

TWO-PORT BALL VALVE

-15...120 °C

YDG 2.. Eng.



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

1. APPLICATION

The YDG2 valves are used for closing in hydraulic circuits in heating and cooling systems. They can operate with high pressures given the power of the actuators used.

They are operated by rotary actuators :

- CRB..., CVC..., CVH... and CVF... with fluid temperature 5...120 °C,
- CVC.../T and 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.

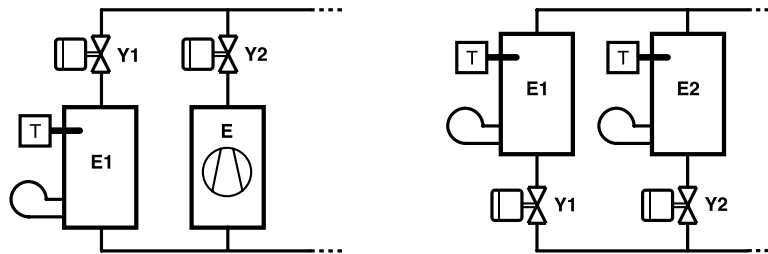
2. MODELS

Code	DN connection inches	Nominal pressure PN	Kvs m³/h	Actuators CRB... - CVC... Δ p max	Actuator CVH... Δ p max	Actuator CVF... Δ p max
YDG 215	1/2"	40	16,3	kPa (bar) 1000 (10)	kPa (bar) 1000 (10)	kPa (bar) — —
YDG 220	3/4"	40	29,5	1000 (10)	1000 (10)	— —
YDG 225	1"	40	43	1000 (10)	1000 (10)	— —
YDG 232	1"1/4	40	89	1000 (10)	1000 (10)	— —
YDG 240	1"1/2	40	230	—	1000 (10)	— —
YDG 250	2"	40	265	—	1000 (10)	— —
YDG 265	2"1/2	25	540	—	1000 (10)	— —
YDG 280	3"	16	873	—	—	1000 (10)
YDG 2100	4"	16	1390	—	—	1000 (10)

Kvs = flow coefficient: flow in m³/h with valve open and pressure drop of 100 kPa.

Δ p max. = maximum differential pressure permitted by actuator: 100 kPa = 10 mWG = 1 bar

3. TYPICAL APPLICATION DIAGRAMS



E – Refrigerator
E1, E2 – Boilers
Y1, Y2 – Motor-operated valves

4. TECHNICAL DATA

Trial pressure:

- DN 1/2" ... DN 2" 6000 kPa (60 bar)
- DN 2"1/2 3500 kPa (35 bar)
- DN 3" ... DN 4" 2400 kPa (24 bar)

Operating pressure:

- DN 1/2" ... DN 2" 4000 kPa (40 bar)
- DN 2"1/2 2500 kPa (25 bar)
- DN 3" ... DN 4" 1600 kPa (16 bar)

Maximum differential pressure

1000 kPa (10 bar)

Leakage rate

nil

Fluid temperature
Run

- 15...120 °C
90°

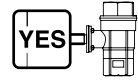
Materials :

- Valve body
- Spindle
- Ball
- Ball seals
- Spindle seals
- Connections

nickel-plated OT58 brass
stainless steel
hard-chromed OT58 brass
PTFE (teflon)
O-Ring in viton
female threaded

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 stainless steel and is rendered watertight by two O-Rings in viton.

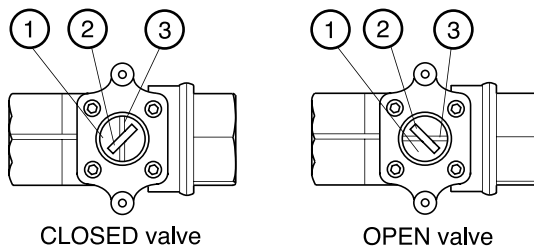


6. MOUNTING

Before mounting the valve make sure that there isn't 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).

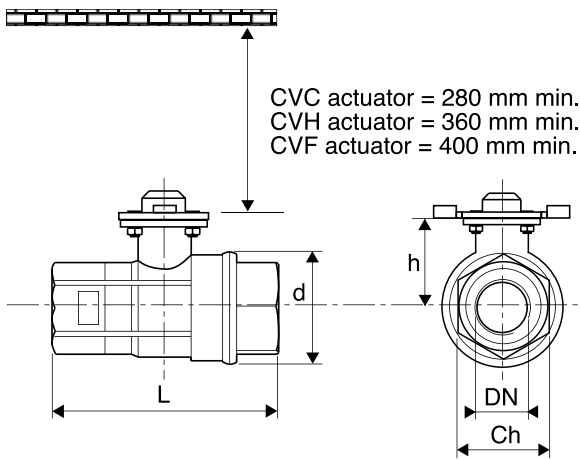
7. OPERATION

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.



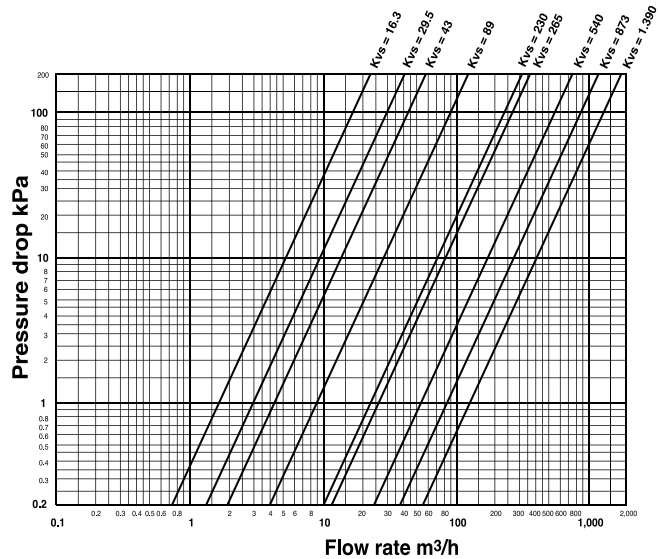
- 1 – actuator to valve coupling
- 2 – slot for actuator shaft
- 3 – position indicator of the ball inside the valve

8. OVERALL DIMENSIONS



Model	DN inches	L mm	d mm	h mm	Ch mm
YDG 215	1/2"	67	33.5	30.5	27
YDG 220	3/4"	76	40	32.5	32
YDG 225	1"	90	49	43	41
YDG 232	1"1/4	102	58.5	46.5	50
YDG 240	1"1/2	114	73	61	55
YDG 250	2"	138	91.5	70.2	70
YDG 265	2"1/2	165	114.5	85	90
YDG 280	3"	188	136	94.5	105
YDG 2100	4"	225	166	116	130

9. PRESSURE DROP



Amendments to data sheet

from version	to version	Page	Section	Details of amendment
01.03.05 MZ	30.03.06 MZ	1 & 2 2	Various 8 Overall dimensions	Update vale of nominal pressure Update overall dimensions



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