



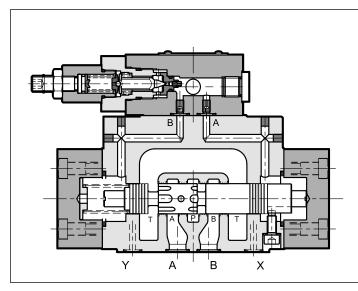
DZC* PRESSURE REDUCING VALVES SERIES 12

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



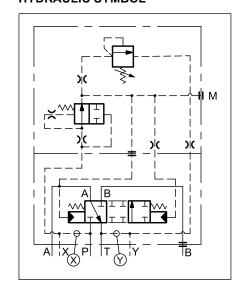
- The DZC* valves, besides reducing the pressure from line P to working line A, allow the flow to return from the line A to the return line T when a pressure greater than the set value is generated in the downstream circuit (flow path A): a typical example of hydraulic counterweight or load balancing.
- They have a mounting surface according to ISO 4401 standards. Port B is never used.
- They are available in three different sizes for flow rates up to 500 l/min.

PERFORMANCES

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

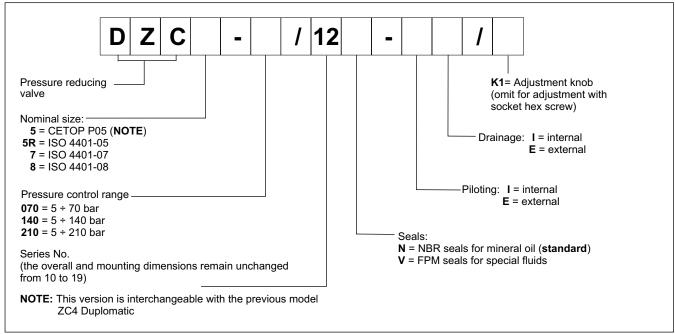
		DZC5 DZC5R	DZC7	DZC8
Maximum operating pressure	bar	350		
Maximum flow	l/min	150 300 500		500
Ambient temperature range	°C	-20 / +50		
Fluid temperature range	°C	-20 / +80		
Fluid viscosity range	cSt	10 ÷ 400		
Fluid contamination degree	According to	ISO 4406:1999 class 20/18/15		
Recommended viscosity	cSt	25		
Mass: kg 6,3 8,6		8,6	15	

HYDRAULIC SYMBOL



24 310/116 ED 1/8

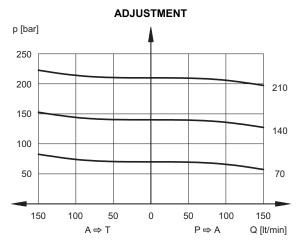
1 - IDENTIFICATION CODE



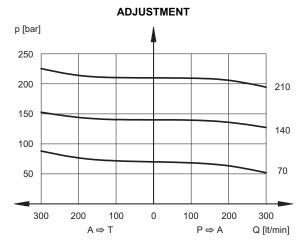
2 - CHARACTERISTIC CURVES

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

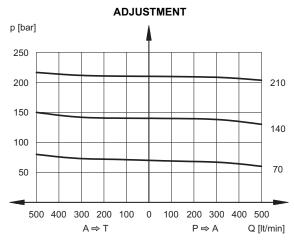
2.1 - Characteristic curves DZC5 and DZC5R



2.2 - Characteristic curves DZC7



2.3 - Characteristic curves DZC8



24 310/116 ED 2/8





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.

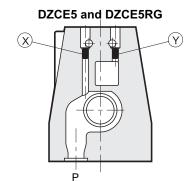
4 - PILOTING AND DRAINAGE

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

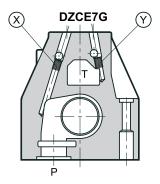
TYPE OF VALVE		Plug assembly	
		Х	Υ
IE	INTERNAL PILOT AND EXTERNAL DRAIN	NO	YES
II	INTERNAL PILOT AND INTERNAL DRAIN	NO	NO
EE	EXTERNAL PILOT AND EXTERNAL DRAIN	YES	YES
EI	EXTERNAL PILOT AND INTERNAL DRAIN	YES	NO

PRESSURES

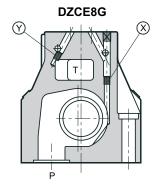
Pressure	MIN	MAX
Pilot pressure on port X	30	210
Pressure on T port with internal drain	-	2
Pressure on T port with external drain	-	250



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



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



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

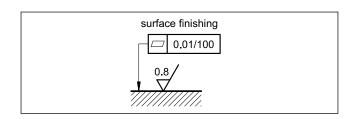
5 - INSTALLATION

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.

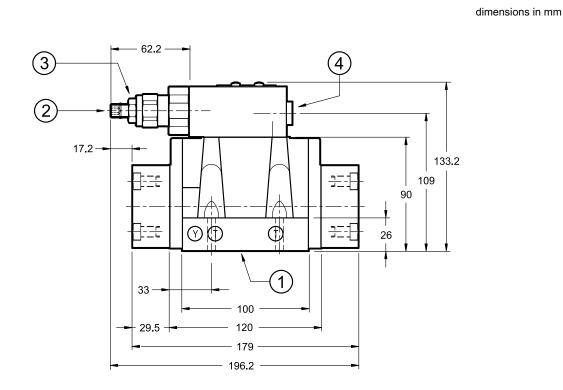
Valves are fixed by means of screws or tie rods on a flat surface with planarity and roughness equal to or better than those indicated in the relative symbols. If minimum values are not observed, fluid can easily leak between the valve and support surface.

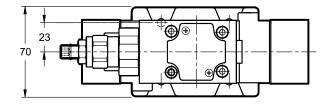


24 310/116 ED 3/8



6 - DZC5 AND DZC5R OVERALL AND MOUNTING DIMENSIONS



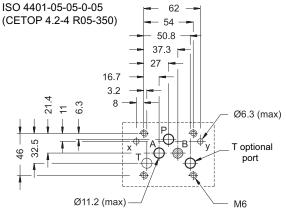


Valve fastening: N. 4 bolts SHC ISO 4762 M6x35

Thread of mounting holes: M6x10

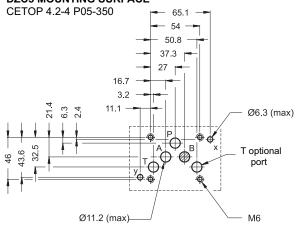
Tightening torque: 8 Nm (A 8.8 bolts)

DZC5R MOUNTING SURFACE



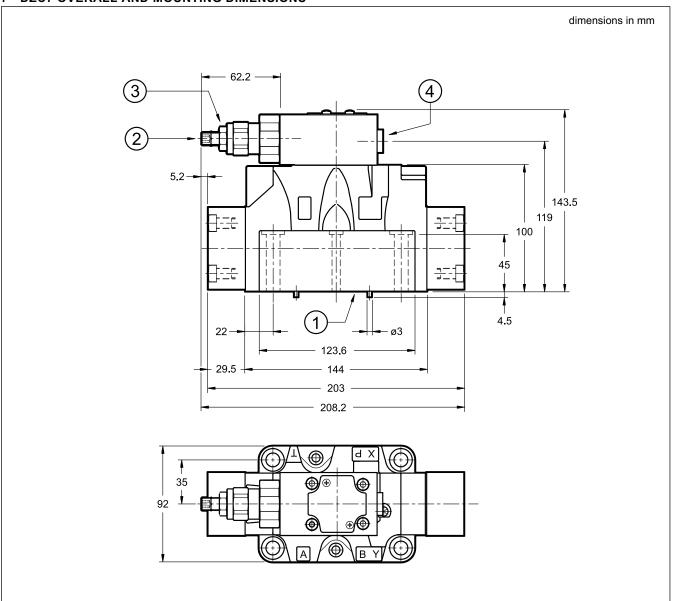
- Mounting surface with sealing rings: N. 5 OR type 2050 (12.42x1.78) - 90 Shore N. 2 OR type 2037 (9.25x1.78) - 90 Shore
- 2 Socket hex adjustment screw: Allen key 5. Clockwise rotation to increase pressure
- 3 Locking nut: spanner 17
- 4 Pressure gauge port 1/4" BSP

DZC5 MOUNTING SURFACE



24 310/116 ED 4/8

7 - DZC7 OVERALL AND MOUNTING DIMENSIONS

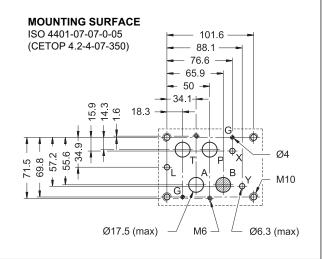


1	Mounting surface with sealing rings: N. 4 OR type 130 (22.22x2.62) - 90 Shore N. 2 OR type 2043 (10.82x1.78) - 90 Shore
2	Socket hex adjustment screw: Allen key 5. Clockwise rotation to increase pressure
3	Locking nut: spanner 17
4	Pressure gauge port 1/4" BSP

Single valve fastening: N. 4 SHC bolts ISO 4762 M10x60 N. 2 SHC bolts ISO 4762 M6x60

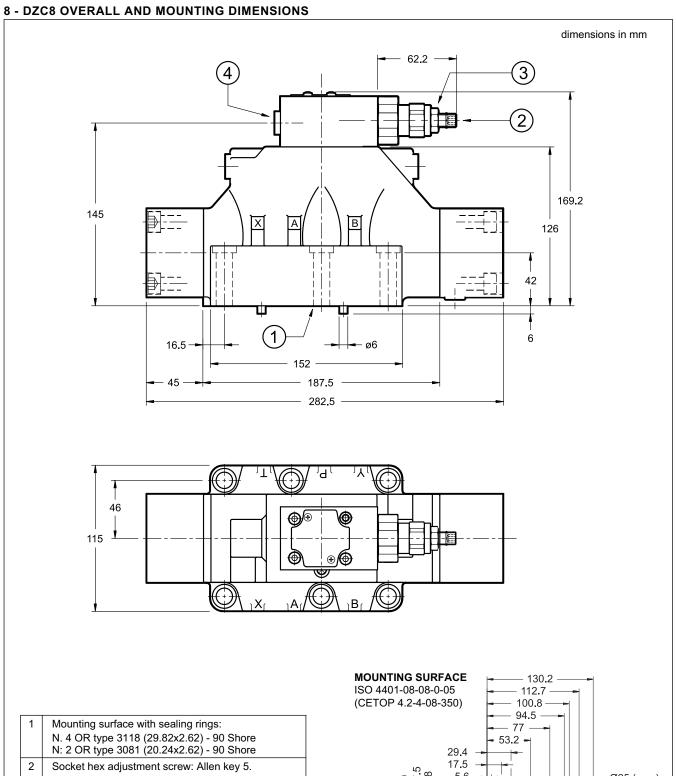
Tightening torque M10x60: 40 Nm (A 8.8 bolts) M6x60: 8 Nm (A 8.8 bolts)

Thread of mounting holes: M6x18; M10x18



24 310/116 ED 5/8



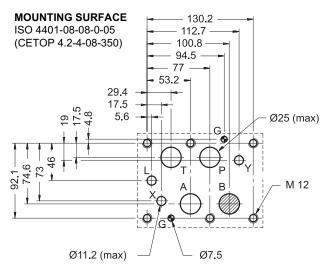


1	Mounting surface with sealing rings: N. 4 OR type 3118 (29.82x2.62) - 90 Shore N: 2 OR type 3081 (20.24x2.62) - 90 Shore
2	Socket hex adjustment screw: Allen key 5. Clockwise rotation to increase pressure
3	Locking nut: spanner 17
5	Pressure gauge port 1/4" BSP

Valve fastening: N. 6 SHC bolts ISO 4762 M12x60

Tightening torque: 69 Nm (A 8.8 bolts)

Thread of mounting holes: M12x20



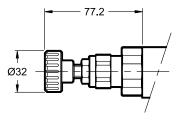
24 310/116 ED 6/8





9 - OPTIONS

The valves can be equipped with adjustment knob instead of the standard socket head screw. Add **K1** at the identification code end (see par.1).



10 - SUBPLATES

(See catalogue 51 000)

		DZC5	DZC7	DZC8
Model with rear ports	S	PME4-AI5G	PME07-Al6G	-
Model with side ports	s	PME4-AL5G	PME07-AL6G	PME5-AL8G
Thread of ports:	P - T - A - B X - Y	3/4" BSP 1/4" BSP	1" BSP 1/4" BSP	1½" BSP 1/4" BSP

24 310/116 ED **7/8**





DUPLOMATIC OLEODINAMICA S.p.A. 20015 PARABIAGO (MI) • Via M. Re Depaolini 24 Tel. +39 0331.895.111

Fax +39 0331.895.339

www.duplomatic.com • e-mail: sales.exp@duplomatic.com