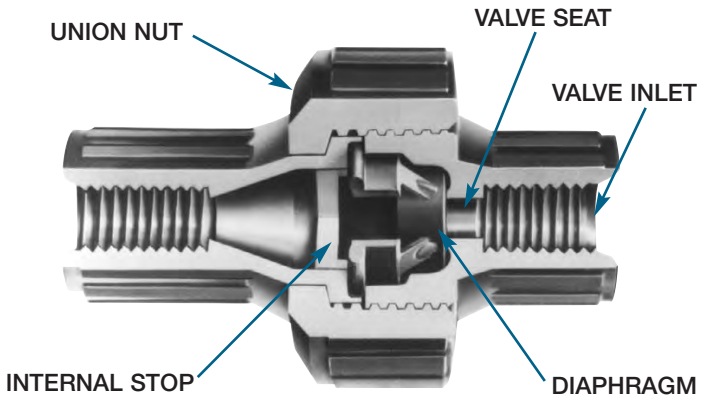
PLASTOMATIC

PRODUCT DATA

SERIES CK/CKM
SELF-CLOSING THERMOPLASTIC CHECK VALVES

PATENTED DIAPHRAGM DESIGN ASSURES DEPENDABLE, REPETITIVE, BUBBLE-TIGHT SEALING... AND CAN BE MOUNTED IN ANY POSITION!

Sizes: 1/2", 3/4" and 1"



DESIGN

Series CKM & CK Check Valves, normally closed in design, feature a patented diaphragm seal that will neither stick nor chatter and is automatic in action. The valves are not dependent upon gravity so they can be mounted in any position. Even in the absence of reverse flow or pressure, the diaphragm will automatically reposition itself to seal against the valve seat. This is achieved with or without the presence of reverse flow. The unique and patented diaphragm will seal in the identical location every time producing a more reliable and repetitive seal.
For information on 1½" - 4" sizes, refer to Series CKS.

FEATURES:

- **Patented Design:** Self-sealing - are not dependent upon gravity, mounting position or reverse flow, a significant improvement over ball check valves.
- **Silent Operation:** No internal sliding or loose parts to slam or vibrate - chattering is eliminated!
- **Dependability:** Leak-free sealing protects against the potential hazards created by reverse flow of corrosive liquids such as acids, caustics and chlorine solutions.
- **Repetitive Long Term Sealing:** Diaphragm automatically positions itself against seat in the identical location. Superior to ball check valves which often leak at lower pressures.
- **Convenience:** Union nut simplifies valve inspection/removal with minimum piping breakdown.
- **Minimal Cracking Pressure:** Diaphragm begins to open at approximately 1.0 to 1.5 PSI.
- **Cost Efficient:** Designed to improve system performance and competitively priced.

MATERIALS OF CONSTRUCTION:

Plast-O-Matic Series CKM Check Valves are molded of Type 1, Grade 1, PVC (Polyvinyl Chloride), Glass-filled Polypropylene, Natural Polypropylene, Corzan® CPVC, and Kynar® PVDF in sizes 1/2", 3/4" and 1", with choice of threaded or socket connections. Natural Polypropylene is available in sizes 1/2", 3/4" and 1", with socket connections only. PTFE is available in a machined version Series CK, sizes 3/4" and 1", with threaded connections only. Diaphragms are of EPDM or FKM (Viton®).

1384 POMPTON AVENUE, CEDAR GROVE, NJ 07009 USA
TEL 973.256.3000 • FAX 973.256.4745 • WWW.PLASTOMATIC.COM

SERIES CK/CKM
SELF-CLOSING THERMOPLASTIC CHECK VALVES

OPERATION:

Flow entering the valve inlet will open the valve by pushing the diaphragm off the valve seat until it comes to rest on the internal stop. This supports the diaphragm and eliminates force or stress under high flow condition. In this position both the diaphragm and valve seat are kept clean by the flushing action of the internal flow, keeping the entire sealing area free of particles which could cause leakage.

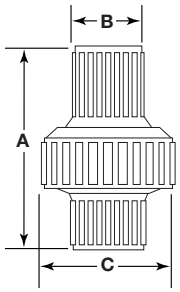
If inlet flow is stopped, or if a backflow of higher pressure occurs, the valve will automatically close. Reverse flow is not required to close the valve.

INSTALLATION:

Make certain that the direction of flow is correct. Threaded connections should never be made to metal piping and should always be wrapped with PTFE or other acceptable pipe sealant to effect a seal. The assembly need only be made hand tight followed by a one-quarter turn with a strap wrench. *DO NOT* overtighten and *DO NOT* use a pipe wrench as a future fracture could result.

DIMENSIONS:

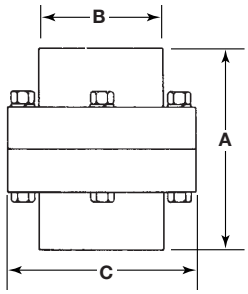
Molded Models CKM - Geon PVC, Corzan CPVC, Glass-filled Polypro, Natural Polypro, and Kynar PVDF



Pipe Size (NPT)	A		B		C	
	in.	mm	in.	mm	in.	mm
1/2"	3.8	97	1.3	33	2.4	62
3/4"	4.1	105	1.6	39	2.8	72
1"	4.7	120	1.9	48	2.8	72

DIMENSIONS:

Machined Model CK - PTFE

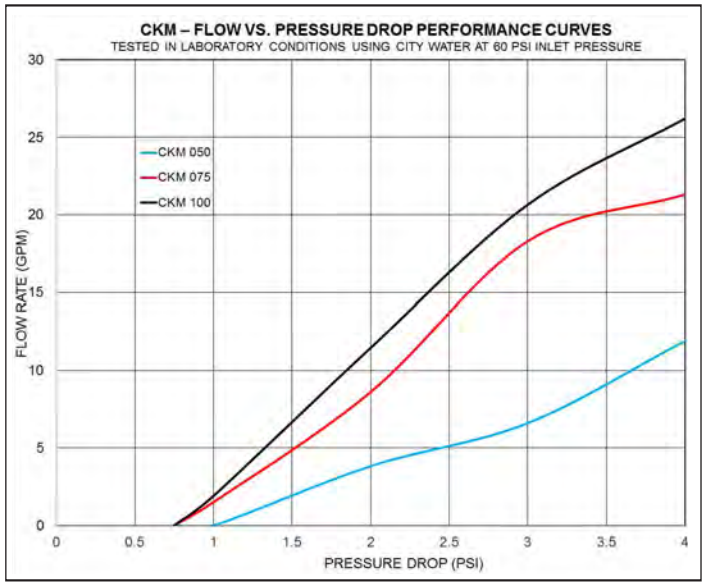


Pipe Size (NPT)	A		B		C	
	in.	mm	in.	mm	in.	mm
3/4"	3.6	92	1.9	48	3.0	76
1"	4.3	110	1.9	48	3.0	76

USA Engineered USA Made

SERIES CK/CKM
SELF-CLOSING THERMOPLASTIC CHECK VALVES

FLOW VS. PRESSURE DROP:



PRESSURE/TEMPERATURE DERATING CHART:

Valve Body Material	Valve Diaphragm Material	Maximum Working Pressure							
		77°F (25°C)		140°F (60°C)		180°F (82°C)		280°F (138°C)	
		Inlet	Back	Inlet	Back	Inlet	Back	Inlet	Back
PVC	EPDM	150	100	150	100	NR	NR	NR	NR
	FKM	150	100	150	100	NR	NR	NR	NR
PP 20% Glass Filled	EPDM	100	100	100	100	100	100	NR	NR
	FKM	100	100	100	100	100	100	NR	NR
NP Natural Polypro	EPDM	100	100	50	50	27	27	NR	NR
	FKM	100	100	50	50	27	27	NR	NR
PVDF	EPDM	150	100	150	100	150	100	NR	NR
	FKM	150	100	150	100	150	100	60	60
CPVC	EPDM	150	100	150	100	150	100	NR	NR
	FKM	150	100	150	100	150	100	NR	NR
PTFE	EPDM	40	40	40	40	40	40	5	5
	FKM	40	40	40	40	40	40	5	5

ORDERING INFORMATION:

Pipe Size	CKM - PVC FKM Seals	CKM - PP FKM Seals	CKM - NP FKM Seals	CKM-PF FKM Seals	CKM-CPVC FKM Seals	CK-TF FKM Seals
1/2"	CKM050V-PV	CKM050V-PP	CKM050VS-NP	CKM050V-PF	CKM050V-CP	N.A.
3/4"	CKM075V-PV	CKM075V-PP	CKM075VS-NP	CKM075V-PF	CKM075V-CP	CK075V-TF
1"	CKM100V-PV	CKM100V-PP	CKM100VS-NP	CKM100V-PF	CKM100V-CP	CK100V-TF

Note: Threads are standard EXCEPT for Natural Polypro. For socket ends add "S" after seal material. (ex. CKM050VS-PV). PP is Glass-filled Polypro; NP is Natural Polypro. For other body materials consult factory. Above shown with FKM (Viton®) Seals. For EPDM seals change "V" to "EP".
N.A. = Not Available.

Below L to R: CKM in PVC, Natural Polypro, PVDF with custom connection; machined Series CK in PTFE.

USA Engineered USA Made