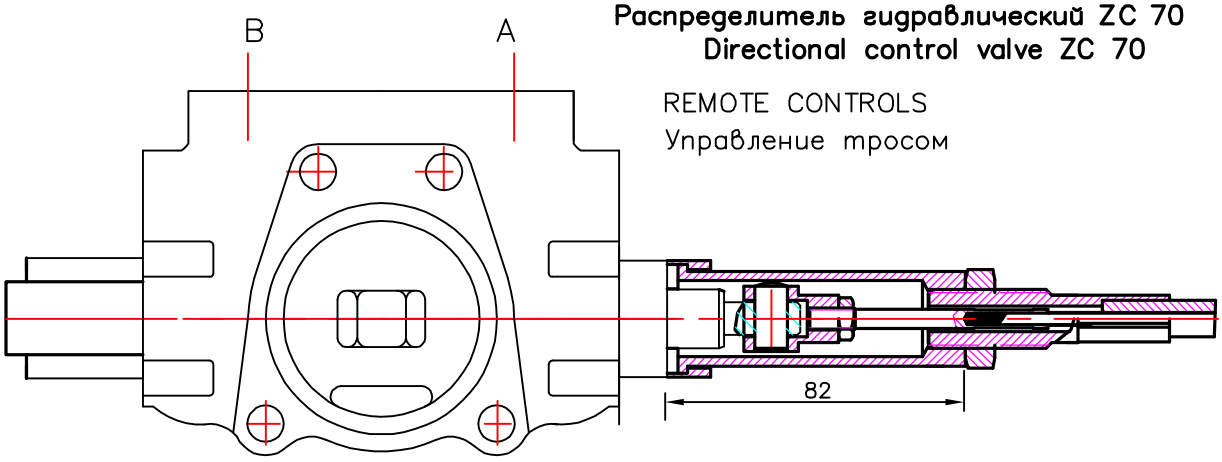


*C – C in port N+plug in T2–closed center
**(T2=C2)– C in port N–carry over in T2
***C2–C2 in port N+Plug in T2– carry over in N

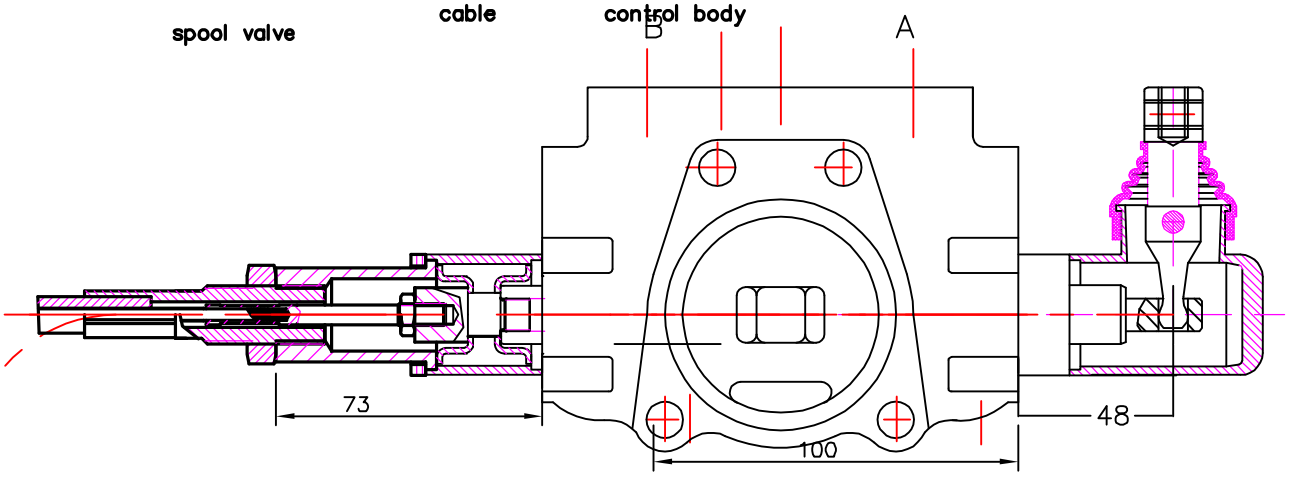
брой золотников number of spools	1	2	3	4	5	6	7	8
L	145	188	230	275	320	360	405	445

Распределитель гидравлический ZC 70
Directional control valve ZC 70

REMOTE CONTROLS
Управление тросом



P40 A1G — spool valve
V1(l= . . .)+ — cable
3047 — control body

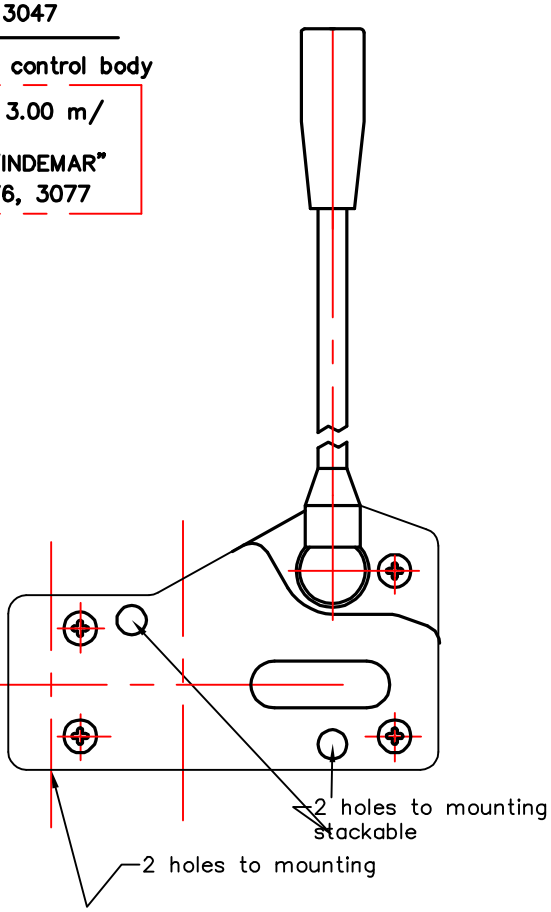


P40 A1GKZ — spool valve
V2(l= . . .)+ — cable
3047 — control body

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

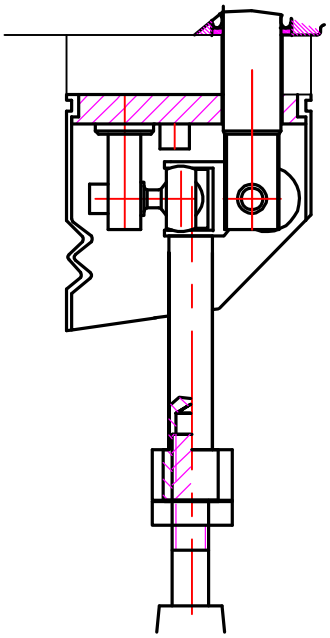


High solidity controls for easy mounting on every type of distributor.They can by mounted stand alone or packed together.
They use push–pull heavy duty cables that provide a positive smooth operating lever and are manifactured in a three differents models to meet different needs of Clients.

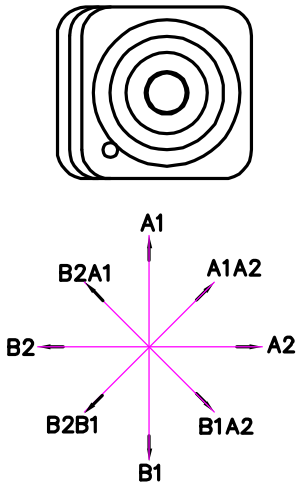
Распределитель гидравлический ZC 70
Directional control valve ZC 70

JOYSTICK "+"

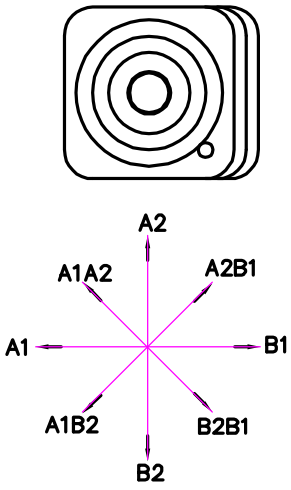
This control gives the possibility to operate, at the same time two spools with a"+"movement.

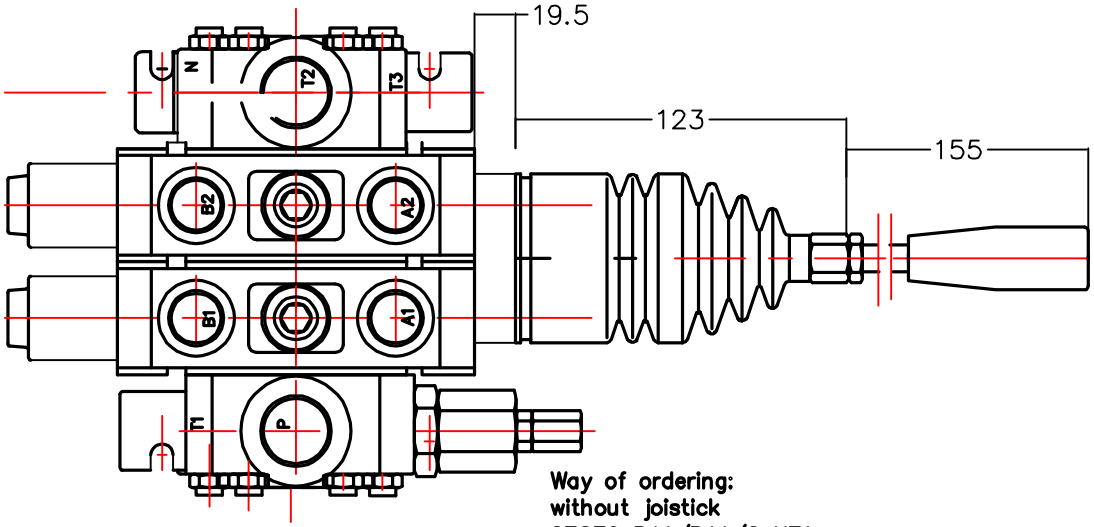


standard version 3



standard version 4

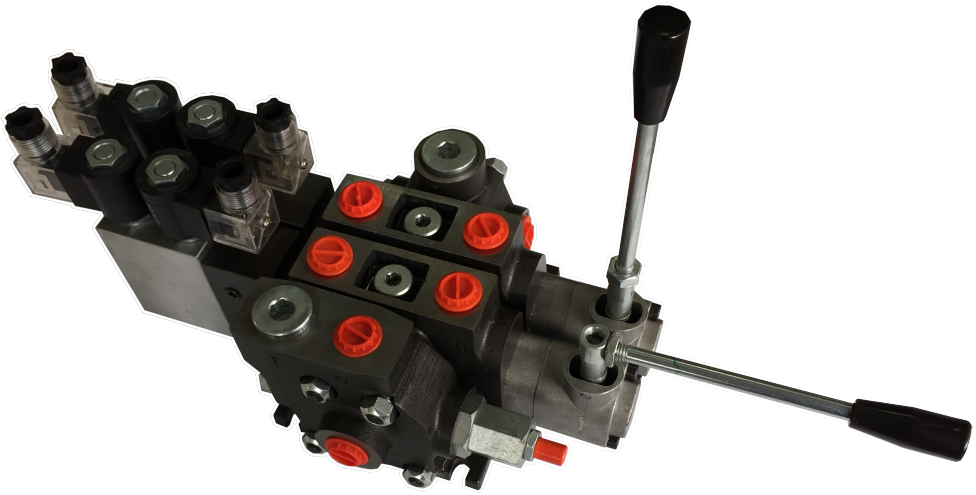




Way of ordering:
without joistick
2ZC70 PA1/PA1/G KZ1

with joistick
2ZC70 (A1A1)(js+3)G

NEW ELECTRO-HYDRAULIC CONTROL (EHD) for ZC70



This new electro-hydraulic control is designed to be directly mounted to ZC70 section body and be used without any pipes. This allows the user to be more flexible when stackign different combinations of sections and controls.

Technical specification		
Flow rate	l/min [gpm]	90 [24]
Max. pressure on A&B	bar [psi]	300 [4350]
Leakage (A,B to T) at 100 bar [1450 psi] and 46 cSt	cm^3/min [in^3/min]	6 [0.37]
Operating pressure	bar [psi]	10 to 50 [145 to 725]
Max. pressure in L	bar [psi]	25 [363]
Solenoid operating features		
Nominal voltage tolerance	%	±10
Power rating	W	24
Duty cycle	%	100

Sample hydraulic scheme: L1ELP24VDC/PA1EHD3/PA1ED3/T3/G/KZ1/12VDC