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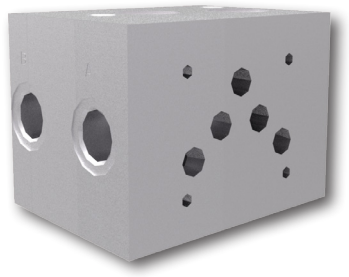
ARGO HYTOS

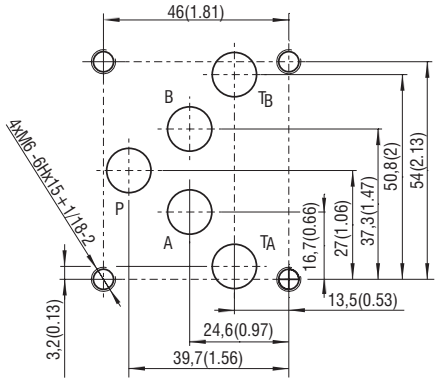
Serial Plates with Side Ports for ISO 4401-05 Valves

PD10

Size 10 (D05) • p_{max} 250 bar (3600 PSI)



ISO 4401-05-04-0-05



Ports P, A, B, T - max ∅11.2 mm (0.44 in)

Technical Features

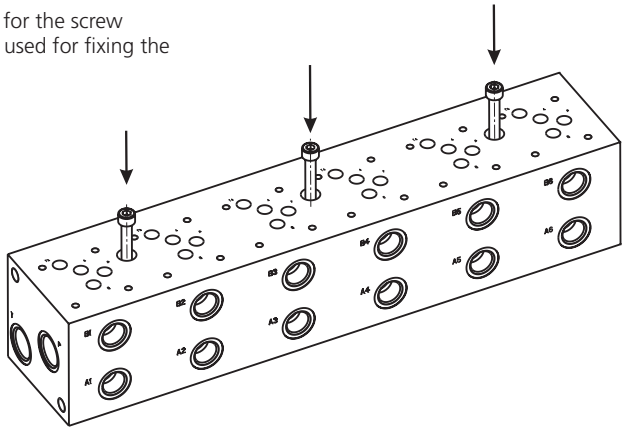
- Designed to connect in parallel two or more ISO 4401-05 (CETOP 05) valves to build compact hydraulics on each axis vertically
- Stackable models (version Z6 and Z10) with mounting interface for ZB06 or ZB10 hydraulic power unit.
- Flexible design of various stackable plates enables simple creation of circuits without the use of pipes and fittings.
- Maximum 6 parallel modular valve sections may be installed. Maximum flow rate can be increased up to double the output if the sub-plates are powered at both ends.
- Serial plates are available in aluminium. For other material consult our technical department for their identification and feasibility.
- Includes mounting stud kits for plate assembly
- In the standard version, the aluminium serial plate is without surface protection

Technical Data

Modular valves mounting surface		10 (D05)
Max. operating pressure (aluminium)	bar (PSI)	250 (3630)
Port threads (depending on model)		see table
Mass (depending on model)	kg (lbs)	see table
	Data Sheet	Type
General information	GI_0060	Products and operating conditions
Mounting surface	SMT_0019	Size 10 (D05)
Studs and nuts for vertical stacking assemblies		HA_0020

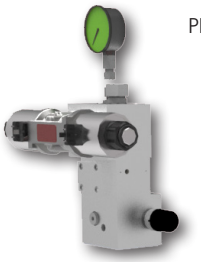
Functional Description

Design version NS (Not Stackable)
The plates of design version NS have from 1 up to 6 sections. They can be used only separately because they do not have any holes for studs. Outputs P1, T1, P, T on both sides have a countersink for a sealing ring.
NS plates have vertical holes for M8 screws. The holes have a countersink for the screw head on one side and connecting M10 thread on the other side. They are used for fixing the plates to a base or a frame.



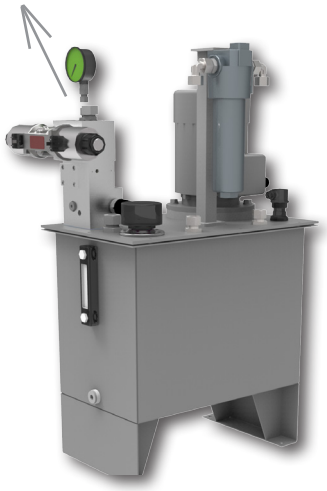
Six-section plate PD10–NS–A6/G10AI.
The plate can be fixed to a base or a frame with M8 or M10 screws.

Design version Z6 (Stackable for ZB06)
The plates of design version Z6 are intended for an assembly onto the top surface of manifold ZB06 of power packs SA4 to extend the control functions. Plates with1 up to 2 section are provided with two horizontal through-holes of diameter D 10.2 mm for M10 studs. Side outputs P1, T1 (on side of the last section) have a countersink for a sealing ring.



PD10-Z6-A2

Control circuit of SA power pack extended by plate PD10-Z6-A2 with a possibility to vertically group valves.



Design version Z10 (Stackable for ZB10)
The plates of design version Z10 are intended for an assembly onto the top surface of manifold ZB10 of power packs SA4 to extend the control functions. Plates with one section are provided with two horizontal through going holes of diameter D13 mm for M12 screws. Side outputs P1, T1 have a countersink for a sealing ring.

Ordering Code

PD10 - □ - □ □ / □ □ - AL □ - □

Serial plates for ISO 4401-05 (CETOP 05) valves

Nominal size

Design version

Non stackable	**NS**
Stackable – for ZB06 base plate	**Z6**
Stackable – for ZB10 base plate	**Z10**

Functional symbol (section)

A	C	BAS

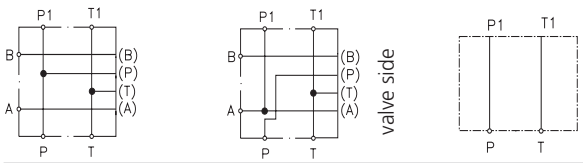


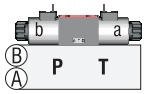
Plate with functional symbol C is produced only as a one section type PD10–Z6 – C1

Number of sections

1 section	**1**
2 sections	**2**
3 sections	**3**
4 sections	**4**
5 sections	**5**
6 sections	**6**

Number of sections	Design version
1 - 6	NS
1 - 2	Z6
1	Z10

Side location for A and B consumer ports, and valve position

AI	

Design version

NS, Z6, Z10

Material

AL	aluminium

Seals

No designation	without seal rings
N	NBR

Surface treatment

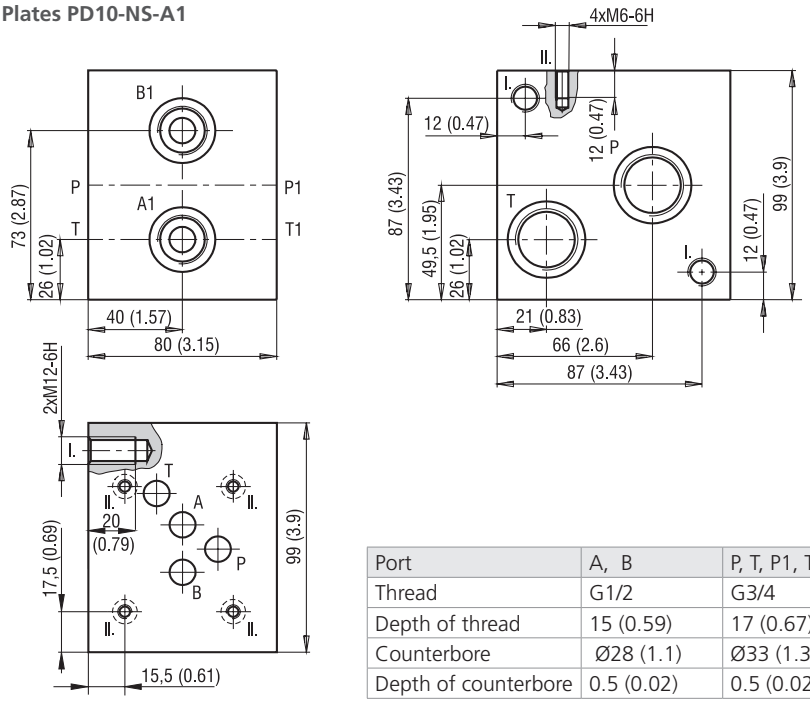
No designation	aluminium plate without treatment

Port threads

Designation	P	T	A	B	Used for version
G8	G3/8	G1/2	G1/2	G1/2	Z6
G9	G1/2	G1/2	G1/2	G1/2	Z10, BAS
G10	G3/4	G3/4	G1/2	G1/2	NS

The standardised PD plates, listed in this data sheet, are available. For other plate versions contact our technical department for their identification and feasibility.

Plates PD10-NS-A1

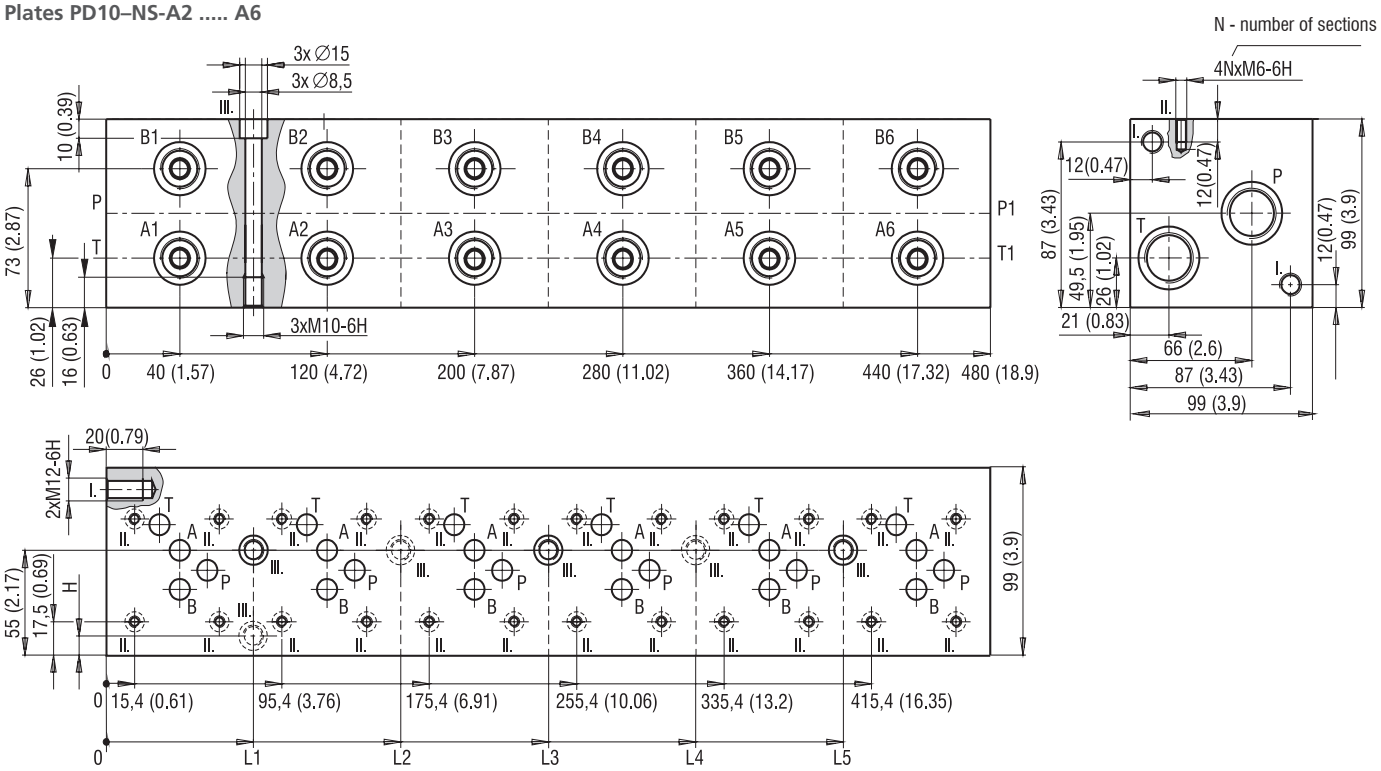


Port	A, B	P, T, P1, T1
Thread	G1/2	G3/4
Depth of thread	15 (0.59)	17 (0.67)
Counterbore	Ø28 (1.1)	Ø33 (1.3)
Depth of counterbore	0.5 (0.02)	0.5 (0.02)

List of standardised types

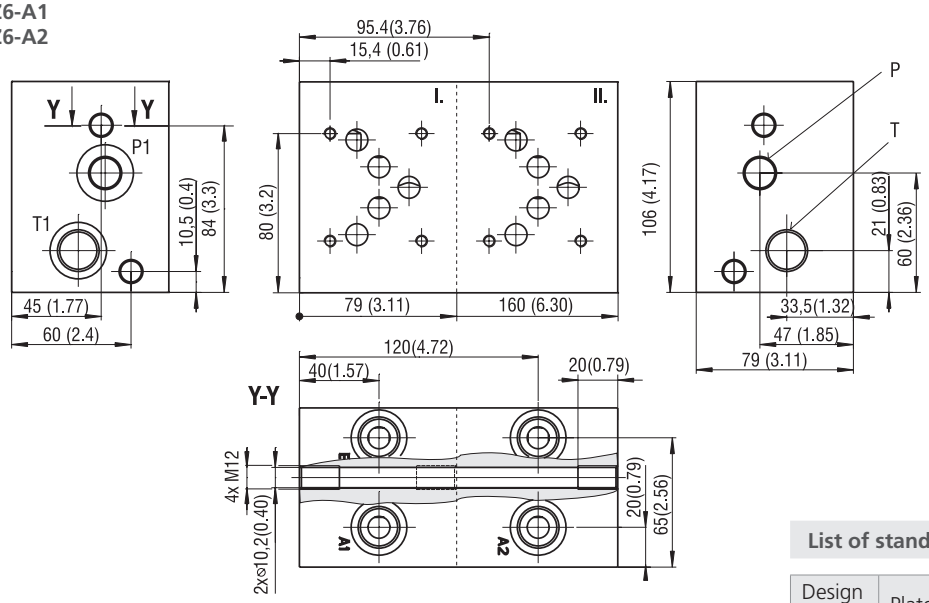
Design version	Plate - type	SAP
NS	PD10-NS-A1/G10AI-AL	16108400
	PD10-NS-A2/G10AI-AL	16108500
	PD10-NS-A3/G10AI-AL	16108600
	PD10-NS-A4/G10AI-AL	16108700
	PD10-NS-A5/G10AI-AL	16108800
	PD10-NS-A6/G10AI-AL	16108900

Plates PD10–NS-A2 ..... A6



Number of sections	L1	L2	L3	L4	L5	H	Mass of plates kg [lbs]
PD10A1-AL							2.32 (5.11)
PD10A2-AL	80	-	-	-	-	10	4.48 (9.88)
PD10A3-AL	80	160	-	-	-	-	6.62 (14.59)
PD10A4-AL	80	-	240	-	-	-	8.85 (19.51)
PD10A5-AL	80	-	240	320	-	-	11.03 (24.32)
PD10A6-AL	80	-	240	-	400	-	13.21 (29.12)

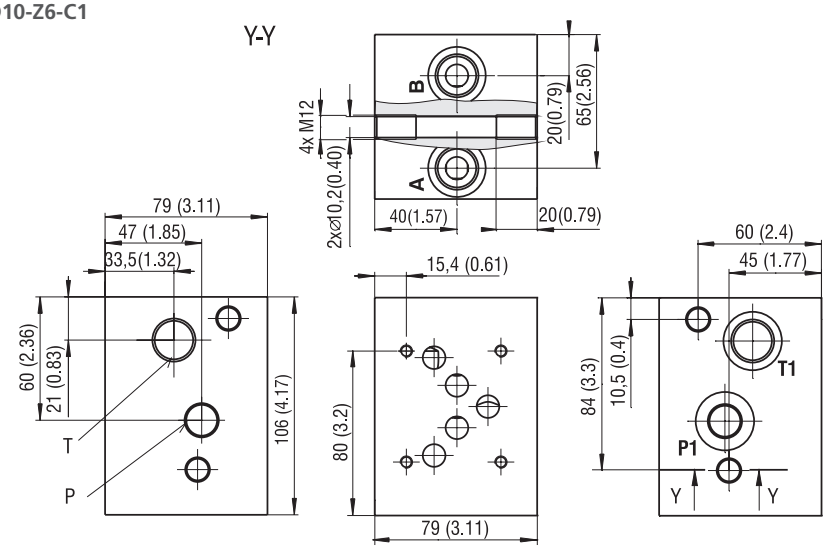
Stackable with mounting interface for ZB06 base plates
- PD10-Z6-A1
- PD10-Z6-A2



List of standardised types

Design version	Plate - type	SAP
Z6	PD10-Z6-A1/G8AI-AL	23698700
	PD10-Z6-A2/G8AI-AL	24608100
	PD10-Z6-C1/G8AI-AL	17954300

Stackable with mounting interface for ZB06 base plate
- PD10-Z6-C1



Port size Dimensions in millimeters (inches)					
Section	A1, A2, C				
Port	A, B	P	T	P1	T1
Thread	G 1/2	G 3/8	G 1/2	G 3/8	G 1/2
Depth of thread	15 (0.59)	15 (0.59)	15 (0.59)	15 (0.59)	15 (0.59)
Counterbore	∅28 (1.1)			∅28.4 (1.12)	∅28.4 (1.12)
Depth of counterbore	0.5 (0.02)			2.1 (0.8)	2.1 (0.8)
O-Ring [mm]				23.4x2.62	23.4x2.62

Assembly of PD10-Z6 plates
One threaded end of an M10 stud is screwed into the basic block, the plate is connected to the block with a nut and washer. The connecting set consists of two studs, spring washers and crown nuts. The torque of the nut is 35+3 Nm (25.8+2.2 ft-lbf).

Number of section	Total plate length L [mm (in)]	Steel basic block			
		Screw	SAP No.	Washer	SAP No.
1	79 (3.11)	M10x90 (2x)	20243300	D10.2 (2x)	20256100
		Stud			Set SAP No.
2	160 (6.30)	M10x192			16103200
		Aluminium basic block			
		Screw	SAP No.	Washer	SAP No.
1	79 (3.11)	M10x100 (2x)	20243400	D10.2 (2x)	20256100
		Stud			Set SAP No.
2	160 (6.30)	M10x199			23676900

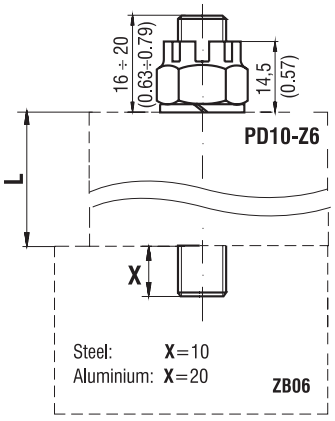
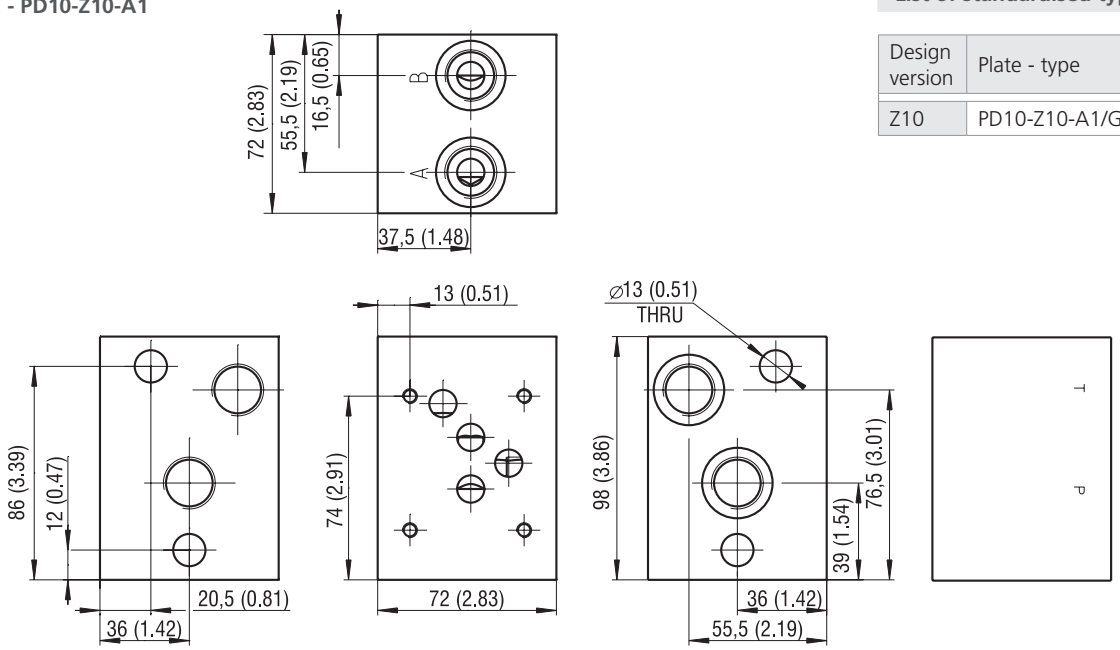


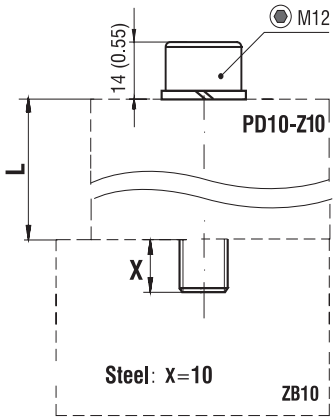
Plate Dimensions in millimeters (inches)

Stackable with mounting interface for ZB10 base plate - PD10-Z10-A1



List of standardised types

Design version	Plate - type	SAP
Z10	PD10-Z10-A1/G9AI-AL	24602800



Assembly of PD10-Z10 plates

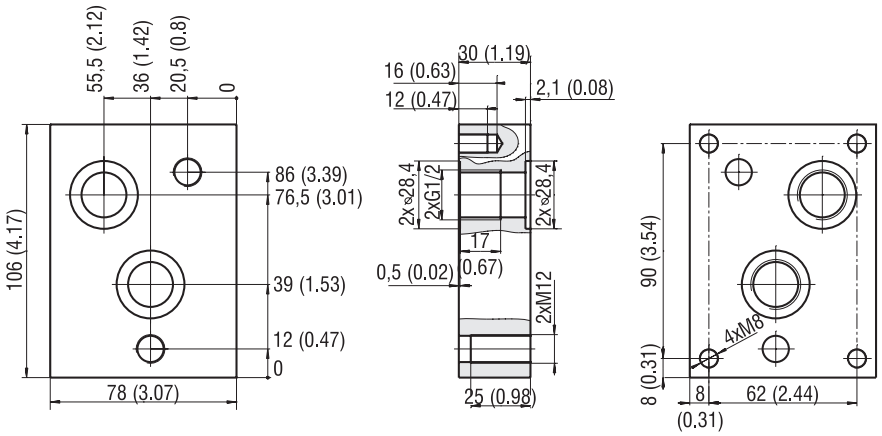
One section plate is connected to the basic block with two screws and washers. The torque for the M12 screws is 52+3 Nm (38.4+2.2 ft-lbf).

Number of section	Total plate length L [mm (in)]	Steel basic block Connecting set			
		Screw	SAP No.	Washer	SAP No.
1	72 (3.11)	M12x90 (2x)	20244500	D12.2 (2x)	20256200

Connecting plate BAS for PD10-Z10 plates

The connecting plate BAS can be used instead the basic block ZB10. The plate is mounted onto the surface of tank cover with 4 M8 screws. Two threaded openings are intended for M12 studs to connect PD10 plate. The BAS plate is connected to hydraulic circuit (P, T) with pipes or hoses on the underside.

PD10-Z10-BAS

List of standardised types

Design version	Plate - type	SAP
BAS	PD10-Z10-BAS/G9-ST-A	24600700