

DZC*

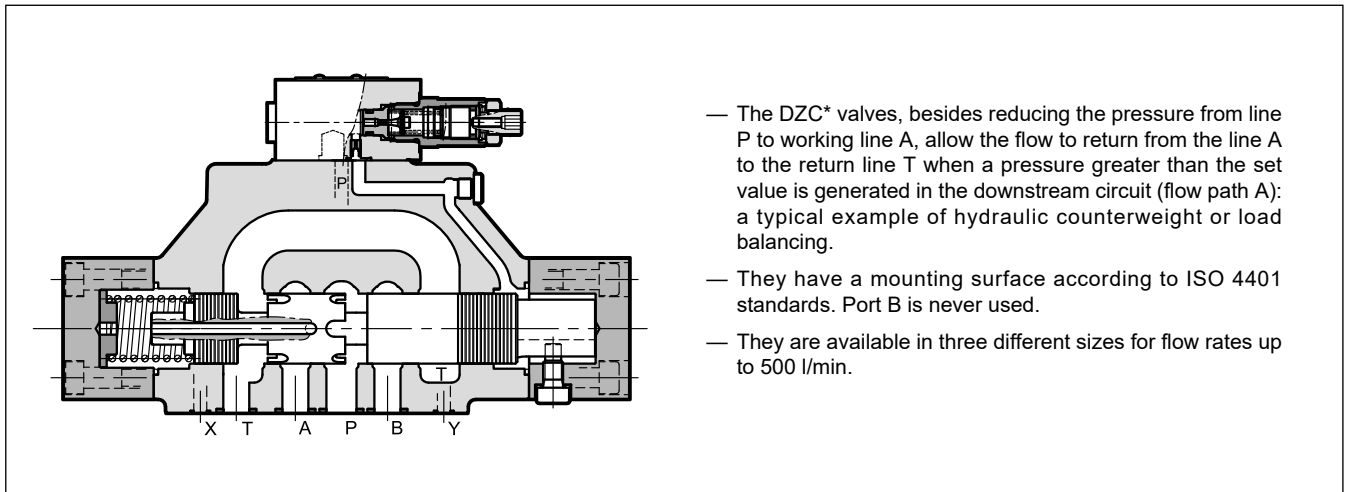
THREE-PORT PRESSURE REDUCING VALVES

SERIES 20

DZC5 **CETOP P05**
DZC5R **ISO 4401-05**
DZC7 **ISO 4401-07**
DZC8 **ISO 4401-08**

p max **350** bar
Q max (see table of performances)

OPERATING PRINCIPLE

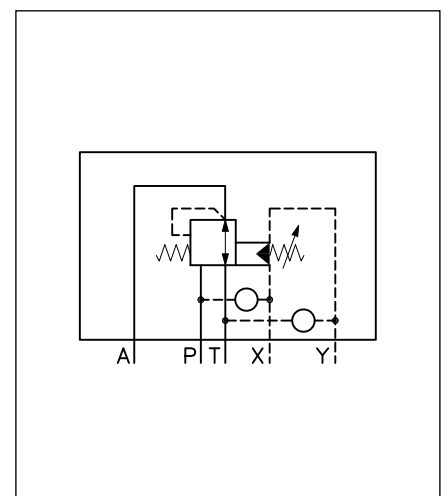


PERFORMANCES

(obtained with mineral oil with viscosity of 36 cSt at 50°C)

		DZC5 DZC5R	DZC7	DZC8
Maximum operating pressure	bar	350		
Maximum flow	l/min	150	300	500
Pilot flow rate	l/min	1.1		
Ambient temperature range	°C	-20 / +60		
Fluid temperature range	°C	-20 / +80		
Fluid viscosity range	cSt	10 ÷ 400		
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15			
Recommended viscosity	cSt	25		
Mass	kg	5.6	7.3	14.1

HYDRAULIC SYMBOL (typical)



1 - IDENTIFICATION CODE

	D	Z	C	-		/	20	-		/	
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Three-port pressure reducing valve

Nominal size: _____
5 = CETOP P05 (**NOTE**)
5R = ISO 4401-05
7 = ISO 4401-07
8 = ISO 4401-08

Pressure adjustment range: _____
070 = 2 ÷ 70 bar
140 = 2 ÷ 140 bar
210 = 2 ÷ 210 bar
280 = 2 ÷ 280 bar

Series No. (the overall and mounting dimensions remain unchanged from 20 to 29) _____

Omit for adjustment with socket hex screw (**standard**)
K1 = adjustment knob

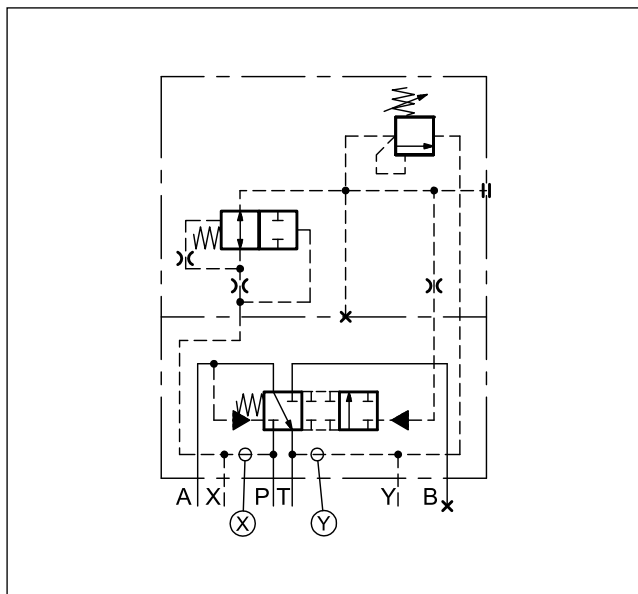
Drainage: **I** = internal
E = external

Piloting: **I** = internal
E = external

Seals:
N = NBR seals for mineral oil (**standard**)
V = FPM seals for special fluids

NOTE: This version is interchangeable with the previous model ZC4 Duplomatic

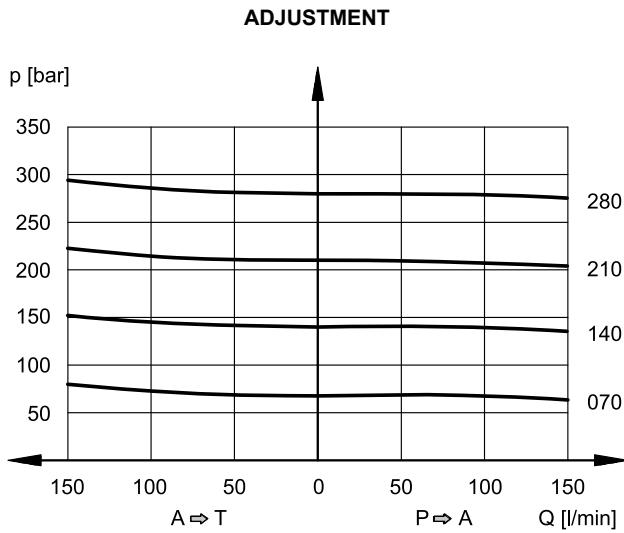
2 - DETAILED SYMBOL



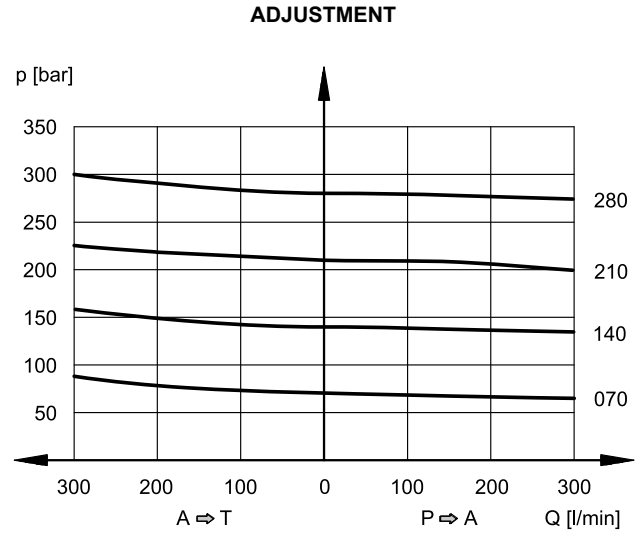
3 - CHARACTERISTIC CURVES

(obtained with mineral oil with viscosity of 36 cSt at 50 °C)

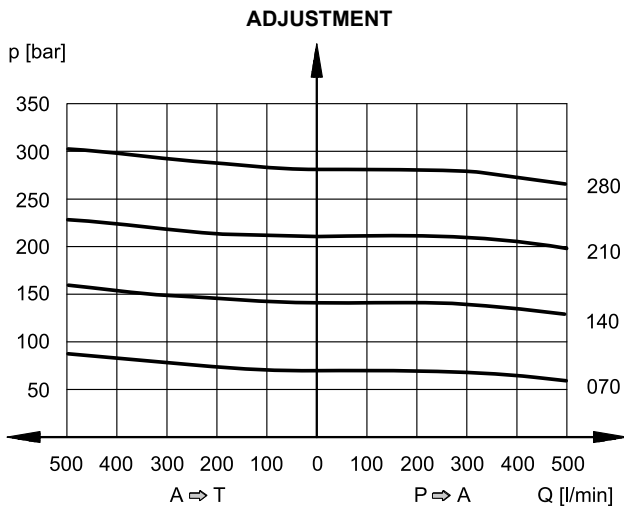
3.1 - Characteristic curves DZC5 and DZC5R



3.2 - Characteristic curves DZC7



3.3 - Characteristic curves DZC8



4 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals (code N). For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics.

The fluid must be preserved in its physical and chemical characteristics.

5 - PILOTING AND DRAINAGE

The DZC* valves are available with pilot and drain both internal and external. The version with external drain allows a higher back pressure on the discharge line.

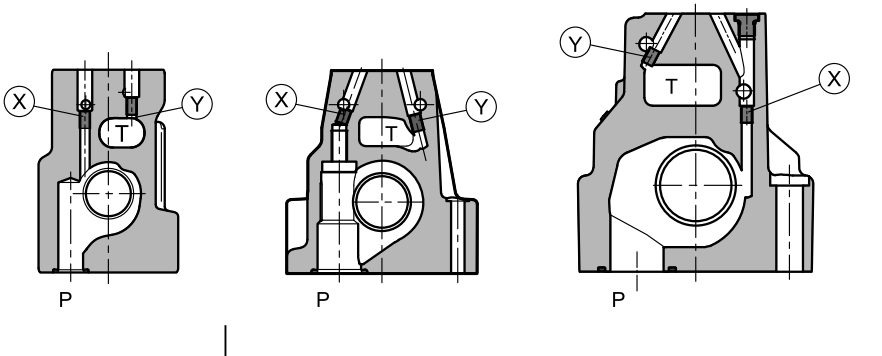
NOTE: The configuration of pilots and drains must be chosen when ordering. Subsequent modifications are allowed only to specialized operators with authorization and in factory.

TYPE OF VALVE	Plug assembly	
	X	Y
IE internal pilot and external drain	NO	YES
II internal pilot and internal drain	NO	NO
EE external pilot and external drain	YES	YES
EI external pilot and internal drain	YES	NO

DZC5 and DZC5R

DZC7

DZC8



X: M5x6 plug for external pilot
Y: M5x6 plug for external drain

X: M6x8 plug for external pilot
Y: M6x8 plug for external drain

PRESSURES (bar)

Pressure	MAX
Piloting pressure on external X port	350 (NOTE)
Pressure on T port with internal drain	2
Pressure on T port with external drain	250

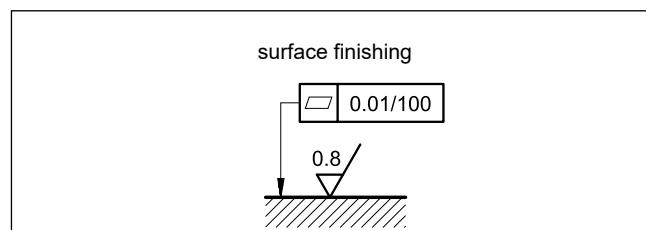
NOTE: Pilot pressure must be 10% higher than the set value for the reduced pressure, in order to let the valve work properly.

6 - INSTALLATION

The DZC* valves can be installed in any position without impairing correct operation. Connect the valve T port directly to the tank. Add any backpressure value detected in the T line to the controlled pressure value.

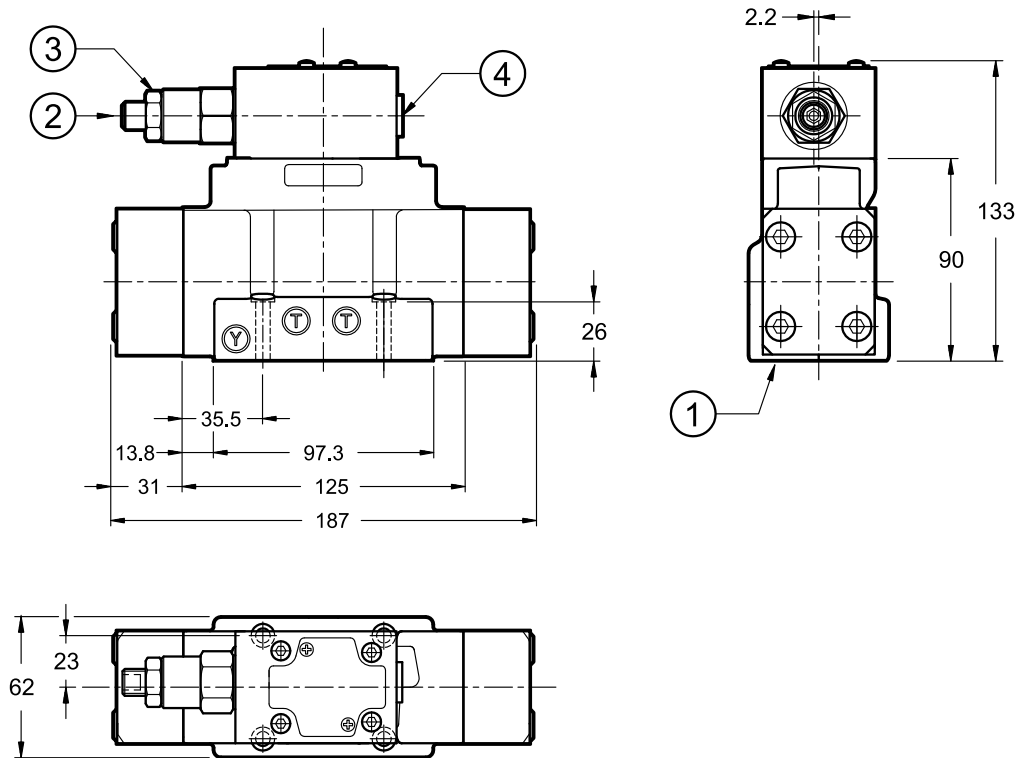
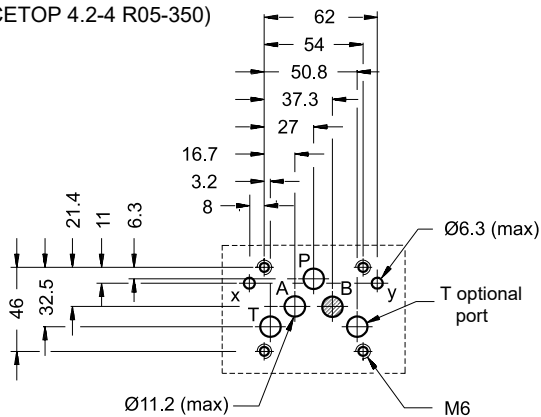
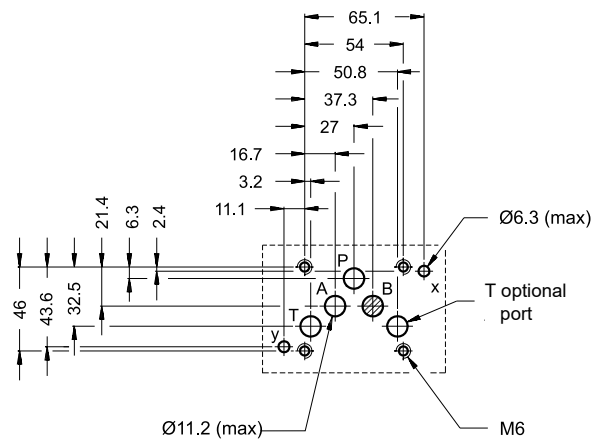
Maximum admissible backpressure in the T line, in operating conditions, is 2 bar.

Valves are fixed by means of screws or tie rods on a flat surface with planarity and roughness equal to or better than those indicated in the relative symbols. If minimum values are not observed, fluid can easily leak between the valve and support surface.



7 - DZC5 AND DZC5R OVERALL AND MOUNTING DIMENSIONS

dimensions in mm


DZC5R MOUNTING INTERFACE
 ISO 4401-05-05-0-05
 (CETOP 4.2-4 R05-350)

DZC5 MOUNTING INTERFACE
 CETOP 4.2-4 P05-350


Valve fastening: N. 4 bolts SHC ISO 4762 M6x35

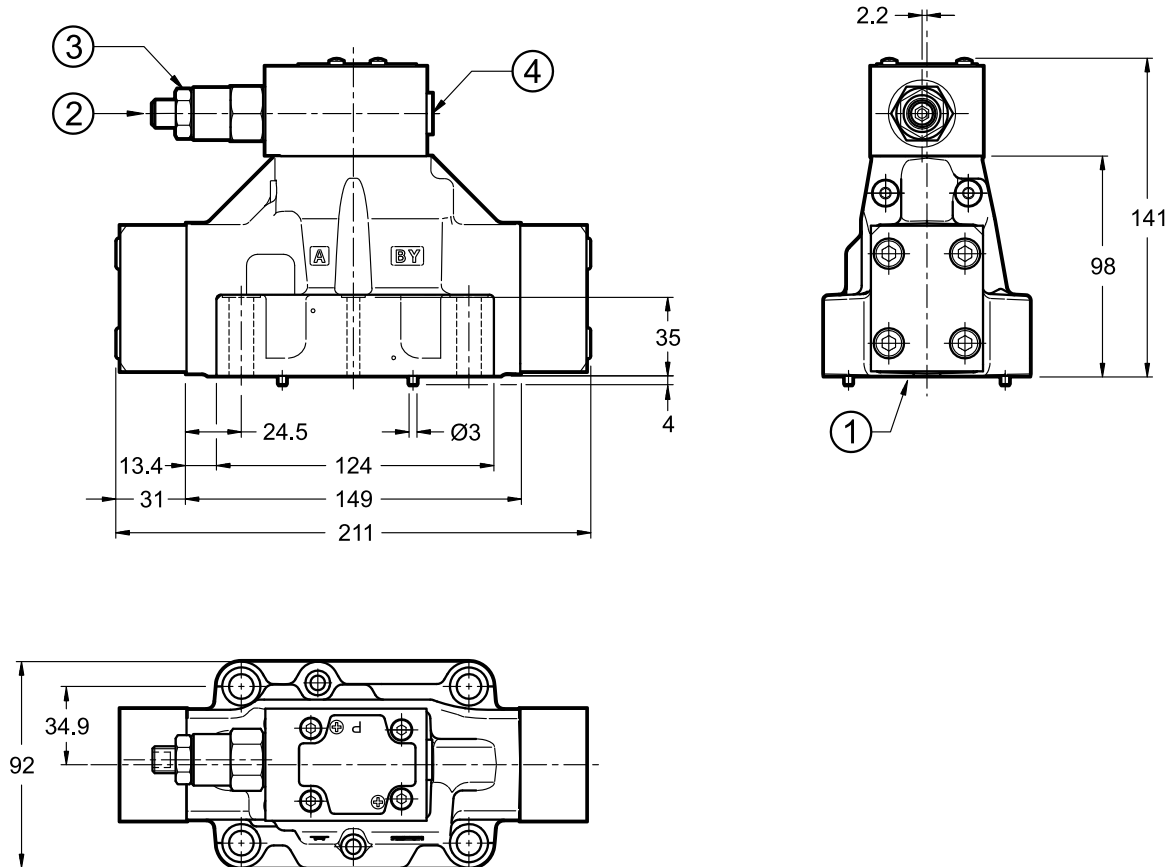
Tightening torque: 8 Nm (A 8.8 bolts)

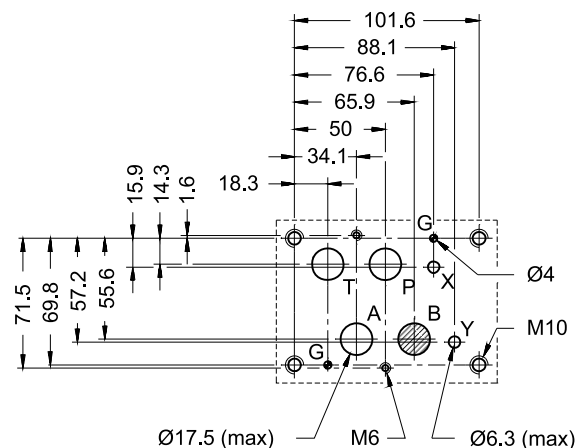
Thread of mounting holes: M6x10

- | | |
|---|---|
| 1 | Mounting surface with sealing rings:
N. 5 OR type 2050 (12.42x1.78) - 90 Shore
N. 2 OR type 2037 (9.25x1.78) - 90 Shore |
| 2 | Socket hex adjustment screw: Allen key 6.
Clockwise rotation to increase pressure |
| 3 | Locking nut: spanner 19 |
| 4 | Pressure gauge port 1/4" BSPP |

8 - DZC7 OVERALL AND MOUNTING DIMENSIONS

dimensions in mm

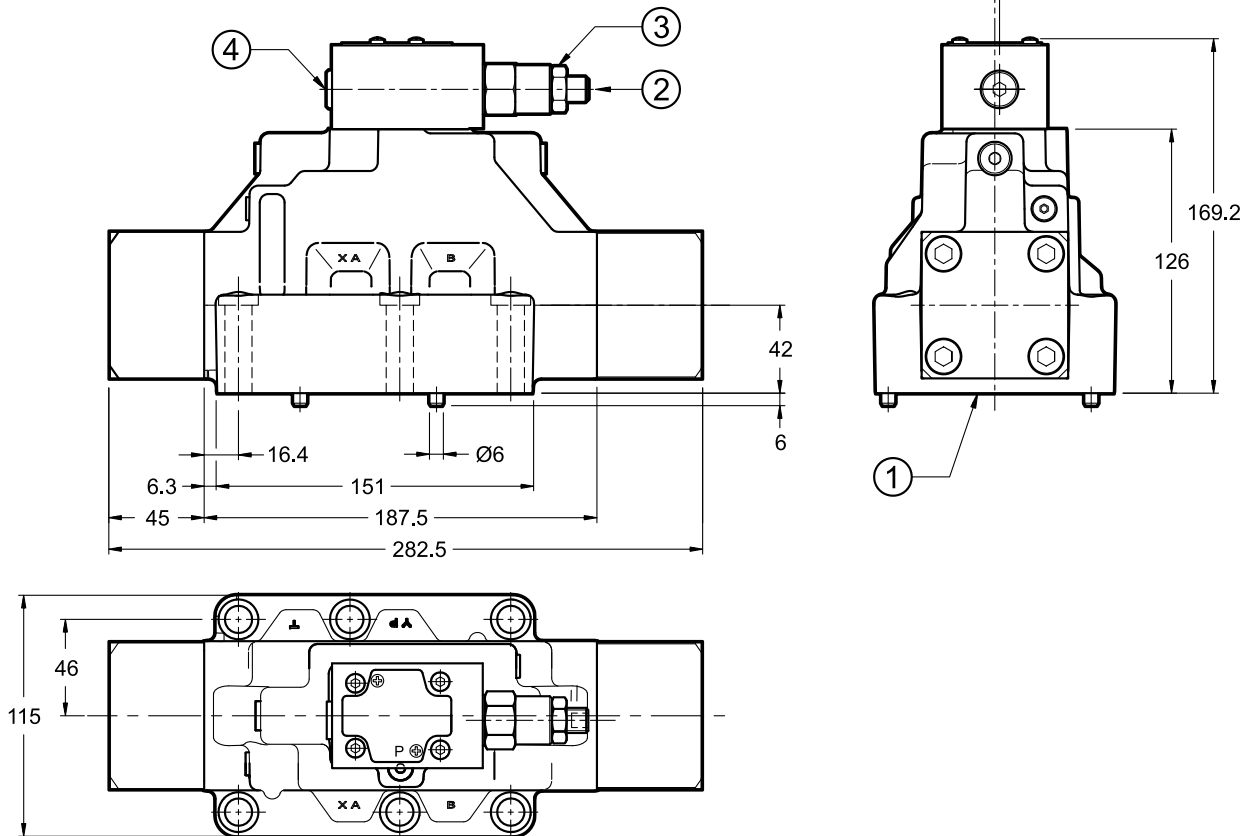

MOUNTING INTERFACE

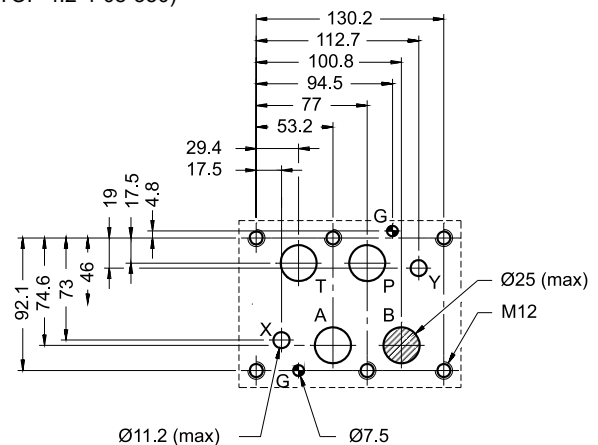
 ISO 4401-07-07-0-05
 (GETOP 4.2-4-07-350)


1	Mounting surface with sealing rings: N. 4 OR type 130 (22.22x2.62) - 90 Shore N. 2 OR type 2043 (10.82x1.78) - 90 Shore
2	Socket hex adjustment screw: Allen key 6. Clockwise rotation to increase pressure
3	Locking nut: spanner 19
4	Pressure gauge port 1/4" BSPP
Single valve fastening: N. 4 SHC bolts ISO 4762 M10x50 N. 2 SHC bolts ISO 4762 M6x50	
Tightening torque	M10x60: 40 Nm (A 8.8 bolts) M6x60: 8 Nm (A 8.8 bolts)
Thread of mounting holes:	M6x18; M10x18

9 - DZC8 OVERALL AND MOUNTING DIMENSIONS

dimensions in mm


MOUNTING INTERFACE

 ISO 4401-08-08-0-05
 (CETOP 4.2-4-08-350)


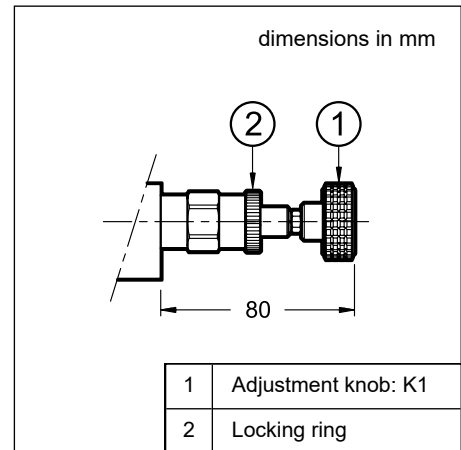
1	Mounting surface with sealing rings: N. 4 OR type 3131 (32.99x2.62) - 90 Shore N. 2 OR type 3087 (21.89x2.62) - 90 Shore
2	Socket hex adjustment screw: Allen key 6. Clockwise rotation to increase pressure
3	Locking nut: spanner 19
5	Pressure gauge port 1/4" BSPP
Valve fastening: N. 6 SHC bolts ISO 4762 M12x60	
Tightening torque: 69 Nm (A 8.8 bolts)	
Thread of mounting holes: M12x20	



10 - OPTIONS

The valves can be equipped with adjustment knob instead of the standard socket head screw.

Add **K1** in the identification code to order this version (see point 1)



11 - SUBPLATES

(See catalogue 51 000)

	DZC5	DZC7	DZC8
Model with rear ports	PME4-AI5G	PME07-AI6G	-
Model with side ports	PME4-AL5G	PME07-AL6G	PME5-AL8G
Thread of ports: P - T - A - B X - Y	3/4" BSPP 1/4" BSPP	1" BSPP 1/4" BSPP	1 1/2" BSPP 1/4" BSPP