Application

The valves are installed in the bypass between the flow and return pipes and opens on rising differental pressure to allow flow through the bypass.

This maintains the differential pressure between the flow and return pipes at the predetermined set value.

Differential bypass valves are used in systems with variable flowrates.

Radiator circuits utilising thermostatic radiator valves or heating systems incorporating 2-port control valves are typical applications.

Differential bypass valves can be used in both constant and variable volume systems to prevent the differential pressure from rising which can seriously affect the performance of the 2-port control valves.

Design

The eres differential bypass valves use a stainless steel compression spring to exert a predetermined force onto the disc.

The force is adjustable by turning the control knob to set the required differential pressure between 1 to 5 m head (10 to 50 kPa) for the angle valve and between 1 to 6m head (10 to 60 kPa) for the straight valve

The straight valve has a protective dome to conceal the scale and adjustment mechanism.

The valve have compression ends complying with BS EN 1252-2 for use with R250 (half hard) copper tube.

Construction Details

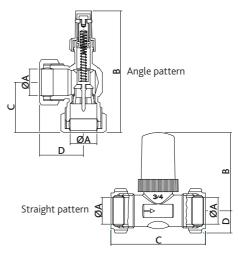
| Component | Material |
|-----------------------|-----------------------|
| Body | Brass - chrome plated |
| Disc and spring guide | Brass |
| Disc facing | EPDM |
| 'O' rings | EPDM |
| Control knob | ABS polymer |
| Spring | Stainless steel |
| Compression Nut | Brass - chrome plated |
| Olive | Brass |

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Dimensions



| Prod. Code | ØA | В | С | D | kg |
|--------------|----|-------|------|------|------|
| ER 22MMANGBI | 22 | 105 | 40 | 34 | 0.24 |
| ER 22MMSTRBI | 22 | 65.5 | 79 | 14.5 | 0.30 |
| ER 28MMANGBI | 28 | 102.5 | 38.5 | 36.7 | 0.34 |
| ER 28MMSTRBI | 28 | 71.3 | 76 | 21.8 | 0.31 |

Technical Data

| Medium: | water gycol solution |
|----------------------------|----------------------|
| Max. percentage of glycol: | 30% |
| Temperature range: | 0 to 100°C |
| Max. working pressure: | 10 bar |
| Setting range: angle 1 to | 5m head 10 to 50 kPa |
| straight 1 to | 6m head 10 to 60 kPa |

Installation

The valves are simple to install with just two compression joints to make.

The flow through the valves must follow the direction arrow on the valve body.

The valves can be fitted in any orientation

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