

# FM450/FM451 Wafer Check Valves PN16

**CRANE**

FLUID SYSTEMS

## Cast Iron Wafer Check Valve

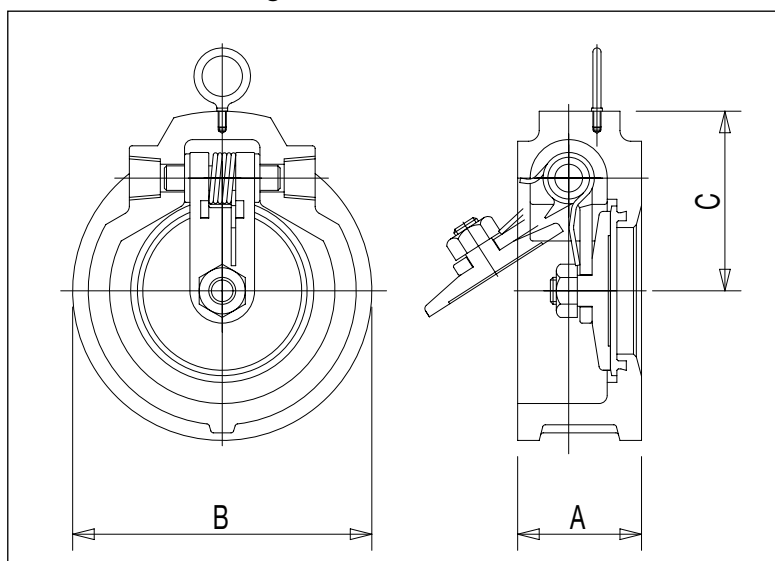
Check valves permit flow in one direction only, and close automatically if flow reverses. They are entirely automatic in action, depending upon pressure and velocity of flow within the line to perform their functions of opening and closing.  
Swing Pattern, Metal Faced Disk (FM450) Resilient Seated (FM451)

## Materials

Part	Material	Sizes
Body	Cast Iron BSEN1561 GJL-250	All
Disc	SG Cast Iron BS2789	100 - 300
Disc Ring	Bronze BSEN1982 CC491K	100 - 300
Disc	Bronze BSEN1982 CC491K	50 - 80
Hinge	Stainless Steel Type 304	All
Hinge Pin	Stainless Steel Type 304	All
Spacer	PTFE (Glass Filled)	All
Spring	Stainless Steel Type 304 or 316	All
Plug	Bronze BSEN1982 CC491K	All
Hinge Nut	Stainless Steel Type 304	All
Eye Bolt	Steel (Zinc Plated)	150 - 300
Body Seat Ring	Bronze BSEN1982 CC491K	FM450
Body Seat Ring	Ethylene Propylene Diene Monomer	FM451



## Dimensional Drawing



## Dimensions and Weights

Size	Weight (kg)	A (mm)	B (mm)	C (mm)
50mm	1.3	43	99	57
65mm	1.8	46	111	67
80mm	2.6	49	130	73
100mm	4.7	56	162	88
125mm	7	64	194	102
150mm	9.8	70	216	168
200mm	15	71	273	194
250mm	20	76	330	227
300mm	30	83	380	255

**Pressure Rating:** PN16

### Installation Instructions:

Wafer check valves must be correctly aligned to achieve efficient valve operation with minimum headloss, and to prevent the valve disk fouling downstream piping. With some flange/valve combinations the pipe flange bolting fits closely around the valve body, automatically centralising the valve in the pipeline. However, in a number of cases there is too much clearance between the flange bolting and the valve body to obtain correct alignment without careful manual positioning.

To overcome this problem, CRANE has developed a unique system of colour coded centralised sleeves.

A set of centralising sleeves is supplied with every valve together with easy to follow instructions. The sleeves have varying outside diameters/bore to suit the different flange/valve combinations. When fitting to horizontal pipelines the sleeves are placed over bolts in the lower half of the flanges to cradle the valve during installation and prior to bolt tightening.

In vertical pipelines the sleeves are fitted to bolts evenly spaced around the valve body to ensure the valve is positioned centrally in the pipeline.

**UK End Connection:** PN10 & PN16 BSEN 1092-2, TABLE D or E BS10

**US End Connection:** BS 1560, ANSI B16-1, ANSI B16-5

**Operator:** Swing type check.

**Specification:** One piece flangeless cast iron body. Suitable for use between flanges drilled in accordance with BSEN1092-2 PN10 and PN16, BS10 Table D or E and ANSI 125

Face to Face dimensions conform to ISO 5752.

Suitable for installation in vertical and horizontal pipelines. When installed in vertical pipelines the flow must be in an upward direction.

This valve is not suitable for use on group 1 gasses or unstable fluids, as defined by the Pressure Equipment Directive 97/23/EC.

Temperature operating range: -10 to 230°C.