

# Double Check Valve (DCV)

## Model ED440 – DZR Brass Compression or Female BSPP - Datasheet

### Description

Double Check Valves with DZR brass valve bodies and compression or female BSP connections.

Sprung-loaded Cartridges with resilient seats provide positive closure, no water hammer and low opening pressure. Hot-stamped DZR compression nuts with fine thread minimises the torque required to make the joint.

### Pipe Connectors

Model ED440 with compression ends is designed for copper tube. ED440 with Female BSP Parallel ends is suitable for steel pipes but can be used for a range of plastic pipes with adapters.

The ED440 range has conventional cartridges – note relatively high headloss. For exceptionally low headloss refer to the Arrow Valves ED132 range, which has flat-faced ends for various unions – solder union, Press-Fit etc.

For flexible pipes systems - PB, PEX etc, refer to the EDMF range of Double Check Valves (range 12–32 mm).

### Specification

Pressure	16 bar max.
Test Pressure	16 bar (reverse)
Temperature max.	
Continuous	65° C
Intermittent	90° C
Approvals (complete)	KIWA UK 0705703
WRAS – BSP -	0910314, 0812028, 0812030
WRAS – Comp –	0812027, 0812029, 0812031, EN 1254

### Materials

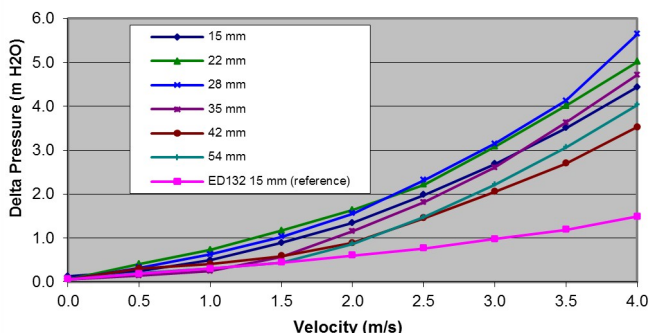
Body	DZR Brass CZ132
Circlips, Springs	Stainless steel
Cartridges	POM
Elastomers	NBR

### Applications

Backflow prevention for fluids in categories 1 – 3 (refer to Scheduled 1 of Water Regulations July 1999)  
 Supply to flats and apartments – refer to Branch Valve  
 Domestic Washbasins, Baths and Showers – refer to ED235  
 Domestic Clothes and Dishwashing machines (houses only)  
 CWF Primary and Heating circuits (houses only with removable quick fill loop) – see Filling Valve with CA device  
 Hose Union taps (houses only - check valves in taps illegal)

Head Loss / Flow Chart  
 Model ED440

(Arrow model ED132 15 mm shown for comparison)



#### Notes

Velocity based on flow of water through the bore of copper tube table X. "ED132 15 mm" is an extremely low headloss model – refer to model ED132 data sheet. See Flow Table to find the actual flow rate.

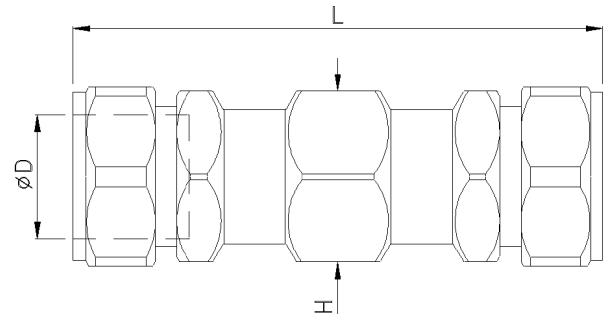


### Water Regulations

Double Check Valves are suitable for backflow protection of Fluid Category 3 risks as defined in the new Water Regulations – July 1999. A DCV should be fitted as whole site protection to the supply of separately occupied premises (whether or not they are separately chargeable). In other cases, a DCV should be fitted at points of use – i.e. one DCV per appliance (Schedule 2, paragraph 15).

DCV should not be buried. Test Points between the check valves are no longer required (a single test point is still classed as non verifiable). Hose union taps with integral check valves are no longer acceptable for new installations. The DCV must now be fitted inside and frost protected.

Many applications listed as Fluid Category 3 (requiring DCV) become Fluid Category 4 (requiring RPZ – available from Arrow Valves) when used for commercial (non house) situations.



Size ØD	H (AF) (Hexagon)	L Comp	L FBSP
15 / DN15	25	67	70
22 / DN20	30.5	93	87
28 / DN25	38	118	106
35 / DN32	46	194	122
42 / DN40	52	215	135
54 / DN50	65	264	174

### Codes and Descriptions

Sizes	Code	Description
15, 22, 28, 35, 42, 54	EDsizeC440	440 Double Check Valve Comp
DN15, 20, 25, 32, 40, 50	EDsizeFP440	440 Double Check Valve FBSP

#### Notes

Valves with compression ends 35 mm and larger are manufactured with compression adapters (DZR brass to EN1254-2). The BSP threads are locked and sealed with a WRAS approved anaerobic adhesive. Some sizes have a test point between the check valves (no longer required by Water Regulations).

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Arrow Valves Ltd reserve the right to change specifications, design and materials at any time without notice.

All unit-less dimensions in mm.

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