



CHECK VALVE

MODEL CK3M/CK3T/CK3R BRASS, BRONZE, STAINLESS STEEL

DISC TYPE CHECK VALVE WITH SCREW CONNECTION

Features

Compact check valve for steam, air and water.

1. Fine-machined metal, fluorine resin or nitrile rubber valve seat provides tight closure.
2. Corrosion resistant body material and stainless steel internal parts ensure long service life.
3. Performance assured with installation in either horizontal or vertical pipelines.
4. Also functions as a vacuum breaker for steam (CK3M, CK3T only).
See overleaf for details.



Specifications

Model	CK3M			CK3T			CK3R		
Connection	Screwed								
Size	1/2"-1"	1 1/4"-2"	1/2"-2"	1/2"-1"	1 1/4"-2"	1/2"-2"	1/2"-1"	1 1/4"-2"	1/2"-2"
Body Material	Brass	Bronze	Stainless Steel	Brass	Bronze	Stainless Steel	Brass	Bronze	Stainless Steel
Sealing Surface*	Brass	Bronze	Stainless Steel	Fluorine Resin			Nitrile Rubber		
Maximum Operating Pressure (barg) PMO	10		21	10		16	10		16
Minimum Operating Differential Pressure** (bar)	0.02								
Minimum Required Differential Pressure for Tight Sealing (bar)	-						0.5		
Maximum Operating Temperature (°C) TMO	220			185			90		
Applicable Fluids***	Steam			Steam, Hot Water			Air, Water		

* Perfect sealing cannot be guaranteed for metal or fluorine resin sealing surfaces.

Degradation of, or debris on, rubber sealing surfaces may also prevent perfect sealing.

** When the valve has remained closed for a long period of time, the valve and the valve seat may stick, increasing the necessary minimum operating differential pressure.

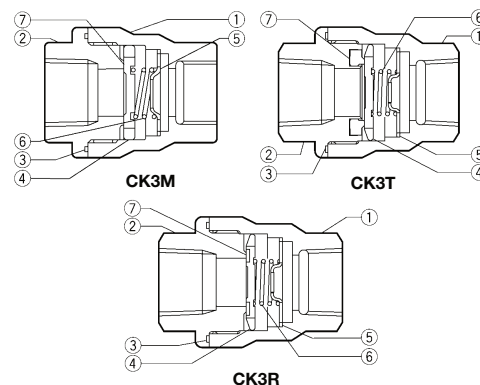
*** Do not use for toxic, flammable or otherwise hazardous fluids.

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 10 (Brass, Bronze), 21 (Stainless Steel)
Maximum Allowable Temperature (°C) TMA: 220



To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	DIN*	ASTM/AISI*		
①	Valve Body	1/2"-1"	Brass C3604	2.0401 B16 C36000		
		1 1/4"-2"	Bronze CAC407	CC498K B584 C92200		
		1/2"-2"	Cast Stainless Steel A351 Gr.CF8	1.4308 -		
②	Inlet Union	1/2"-1"	Brass C3604	2.0401 B16 C36000		
		1 1/4"-2"	Bronze CAC407	CC498K B584 C92200		
		1/2"-2"	Cast Stainless Steel A351 Gr.CF8	1.4308 -		
③ ^{MR}	Union Gasket	Fluorine Resin PTFE	PTFE	PTFE		
④ ^R	Valve Disc	1/2"-1"	Stainless Steel SUS304	1.4301 AISI304		
		1 1/4"-2"	Cast Stainless Steel A351 Gr.CF8	1.4308 -		
⑤	Spring Holder	Stainless Steel SUS304	1.4301	AISI304		
⑥ ^R	Coil Spring	Stainless Steel SUS304	1.4301	AISI304		
⑦	Valve Seat	CK3T	Fluorine Resin PTFE	PTFE	PTFE	
		CK3R	Nitrile Rubber NBR	NBR	D2000BF	
		CK3M	1/2"-1"	Brass C3604	2.0401	B16 C36000
			1 1/4"-2"	Bronze CAC407	CC498K	B584 C92200
			1/2"-2"	Cast Stainless Steel A351 Gr.CF8	1.4308	-



* Equivalent materials

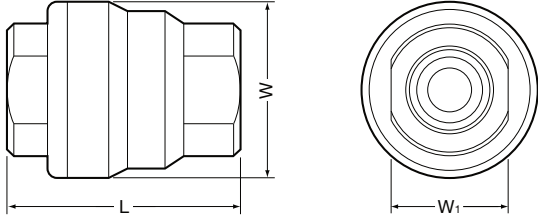
Replacement kits available: (M) maintenance parts, (R) repair parts

When requesting replacement kits, please specify the Minimum Opening Differential Pressure.

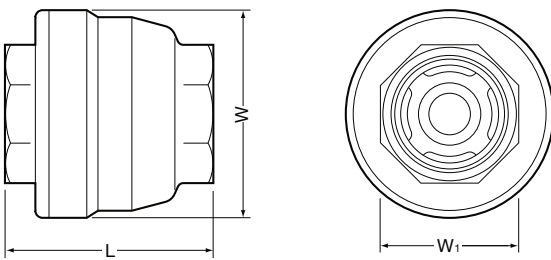
Dimensions

● **CK3M/CK3T/CK3R** Screwed

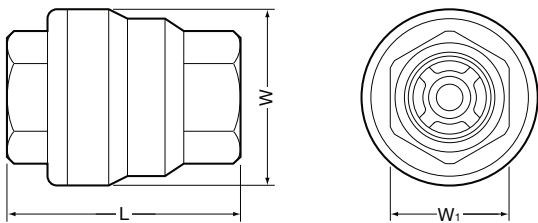
Brass, Size ½" – 1"



Bronze, Size 1¼" – 2"



Stainless Steel, Size ½" – 2"



CK3M/CK3T/CK3R Screwed* (mm)

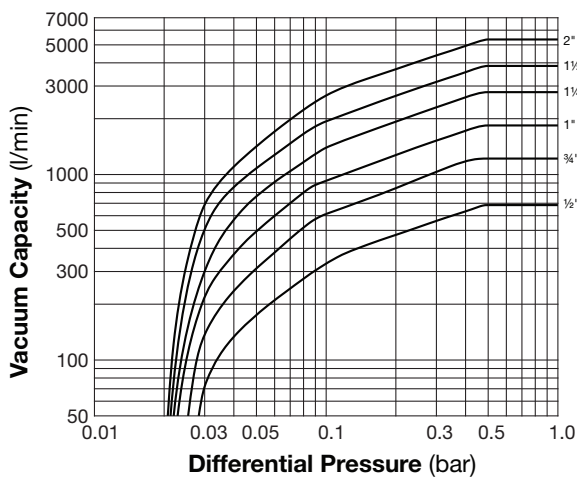
Size	L	φ W	W ₁	Weight (kg)
½"	55	40	27	0.3
¾"	60	50	32	0.5
1"	70	60	41	0.8
1¼"	80	75	50	1.3
1½"	85	85	55	1.6
2"	100	95	70	2.2

* BSP DIN 2999, other standards available

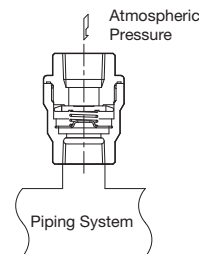
Cv & Kvs Values

Size	½"	¾"	1"	1¼"	1½"	2"
Kvs (DIN)	3.2	5.7	8.6	13	18	25
Cv (UK)	3.1	5.5	8.3	13	17	24
Cv (US)	3.7	6.6	10	15	21	29

Vacuum Breaker Function



1. Differential pressure is the difference between the inlet pressure of the check valve and the internal pressure of the piping system.
2. Capacities are equivalent capacities of air at 20 °C and atmospheric pressure.
3. Configure the outlet piping to prevent dust penetration during suction.



Manufacturer

TLV CO., LTD.

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001

