HIDROSIB

S.A.

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200 .. 600 l/min	Pilot operated pressure control valves NB10,20,32	FC -10
315 bar		

GENERALITIES

Subplate mounting pilot operated pressure control valves.
Various functions, conforming to tabel 1.
Local manual adjusting, by hand wheel, screw or micrometer scaled rotary knob w/out locking screw.
Main valve available for cartridge type, mounting seat conforming to ISO/D 7368 DIN24342.
Main valve subplate mounting surface conforming to: ISO 5781 for functions 04, 05, 06, 06ED, 06 EI, 07 and 16 functions, and ISO 6264 only for 04, 06, 06 ED, 06 EI functions.
Pilot available with mounting dimensions conforming to ISO 4401.

PERFORMANCE DATA

GENERAL

Fixing: subplate mounting
Mounting position: unrestricted
Symbol: see table 1
Fluid flow direction: B-A for function 16
A-B for all others

Temperature range of ambient medium : -20°c.....+50°c

HYDRAULIC

Nominal pressure : 315 bar
Pressure adjustment range, Pr: 7...315bar; 6...160 bar ,6.... 80 bar
Maximal flow: function 16: NB10 ....150l/min , NB20 ... 250l/min ,
NB32 ..... 400l/min
the other functions : NB10 ....200l/min , NB20 ... 400l/min ,
NB32 ..... 600l/min
Fluid :
Fluid type: additived mineral oil.
Viscosity range: 10 ...800cSt
Temperature range : -20°C.....+80°C
Filtration: 25 ..30 μm

ELECTRICAL

Type of current:	direct current (DC)	alternating current (AC)
Voltage :	24V	220V/50Hz

Voltage admissible deviation : ±10%
Relative duty cycle : Da100%
Maximum switching frequency per hour : 3600
Power input at 20 ^{0}C :

cut-in :	35 W	120VA
holding :	35 W	40 VA

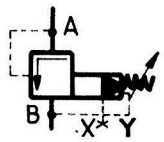
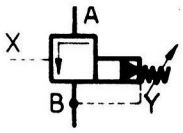
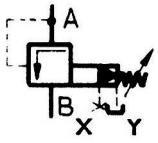
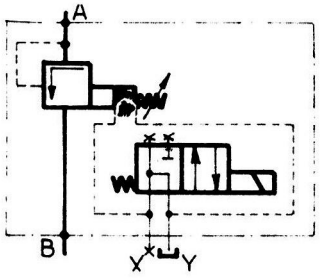
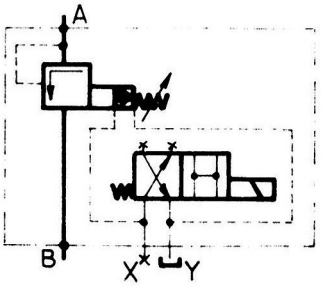
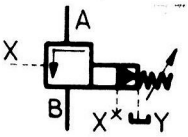
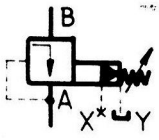
Type of connection: plug-in connector, conforms to ISO 4400
Type of protection : IP65 ; conforms to STAS 5325 (DIN 40050)
Directional control valve response time :

solenoid energized:	20... 60 ms
no solenoid energized :	10 ... 60ms

Pressure :max 160 bar

Valve functions

Table 1

Code	Symbol	Designation
04		Relief valve
05		Unloading valve
06		Sequence valve
06 ED		Sequence valve (relief), solenoid energized to close (solenoid operated valve, normally open)
06 EI		Sequence valve (relief), solenoid energized to open (solenoid operated valve, normally closed)
07		Remotely operated sequence valve
16		Pressure reducing valve (normally open)

CHARACTERISTIC CURVES

1. Functions 04, 06, 06 ED si EL

1.1 Pressure/flow characteristic : Pr=f(Q)

1.2Pilot flow vs. total flow, Qp=f(Q)

NB10

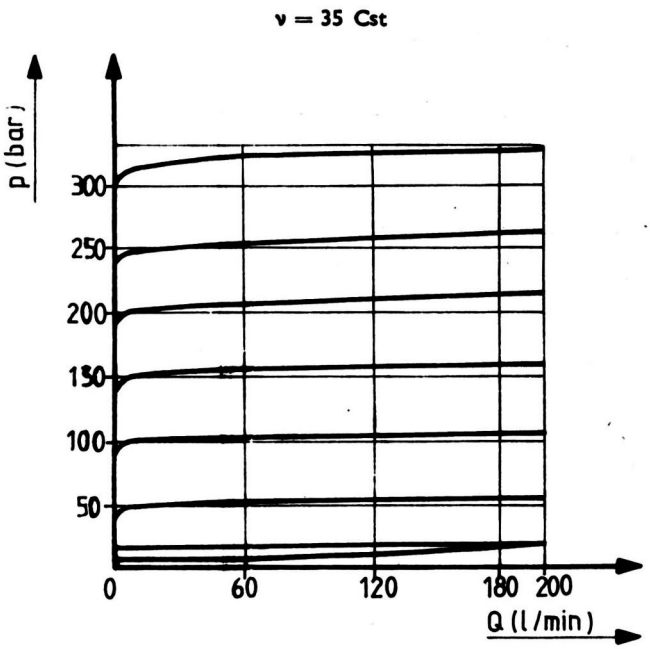


Fig. 1

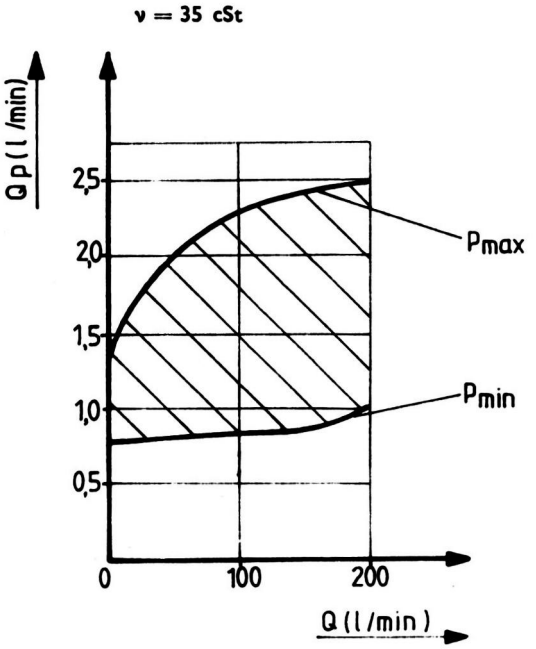


Fig. 2

NB20

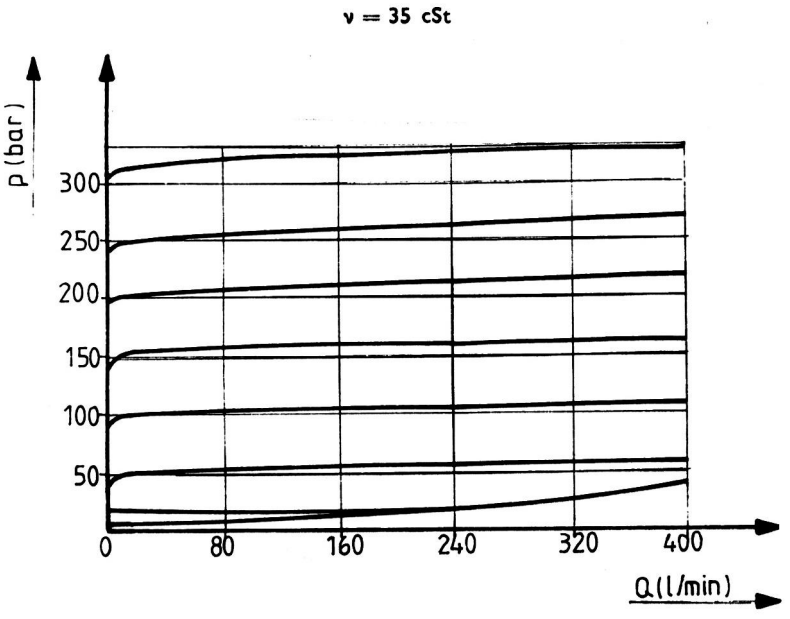


Fig. 3

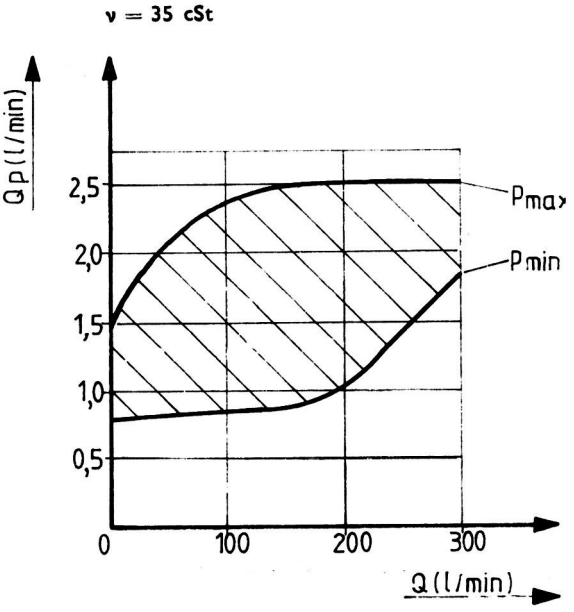


Fig. 4

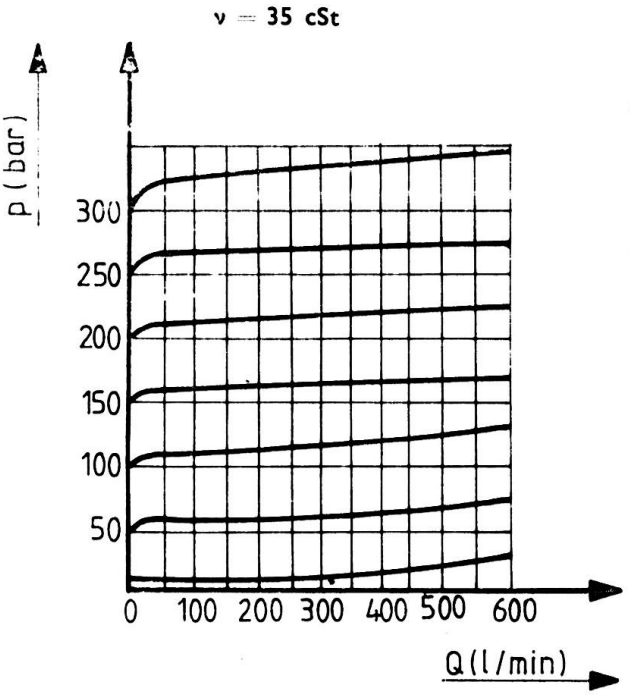


Fig. 5

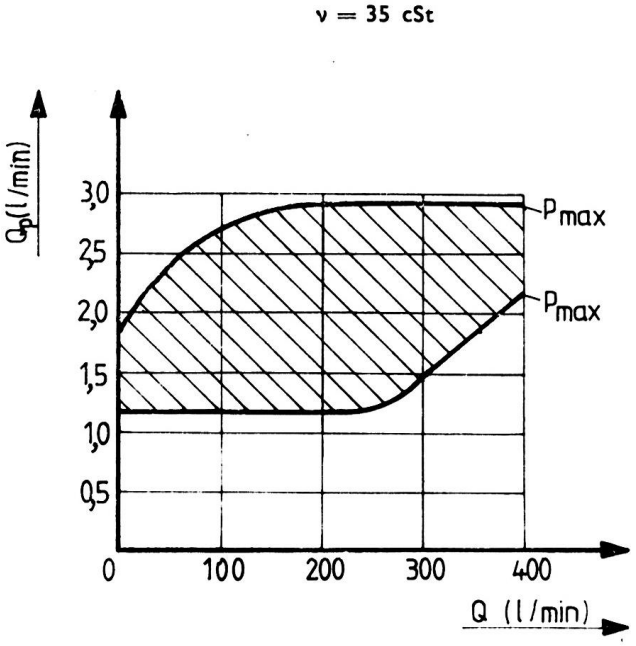


Fig. 6

2.Function 16
Pressure/flow characteristic, Pr=f(Q)

NB 10 ν = 35 cSt

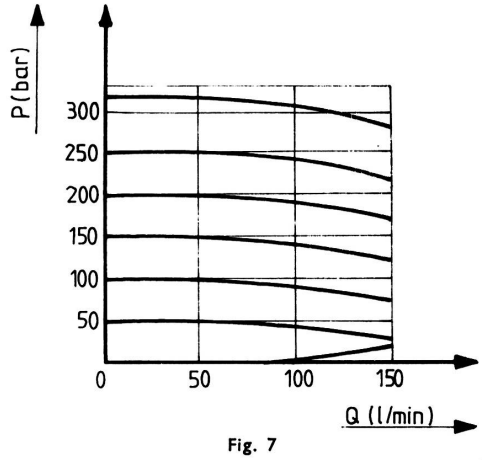


Fig. 7

NB ν = 35 cSt

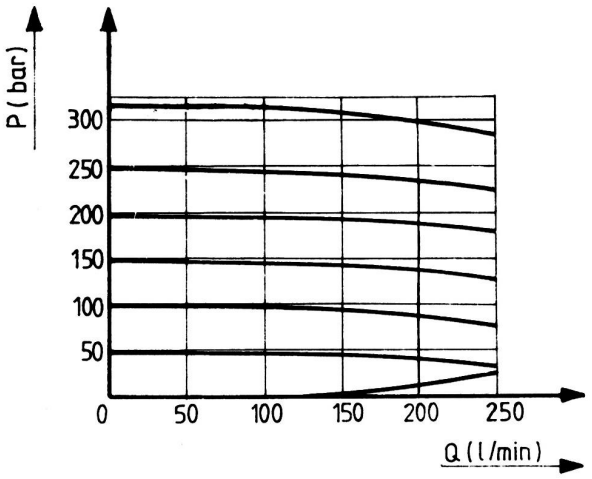


Fig. 8

NB 32 ν = 35 cSt

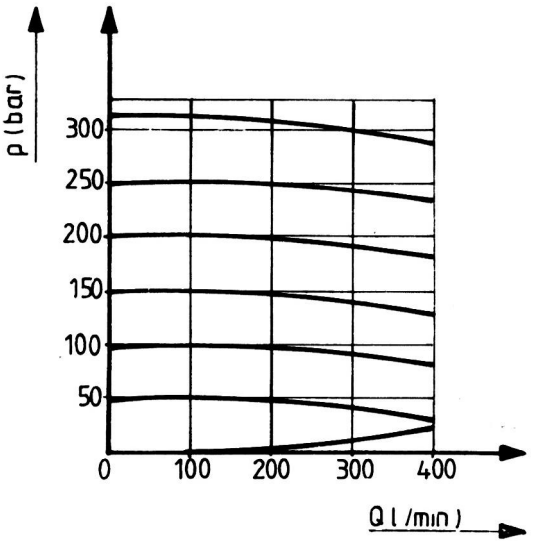
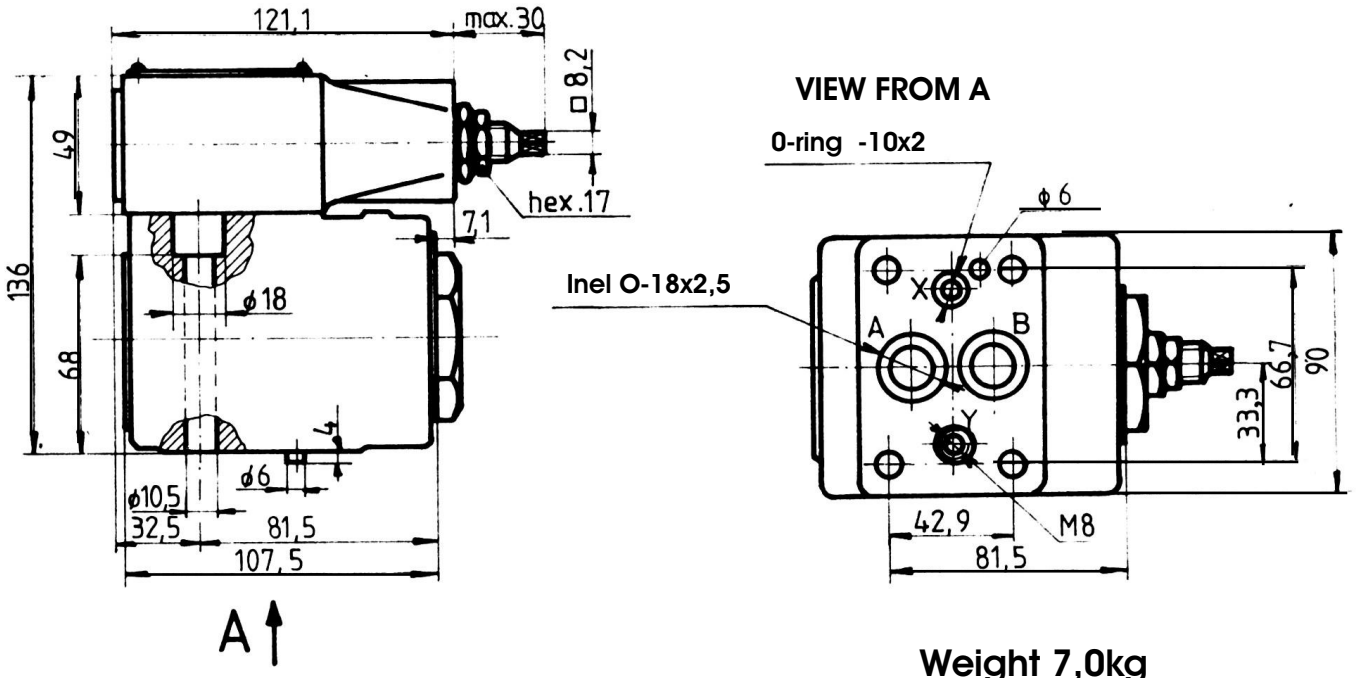


Fig. 9

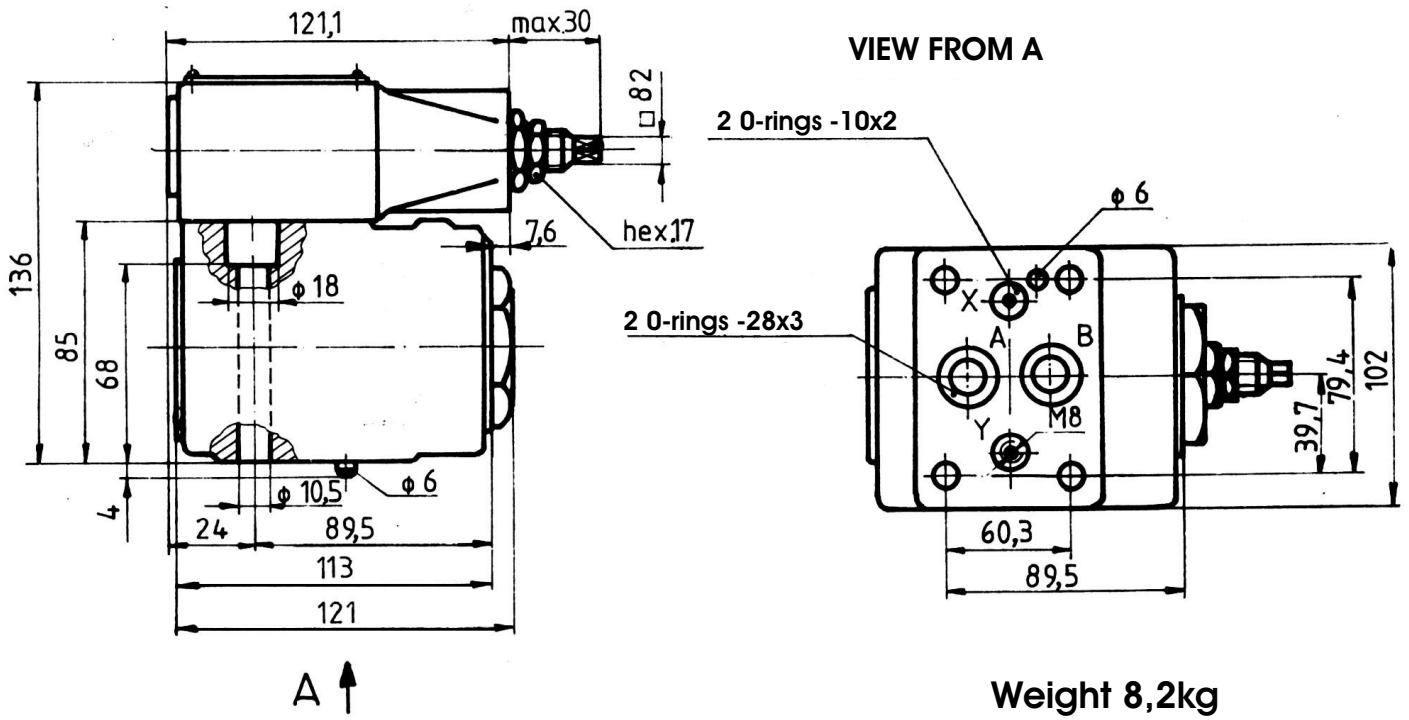
Functions 04 ,05, 06, 07 si 16 - subplate mounting dimensions conforming to ISO 5781



Weight 7,0kg

Fig. 10

Dn20



Weight 8,2kg

Fig. 11

NB32

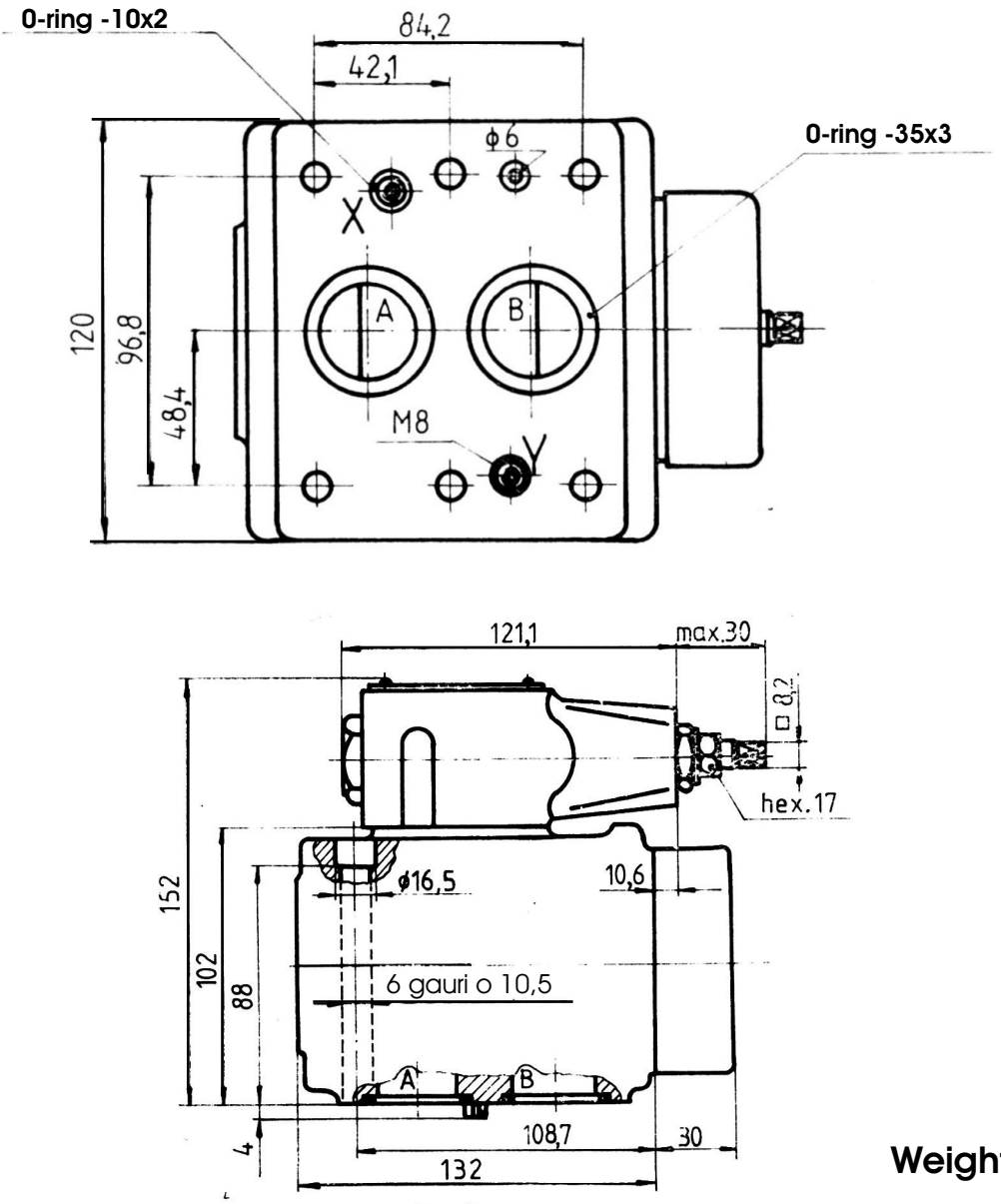
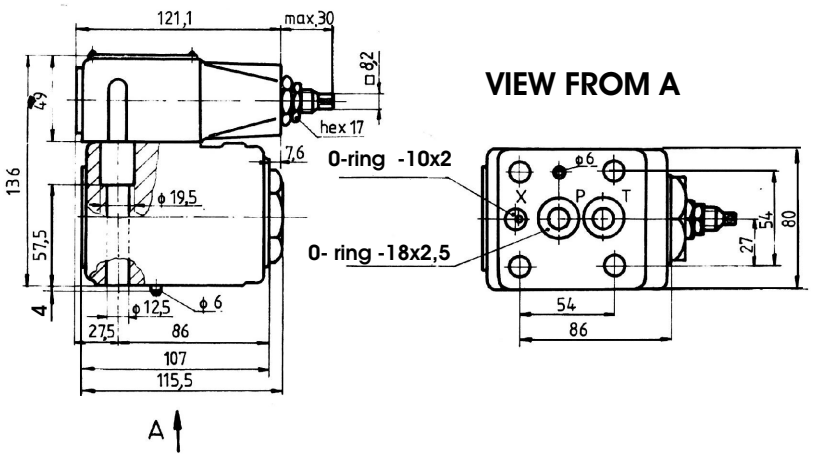


Fig. 12

Weight 13,1 kg

Functions 04 si 06 , subplate mounting dimensions conforming to ISO 6264

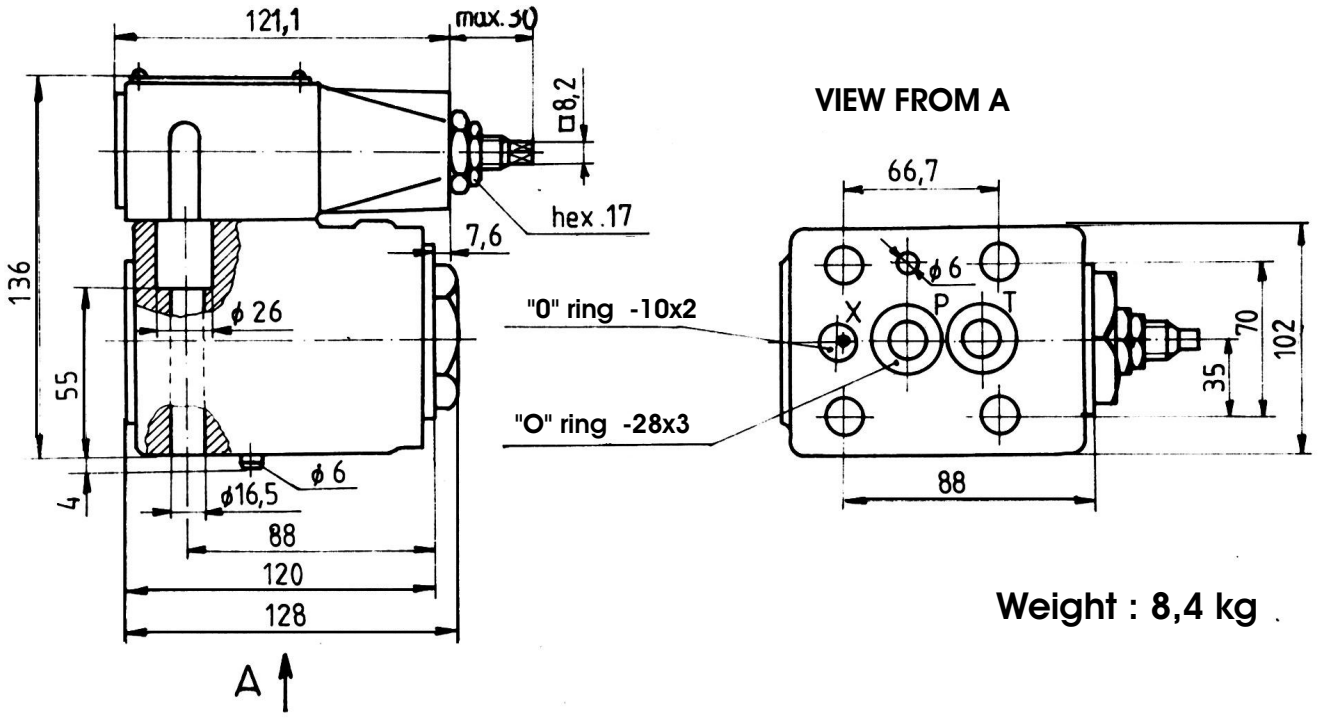
NB10



Weight 6,8 kg

Fig. 13

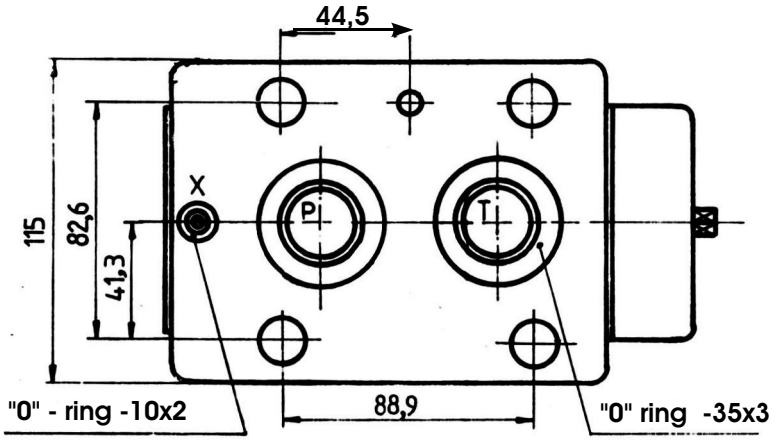
NB20

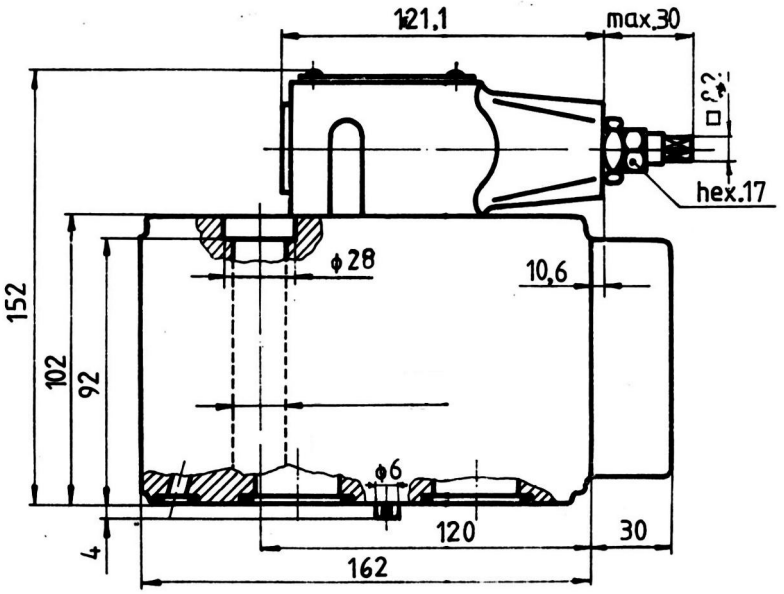


Weight : 8,4 kg

Fig. 14

NB32





Weight : 13,5 kg

Fig. 15

Functions 06ED 06 EL - subplate mounting dimensions conforming to ISO 5781

NB 10

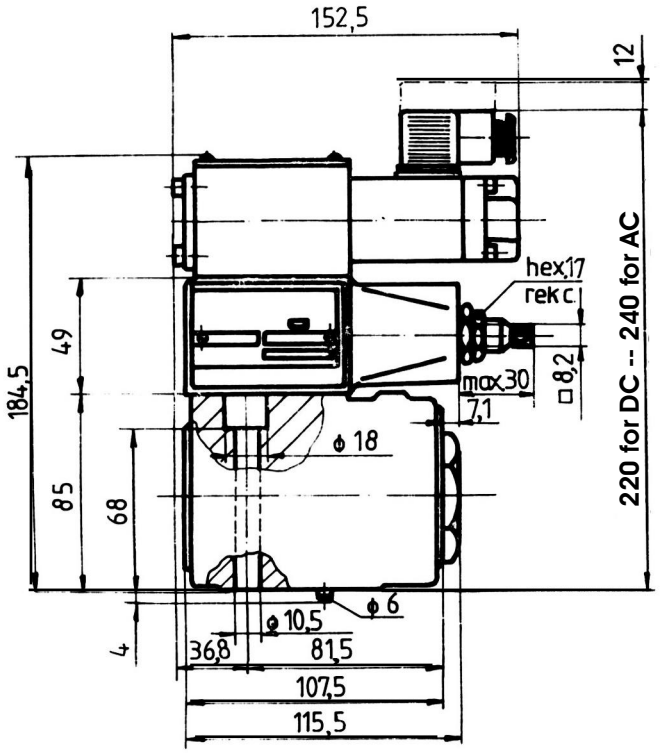


Fig. 16

Weight 9,0kg

NB 20

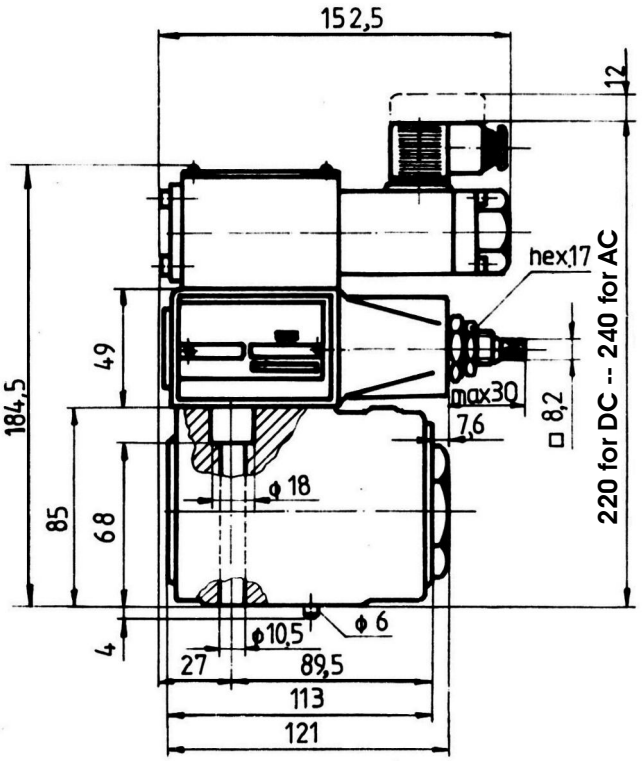


Fig. 17

Weight 10,2kg

NB32

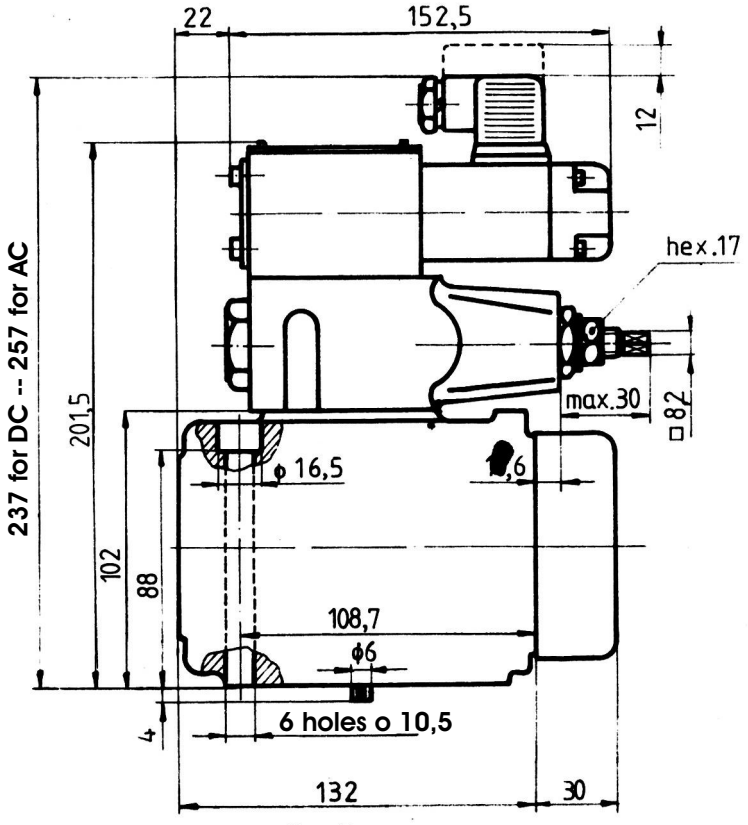
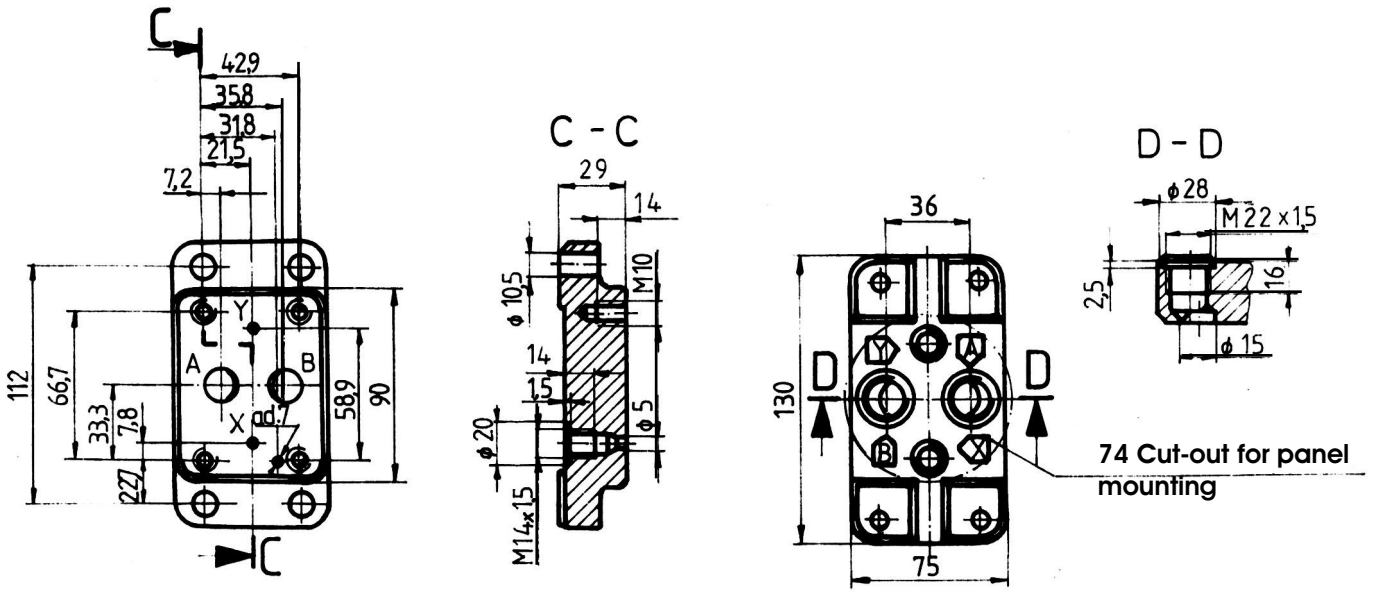


Fig. 18

Weight 14,4kg

Subplate dimensions conforming to ISO 5781

NB10



NB20

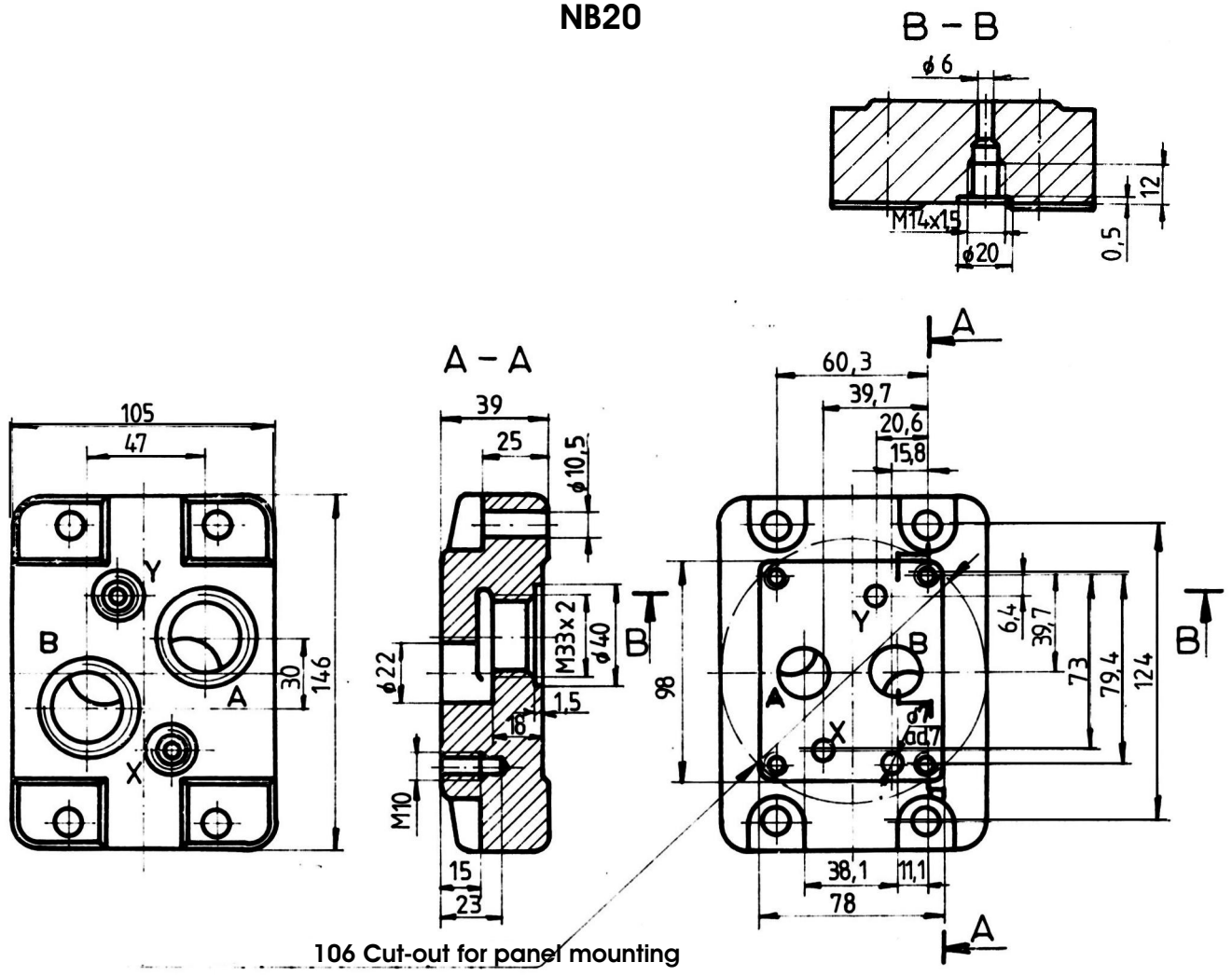


Fig 20

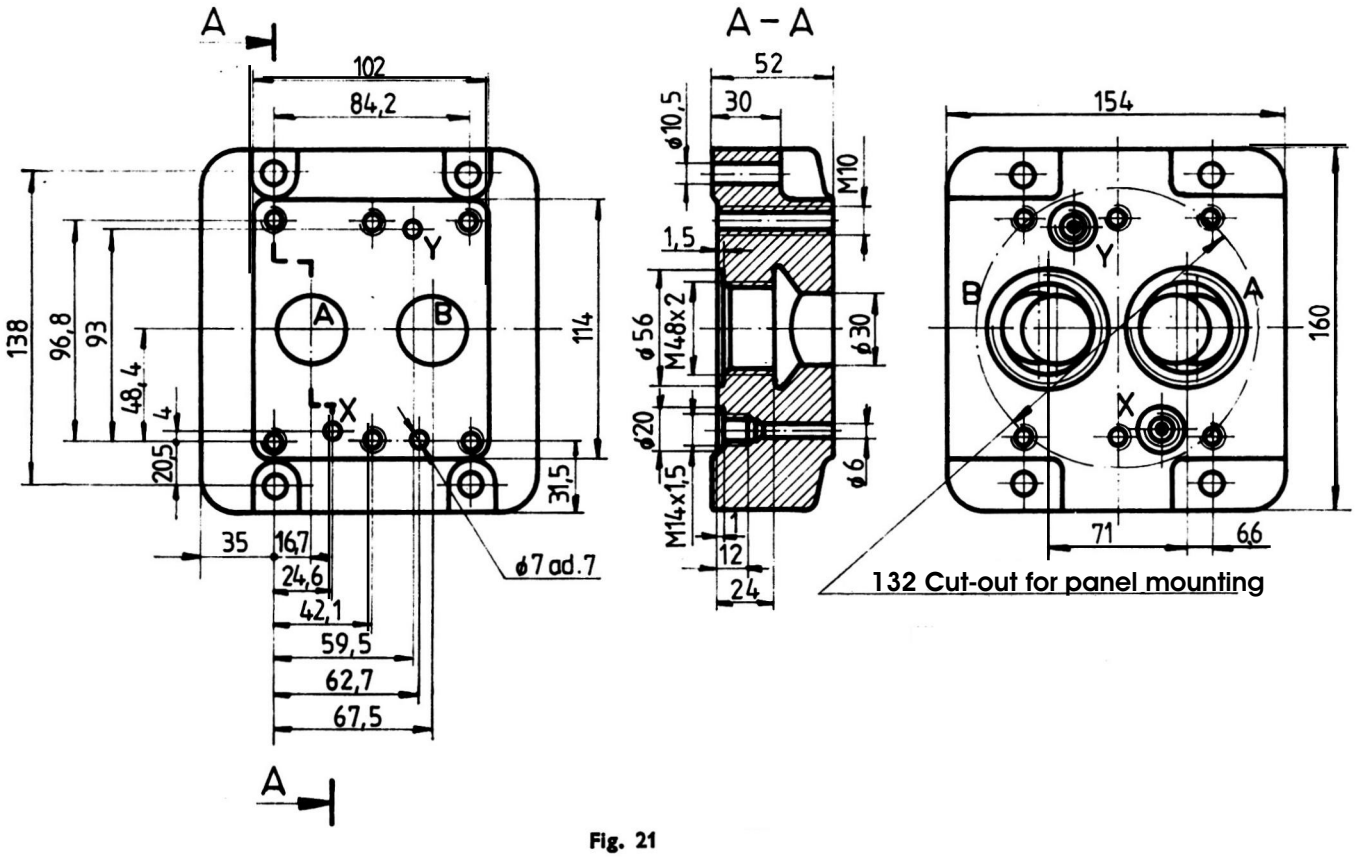


Fig. 21

SUBPLATE DIMENSIONS CONFORMING TO ISO 6264

Dn 10

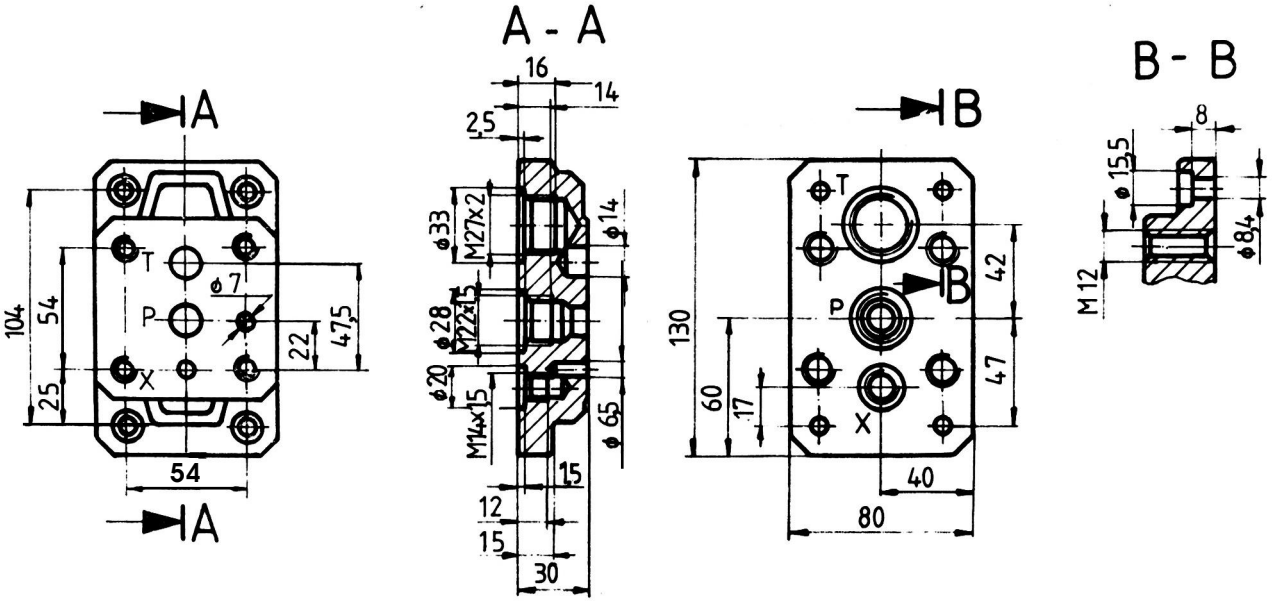


Fig. 22

NB 20

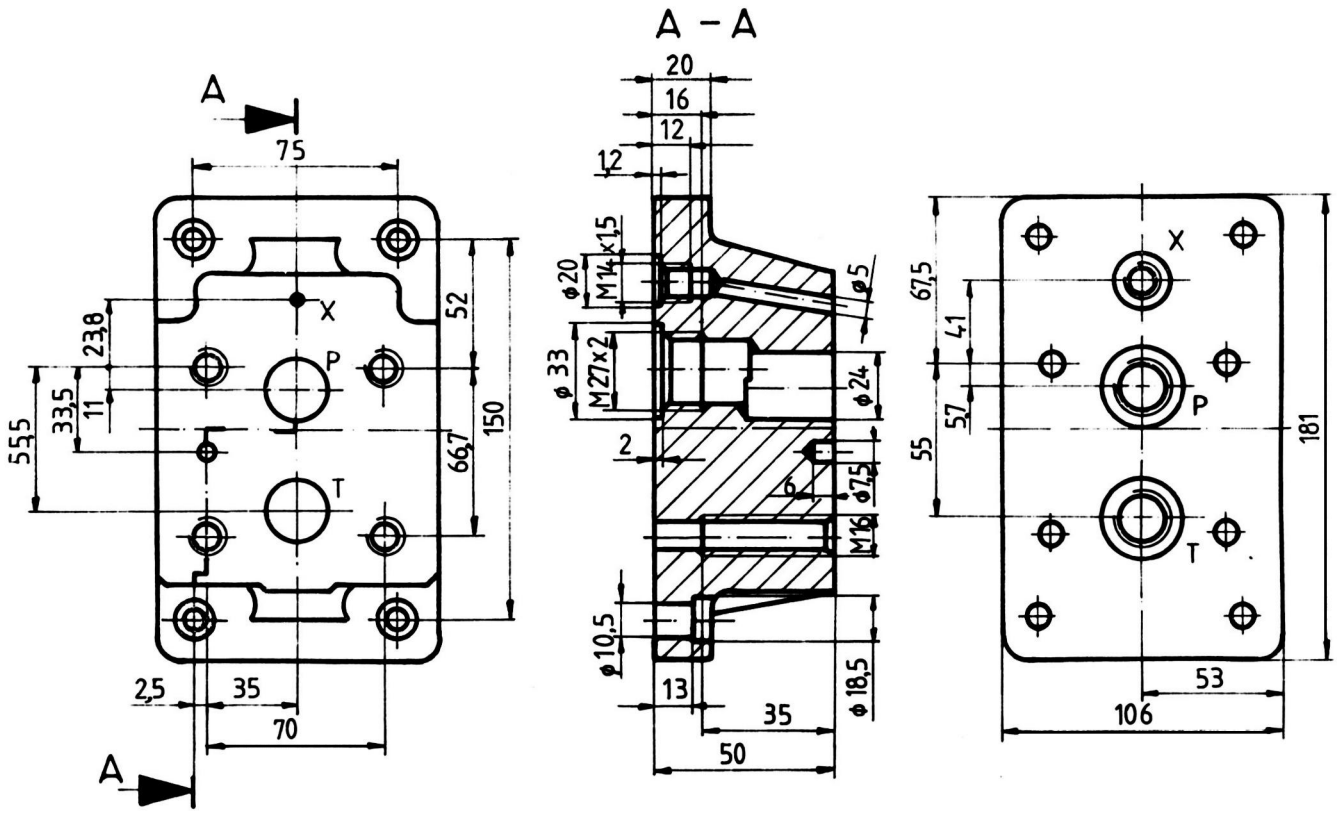


Fig. 23

NB 32

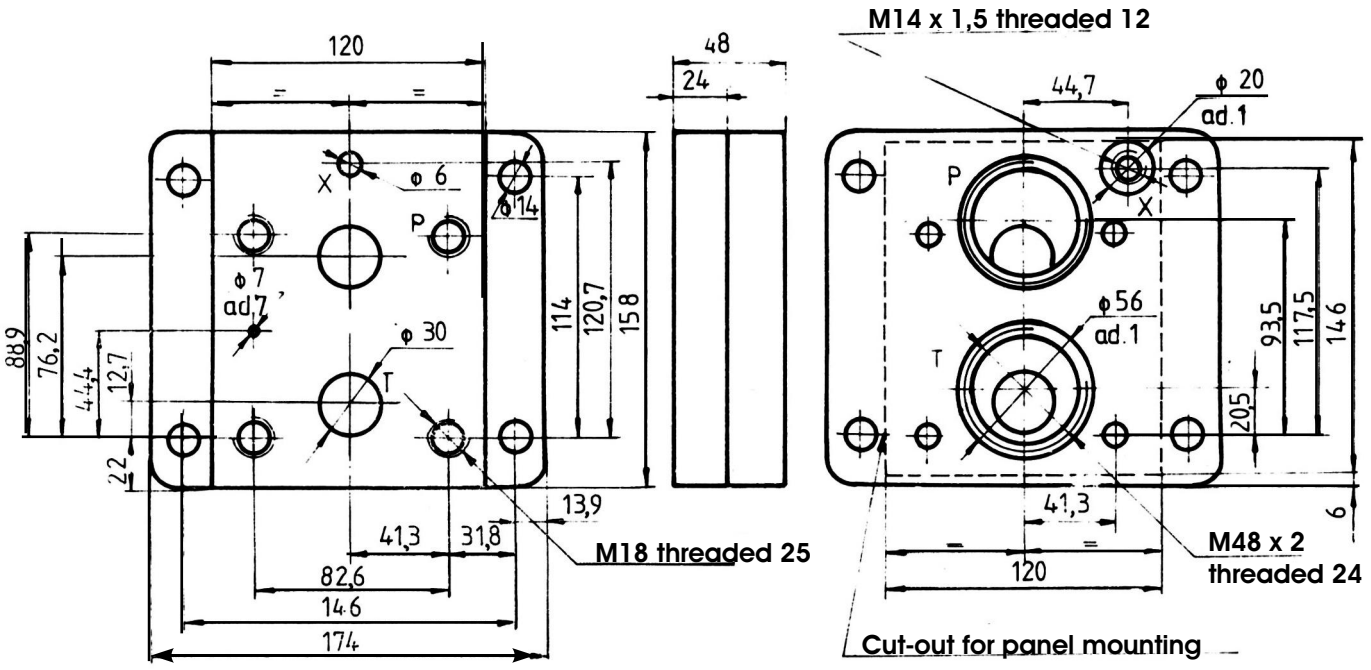


Fig. 24

NB	Model code	ISO	Fixing screws	Tightening torque daNm	Weight Kg
10	PBS 10-1	5781	M 10 x 80 SR ISO 4762: 1993 gr. 10.9	$5^{+1,3}$	1,300
	PBS 10-2	6264	M 12 x 75 SR ISO 4762: 1993 gr. 10.9	9^{+3}	1,500
20	PBS 20-1	5781	M 10 x 80 SR ISO 4762: 1993 gr. 10.9	$5^{+1,3}$	3,400
	PBS 20-2	6264	M 16 x 75 SR ISO 4762: 1993 gr. 10.9	24^{+5}	4,800
32	PBS 32-1	5781	M 10 x 100 SR ISO 4762: 1993 gr. 10.9	$5^{+1,3}$	5,0
	PBS 32-2	6264	M 18 x 115 SR ISO 4762: 1993 gr. 10.9	40^{+8}	6,0

MOUNTING DATA

Valves may be mounted on their own subplates or on other plates and manifolds provided with hydraulic circuits. In case valve is mounted on other plate than subplate, on must observe the conditions stipulated by ISO 5781 (STAS 12440/2-86), ISO 6264 (STAS 12440/3-86) respectively

MODEL CODE

1 2 3 4 5 - 6 7 8 - 9*/10* - 11**

* Only for 06 ED and 06 EI functions
** For climatic protected model, add at the end of model code /T1 or T2

1. S - Pressure control valve
2. P - Pilot control
3. Subplate mounting:
   P - connection diagram conf. ISO 5781 (all functions)
   1P - connection diagram conf. ISO 6264 (only functions 04, 06, 06 ED, 06 EL)
4. C - Cartidge type
5. Nominal bore
   10, 20, 32
6. Functions, conforming to tabel 1.
7. Adjusting range:
   1-7 ...315 bar
   5-6 ...80 bar
   2-6 ...160 bar
8. Adjusting device:
   M - hand wheel;
   G - micrometer scaled rotary knob w/out locking screw;
   S - with screw.
9/10. Solenoid voltage:
   024/00-24 V. DC
   220/50-220 V. AC
11. O - Series.