BIERI
HYDAC INTERNATIONAL

Subplates and multi-station subplates

Type AP700/RP700/ EP700

NG 6 to 25 l/min

Features

- Subplates (AP) and multi-station subplates (RP) with threaded connections
- End plate (EP)
- Compact design up to six stations possible (see product information multi-station subplates page 3)

Design

- All control lines with common pressure (P) and common tank connection (T)
- User ports (A and B) are situated on the side of the plate

Applications

- Basic elements for the build up of hydraulic circuits

Technical data

Hydraulic fluid	Mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	– 20 bis 80 °C
Ambient temperature range	– 30 to 50 °C
Viscosity range	5 to 400 mm^2/s
Porting	NG 6 according to DIN 24340 / ISO 4401 / CETOP RP 121 H
Max. operating pressure connection P, A, B	700 bar
Max. operating pressure connection T	350 bar
Max. flow rate	25 l/min^{-}
Filtration (recommendation)	According to NAS 1638, class 6 resp. ISO/DIN 4406 17/15/12
Weight	See dimension drawings
Material	Galvanized steel, black chromated

Order code

Example AP | 700 | - | 6 | - | A1 | - | V | - | | | 00

Subplates AP
Multi-station subplates RP
End plate EP

Type BV700

Nominal Size 6

Subplates:
Position threaded connections
A1 connection below
A2 Side connection
A3 Side connection A+B, P+T below, bore for DV P - T

Multi-station subplates:
Number of control lines
R2... 2 control lines
R3... 3 control lines
R4... 4 control lines
R5... 5 control lines
R6... 6 control lines
... G1/2 port P and T
... G3/8 port P and T

End plate: Z P, A, B and T closed

Seal material
AP -
RP -
EP V [FPM]
other seals material on request!

Special design
01 ... 99 (00 for standard)

Part index
Please leave blank (small letters a-d; defferent letters do not effect inter-changeability)

Desing revision
Capital letters A-Z; identical letters equal same connecting dimensions

Product information subplates AP700

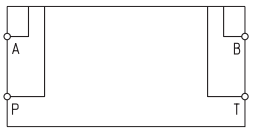
Type description	Position threaded connections	Weight ca. [kg]	Part No.
AP700-6-A1-B*00	Below	1,5	3641449
AP700-6-A2-B*00	Side	1,5	3647854
AP700-6-A3-B*00	A+B = side P+T = below	1,5	3667220 [1)]

1) Pressure relief cartridge has to be ordered seperately (see data sheet DV700)!

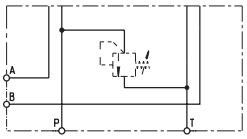
Hydraulic schematics

Connections below

Side connections

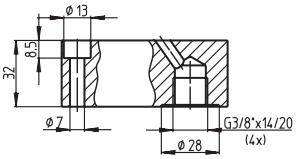


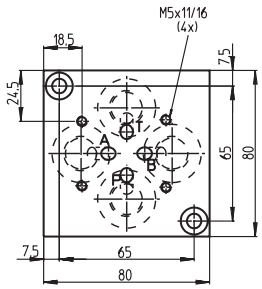
Side connections A+B / P+T below
Integrated pressure relief valve in P



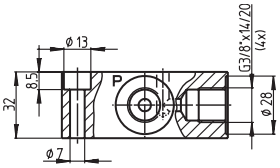
Dimensional drawings / Design revision B

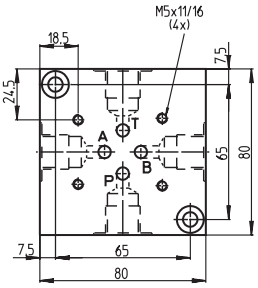
Connections below



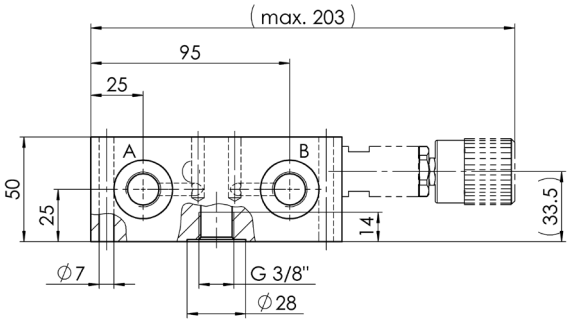


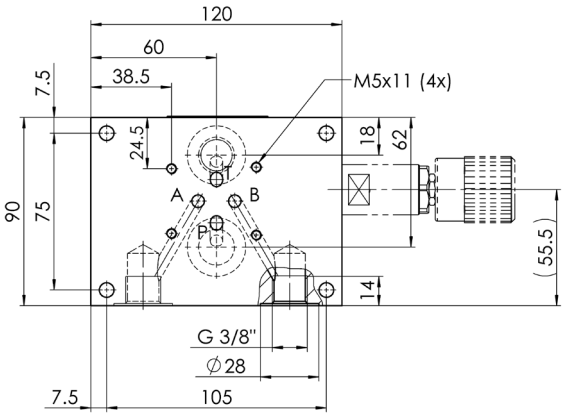
Side connections





Side connections A+B / P+T below
Integrated pressure relief valve in P



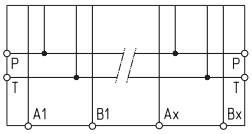


Product information multi-station subplates RP700

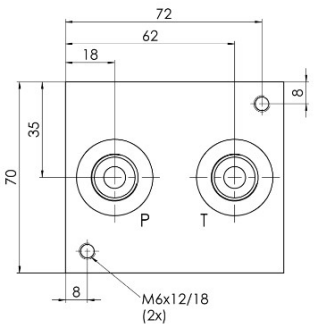
Type description	Connecting port P+T	Connecting port A+B	Number of contol lines	Dim. L* [mm]	Factor z*	max. pressure [bar]	Weight ca. [kg]	Part No.
RP700-6-R2G1/2-B*00	G1/2	G3/8	2	145	1	500	5,5	3676295
RP700-6-R3G1/2-B*00	G1/2	G3/8	3	200	2	500	7,5	3651748
RP700-6-R4G1/2-B*00	G1/2	G3/8	4	255	3	500	9,5	3677110
RP700-6-R5G1/2-B*00	G1/2	G3/8	5	310	4	500	11,5	3677111
RP700-6-R6G1/2-B*00	G1/2	G3/8	6	365	5	500	13,5	3649361
RP700-6-R2G3/8-B*00	G3/8	G3/8	2	145	1	700	5,5	4065994
RP700-6-R3G3/8-B*00	G3/8	G3/8	3	200	2	700	7,5	4066046
RP700-6-R4G3/8-B*00	G3/8	G3/8	4	255	3	700	9,5	4066047
RP700-6-R5G3/8-B*00	G3/8	G3/8	5	310	4	700	11,5	4066048
RP700-6-R6G3/8-B*00	G3/8	G3/8	6	365	5	700	13,5	4066049

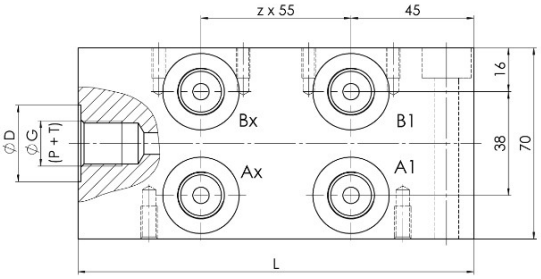
*See dimensional drawings below

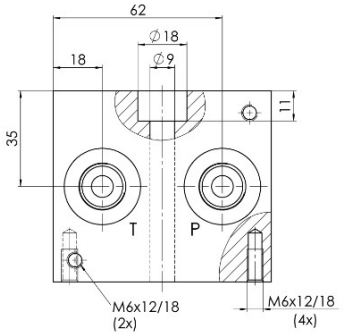
Hydraulic schematics

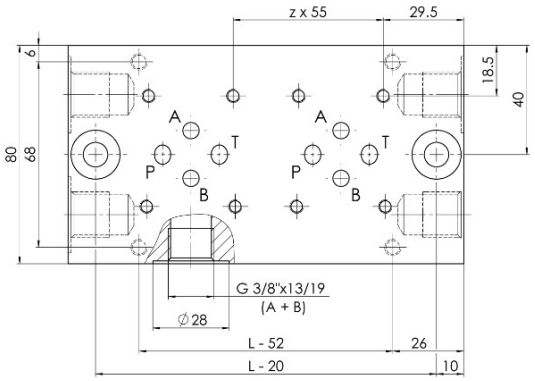


Dimensional drawings / Design revision B







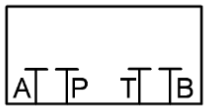


Product information end plate EP700

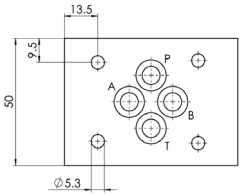
Type description	Weight ca. [kg]	Seal material	Part No.
EP700-6-Z-V-B*00	0,4	V [FPM]	4001384

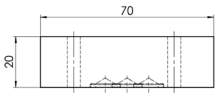
Note: For each plate are 4 pcs. O-Rings, 9,25x1,78 mm, 90° ShA included!
The connections P, A, B und T are closed!

Hydraulic schematics



Dimensional drawing

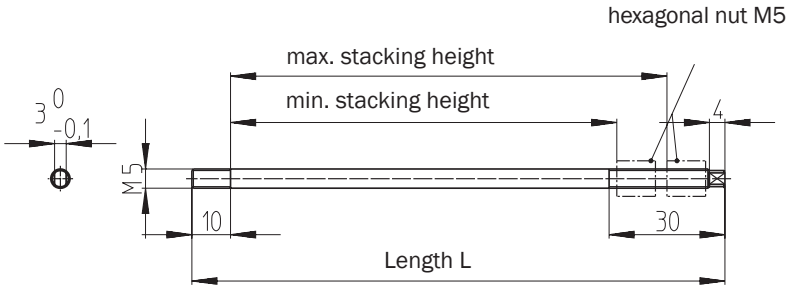




Sandwich arrangement

Stacking height

Total height of all elements without subplate AP700 or multi-station subplate RP700. Maximum stacking height 250 mm.



Valve and subplate height [mm]	Product description	Functions
20	End plate Intermediate plate for orifices or check valves	
40	Check valves pilot operated Pressure relief valves Shut-off valves	
50	Intermediate plates Unloading valves Throttle check valves Throttle valves Prop. pressure relief valves 2 l/min Seated valves, solenoid operated Seated valves, manual operated	 F, K, L, N, VO, VS, WO, WS L, N, VO, VS, WO, WS
63	Pressure reducing valves Load holding controlled lowering valves Seated valves, solenoid operated Seated valves, manual operated	 C, D, E, G, GB, H, P, J, M, R C, D, E, F, G, GB, H, J, K, M, P, R
78	Seated valves, solenoid operated Seated valves, manual operated	U U
120	Prop. pressure relief valves 25 l/min (incl. end plate, see data sheet PDV700)	

Mounting elements

To achieve correct functioning of the valve assembly, the bolts are to be tightened without twisting the bolt. Important: 4 ea. socket head screws or tie bolts have to be used!

Socket head screws
ISO 4762-M5xL-12.9
Tightening torque 8,5 Nm

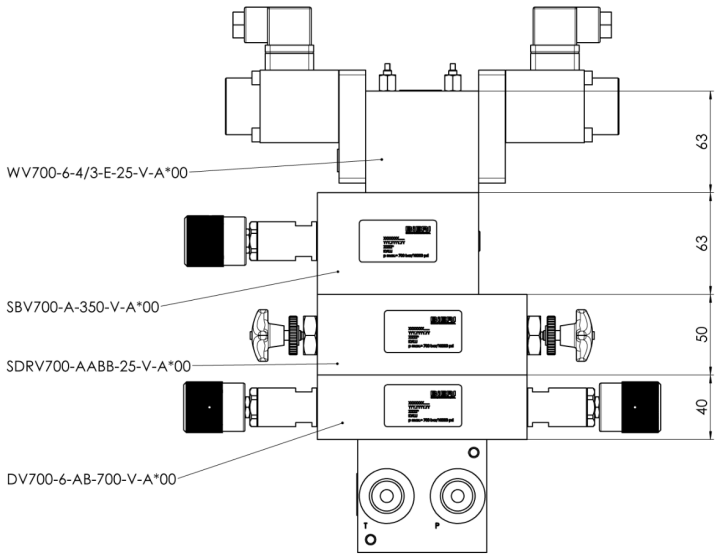
Stacking height [mm]	Length L [mm]	Part No.
20-23	30	604592
50–53	60	618287
55–58	65	6087369
60–63	70	6008834
65–68	75	684509
70–73	80	602854
78–83	90	602855
90–93	100	6026686
94-103	110	6032160

Tie bolts
M5xL-12.9 / tightening torque 10,0 Nm

Stacking height [mm]	Length L [mm]	Part No.
100–113	138	3661156
114–127	152	3689062
128–141	166	3689064
142–155	180	3689076
156–169	194	3689079
170–183	208	3689080
184–197	222	3689081
198–211	236	3689082
212–224	249	3689083
225–237	262	3689084
238–250	275	3689085

Hexegonal nut M5 x 2d, 12.9, SW10 Part No. 3661157

Calculation example tie bolt length



Valve-bank height* = 40+50+63+63 = **216mm**
L (Tie bolt length) = **249mm** (from the table above)

*according to dimensional drawings from the documentation

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