

differential bypass valves







Application

The valves are installed in the bypass between the flow and return pipes and opens on rising differential 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 has compressions ends complying with BS EN 1252-2* for use with copper tube.

Construction Details

Component			Material		
Body		Brass - chrome plated			
Disc and spring gui	ide	Brass			
Disc facing		EPDM			
'O' rings		EPDM			
Control knob			ABS polymer		
Spring			Steel		
Olive			Brass		
Compression nut			Brass - chrome plated		
Product	Size	Inlet	Outlet	Pattern	
Code		Connection	Connection		
ER-22MMANGBI	22	compression	compression	angle	
ER-22MMSTRBI	22	compression	compression	straight	
ER-28MMANGBI	28	compression	compression	angle	
ER-28MMSTRBI	28	compression	compression	straight	

E & O.E

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Prod Code	А	В	С	D	kg
ER-22MMANGBI	Ø22	105	40	34	0.24
ER-22MMSTRBI	Ø22	65.5	79	14.5	0.30
ER-28MMANGBI	Ø28	102.5	38.5	36.7	0.34
ER-28MMSTRBI	Ø28	71.3	76	21.8	0.31

Technical Data

Dimensions

Medium:			water glycol solution
Max. percentag	30%		
Temperature ra	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 very simple to install with just two 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.

* Use with R250 (half hard) copper tube

