



DZC*

BALANCING VALVE

SERIES 10

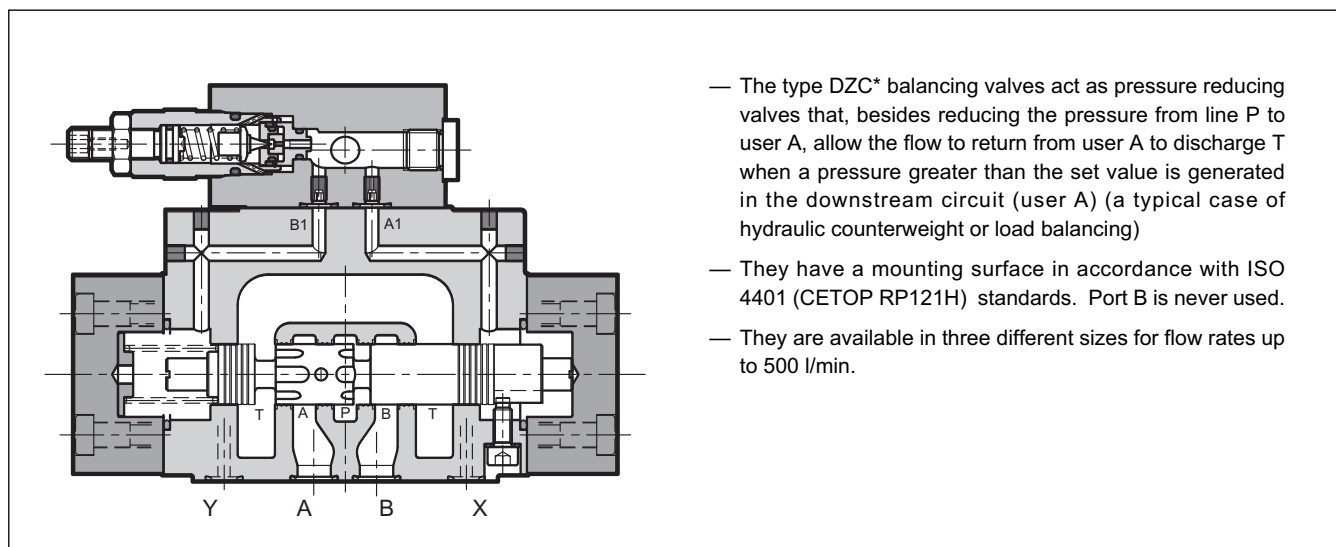
DZC5
DZC5R
DZC7
DZC8

CETOP P05
ISO 4401-05 (CETOP R05)
ISO 4401-07 (CETOP 07)
ISO 4401-08 (CETOP 08)

p max **350** bar

Q max (see table of performances)

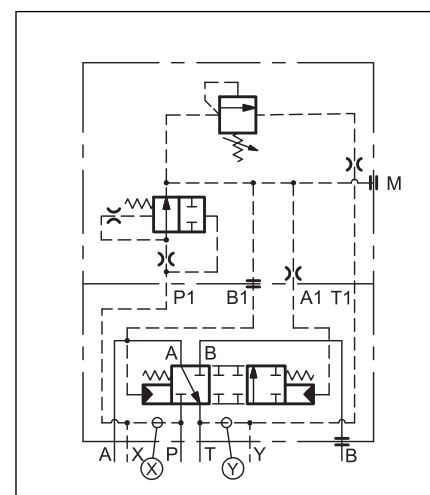
OPERATING PRINCIPLE



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
Ambient temperature range	°C	-20 / +50		
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: single solenoid valve double solenoid valve	kg	6,5	8,7	15

HYDRAULIC SYMBOL





1 - IDENTIFICATION CODE

D	Z	C		-		/	10	-		/	
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Balancing valve _____

Nominal size: _____
5 = CETOP P05 (**NOTE**)
5R = ISO 4401-05 (CETOP R05)
7 = ISO 4401-07 (CETOP 07)
8 = ISO 4401-08 (CETOP 08)

Pressure control range _____
070 = 0 ÷ 70 bar
140 = 0 ÷ 140 bar
210 = 0 ÷ 210 bar

Series No. (the overall and mounting dimensions remain unchanged from 10 to 19) _____

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

K1 = Adjustment knob (omit for adjustment with countersunk hex screw)

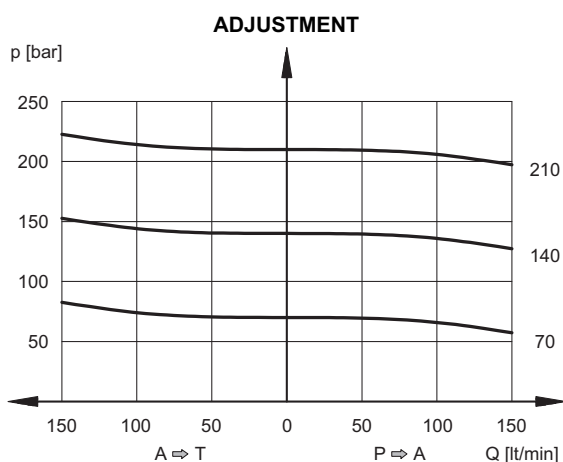
Drainage: **I** = internal
E = external

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

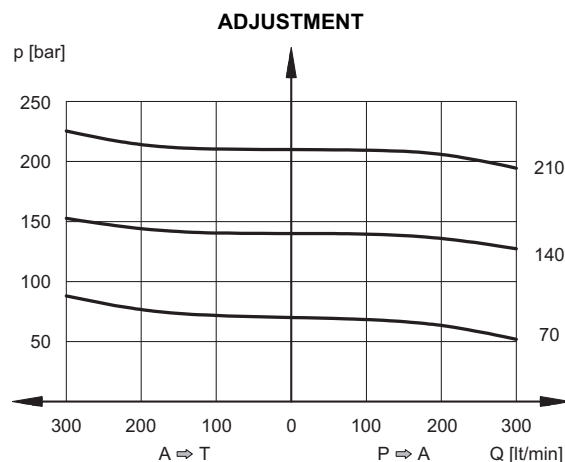
Seals:
N = NBR seals for mineral oil (**standard**)
V = FPM seals for special fluids

3 - CHARACTERISTIC CURVES (obtained with mineral oil with viscosity of 36 cSt at 50°C and electronic control cards)

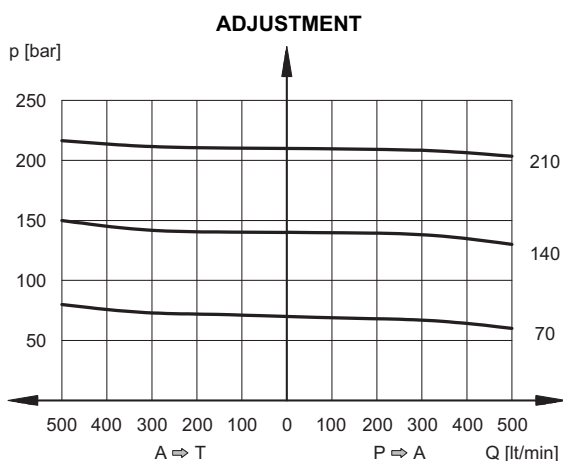
2.1 - Characteristic curves DZC5 and DZC5R



2.2 - Characteristic curves DZC7



2.3 - Characteristic curves DZC8





3 - 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.

4 - PILOTING AND DRAINAGE

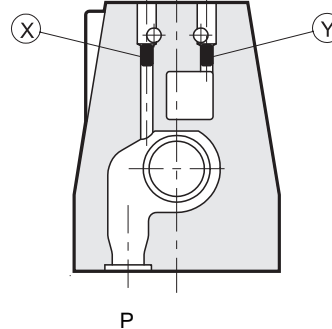
The DZC* valves are available with piloting and drainage, both internal and external. The version with external drainage allows a higher backpressure on the unloading.

VALVE TYPE		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

PRESSURES (bar)

Pressure	MIN	MAX
Piloting pressure on X port	30	210 (NOTE)
Pressure on T port with internal drain	–	10
Pressure on T port with external drain	–	250

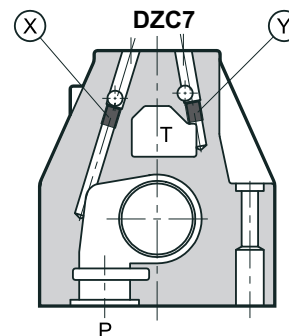
DZC5 and DZC5R



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

P

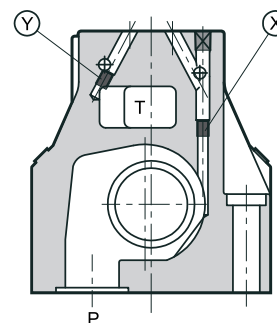
DZC7



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

P

DZC8



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

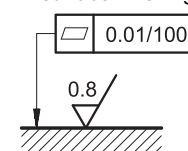
P

5 - 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, under operational 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.

surface finishing

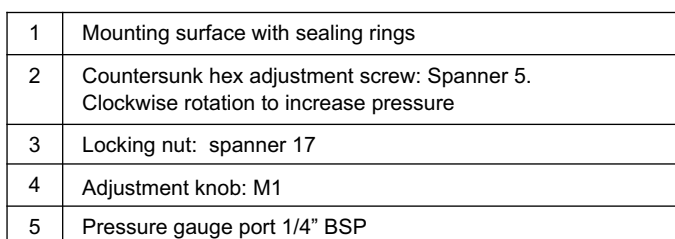




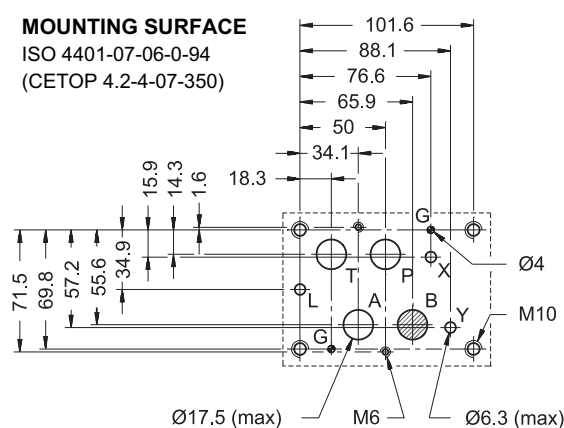
dimensions in mm



dimensions in mm

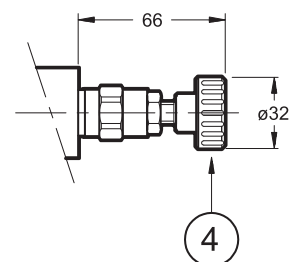


Single valve fastening:	N. 4 TCEI M10x60 bolts N. 2 TCEI M6x50 bolts
Tightening torque M10x60:	40 Nm (A 8.8 bolts) - 67 Nm (A 12.9 bolts) M6x50: 8 Nm (A 8.8 bolts) - 14 Nm (A 12.9)
Thread of mounting holes:	M6x12; M10x18
Sealing rings:	N. 4 OR type 130 (22.22x2.62) - 90 Shore N. 2 OR type 2043 (10.82x1.78) - 90 Shore



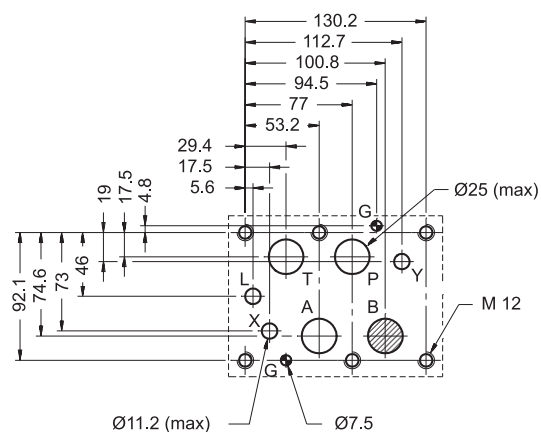


dimensions in mm



Valve fastening: N. 6 TCEI M12x60 bolts
Tightening torque: 69 Nm (A 8.8 bolts) 115 Nm (A 12.9 bolts)
Thread of mounting holes: M12x20
Sealing rings: N. 4 OR type 3118 (29.82x2.62) - 90 Shore N: 2 OR type 3081 (20.24x2.62) - 90 Shore

ISO 4401-08-07-0-94
(CETOP 4.2-4-08-350)





9 - 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" BSP 1/4" BSP	1½" BSP 1/4" BSP	1" BSP 1/4" BSP



DZC*
SERIES 10



DIPLOMATIC OLEODINAMICA SpA

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