C70

Ductile Iron Swing Check Valve (Metal Seal)

PN16

Size 2½" to 12"

TECHNICAL DATASHEET

Specifications:

IVAL® Swing check valve with ductile Iron body and bonnet to BS EN-GJS-450-10, ductile iron disk to BS EN-GJS-450-10 with bronze seat to BS EN1982 CC491K.

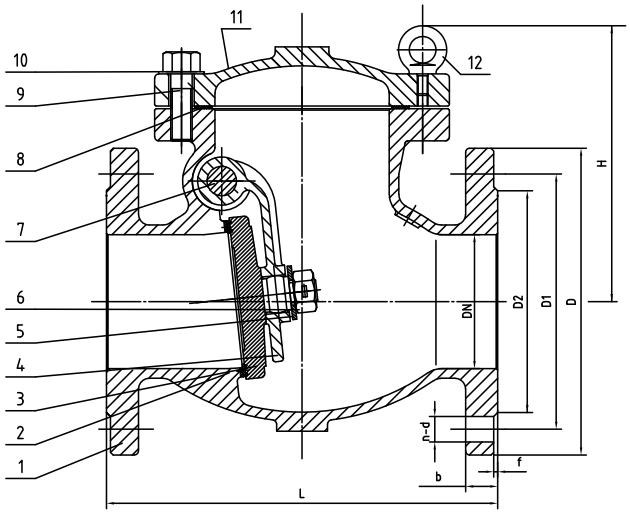
Valve is full bore and manufactured in accordance with BS EN16767 and rated PN16 with -10 to 110°C temperature range.

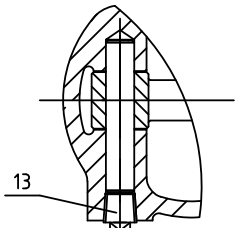
Valve is supplied with drilled flanges in accordance with BS EN 1092-2 PN16.

Valve has C3 corrosion level epoxy coating and shall be categorized in accordance with the Pressure Equipment Directive 2014/68/EU.

Features:

- Entirely automatic in action, depending upon pressure and velocity of flow within the line to perform their functions of opening and closing.
- Swing type check valve with Bronze seat.
- Fusion Bonded Epoxy coating suitable for C3 environment.





Materials:

No.	Description	Material	Specification
1	Body	Ductile Iron	EN-GJS-450-10
2	Seat Ring	Bronze	EN 1982 CC491K
3	Disc	Ductile Iron	EN-GJS-450-10
4	Hinge	Ductile Iron	EN-GJS-450-10
5	Washer	Stainless Steel	AISI 420
6	Nut	Carbon Steel	Zinc Plated
7	Hinge Pin	Stainless Steel	AISI 420
8	Bonnet Gasket	Graphite	+AISI 304
9	Bolts	Carbon Steel	Zinc Plated
10	Washer	Carbon Steel	Zinc Plated
11	Bonnet	Ductile Iron	EN-GJS-450-10
12	Eye Bolt	Carbon Steel	Zinc Plated
13	Plug	Malleable Iron	Galvanized

Dimensions:

DN		Dimensions (mm)							Weight (Kg)
Inch	mm	L	D	D1	D2	B	H	n-Ød	
2.5"	65	216	185	145	118	19	155	4-Ø19	16.6
3"	80	241	200	160	132	19	173	8-Ø19	19.3
4"	100	292	220	180	156	19	180	8-Ø19	27.7
5"	125	330	250	210	184	19	212	8-Ø19	39.8
6"	150	356	285	240	211	19	260	8-Ø23	47.8
8"	200	495	340	295	266	20	290	12-Ø23	71.7
10"	250	622	400	355	319	22	339	12-Ø28	119.0
12"	300	698	460	410	370	24.5	376	12-Ø28	172.6

Valve has C3 corrosion level epoxy coating and shall be categorized in accordance with the Pressure Equipment Directive 2014/68/EU and EU and the Pressure Equipment (Safety) Regulations 2016.

Email: info@ival-hydronics.co.uk – **Website:** www.ival-hydronics.co.uk

Pressure/Temperature Ratings:

Temperature (°C)	-10 to +110
Pressure (Bar)	16

Test Pressures:

Each valve is individually hydrostatically tested at the following test:
(HYDRAULIC) Shell: 24 bar - **Seat:** 17.6 bar

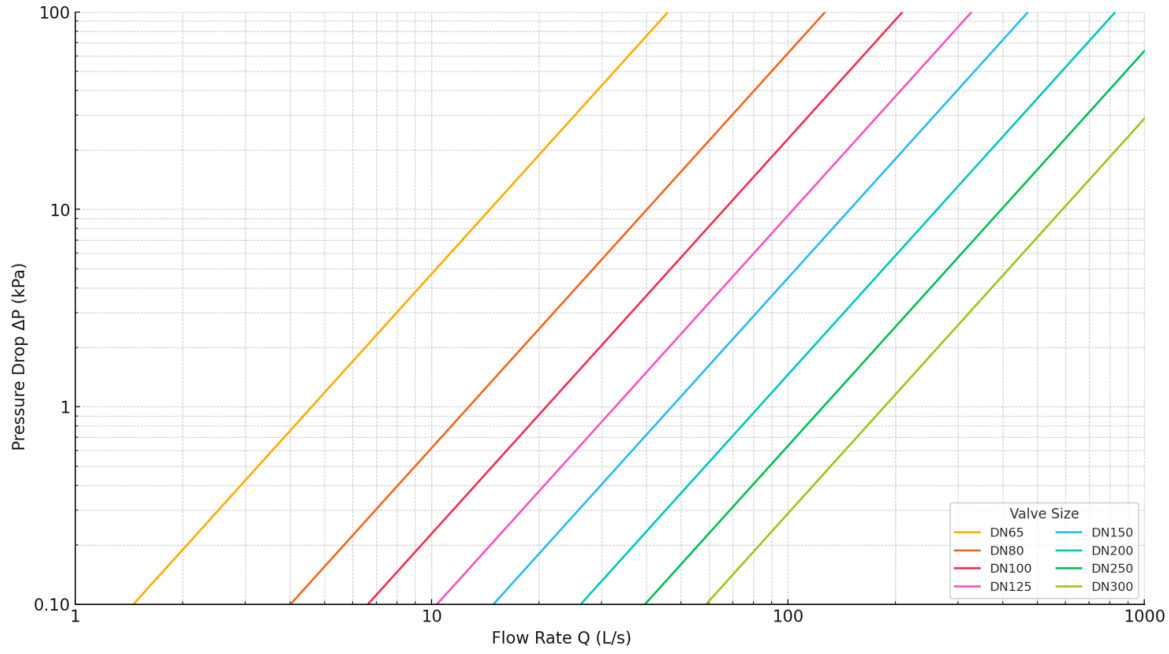
Flow Characteristics:

Size	Kv (m³/h)
DN65 – 2.1/2”	165.8
DN80 – 3”	457.43
DN100 – 4”	754.12
DN125 – 5”	1,178.3
DN150 – 6”	1,696.8
DN200 – 8”	2,982.18
DN250 – 10”	4,516.58
DN300 – 12”	6,700.81

Formula linking flow **Q (in l/s)** and theoretical valve head loss **ΔP (in KPa)**:

$$\Delta P = \left(\frac{36.Q}{K_v}\right)^2$$

Pressure Loss vs. Flow Rate Chart:



Email: info@ival-hydronics.co.uk – **Website:** www.ival-hydronics.co.uk