

# TWO-PORT BALL VALVE PN 6 ; - 15...120 °C



## XDG 2.. Eng.

- Female threaded connections
- Body in nickel-plated brass and ball in hard-chromed brass
- Seals in Teflon and Viton



### 1. APPLICATION

The XDG2 valves are used for closing in hydraulic circuits in heating and cooling systems. They are operated by rotary actuators :

- CRB..., CVC... e CVH... with fluid temperature 5...120 °C,
- CVC .../T e CVH .../T with fluid temperature -15...120 °C.

Permitted fluids :

- hot water max. 120 °C,
- chilled water min. -15 °C,
- water with max. 50 % glycol.

### 2. MODELS

Code	DN connection inches	Kvs m <sup>3</sup> /h	Actuator CRB... Δ p max.	Actuator CVC... Δ p max.	Servomotore CVH... Δ p max.
<b>XDG 215</b>	1/2"	16.3	kPa (bar) 600 (6)	kPa (bar) 600 (6)	kPa (bar) 600 (6)
<b>XDG 220</b>	3/4"	29.5	600 (6)	600 (6)	600 (6)
<b>XDG 225</b>	1"	43.0	600 (6)	600 (6)	600 (6)
<b>XDG 232</b>	1" 1/4	89.0	600 (6)	600 (6)	600 (6)

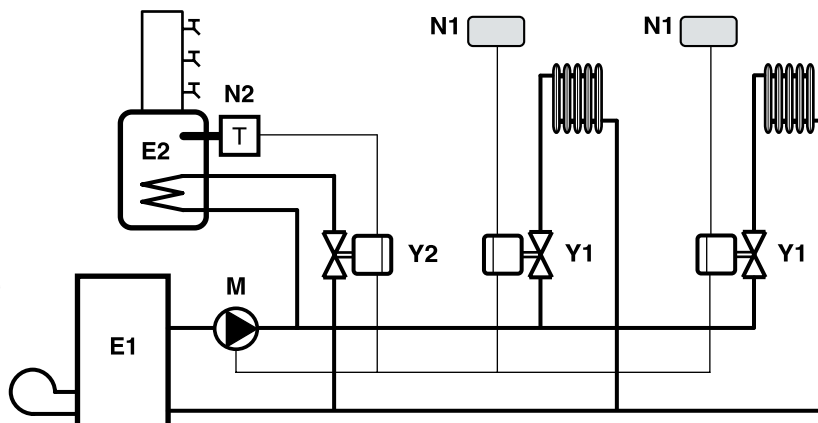
Kvs = flow coefficient : flow in m<sup>3</sup>/h with valve open and pressure drop of 100 kPa.

Δp max. = maximum differential pressure permitted by actuator

100 kPa = 10 mWG = 1 bar

### 3. TYPICAL APPLICATION DIAGRAM

- E1 – Boiler
- E2 – Hot water reservoir
- M – Plant pump
- N1 – Ambient controller
- N2 – Hot water reservoir thermostat
- Y1 – Heating motorised valve
- Y2 – Hot water reservoir motorised valve



### 4. TECHNICAL DATA

Trial pressure  
Working pressure  
Maximum differential pressure  
Leakage rate  
Fluid temperature

1000 kPa (10 bar)  
600 kPa (6 bar)  
600 kPa (6 bar)  
nil  
-15...120 °C

**Materials :**  
- valve body  
- ball  
- spindle  
- ball seal  
- spindle seal

nickel-plated OT58 brass  
hard-chromed OT58 brass  
OT58 brass  
PTFE (teflon)  
O-Ring in viton

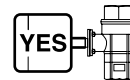
**5. CONSTRUCTION**

The valve body is in nickel-plated OT58 brass with female threaded connections. The ball is in hard-chromed OT58 brass, held between two seals in PTFE (teflon) which guarantee the total absence of let-by.  
 The ball-teflon system presents the big advantage of being self-cleaning and therefore of keeping the valve free from scale build-up.  
 The spindle is in OT58 brass and is rendered watertight by two O-Rings in viton.



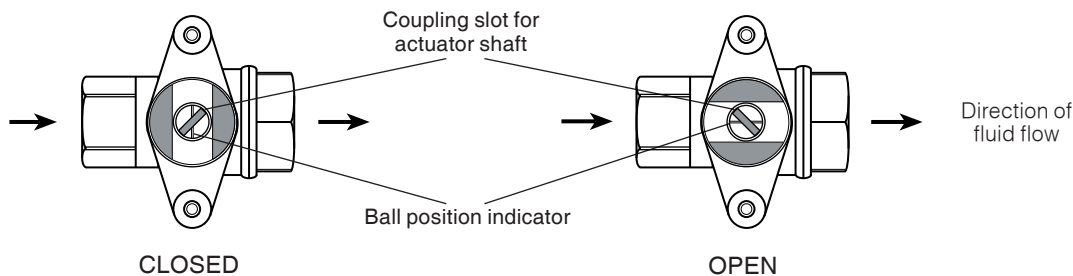
**6. MOUNTING**

Before mounting the valve make sure that there is'nt any extraneous matter in the pipework (remains of welding or threading). The pipework must not be subject to vibrations and must be perfectly aligned with the valve unions in order to avoid dangerous strains.  
 The valve can be mounted in any position except with the spindle facing downwards.  
 Leave enough space on the spindle side for the mounting of actuator (see section 8).

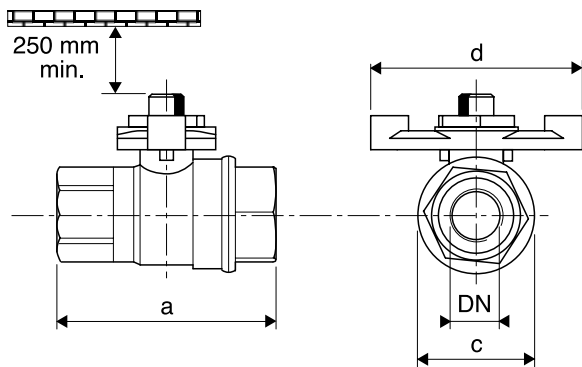


**7. OPERATION**

The valve operates with a 90° rotary movement.  
 When the valve is open there is full bore with very low pressure drop, whereas when is closed the seals prevent any let-by.  
 The position of the ball is indicated by a groove at the head of the coupling spindle and by an indicator plate, firmly secured to the spindle, which makes it possible to locate the position of the ball even when the actuator is mounted.

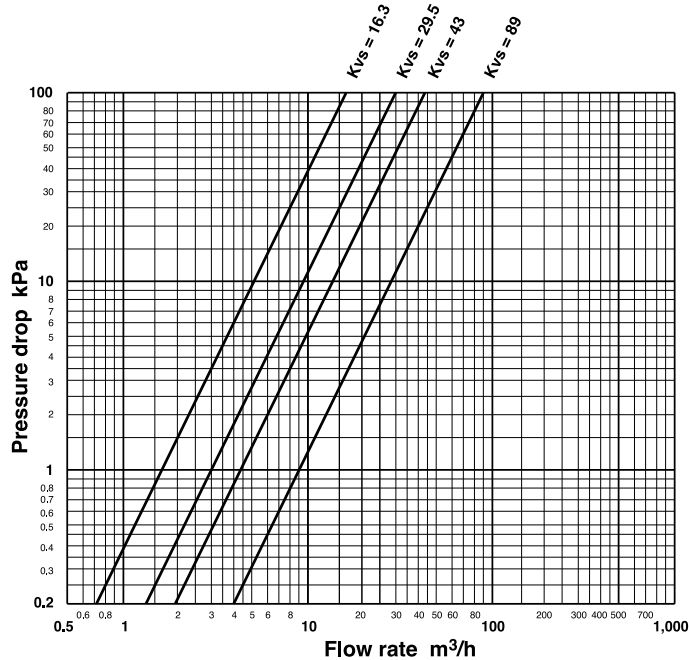


**8. OVERALL DIMENSIONS**



Model	DN inches	a mm	c mm	d mm
XDG 215	1/2"	60	35	73
XDG 220	3/4"	71	43.5	73
XDG 225	1"	84	54	73
XDG 232	1 1/4"	95.5	63.5	73

**9. PRESSURE DROP**



**Amendment to data sheet**

Data	Revision No.	Page	Section	Details of amendment
03.03.09 AM	01	4	7. OPERATION	Update diagram



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