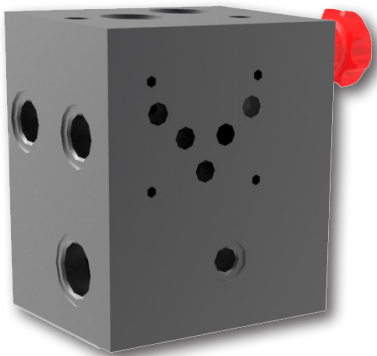


Base Plate with with Pressure Relief Valve for Serial Plates Assemblies

**ZB10**

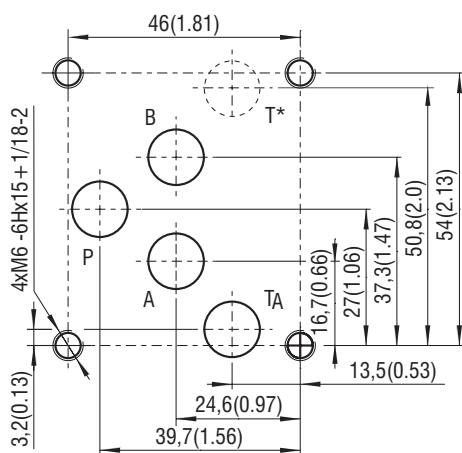
Size 10 (D05) •  $p_{max}$  320 bar (4600 PSI)



**Technical Features**

- › Tank cover mounted base manifold for hydraulic power packs which require one directional valve, optionally stackable with PD10-Z10 (Cat. 0008) serial plates
- › Designed for flange mounted valves with pattern acc. to ISO 4401-05 (CETOP 05)
- › Simplified models ZB10L\* for cost effective circuit design and assembly with stackable serial PD10-Z10 plates
- › Integrated functions for circuit unloading drain, main circuit check and pressure relief valves
- › Suitable for mounting the pump drive unit horizontally on the tank cover, or for vertical arrangement with the pump situated in the tank under the oil level
- › Variety of models support the build-up of systems with constant or regulated pumps
- › In the standard version, the ZB10A(B) manifold housing is zinc-coated for 520 h and the steel parts are uninc-coated for 240 h protection acc. to ISO 9227. Aluminium ZB10L manifold housing is without any surface protection

ISO 4401-05 (CETOP 05)



Ports P, A, B, T - max  $\varnothing$ 11.2 mm (0.44 in)

\*Port T\* only with model ZB10A(B)-QT2

**Technical Data**

Modular valves mounting surface		10 (D05)	
Cartridge cavity		M28x1.5 / QP2, M35x1.5 / QT2	
Max. operating pressure		aluminium 250 (3626)	
		steel 320 (4640)	
Max. flow		l/min (GPM)	50 (13.2) for QP2
			120 (31.7) for QT2
			ZB10A(B)-QP2(QT2)*ST*
			ZB10L-QT2*AL*
Port dimensions		Base plate	
		Simplified base plate	
		P1 ... G3/4	T1 ... G3/4
		A, B, P, T, PP2, D2, T1, T2, T3... G1/2	P, T, P1, D2, T2 ... G1/2
		M1, M2, M3 ... G1/4	M ... G1/4
		L2 ... G1/8	-
Mass	ZB10A(B)	kg (lbs)	steel 6.3 (13.9)
	ZB10L		aluminium 2.5 (5.5)

	Data sheet	Type
General information	GI_0060	Products and operating conditions
Cavity details / Mounting interface	SMT_0019	SMT-QP2*, SMT-QT2*
		Size 10 / CETOP 05

Studs and nuts for vertical stacking assemblies - Dn04, 06, 10\_0020

**Ordering Code**

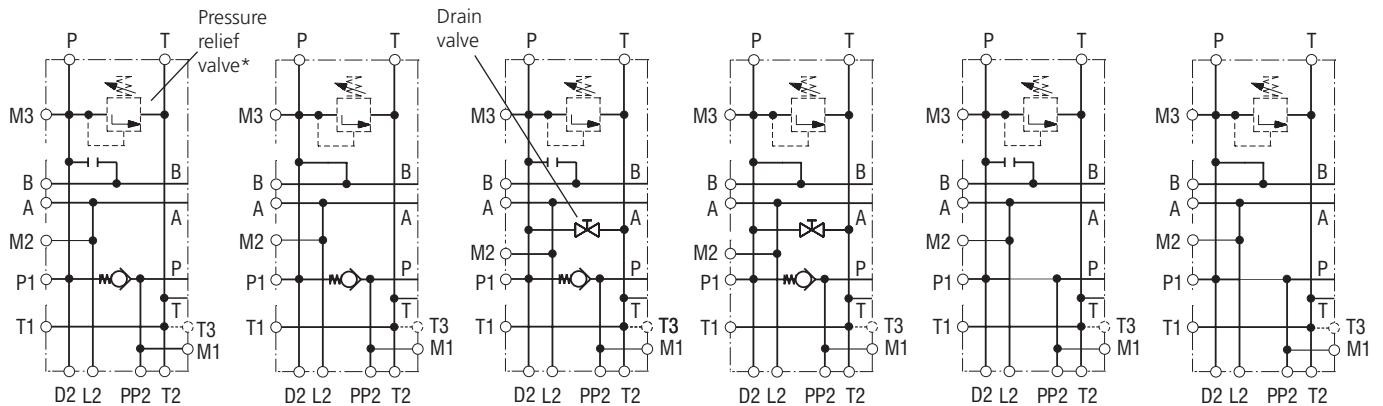
<p><b>ZB10</b></p> <p>Base manifold with pressure relief valve for PD serial plates assembly</p> <p>Size, mounting interface of serial plates base plate for PD10-Z10 serial plates</p> <p>Models with one mounting interface acc. to ISO 4401, DIN 24340 (CETOP 05) with check valve without check valve</p> <p>Models without mounting interface acc. to ISO 4401, DIN 24340 (CETOP 05) without check valve</p> <p>Pressure relief valve cavity M28x1.5 / QP2 (VPP1-06, VPP2-06)* M35x1.5 / QT2 (VPP1-10)*</p> <p>*Pressure relief valve is not supplied with the ZB block see catalogue: HA_5061 (VPP1-06, VPP1-10), HA_5062(VPP2-06)</p>	<p><b>□ - □ - □ - □</b></p> <p><b>A</b></p> <p><b>B</b></p> <p><b>L</b></p> <p><b>QP2</b></p> <p><b>QT2</b></p>	<p><b>K - □</b></p> <p><b>AL</b></p> <p><b>ST</b></p> <p><b>1</b></p> <p><b>3</b></p> <p><b>11</b></p> <p><b>12</b></p> <p><b>21</b></p> <p><b>22</b></p>	<p><b>Surface treatment</b></p> <p><b>No designation</b> aluminium manifold without treatment</p> <p><b>B</b> zinc-coated (ZnNi), ISO 9227 (520 h)</p> <p><b>Seals</b></p> <p><b>K</b> seal plate for oil tank cover assembly</p> <p><b>Material of base manifold</b></p> <p>aluminium, EN AW-7075 T6*</p> <p>steel**</p> <p>*only for „ZB10L“ models</p> <p>**only for „ZB10A(B)“ models</p> <p><b>Design models for ZB10L types</b></p> <p>T return line from bottom side</p> <p>two T return lines from plate and bottom side</p> <p><b>Design models for ZB10A(B)</b></p> <p><b>+</b> <b>Connection P-B</b></p> <p>without P-B ports connection</p> <p>with P-B ports connection</p> <p>without P-B ports connection</p> <p>with P-B ports connection</p>
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## Functional Symbols

### Models for flange mounted valves with pattern acc. to ISO 4401-05 (CETOP 05)

with check valve				without check valve	
ZB10A*-11	ZB10A*-12	ZB10A*-21	ZB10A*-22	ZB10B*-11	ZB10B*-12

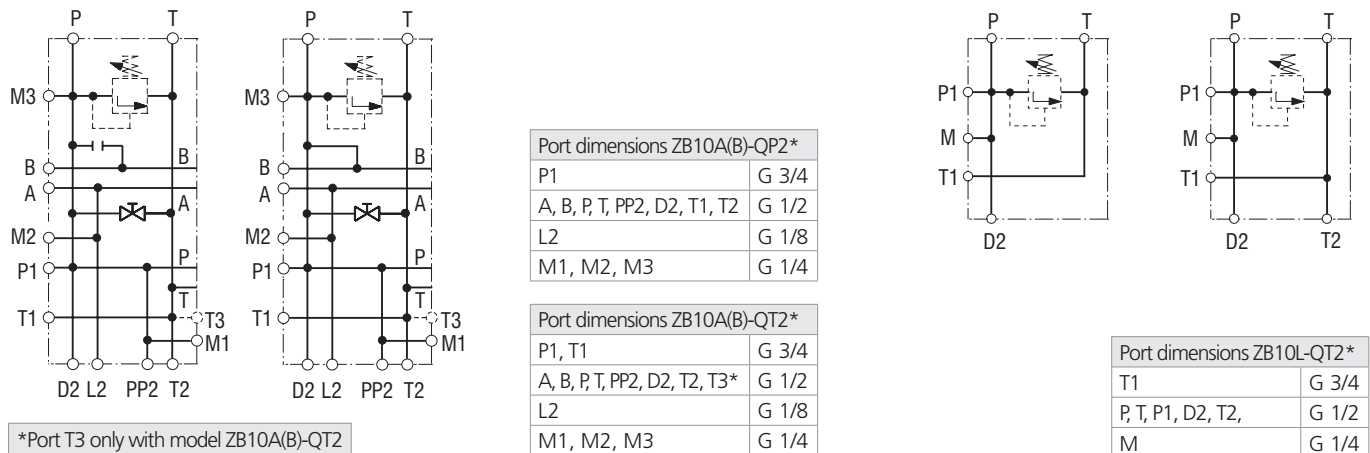
mounting interface of PD10-Z10 (cat. 0008) serial plates



### Models for flange mounted valves with pattern acc. to ISO 4401-05 (CETOP 05)

without check valve		Simplified models ZB10L* without mounting pattern for modular valve	
ZB10B*-21	ZB10B*-22	ZB10L*-1	ZB10L*-3

mounting interface of PD10-Z10 (cat. 0008) serial plates



Pressure relief valve is not supplied with the ZB block

## Application

Tab. 1	ZB10A(B)QP2*ST, zinc-coated		
Ordering number	Type	Pressure [bar]	Weight [kg]
23442001	ZB10A-QP2-11-STK-B	320	cca 6.3
23440601	ZB10A-QP2-21-STK-B	320	
30843100	ZB10A-QP2-12-STK-B	320	
30843200	ZB10A-QP2-22-STK-B	320	
23440501	ZB10B-QP2-11-STK-B	320	
23441801	ZB10B-QP2-21-STK-B	320	
30843300	ZB10B-QP2-12-STK-B	320	
30843400	ZB10B-QP2-22-STK-B	320	

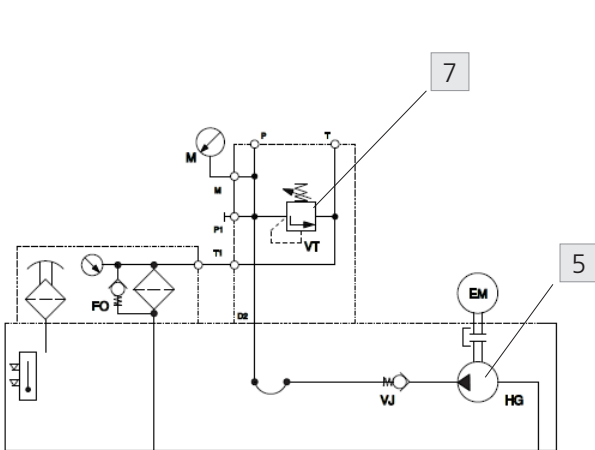
Tab. 2	ZB10A(B)QT2*ST, zinc-coated		
Ordering number	Type	Pressure [bar]	Weight [kg]
32861900	ZB10A-QT2-11-STK-B	320	cca 9.3
34046400	ZB10A-QT2-21-STK-B	320	
34046600	ZB10A-QT2-12-STK-B	320	
34046900	ZB10A-QT2-22-STK-B	320	
34047400	ZB10B-QT2-11-STK-B	320	
34047700	ZB10B-QT2-21-STK-B	320	
34047800	ZB10B-QT2-12-STK-B	320	
34047900	ZB10B-QT2-22-STK-B	320	

Tab. 3	ZB10LQT2* AL, aluminium versions		
Ordering number	Type	Pressure [bar]	Weight [kg]
34048000	ZB10L-QT2-1-AL	250	cca 2.3
31785300	ZB10L-QT2-3-AL	250	

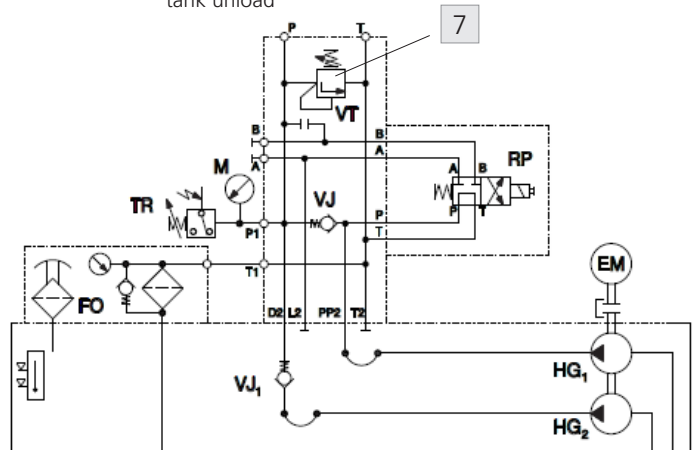
Available types

**Typical circuit** This block enables a great number of circuit arrangements. The shown example represents only one of many possible variants.

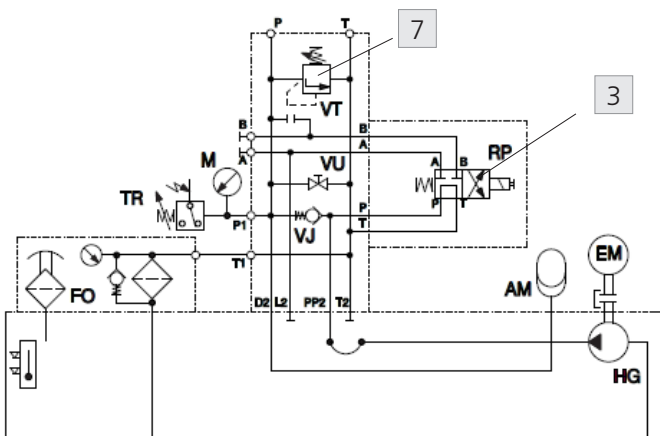
**ZB10L\*-1** Basic pressure circuit protection and connection with gear pump and return filter



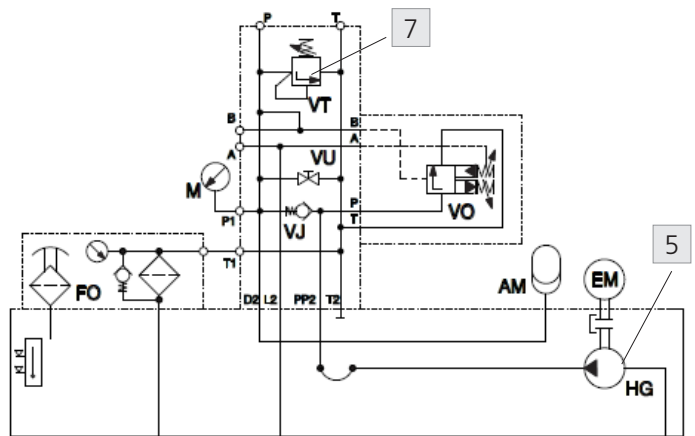
**ZB10A\*-11** Basic pressure circuit protection and connection with tandem gear pump and return filter with one pump tank unload



**ZB10A\*-21** System with accumulator

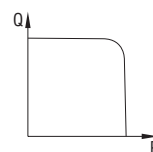
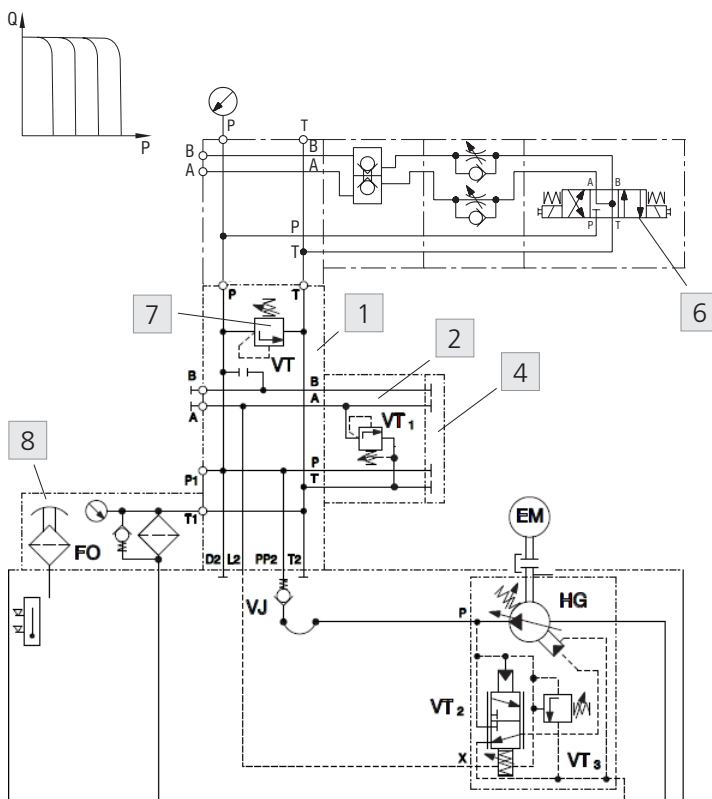


**ZB10A\*-22** System with accumulator and accumulator charging valve

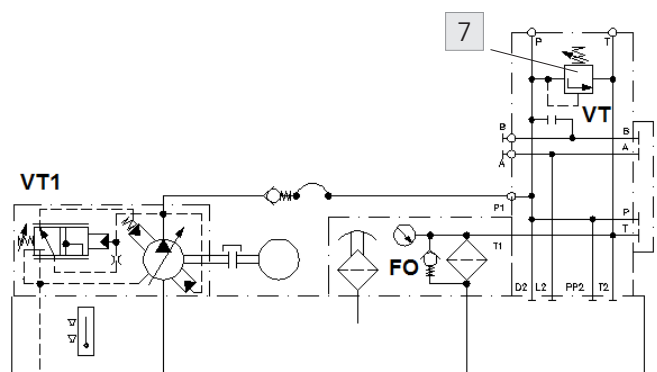


**ZB10B\*** Constant pressure regulation with relief valve (remote control)

**ZB10B\*** Constant pressure regulation (setting on the pump)

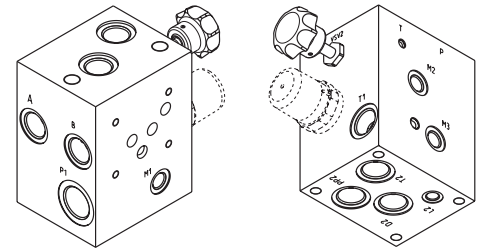
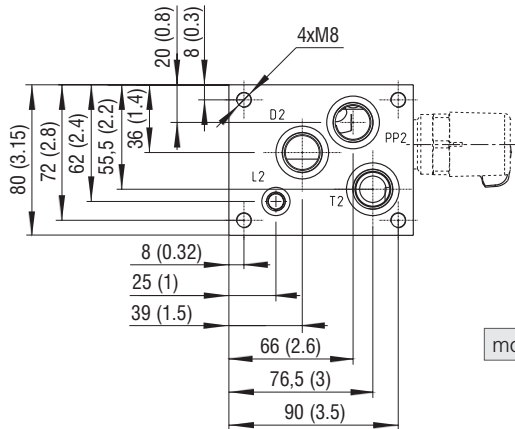


1	Serial plate PD10-Z10
2	Pressure relief valve VPN2-10/M
3	Directional valve RPE4-102R11
4	Blanking plate for ISO 4401 Modular Valve
5	Gear pumps GP*
6	Directional valve RPE4-10
7	Pressure relief valve VPP1-10, VPP1-06, VPP2-06
8	Return line filter

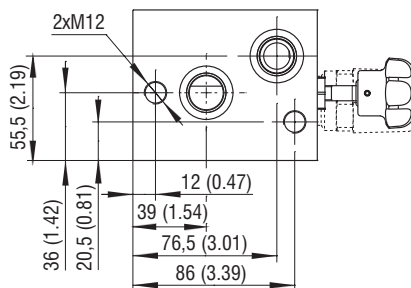
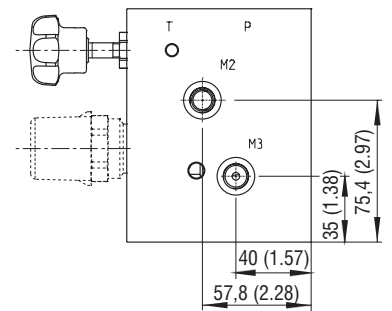
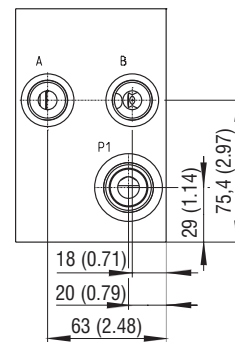
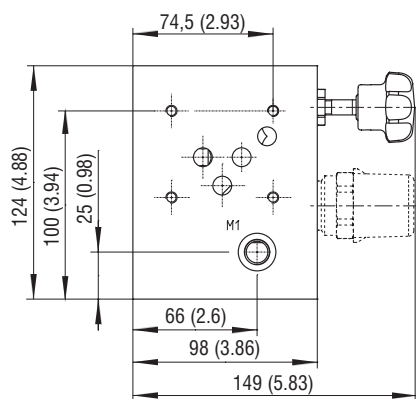
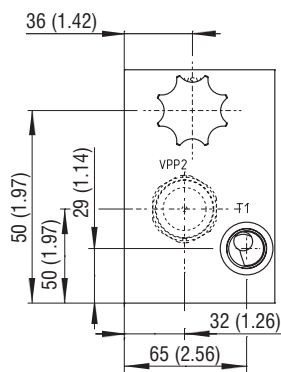


Dimensions in millimeters (inches)

Model ZB10A-QP2\*



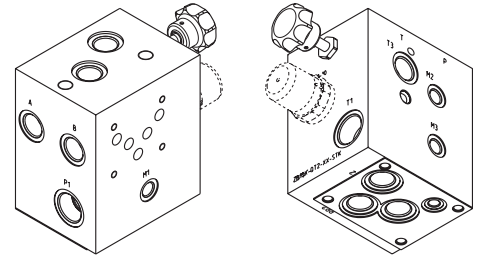
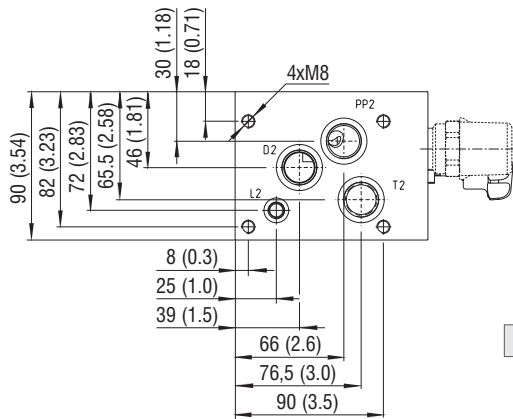
mounting interface of PD10-Z10 (cat. 0008) serial plates



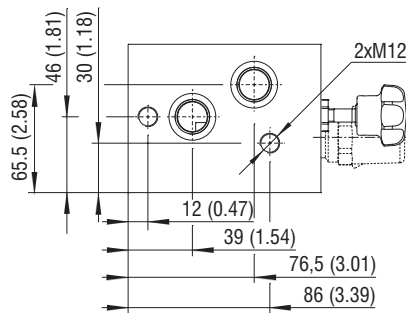
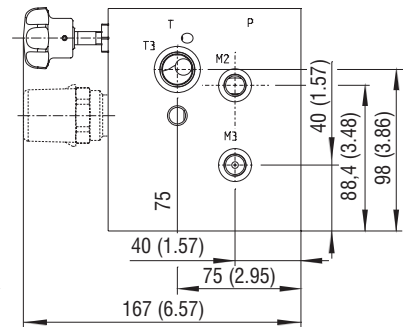
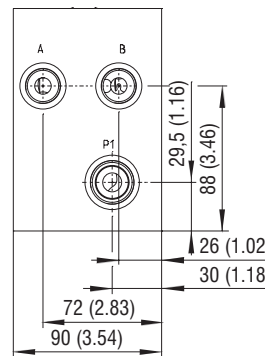
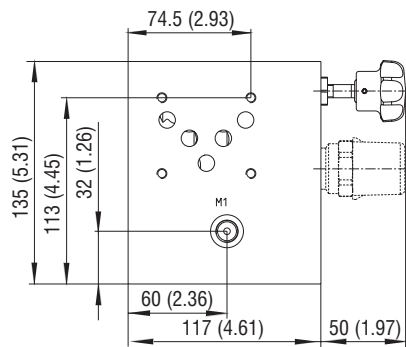
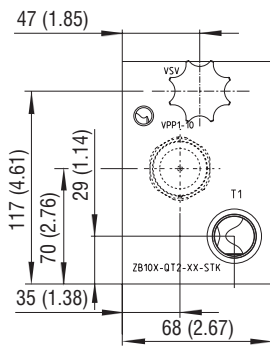
ZB10A(B)*	Size of ports Dimensions in millimeters (inches)					
Port	P1	P, T,	L2	M1, M2, M3	A, B, PP2, D2, T2, T3	T1
Thread	G 3/4	G 1/2	G 1/8	G 1/4	G 1/2	G 1/2
Depth of thread	16 (0.63)	14 (0.55)	8 (0.31)	12 (0.47)	14 (0.55)	14 (0.55)
Counterbore	∅33 (1.30)	∅28 (1.10)	∅15 (0.59)	∅20 (0.79)	∅28 (1.10)	∅28 (1.10)
Depth of counterbore	1 (0.03)	1 (0.03)	0.5 (0.02)	1 (0.03)	1 (0.03)	1 (0.03)
O-Ring [mm]		23.81x2.62				

Dimensions in millimeters (inches)

Model ZB10A-QT2\*



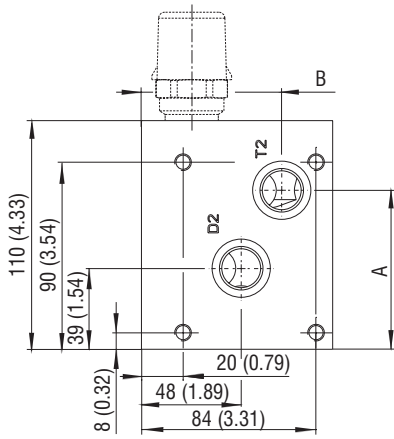
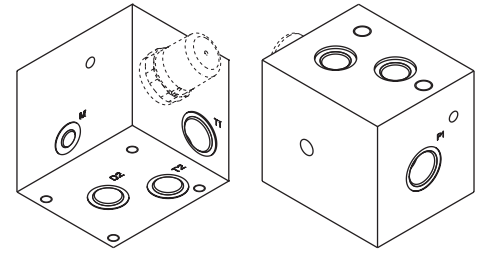
mounting interface of PD10-Z10 (cat. 0008) serial plates



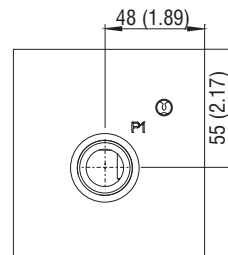
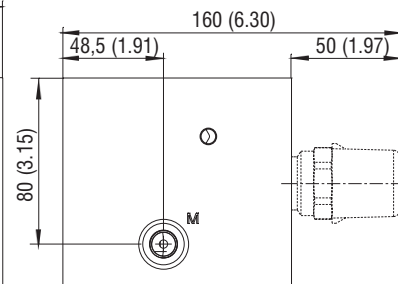
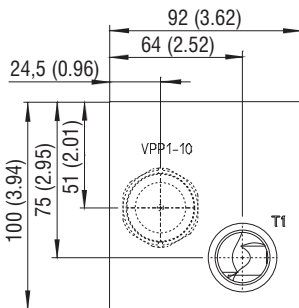
ZB10A(B)*	Size of ports Dimensions in millimeters (inches)					
	P1	P, T,	L2	M1, M2, M3	A, B, PP2, D2, T2, T3	T1
Thread	G 3/4	G 1/2	G 1/8	G 1/4	G 1/2	G 3/4
Depth of thread	16 (0.63)	14 (0.55)	8 (0.31)	12 (0.47)	14 (0.55)	16 (0.63)
Counterbore	∅33 (1.30)	∅28 (1.10)	∅15 (0.59)	∅20 (0.79)	∅28 (1.10)	∅33 (1.30)
Depth of counterbore	1 (0.03)	1 (0.03)	0.5 (0.02)	1 (0.03)	1 (0.03)	1 (0.03)
O-Ring [mm]		23.81x2.62				

Dimensions in millimeters (inches)

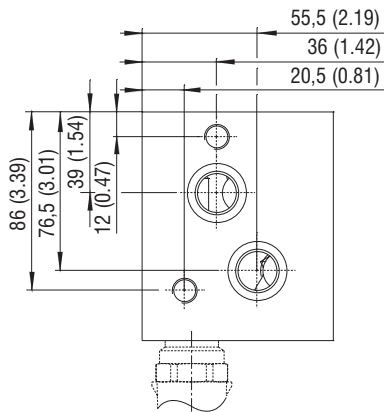
Model ZB10L\*



mounting interface of PD10-Z10 (cat. 0008) serial plates



	Dimension [mm (in)]	
	Model	
	L*1	L*3
A	-	76,5 (3.01)
B	-	60 (2.36)
Port	-	T2



ZB10L*	Size of ports			
	Dimensions in millimeters (inches)			
Port	T1	P, T,	P1, D2, T2	M
Thread	G 3/4	G 1/2	G 1/2	G 1/4
Depth of thread	16 (0.63)	14 (0.55)	14 (0.55)	12 (0.47)
Counterbore	∅33 (1.30)	∅28 (1.10)	∅28 (1.10)	∅20 (0.79)
Depth of counterbore	1 (0.03)	1 (0.03)	1 (0.03)	1 (0.03)
O-Ring [mm]		23.81x2.62		