

Directional, Check Cartridges

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Cavity Information

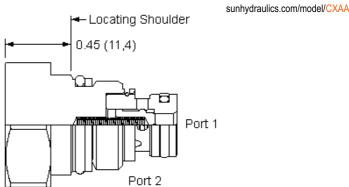
Series	Ports	Cavities
Series Z Cartridges	3-Port	T-382A
3/8-24 UNF Cartridge Thread		
5 mm Valve Hex Size		
1 - 14 Nm Valve Installation Torque		
Series P Cartridges	2-Port	T-8A
M16 Cartridge Thread	2-Port (Deep)	T-8DP
22.2 mm Valve Hex Size	3-Port	T-9A
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Series 0 Cartridges	2-Port	T-162A
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И16 Cartridge Thread 19,1 mm Valve Hex Size	3-Port	T-150A
25,4 mm Valve Hex Size	3-Port	T-163A
27 - 33 Nm Valve Installation Torque	4-Port	T-30A
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11 - 47 Nm Valve Installation Torque	4-Port	T-21A
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	6-Port	T-61A
Series 2 Cartridges	2-Port	T-3A
I"-14 UNS Cartridge Thread	2-Port	T-5A
28,6 mm Valve Hex Size	3-Port	T-2A
1 - 68 Nm Valve Installation Torque	4-Port 4-Port	T-22A
	4-Port (Dual path)	T-32A T-52AD
	6-Port	T-52AD T-52A
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•	3-Port	T-17A
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203 - 217 Nm Valve Installation Torque	4-Port	T-33A
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	4-Port	T-34A
	4-Port (Dual path)	T-54AD
	6-Port	T-54A
	6-Port	T-64A



Free flow nose to side check valve - pilot capacity SERIES P / CAPACITY: 20 L/min. / CAVITY: T-8A



2 |



Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Seal kit - Cartridge	Buna: 990608007
Seal kit - Cartridge	EPDM: 990608014
Seal kit - Cartridge	Viton: 990608006

CONFIGURATION OPTIONS

Model Code Example: CXAAXBN

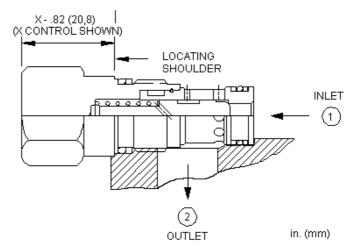
CONTROL	(X) CRACKING PRESSURE	(B) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	B 15 psi (1 bar)	N Buna-N	Standard Material/Coating
	F 100 psi (7 bar)	E EPDM	/AP Stainless Steel, Passivated
	Z 1 psi (0,07 bar)	V Viton	/LH Mild Steel, Zinc-Nickel

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Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar		
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.		
Seal kit - Cartridge	Buna: 990162007		
Seal kit - Cartridge	EPDM: 990162014		
Seal kit - Cartridge	Polyurethane: 990162002		
Seal kit - Cartridge	Viton: 990162006		

CONFIGURATION OPTIONS

Model Code Example: CXBAXCN

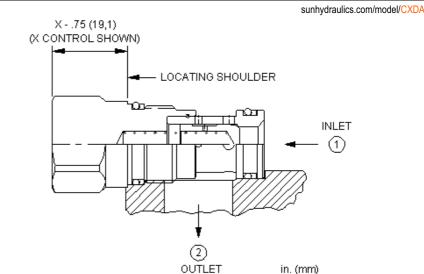
CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING	
X Not Adjustable		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating	
		A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated	
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel	
		D 50 psi (3,5 bar)					
		E 75 psi (5 bar)					
		F 100 psi (7 bar)					

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SERIES 1 / CAPACITY: 80 L/min. / CAVITY: T-13A







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar		
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.		
Seal kit - Cartridge	Buna: 990010007		
Seal kit - Cartridge	EPDM: 990010014		
Seal kit - Cartridge	Polyurethane: 990010002		
Seal kit - Cartridge	Viton: 990010006		

CONFIGURATION OPTIONS

Model Code Example: CXDAXCN

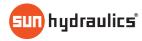
CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Not Adjustable		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
	_	A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated
		D 45: (4 b)		M Althan		ALLI Milal Ota al. Tima Milalad

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar) F 100 psi (7 bar) V Viton /LH Mild Steel, Zinc-Nickel

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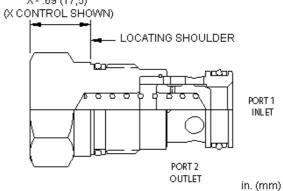
SERIES 2 / CAPACITY: 160 L/min. / CAVITY: T-5A



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X - .69 (17,5)





Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	EPDM: 990203014
Seal kit - Cartridge	Viton: 990203006

CONFIGURATION OPTIONS

Model Code Example: CXFAXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating
	A 4 psi (0,3 bar)	E EPDM	/AP Stainless Steel, Passivated
	B 15 psi (1 bar)	V Viton	/LH Mild Steel, Zinc-Nickel
	D 50 psi (3,5 bar)		
	E 75 psi (5 bar)		
	F 100 psi (7 bar)		

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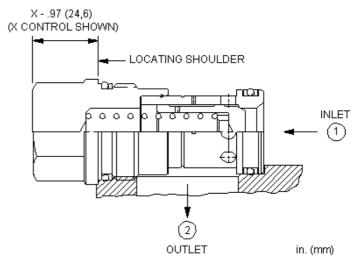
SERIES 3 / CAPACITY: 320 L/min. / CAVITY: T-16A



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Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.	
Seal kit - Cartridge	Buna: 990016007	
Seal kit - Cartridge	EPDM: 990016014	
Seal kit - Cartridge	Polyurethane: 990016002	
Seal kit - Cartridge	Viton: 990016006	

CONFIGURATION OPTIONS

Model Code Example: CXHAXCN

CONTROL (X) CF	RACKING PRESSURE (C)	SEAL MATERIAL (N)	MATERIAL/COATING
----------------	----------------------	-------------------	------------------

X	Not Adjustable	
L	Manual Override	

C 30 psi (2 bar)
A 4 psi (0,3 bar)
B 15 psi (1 bar)

D 50 psi (3,5 bar)E 75 psi (5 bar)F 100 psi (7 bar)

N Buna-NE EPDMV Viton

Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

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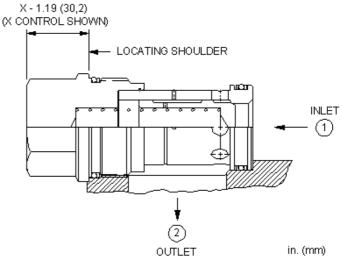
SERIES 4 / CAPACITY: 610 L/min. / CAVITY: T-18A



sunhydraulics.com/model/CXJA







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.	
Seal kit - Cartridge	Buna: 990018007	
Seal kit - Cartridge	EPDM: 990018014	
Seal kit - Cartridge	Polyurethane: 990018002	
Seal kit - Cartridge	Viton: 990018006	

CONFIGURATION OPTIONS

Model Code Example: CXJAXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating
·	A 4 psi (0,3 bar)	E EPDM	/AP Stainless Steel, Passivated
	P 15 noi (1 hor)	V \/itop	/I U Mild Ctool Tipo Niekol

- **B** 15 psi (1 bar)
- **D** 50 psi (3,5 bar)
- **E** 75 psi (5 bar)
- **F** 100 psi (7 bar)
- **G** 150 psi (10,5 bar)
- **V** Viton
- /LH Mild Steel, Zinc-Nickel

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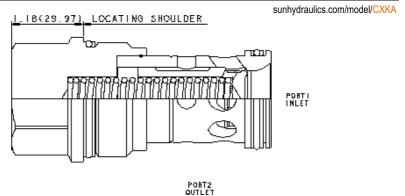




SERIES 4 / CAPACITY: 900 L/min. / CAVITY: T-18AU







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

E 75 psi (5 bar)F 100 psi (7 bar)G 150 psi (10,5 bar)

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990018007
Seal kit - Cartridge	EPDM: 990018014
Seal kit - Cartridge	Viton: 990018006

CONFIGURATION OPTIONS

Model Code Example: CXKAXCN

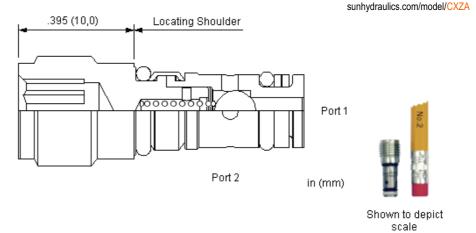
CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating
	A 4 psi (0,3 bar)	E EPDM	/AP Stainless Steel, Passivated
	B 15 psi (1 bar)	V Viton	/LH Mild Steel, Zinc-Nickel
	D 50 pci (3.5 bar)		

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SERIES Z / CAPACITY: 4 L/min. / CAVITY: T-382A







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size 5 mm	
Seal kit - Cartridge	Buna: 990382007
Seal kit - Cartridge	EPDM: 990382014
Seal kit - Cartridge	Viton: 990382006

CONFIGURATION OPTIONS

Model Code Example: CXZAXCN

CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING	
X Not Adjustable		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating	
		A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated	
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel	

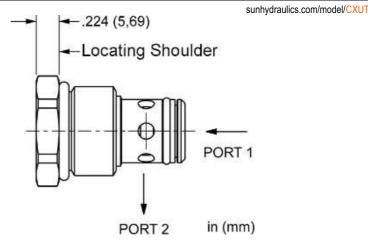
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Free flow nose to side check valve - common cavity SERIES 1C / CAPACITY: 60 L/min. / CAVITY: SC-10-02







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	250 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,3 cc/min.
Seal kit - Cartridge	Buna: 99C102007
Seal kit - Cartridge	Viton: 99C102006

CONFIGURATION OPTIONS

Model Code Example: CXUTXCN

 CONTROL
 (X)
 CRACKING PRESSURE
 (C)
 SEAL MATERIAL
 (N)

 X C 29 psi (2.0 bar)
 N Buna-N

 A 7 psi (.5 bar)
 V Viton

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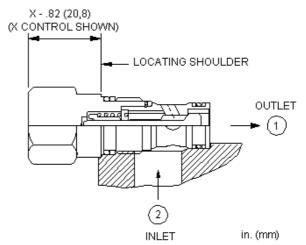
Free flow side to nose check valve CAPACITY: 30 L/min. / CAVITY: T-162A



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Free-flow, side-to-nose check valves are on/off circuit components that allow free flow from the inlet (port 2) to the outlet (port 1) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge Buna: 990162007	
Seal kit - Cartridge	EPDM: 990162014
Seal kit - Cartridge	Polyurethane: 990162002
Seal kit - Cartridge	Viton: 990162006

CONFIGURATION OPTIONS

Model Code Example: CXADXCN

CONTROL	(X)	NOMINAL CONTROL PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING

X	Not	Adiu	stah	e

•	oo por (E bar)
Α	4 psi (0,3 bar)
D	50 psi (3,5 bar)
Ε	75 psi (5 bar)
Ζ	1 psi (0,07 bar)

N Buna-NE EPDMV Viton

Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

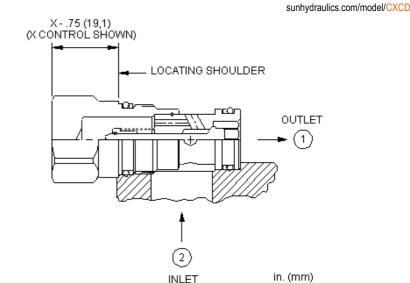
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SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-13A



2





Free-flow, side-to-nose check valves are on/off circuit components that allow free flow from the inlet (port 2) to the outlet (port 1) and block flow in the opposite direction.

TECHNICAL DATA

F 100 psi (7 bar)

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990010007
Seal kit - Cartridge	EPDM: 990010014
Seal kit - Cartridge	Polyurethane: 990010002
Seal kit - Cartridge	Viton: 990010006

CONFIGURATION OPTIONS

Model Code Example: CXCDXCN

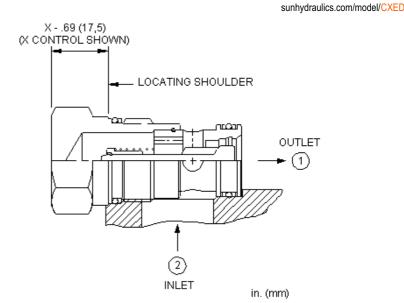
CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating
L Manual Override	A 4 psi (0,3 bar)	E EPDM	/AP Stainless Steel, Passivated
	B 15 psi (1 bar)	V Viton	/LH Mild Steel, Zinc-Nickel
	D 50 psi (3,5 bar)		
	E 75 psi (5 bar)		

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SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-5A



Free-flow, side-to-nose check valves are on/off circuit components that allow free flow from the inlet (port 2) to the outlet (port 1) and block flow in the opposite direction.

TECHNICAL DATA

F 100 psi (7 bar)

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	Viton: 990203006

CONFIGURATION OPTIONS

Model Code Example: CXEDXCN

CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Not Adjustable		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
		A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel
		D 50 psi (3,5 bar)				
		E 75 psi (5 bar)				

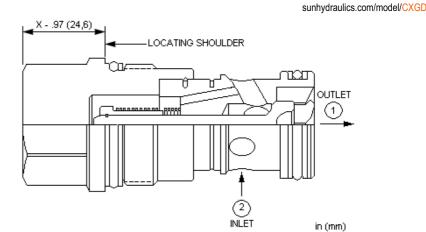
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SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-16A



2 1





Free-flow, side-to-nose check valves are on/off circuit components that allow free flow from the inlet (port 2) to the outlet (port 1) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	EPDM: 990016014
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006

CONFIGURATION OPTIONS

Model Code Example: CXGDXCN

CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING	
X Not Adjustable		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating	
		A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated	
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel	
		D 50 psi (3,5 bar)					
		E 75 psi (5 bar)					
		F 100 psi (7 bar)					

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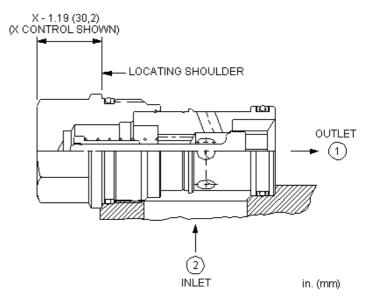
SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-18A



sunhydraulics.com/model/CXID







Free-flow, side-to-nose check valves are on/off circuit components that allow free flow from the inlet (port 2) to the outlet (port 1) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990018007
Seal kit - Cartridge	EPDM: 990018014
Seal kit - Cartridge	Polyurethane: 990018002
Seal kit - Cartridge	Viton: 990018006

CONFIGURATION OPTIONS

Model Code Example: CXIDXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/CO

X	Not Adjustable	С	30 psi (2 ba
		Α	4 psi (0,3 ba

B 15 psi (1 bar)

D 50 psi (3,5 bar)E 75 psi (5 bar)F 100 psi (7 bar)

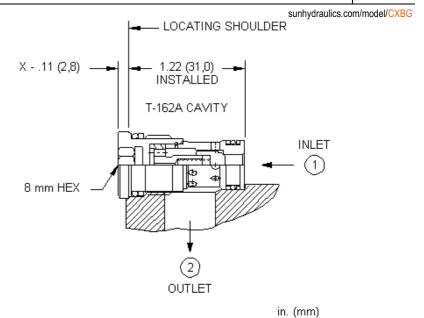
N Buna-N
E EPDM
V Viton

Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

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2



Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

D 50 psi (3,5 bar)

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size	8 mm
Seal kit - Cartridge	Buna: 990162007
Seal kit - Cartridge	Polyurethane: 990162002
Seal kit - Cartridge	Viton: 990162006

CONFIGURATION OPTIONS

Model Code Example: CXBGXAN

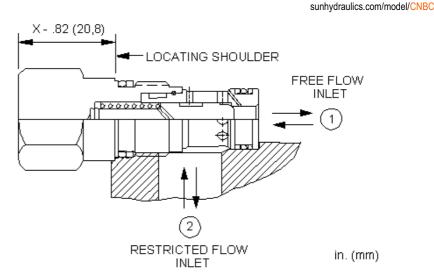
CONTROL	(X) CRACKING PRESSURE	(A) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	A 4 psi (0,3 bar)	N Buna-N	Standard Material/Coating
	B 15 psi (1 bar)	V Viton	/AP Stainless Steel, Passivated
	C 30 psi (2 bar)		/LH Mild Steel, Zinc-Nickel

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Free-flow, nose-to-side check valves with a bypass orifice allow free flow from port 1 to port 2. A customer specified orifice is included to restrict flow from port 2 to port 1. See technical data below for orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 1,6 mm
Seal kit - Cartridge	Buna: 990162007
Seal kit - Cartridge	EPDM: 990162014
Seal kit - Cartridge	Polyurethane: 990162002
Seal kit - Cartridge	Viton: 990162006

CONFIGURATION OPTIONS

Model Code Example: CNBCXCN

CONTROL (X)	SETTING RANGE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
-------------	---------------	-----	---------------	-----	------------------

X Not Adjustable

C 30 psi (2 bar) Cracking Pressure, .016 -.062 in. (0,4 - 1,6 mm)

- A 4 psi (0,3 bar) Cracking Pressure, .016 - .062 in. (0,4 - 1,6 mm)
- B 15 psi (1 bar) Cracking Pressure, .016 -.062 in. (0,4 - 1,6 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .062 in. (0,4 - 1,6 mm)
- E 75 psi (5 bar) Cracking Pressure, .016 -.062 in. (0,4 - 1,6 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .062 in. (0,4 - 1,6 mm)

N Buna-N **E** EPDM /AP Stainless Steel, Passivated V Viton /LH Mild Steel, Zinc-Nickel

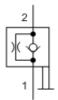
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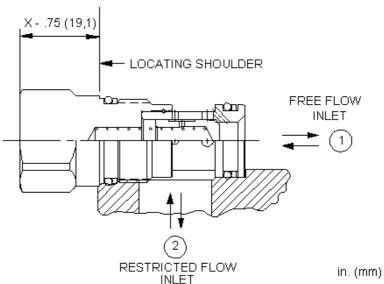




sunhydraulics.com/model/CNDC







Free-flow, nose-to-side check valves with a bypass orifice allow free flow from port 1 to port 2. A customer specified orifice is included to restrict flow from port 2 to port 1. See technical data below for orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 2,7 mm
Seal kit - Cartridge	Buna: 990010007
Seal kit - Cartridge	Polyurethane: 990010002
Seal kit - Cartridge	Viton: 990010006

CONFIGURATION OPTIONS

Model Code Example: CNDCXCN

CONTROL

(X) SETTING RANGE

(C) SEAL MATERIAL N Buna-N

Viton

(N) MATERIAL/COATING

X Not Adjustable L Manual Load Release C 30 psi (2 bar) Cracking Pressure, .016 -.107 in. (0,4 - 2,7 mm)

A 4 psi (0,3 bar) Cracking Pressure, .016 - .107 in. (0,4 - 2,7 mm)

B 15 psi (1 bar) Cracking Pressure, .016 -.107 in. (0,4 - 2,7 mm)

D 50 psi (3,5 bar) Cracking Pressure, .016 - .107 in. (0,4 - 2,7 mm)

E 75 psi (5 bar) Cracking Pressure, .016 -.107 in. (0,4 - 2,7 mm)

F 100 psi (7 bar) Cracking Pressure, .016 - .107 in. (0,4 - 2,7 mm)

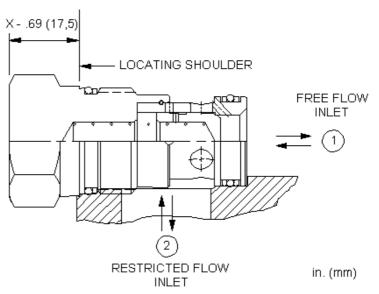
Standard Material/Coating /AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

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sunhydraulics.com/model/CNFC





Free-flow, nose-to-side check valves with a bypass orifice allow free flow from port 1 to port 2. A customer specified orifice is included to restrict flow from port 2 to port 1. See technical data below for orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 3,2 mm
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	Viton: 990203006

CONFIGURATION OPTIONS

Model Code Example: CNFCXCN

CONTROL	(X)	SETTING RANGE	(C
N. N. (A.P. (A.I.		6 00 :/01 \ 0 1: B	0.40
X Not Adjustable		C 30 psi (2 bar) Cracking Pressure	016

(C) SEAL MATERIAL

Viton

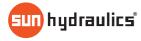
(N) MATERIAL/COATING

.127 in. (0,4 - 3,2 mm)

- A 4 psi (0,3 bar) Cracking Pressure, .016 - .127 in. (0,4 - 3,2 mm)
- B 15 psi (1 bar) Cracking Pressure, .016 -.127 in. (0,4 - 3,2 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .127 in. (0,4 - 3,2 mm)
- E 75 psi (5 bar) Cracking Pressure, .016 -.127 in. (0,4 - 3,2 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .127 in. (0,4 - 3,2 mm)

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

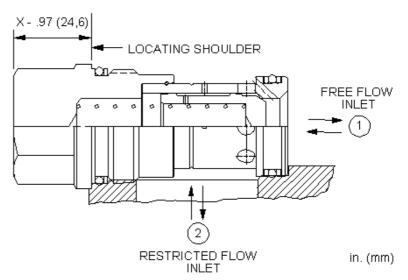
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Free-flow, nose-to-side check valves with a bypass orifice allow free flow from port 1 to port 2. A customer specified orifice is included to restrict flow from port 2 to port 1. See technical data below for orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 6,4 mm
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	EPDM: 990016014
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006

CONFIGURATION OPTIONS

Model Code Example: CNHCXCN

X Not Adjustable

CONTROL

C 30 psi (2 bar) Cracking Pressure, .016 -

(X) SETTING RANGE

- .252 in. (0,4 6,4 mm) A 4 psi (0,3 bar) Cracking Pressure, .016
- B 15 psi (1 bar) Cracking Pressure, .016 -.252 in. (0,4 - 6,4 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .252 in. (0,4 - 6,4 mm)

- .252 in. (0,4 - 6,4 mm)

- E 75 psi (5 bar) Cracking Pressure, .016 -.252 in. (0,4 - 6,4 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .252 in. (0,4 - 6,4 mm)

(N) MATERIAL/COATING (C) SEAL MATERIAL N Buna-N

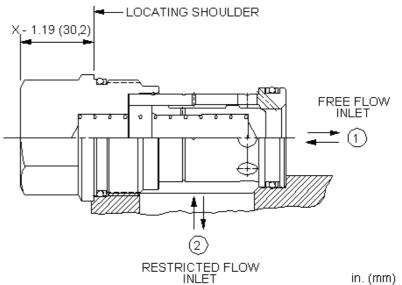
Standard Material/Coating **E** EPDM /AP Stainless Steel, Passivated V Viton /LH Mild Steel, Zinc-Nickel

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Free-flow, nose-to-side check valves with a bypass orifice allow free flow from port 1 to port 2. A customer specified orifice is included to restrict flow from port 2 to port 1. See technical data below for orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 9 mm
Seal kit - Cartridge	Buna: 990018007
Seal kit - Cartridge	Polyurethane: 990018002
Seal kit - Cartridge	Viton: 990018006

CONFIGURATION OPTIONS

X Not Adjustable

Model Code Example: CNJCXCN

Viton

(X) SETTING RANGE (N) MATERIAL/COATING CONTROL (C) SEAL MATERIAL

> 30 psi (2 bar) Cracking Pressure, .016 .354 in. (0,4 - 9 mm)

A 4 psi (0,3 bar) Cracking Pressure, .016

- .354 in. (0,4 - 9 mm) B 15 psi (1 bar) Cracking Pressure, .016 -.354 in. (0,4 - 9 mm)

D 50 psi (3,5 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)

E 75 psi (5 bar) Cracking Pressure, .016 -.354 in. (0,4 - 9 mm)

F 100 psi (7 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)

G 150 psi (10 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)

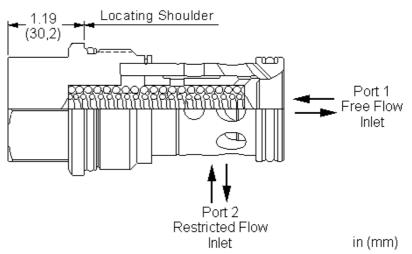
N Buna-N Standard Material/Coating /AP Stainless Steel, Passivated

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Free-flow, nose-to-side check valves with a bypass orifice allow free flow from port 1 to port 2. A customer specified orifice is included to restrict flow from port 2 to port 1. See technical data below for orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 9 mm
Seal kit - Cartridge	Buna: 990018007
Seal kit - Cartridge	Viton: 990018006

CONFIGURATION OPTIONS

Model Code Example: CNKCXAN

CONTROL (X) SETTING RANGE (A) SEAL MATERIAL (N) X Not Adjustable

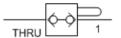
.354 in. (0,4 - 9 mm) 15 psi (1 bar) Cracking Pressure, .016 -

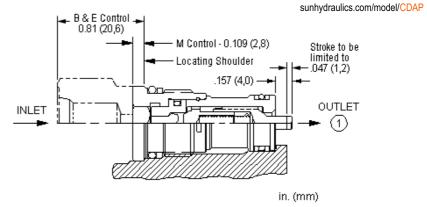
- .354 in. (0,4 9 mm)
- C 30 psi (2 bar) Cracking Pressure, .016 -.354 in. (0,4 - 9 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)
- E 75 psi (5 bar) Cracking Pressure, .016 -.354 in. (0,4 - 9 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)
- **G** 150 psi (10 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)
- **Z** 1 psi (0,07 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)

N Buna-N

© 2021 Sun Hydraulics 21 of 74 CAPACITY: 4,7 L/min. / CAVITY: T-162DP







The phaser check is a pair of checks, back-to-back, with the poppet at port 1 mechanically actuated. The valve is meant to be installed into the piston of a cylinder. When the cylinder reaches the end of its stroke the poppet in the phaser check is shoved off its seat allowing flow through the piston. This allows two cylinders to get back into phase.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size	8 mm
Seal kit - Cartridge	Buna: 990162007
Seal kit - Cartridge	Viton: 990162006

CONFIGURATION OPTIONS

E External 4-SAE Port

Model Code Example: CDAPMCN

CONTROL	(M)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)
M Mechanical Actuation		C 30 psi (2 bar)		N Buna-N	
B External 1/4 BSPP Port				V Viton	

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MODEL CDAQ

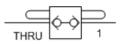
Mechanically operated, back-to-back check valve

CAPACITY: 4,7 L/min. / CAVITY: T-162DP

0.109 (2,8)

THROUGH PORT







PORT

(1)

in. (mm)

The phaser check is a pair of checks, back-to-back, with both poppets mechanically actuated. The valve is meant to be installed into the piston or rod of a cylinder. When the cylinder reaches the end of its stroke the poppet in the phaser check is shoved off its seat allowing flow through the piston. This allows two cylinders to get back into

OCATING SHOULDER

TECHNICAL DATA

phase.

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size	8 mm
Seal kit - Cartridge	Buna: 990162007
Seal kit - Cartridge	Polyurethane: 990162002
Seal kit - Cartridge	Viton: 990162006

NOTES

A special tool is required to install this cartridge. Use part number 998-101 to order this tool.

CONFIGURATION OPTIONS

Model Code Example: CDAQMCN

CONTROL (M) CRACKING PRESSURE (C) SEAL MATERIAL (N)

M Mechanical Actuation

C 30 psi (2 bar)

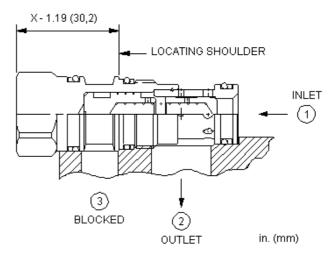
N Buna-V Viton

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Free-flow, nose-to-side cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CXDCXCN

V Viton

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating

A 4 psi (0,3 bar)

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

Z 1 psi (0,07 bar)

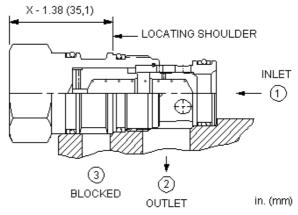
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

© 2021 Sun Hydraulics 24 of 74 Free flow nose to side check valve with port 3 blocked SERIES 2 / CAPACITY: 160 L/min. / CAVITY: T-2A



sunhydraulics.com/model/CXFC





Free-flow, nose-to-side cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.	
Seal kit - Cartridge	Buna: 990202007	
Seal kit - Cartridge	Polyurethane: 990002002	
Seal kit - Cartridge	Viton: 990202006	

CONFIGURATION OPTIONS

Model Code Example: CXFCXCN

CONTROL (X		(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
------------	--	-----	---------------	-----	------------------

C 30 psi (2 bar) **A** 4 psi (0,3 bar)

N Buna-N

X Not Adjustable

V Viton

/LH Mild Steel, Zinc-Nickel

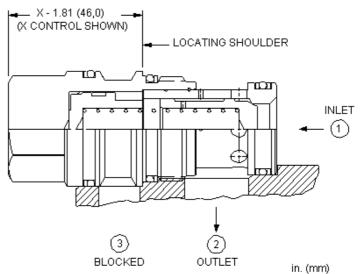
- **B** 15 psi (1 bar) **D** 50 psi (3,5 bar)
- **E** 75 psi (5 bar)
- 100 psi (7 bar)
- **Z** 1 psi (0,07 bar)

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sunhydraulics.com/model/CXHC





 $Free-flow, no se-to-side \ cheater \ check \ valves \ function \ as \ a \ standard \ 2-port \ check \ valve \ in \ a \ 3-port \ cavity \ with \ port \ 3$ of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CXHCXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Co

C 30 psi (2 bar) A 4 psi (0,3 bar) **B** 15 psi (1 bar)

V Viton

/LH Mild Steel, Zinc-Nickel

D 50 psi (3,5 bar) E 75 psi (5 bar)

F 100 psi (7 bar)

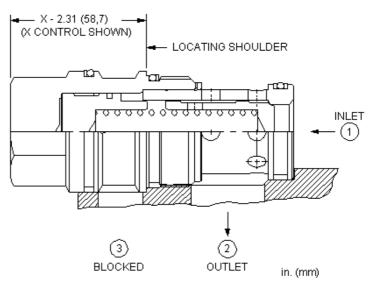
Z 1 psi (0,07 bar)

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Free-flow, nose-to-side cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: CXJCXCN

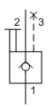
CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N)
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	
-	A 4 psi (0,3 bar)	V Viton	
	B 15 psi (1 bar)		
	D 50 psi (3,5 bar)		
	E 75 psi (5 bar)		
	F 100 psi (7 bar)		
	Z 1 psi (0,07 bar)		

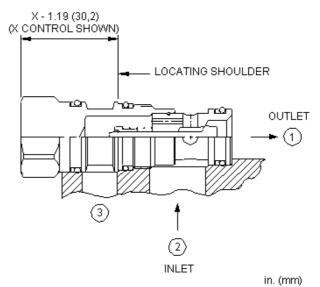
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Free-flow, side-to-nose cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CXCEXCN

N Buna-N

V Viton

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adjustable C 30 psi (2 bar)

A 4 psi (0,3 bar)

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

/LH Mild Steel, Zinc-Nickel

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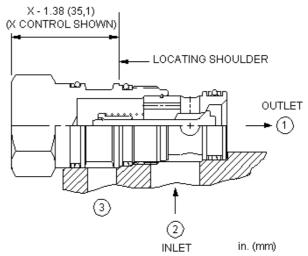


Free flow side to nose check valve with port 3 blocked SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-2A



sunhydraulics.com/model/CXEI





Free-flow, side-to-nose cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: CXEEXCN

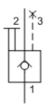
CONTROL	(X) CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
	A 4 psi (0,3 bar)		V Viton		/AP Stainless Steel, Passivated
	B 15 psi (1 bar)				/LH Mild Steel, Zinc-Nickel
	D 50 psi (3,5 bar)				
	E 75 psi (5 bar)				
	F 100 psi (7 bar)				

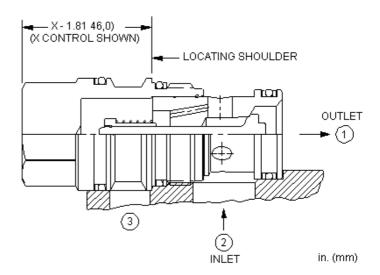
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Free-flow, side-to-nose cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure 350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge Polyurethane: 990017002	
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CXGEXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating
•	A 4 psi (0.3 bar)	V Viton	/AP Stainless Steel. Passivated

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

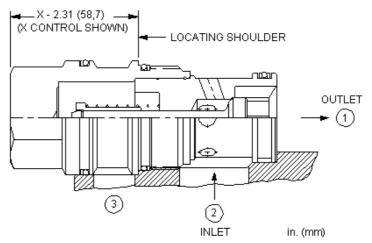
/LH Mild Steel, Zinc-Nickel

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sunhydraulics.com/model/CXIE





Free-flow, side-to-nose cheater check valves function as a standard 2-port check valve in a 3-port cavity with port 3 of the cartridge blocked off. These valves are useful in circuits where a check valve is required in an existing three port cavity.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: CXIEXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING	
X Not Adjustable	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating	
	A 4 psi (0,3 bar)	V Viton	/AP Stainless Steel, Passivated	
	D 15 noi (1 hor)		/LU Mild Ctool Tine Niekel	

B 15 psi (1 bar) **D** 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

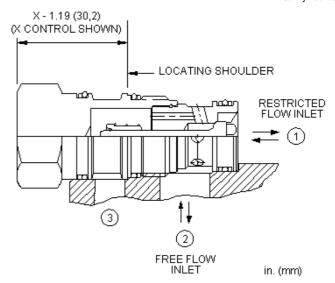
© 2021 Sun Hydraulics 31 of 74 **MODEL CNCD**

Free flow side to nose check valve with bypass orifice and port 3 blocked SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-11A



sunhydraulics.com/model/CNCD





Free-flow, side-to-nose cheater check valves with a bypass orifice function as a 2-port check valve in a 3-port cavity. They allow free flow from port 2 to port 1 with a customer specified orifice that controls flow from port 1 to port 2. Port 3 of the cartridge is blocked off.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 3,9 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CNCDXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL (N) MATERIAL/COATING N Buna-N Standard Material/Coating

X Not Adjustable C 30 psi (2 bar) Cracking Pressure, .016 -.153 in. (0,4 - 3,9 mm

V Viton

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

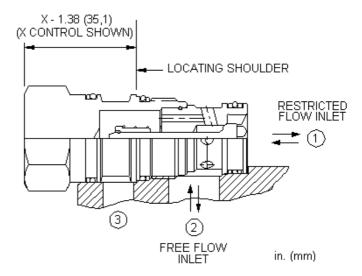
© 2021 Sun Hydraulics 32 of 74 MODEL CNED

Free flow side to nose check valve with bypass orifice and port 3 blocked SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-2A



sunhydraulics.com/model/CNED





Free-flow, side-to-nose cheater check valves with a bypass orifice function as a 2-port check valve in a 3-port cavity. They allow free flow from port 2 to port 1 with a customer specified orifice that controls flow from port 1 to port 2. Port 3 of the cartridge is blocked off.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 3,4 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: CNEDXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adjustable

C 30 psi (2 bar) Cracking Pressure, .016 . .135 in. (0,4 - 3,4 mm)

N Buna-N
V Viton

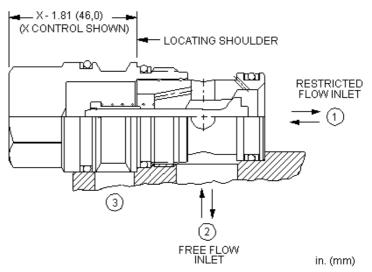
/AP Stainless Steel, Passivated //LH Mild Steel, Zinc-Nickel

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sunhydraulics.com/model/CNGD





Free-flow, side-to-nose cheater check valves with a bypass orifice function as a 2-port check valve in a 3-port cavity. They allow free flow from port 2 to port 1 with a customer specified orifice that controls flow from port 1 to port 2. Port 3 of the cartridge is blocked off.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 5,5 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CNGDXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adjustable

C 30 psi (2 bar) Cracking Pressure, .016 - .218 in. (0,4 - 5,5 mm)

V Viton

Standard Material/Coating

/AP Stainless Steel, Passivated

- A 4 psi (0,3 bar) Cracking Pressure, .016
 .218 in. (0,4 5,5 mm)
- **B** 15 psi (1 bar) Cracking Pressure, .016 .218 in. (0,4 5,5 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 .218 in. (0,4 5,5 mm)
- **E** 75 psi (5 bar) Cracking Pressure, .016 .218 in. (0,4 5,5 mm)
- **F** 100 psi (7 bar) Cracking Pressure, .016 .218 in. (0,4 5,5 mm)

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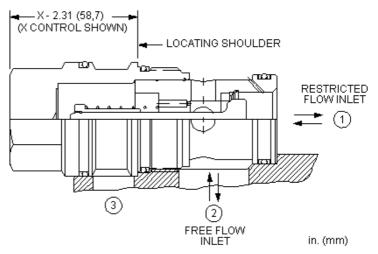
MODEL CNID

Free flow side to nose check valve with bypass orifice and port 3 blocked SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-19A



sunhydraulics.com/model/CNID





Free-flow, side-to-nose cheater check valves with a bypass orifice function as a 2-port check valve in a 3-port cavity. They allow free flow from port 2 to port 1 with a customer specified orifice that controls flow from port 1 to port 2. Port 3 of the cartridge is blocked off.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 5,5 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: CNIDXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adjustable C 30 psi (2 bar) Cracking Pressure, .016 - .218 in. (0,4 - 5,5 mm) V Viton MATERIAL/COATING

Standard Material/Coating //AP Stainless Steel, Passivated

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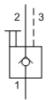


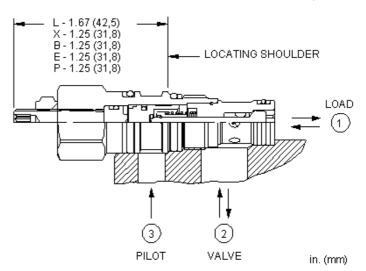




sunhydraulics.com/model/CKBB







This valve is a pilot to open check valve. It has a non-sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	EPDM: 990163014
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: CKBBXCN

CONTROL	(X) CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Standard Pilot	C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
L Manual Load Release	E 75 psi (5 bar)		E EPDM		/AP Stainless Steel, Passivated
			V Viton		/LH Mild Steel, Zinc-Nickel

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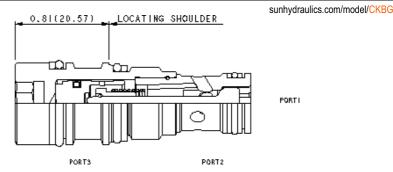


Flush mount pilot-to-open check valve with sealed pilot

CAPACITY: 30 L/min. / CAVITY: T-163A







This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size	8 mm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: CKBGXCN

CONTROL	(X) BIAS PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adustable, Standard Hy	ydraulic Pilot C 30 psi (2 bar)	N Buna-N	Standard Material/Coating
	E 75 psi (5 bar)	V Viton	/AP Stainless Steel, Passivated

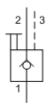
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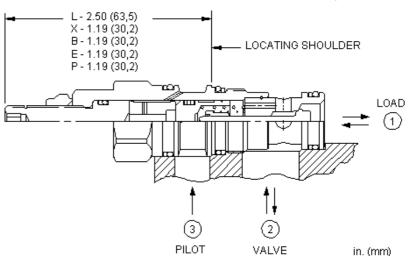


sunhydraulics.com/model/CKCB









This valve is a pilot to open check valve. It has a non-sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CKCBXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

Χ	Standard Pilot
L	Manual Load Release

С	30 psi (2 bar)
Α	4 psi (0,3 bar)
В	15 psi (1 bar)
D	50 psi (3,5 bar)
Ε	75 psi (5 bar)

F 100 psi (7 bar)

Ν	Buna-N	
E	EPDM	
١	V iton	

Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

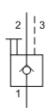
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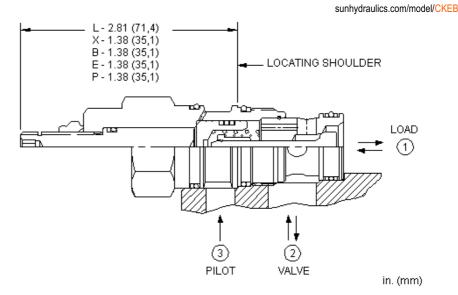
SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-2A











This valve is a pilot to open check valve. It has a non-sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

E 75 psi (5 bar) **F** 100 psi (7 bar)

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: CKEBXCN

CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING	
X Standard Pilot		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating	
L Manual Load Release		A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated	
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel	
		D 50 nsi (3.5 har)					

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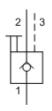
Pilot-to-open check valve with standard pilot

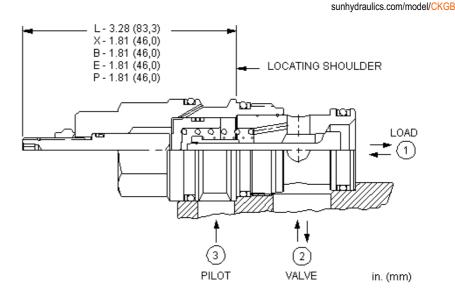
SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-17A











This valve is a pilot to open check valve. It has a non-sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CKGBXCN

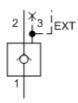
CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Standard Pilot		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
L Manual Load Release		A 4 psi (0,3 bar)		E EPDM	_	/AP Stainless Steel, Passivated
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel
		D 50 psi (3,5 bar)				
		E 75 psi (5 bar)				
		F 100 psi (7 bar)				

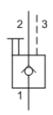
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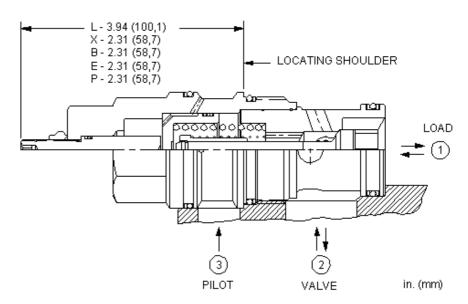


sunhydraulics.com/model/CKIB









This valve is a pilot to open check valve. It has a non-sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1		
Maximum Operating Pressure	350 bar		
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.		
Seal kit - Cartridge	Buna: 990019007		
Seal kit - Cartridge	EPDM: 990019014		
Seal kit - Cartridge	Polyurethane: 990019002		
Seal kit - Cartridge	Viton: 990019006		

CONFIGURATION OPTIONS

Model Code Example: CKIBXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Standard PilotL Manual Load Release

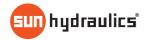
C 30 psi (2 bar)
A 4 psi (0,3 bar)
B 15 psi (1 bar)
D 50 psi (3,5 bar)

D 50 psi (3,5 bar)E 75 psi (5 bar)F 100 psi (7 bar)

N Buna-NE EPDMV Viton

Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

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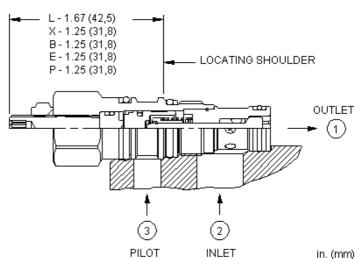












This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	EPDM: 990163014
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: CKBDXCN

CONTROL	(X) CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Standard Pilot	C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
L Manual Load Release	E 75 psi (5 bar)		E EPDM		/AP Stainless Steel, Passivated
			V Viton		/LH Mild Steel, Zinc-Nickel

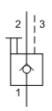
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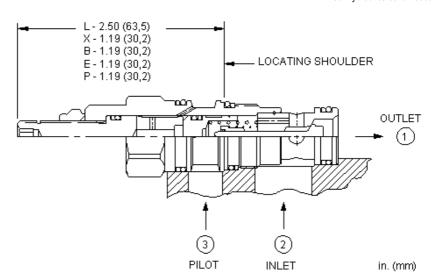


sunhydraulics.com/model/CKCD









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

G 150 psi (10,5 bar)

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CKCDXCN

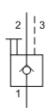
CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Standard Pilot		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating
L Manual Load Release	<u>.</u>	A 4 psi (0,3 bar)		E EPDM		/AP Stainless Steel, Passivated
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel
		D 50 psi (3,5 bar)				
		E 75 psi (5 bar)				
		F 100 psi (7 bar)				

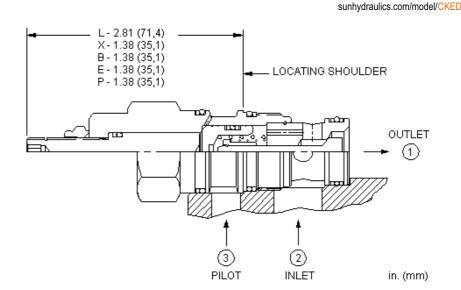
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This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1		
Maximum Operating Pressure	350 bar		
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.		
Seal kit - Cartridge	Buna: 990202007		
Seal kit - Cartridge	Polyurethane: 990002002		
Seal kit - Cartridge	Viton: 990202006		

CONFIGURATION OPTIONS

Model Code Example: CKEDXCN

CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING

X Standard Pilot

L Manual Load Release

C 30 psi (2 bar)

N Buna-N

V Viton

A 4 psi (0,3 bar) **B** 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

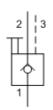
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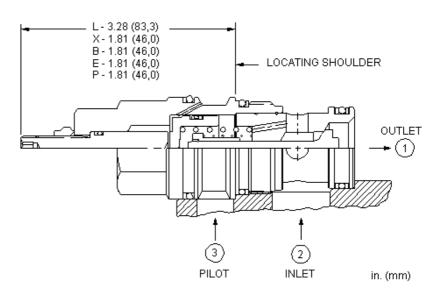


sunhydraulics.com/model/CKGD









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CKGDXCN

CONTROL	(X)	CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING	
X Standard Pilot		C 30 psi (2 bar)		N Buna-N		Standard Material/Coating	
L Manual Load Release		A 4 psi (0,3 bar)	<u></u>	E EPDM	_	/AP Stainless Steel, Passivated	
		B 15 psi (1 bar)		V Viton		/LH Mild Steel, Zinc-Nickel	
		D 50 psi (3,5 bar)					
		E 75 psi (5 bar)					
		F 100 psi (7 bar)					

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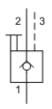
SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-19A

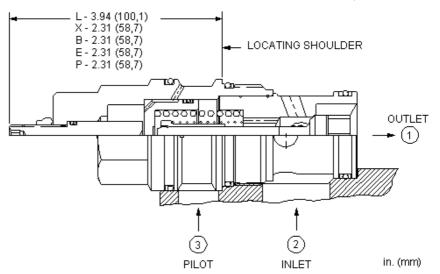












This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1	
Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.	
Seal kit - Cartridge	Buna: 990019007	
Seal kit - Cartridge	Polyurethane: 990019002	
Seal kit - Cartridge	Viton: 990019006	

CONFIGURATION OPTIONS

Model Code Example: CKIDXCN

CONTROL (A) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING	CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COAT
--	---

X Standard Pilot

L Manual Load Release

C 30 psi (2 bar) **A** 4 psi (0,3 bar)

B 15 psi (1 bar)

D 50 psi (3,5 bar)

N Buna-N V Viton

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

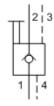
E 75 psi (5 bar) **F** 100 psi (7 bar)

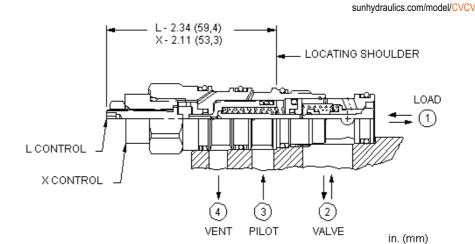
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SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-21A









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced to the vent (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: CVCVXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

v	04		D:1-4
X.	Stand	ara	Pliot

L Manual Load Release

C 30 psi (2 bar)

A 4 psi (0,3 bar) **B** 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar) **F** 100 psi (7 bar)

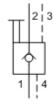
N Buna-NE EPDMV Viton

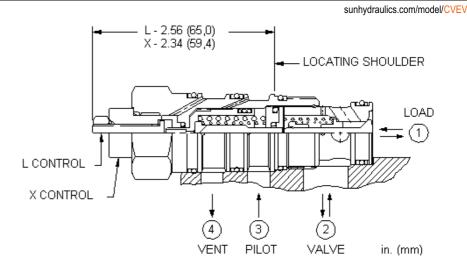
Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

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This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced to the vent (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1	
Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.	
Seal kit - Cartridge	Buna: 990022007	
Seal kit - Cartridge	Polyurethane: 990022002	
Seal kit - Cartridge	Viton: 990022006	

CONFIGURATION OPTIONS

Model Code Example: CVEVXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
CONTROL	(A) CRACKING FILLSSORE	(C) SEAL WATERIAL	(N) WAILKIAL/COATING

X Standard Pilot

L Manual Load Release

C 30 psi (2 bar)

- A 4 psi (0,3 bar)
- **B** 15 psi (1 bar)
- **D** 50 psi (3,5 bar)
- E 75 psi (5 bar)
- F 100 psi (7 bar)

N Buna-N

E EPDM

V Viton

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

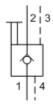
© 2021 Sun Hydraulics 48 of 74 Vented pilot-to-open check valve

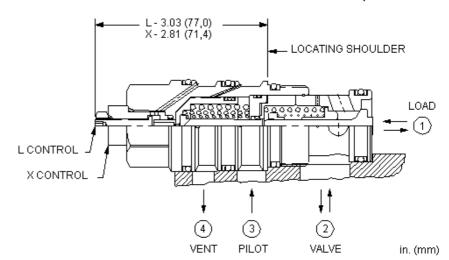
SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-23A











This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced to the vent (port

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1	
Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.	
Seal kit - Cartridge	Buna: 990023007	
Seal kit - Cartridge	Polyurethane: 990023002	
Seal kit - Cartridge	Viton: 990023006	

CONFIGURATION OPTIONS

Model Code Example: CVGVXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERI	RIAL/COATING
--	--------------

C 30 psi (2 bar)

N Buna-N **V** Viton

G

L Manual Load Release

A 4 psi (0,3 bar)

B 15 psi (1 bar) **D** 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

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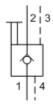
Vented pilot-to-open check valve

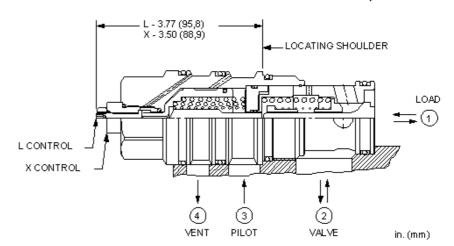
SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-24A



sunhydraulics.com/model/CVIV







This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced to the vent (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Pilot Volume Displacement	4,9 cc
Pilot Passage into Valve	2,3 mm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	EPDM: 990024014
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: CVIVXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
•			
X Standard Pilot	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating

L Manual Load Release

A 4 psi (0,3 bar)

B 15 psi (1 bar) **D** 50 psi (3,5 bar) E 75 psi (5 bar)

F 100 psi (7 bar)

V Viton /AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

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Vented pilot-to-open check valve - atmospherically referenced SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-11A

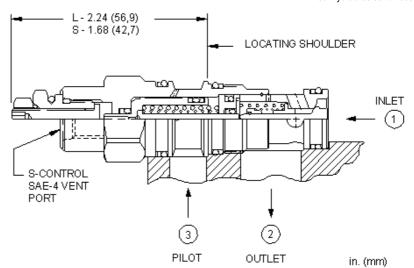


sunhydraulics.com/model/CKCV









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) pilot port will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced out the back of the hex body.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990311007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990311006

CONFIGURATION OPTIONS

Model Code Example: CKCVXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Standard Pilot, Atmospheric Vent

N Buna-N V Viton (N) MATERIALICOAT

S External 4-SAE Vent Port

C 30 psi (2 bar)

A 4 psi (0,3 bar)

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

Standard Material/Coating /AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

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Vented pilot-to-open check valve - atmospherically referenced SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-2A

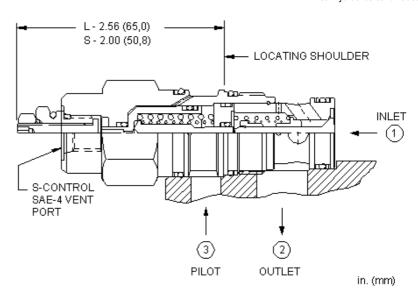


sunhydraulics.com/model/CKEV









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) pilot port will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced out the back of the hex body.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: CKEVXCN

 CONTROL
 (X)
 CRACKING PRESSURE
 (C)
 SEAL MATERIAL
 (N)

 X Standard Pilot, Atmospheric Vent
 C 30 psi (2 bar)
 N Buna-N

S External 4-SAE Vent Port

A 4 psi (0,3 bar) **B** 15 psi (1 bar) N Buna-V Viton

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

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Vented pilot-to-open check valve - atmospherically referenced SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-17A

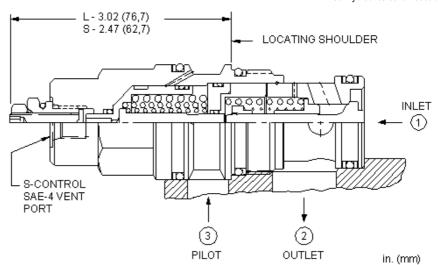


sunhydraulics.com/model/CKGV









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) pilot port will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced out the back of the hex body.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CKGVXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Standard Pilot, Atmospheric VentS External 4-SAE Vent Port

C 30 psi (2 bar) **A** 4 psi (0,3 bar)

(2 bar) N Buna 0,3 bar) V Viton

N Buna-N

Standard Material/Coating /AP Stainless Steel, Passivated

B 15 psi (1 bar) **D** 50 psi (3,5 bar)

D 30 psi (3,3 bai

E 75 psi (5 bar)

F 100 psi (7 bar)

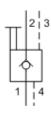
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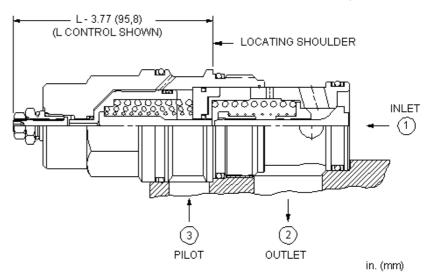


sunhydraulics.com/model/CKIV









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) pilot port will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced out the back of the hex body.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: CKIVXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Standard Pilot, Atmospheric Vent

S External 4-SAE Vent Port

C 30 psi (2 bar) **A** 4 psi (0,3 bar)

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

V Viton /AP Stainless Steel, Passivated

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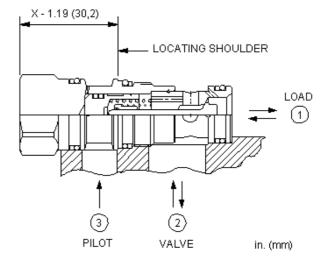
Pilot-to-open check valve with bypass orifice

SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-11A









This valve is a pilot to open check valve with a bypass orifice. It incorporates a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and restricts flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. The pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes the pilot pressure. Note: The bypass orifice diameter is specified by the customer. See Technical Data below for the allowable orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 3,9 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CNCEXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adjustable

C 30 psi (2 bar) Cracking Pressure, .016 .153 in. (0,4 - 3,9 mm)

A 4 psi (0,3 bar) Cracking Pressure, .016 - .153 in. (0,4 - 3,9 mm)

B 15 psi (1 bar) Cracking Pressure, .016 - .153 in. (0,4 - 3,9 mm)

D 50 psi (3,5 bar) Cracking Pressure, .016 - .153 in. (0,4 - 3,9 mm)

E 75 psi (5 bar) Cracking Pressure, .016 - .153 in. (0,4 - 3,9 mm)

F 100 psi (7 bar) Cracking Pressure, .016
- .153 in. (0,4 - 3,9 mm)

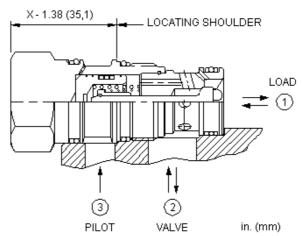
Buna-N Standard Material/Coating
Viton /AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

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sunhydraulics.com/model/CNEE





This valve is a pilot to open check valve with a bypass orifice. It incorporates a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and restricts flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. The pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes the pilot pressure. Note: The bypass orifice diameter is specified by the customer. See Technical Data below for the allowable orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 3,4 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

CONTROL

Model Code Example: CNEEXCN

X Not Adjustable C 30 psi (2 bar) Cracking Pressure, .016 -

(X) SETTING RANGE

(C) SEAL MATERIAL N Buna-N **V** Viton

.135 in. (0,4 - 3,4 mm)

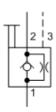
- A 4 psi (0,3 bar) Cracking Pressure, .016
- .135 in. (0,4 3,4 mm)
- B 15 psi (1 bar) Cracking Pressure, .016 -.135 in. (0,4 - 3,4 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .135 in. (0,4 - 3,4 mm)
- E 75 psi (5 bar) Cracking Pressure, .016 -.135 in. (0,4 - 3,4 mm)
- F 100 psi (7 bar) Cracking Pressure, .016
 - .135 in. (0,4 3,4 mm)

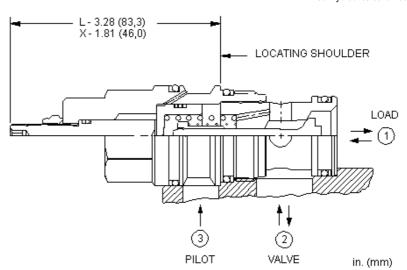
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sunhydraulics.com/model/CNGE







This valve is a pilot to open check valve with a bypass orifice. It incorporates a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and restricts flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. The pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes the pilot pressure. Note: The bypass orifice diameter is specified by the customer. See Technical Data below for the allowable orifice range. An 'L' control option is available to manually release the load. See Option Selection below.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Orifice Range	0,4 - 5,5 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CNGEXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL

(N)

X Not Adjustable

30 psi (2 bar) Cracking Pressure, .016 -.218 in. (0,4 - 5,5 mm)

- 4 psi (0,3 bar) Cracking Pressure, .016 - .218 in. (0,4 - 5,5 mm)
- B 15 psi (1 bar) Cracking Pressure, .016 -.218 in. (0,4 - 5,5 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .218 in. (0,4 - 5,5 mm)
- E 75 psi (5 bar) Cracking Pressure, .016 -.218 in. (0,4 - 5,5 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .218 in. (0,4 - 5,5 mm)

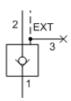
N Buna-N V Viton

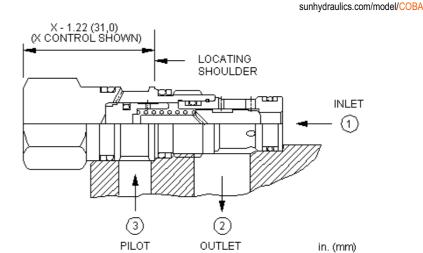
© 2021 Sun Hydraulics 57 of 74 Pilot-to-close check valve

CAPACITY: 40 L/min. / CAVITY: T-163A









This valve is a spring biased closed, pilot-to-close check cartridge that has a 3:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 3:1. This valve is most often used in regeneration circuits.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	EPDM: 990163014
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: COBAXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING

X Standard Pilot
 B External 1/4 BSPP Pilot Port, Port 3
 blocked

C 30 psi (2 bar)
D 50 psi (3,5 bar)
E 75 psi (5 bar)
F 100 psi (7 bar)

N Buna-NE EPDMV Viton

Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

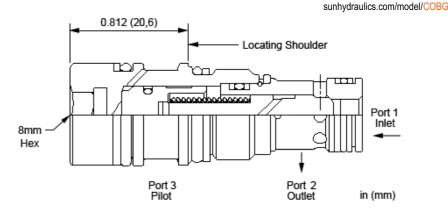
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MODEL COBG Pilot-to-close check valve

CAPACITY: 40 L/min. / CAVITY: T-163A







This valve is a spring biased closed, pilot-to-close check cartridge that has a 1.8:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 1.8:1. This valve is most often used in regeneration circuits.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	3.4:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size	8 mm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: COBGXCN

CONTROL (X) CRACKING PRESSURE (C) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adustable, Standard Hydraulic Pilot

C 30 psi (2 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

F 100 psi (7 bar)

N Buna-N Standard Material/Coating **V** Viton

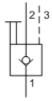
/AP Stainless Steel, Passivated

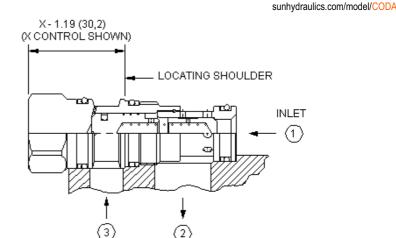
© 2021 Sun Hydraulics 59 of 74 Pilot-to-close check valve

SERIES 1 / CAPACITY: 80 L/min. / CAVITY: T-11A









This valve is a spring biased closed, pilot-to-close check cartridge that has a 1.8:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 1.8:1. This valve is most often used in regeneration circuits.

PILOT

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

in. (mm)

Pilot Ratio	1.8:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CODAXCN

V Viton

X) CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)	MATERIAL/COATING

X Standard Pilot C 30 psi (2 bar)
A 4 psi (0,3 bar)

A 4 psi (0,3 bar)
B 15 psi (1 bar)

D 50 psi (3,5 bar) **E** 75 psi (5 bar)

F 100 psi (7 bar) **G** 150 psi (10,5 bar) N Buna-N
E EPDM

/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

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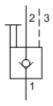
Pilot-to-close check valve

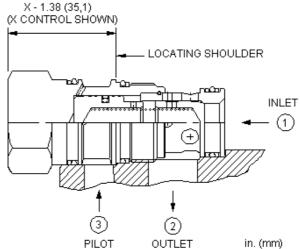
SERIES 2 / CAPACITY: 160 L/min. / CAVITY: T-2A



sunhydraulics.com/model/COFA







This valve is a spring biased closed, pilot-to-close check cartridge that has a 1.8:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 1.8:1. This valve is most often used in regeneration circuits.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	1.8:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: COFAXCN

CONTROL	(X) CRACKING PRESSURE	(C) SEAL MATERIAL	(N) MATERIAL/COATING
---------	-----------------------	-------------------	----------------------

X Standard Pilot	0	30 psi (2 bar
	Δ	4 psi (0.3 ba

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)F 100 psi (7 bar)

J 135 psi (9,5 bar)

N Buna-N
E EPDM
V Viton

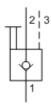
Standard Material/Coating
/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

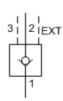
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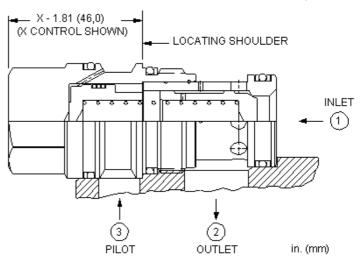












This valve is a spring biased closed, pilot-to-close check cartridge that has a 1.8:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 1.8:1. This valve is most often used in regeneration circuits.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	1.8:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: COHAXCN

(C) SEAL MATERIAL (N) MATERIAL/COATING CONTROL (X) CRACKING PRESSURE

Y	Standard P	ilot

C 30 psi (2 bar)

- **A** 4 psi (0,3 bar)
- **B** 15 psi (1 bar)
- **D** 50 psi (3,5 bar)
- **E** 75 psi (5 bar)
- F 100 psi (7 bar)
- **G** 150 psi (10,5 bar)

N Buna-N **E** EPDM

V Viton

Standard Material/Coating /AP Stainless Steel. Passivated

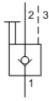
/LH Mild Steel, Zinc-Nickel

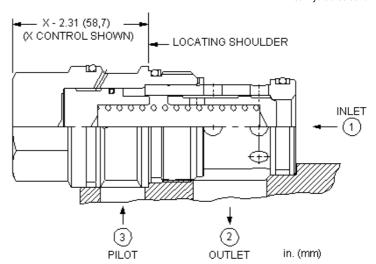
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sunhydraulics.com/model/COJA







This valve is a spring biased closed, pilot-to-close check cartridge that has a 1.8:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 1.8:1. This valve is most often used in regeneration circuits.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	1.8:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	EPDM: 990019014
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: COJAXCN

CONTROL (X	CRACKING PRESSURE (C)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	C 30 psi (2 bar)	N Buna-N	Standard Material/Coating

A 4 psi (0,3 bar) **B** 15 psi (1 bar)

D 50 psi (3,5 bar) **E** 75 psi (5 bar)

F 100 psi (7 bar)

G 150 psi (10,5 bar)

E EPDM /AP Stainless Steel, Passivated V Viton /LH Mild Steel, Zinc-Nickel

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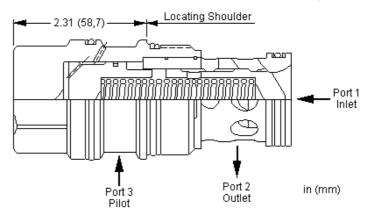
Pilot-to-close check valve

SERIES 4 / CAPACITY: 900 L/min. / CAVITY: T-19AU



sunhydraulics.com/model/COKA





This valve is a spring biased closed, pilot-to-close check cartridge that has a 1.8:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot port opposes pressure at port 1 at a ratio of 1.8:1. This valve is most often used in regeneration circuits.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	1.8:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: COKAXAN

V Viton

CONTROL (X) CRACKING PRESSURE (A) SEAL MATERIAL (N) MATERIAL/COATING

X Not Adjustable

4 psi (0,3 bar)

- **B** 15 psi (1 bar)
- **C** 30 psi (2 bar)
- **D** 50 psi (3,5 bar)
- **E** 75 psi (5 bar)
- F 100 psi (7 bar)

Standard Material/Coati

/LH Mild Steel, Zinc-Nickel

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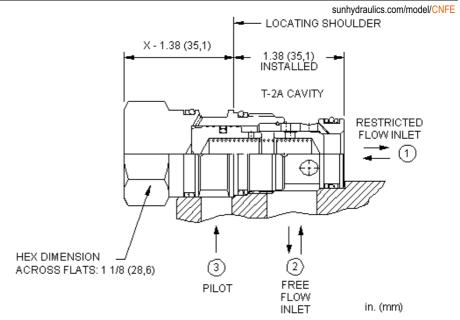


Pilot-to-close check valve with bypass orifice









This valve is a spring biased closed, pilot-to-close check cartridge with a bypass orifice. It incorporates a steel seat and is non-vented. The valve allows flow from port 1 to port 2 and restricts flow from port 2 to port 1. Pressure at the pilot (port 3) opposes pressure at port 1 at a ratio of 1.8:1. Pressure at port 2 directly opposes the pilot pressure. Note: The bypass orifice diameter is specified by the customer. See Technical Data below for the allowable orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	1.8:1
Orifice Range	0,4 - 3,2 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: CNFEXCN

V Viton

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL N Buna-N X Not Adjustable

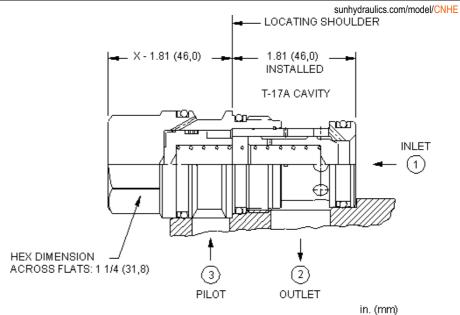
C 30 psi (2 bar) Cracking Pressure, .016 -.127 in. (0,4 - 3,2 mm)

- A 4 psi (0,3 bar) Cracking Pressure, .016 - .127 in. (0,4 - 3,2 mm)
- B 15 psi (1 bar) Cracking Pressure, .016 -.127 in. (0,4 - 3,2 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 - .127 in. (0,4 - 3,2 mm)
- E 75 psi (5 bar) Cracking Pressure, .016 -.127 in. (0,4 - 3,2 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .127 in. (0,4 - 3,2 mm)

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This valve is a spring biased closed, pilot-to-close check cartridge with a bypass orifice. It incorporates a steel seat and is non-vented. The valve allows flow from port 1 to port 2 and restricts flow from port 2 to port 1. Pressure at the pilot (port 3) opposes pressure at port 1 at a ratio of 1.8:1. Pressure at port 2 directly opposes the pilot pressure. Note: The bypass orifice diameter is specified by the customer. See Technical Data below for the allowable orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Orifice Range	0,4 - 6,4 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: CNHEXCN

CONTROL (X) SETTING RANGE (C) SEAL MATERIAL (N)

X Not Adjustable C 30 psi (2 b

- C 30 psi (2 bar) Cracking Pressure, .016 .252 in. (0,4 6,4 mm)
 A 4 psi (0,3 bar) Cracking Pressure, .016
- .252 in. (0,4 6,4 mm) **B** 15 psi (1 bar) Cracking Pressure, .016 -
- B 15 psi (1 bar) Cracking Pressure, .016 .252 in. (0,4 6,4 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 .252 in. (0,4 6,4 mm)
- **E** 75 psi (5 bar) Cracking Pressure, .016 .252 in. (0,4 6,4 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 .252 in. (0,4 6,4 mm)

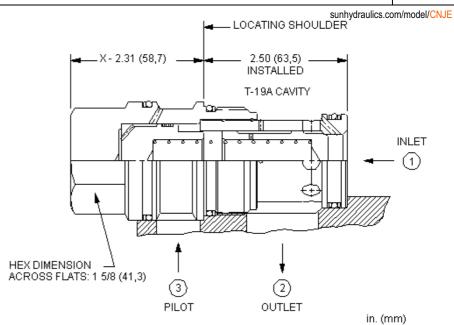
N Buna-N V Viton

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SERIES 4 / CAPACITY: 610 L/min. / CAVITY: T-19A







This valve is a spring biased closed, pilot-to-close check cartridge with a bypass orifice. It incorporates a steel seat and is non-vented. The valve allows flow from port 1 to port 2 and restricts flow from port 2 to port 1. Pressure at the pilot (port 3) opposes pressure at port 1 at a ratio of 1.8:1. Pressure at port 2 directly opposes the pilot pressure. Note: The bypass orifice diameter is specified by the customer. See Technical Data below for the allowable orifice range.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Orifice Range	0,4 - 9 mm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: CNJEXCN

CONTROL	(X)	SETTING RANGE	(C)	SEAL MATERIAL	(N

X Not Adjustable

30 psi (2 bar) Cracking Pressure, .016 .354 in. (0,4 - 9 mm)

- **A** 4 psi (0,3 bar) Cracking Pressure, .016 .354 in. (0,4 9 mm)
- **B** 15 psi (1 bar) Cracking Pressure, .016 .354 in. (0,4 9 mm)
- **D** 50 psi (3,5 bar) Cracking Pressure, .016 .354 in. (0,4 9 mm)
- **E** 75 psi (5 bar) Cracking Pressure, .016 .354 in. (0,4 9 mm)
- F 100 psi (7 bar) Cracking Pressure, .016 - .354 in. (0,4 - 9 mm)

N Buna-N V Viton

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MODEL CODD

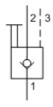
20:1 ratio, pilot-to-close check valve

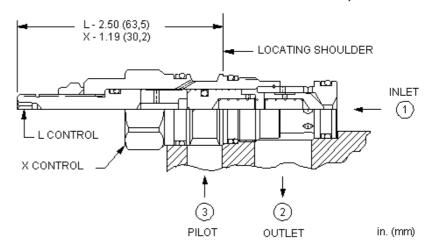
SERIES 1 / CAPACITY: 2,8 mm / CAVITY: T-11A



sunhydraulics.com/model/CODD







This valve is a spring biased closed, pilot-to-close check cartridge that has a 20:1 pilot ratio. The valve allows flow from port 1 to port 2 and blocks reverse flow. Pressure at the pilot (port 3) opposes pressure at port 1 at a ratio of 20:1.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CODDXDN

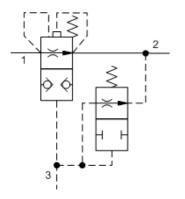
CONTROL	(X) CRACKING PRESSURE	(D)	SEAL MATERIAL	(N)	MATERIAL/COATING
X Standard Pilot	D 50 psi (3,5 bar)		N Buna-N		Standard Material/Coating
	H 200 psi (14 bar)		E EPDM		/AP Stainless Steel, Passivated
			V Viton		

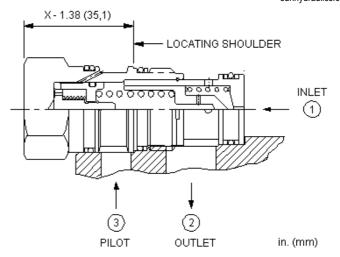
© 2021 Sun Hydraulics 68 of 74 120:1 ratio, pilot-to-close check valve

SERIES 2 / CAPACITY: 4 L/min. (1,3 mm) / CAVITY: T-2A



sunhydraulics.com/model/COFO





This valve is a pilot-to-close check cartridge that has a 120:1 pilot ratio. The valve is designed specifically to discharge an accumulator when the pump is turned off. With no pressure at the pump port (port 3), the valve is open between the accumulator (port 1) and tank (port 2). 60 psi (4 bar) at port 3 will close the valve for accumulator pressures up to 5000 psi (350 bar). When pump pressure at port 3 is below 300 psi (20 bar) there is a leak path from port 3 to tank (port 2) to ensure accumulator discharge when the pump is turned off. When pump pressure is above 300 psi (20 bar) the leak path closes for efficiency.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,3 cc/min.
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: COFOXDN

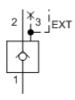
CONTROL	(X) MINIMUM PILOT PRESSURE	(D) SEAL MATERIAL	(N)
X Standard Pilot	D 60 psi (4 bar)	N Buna-N	
-		V Viton	

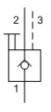
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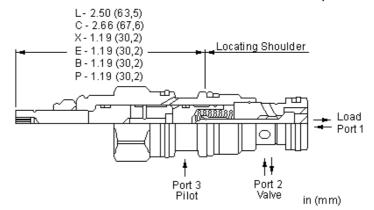


sunhydraulics.com/model/CKCR









This valve is a pilot to open check valve. It has a non-sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	5:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CKCRXCN

(X) CRACKING PRESSURE (C) SEAL MATERIAL CONTROL (N) MATERIAL/COATING

X	Standard	Pilot

- B External 1/4 BSPP Pilot Port, Port 3
- C Manual Load Release Tamper Resistant
- E External 4-SAE Pilot Port, Port 3 Blocked
- L Manual Load Release
- P External 1/4 NPTF Pilot Port, Port 3 Blocked

C 30 psi (2 bar)

- **A** 4 psi (0,3 bar)
- **B** 15 psi (1 bar)
- **D** 50 psi (3,5 bar)
- E 75 psi (5 bar)
- **F** 100 psi (7 bar)
- **Z** 1 psi (0,07 bar)

N Buna-N Standard Material/Coating V Viton

/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

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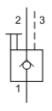
5:1 pilot ratio, pilot-to-open check valve with sealed pilot SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-11A

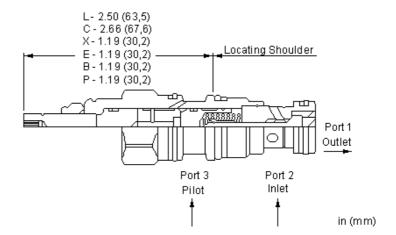


sunhydraulics.com/model/C









This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	5:1
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Viton: 990011006

CONFIGURATION OPTIONS

Model Code Example: CKCSXCN

(X) CRACKING PRESSURE CONTROL (C) SEAL MATERIAL

B External 1/4 BSPP Pilot Port, Port 3 blocked

C Manual Load Release - Tamper Resistant

E External 4-SAE Pilot Port, Port 3 Blocked

L Manual Load Release

P External 1/4 NPTF Port. Port 3 blocked

30 psi (2 bar) **V** Viton A 4 psi (0,3 bar)

B 15 psi (1 bar)

D 50 psi (3,5 bar)

E 75 psi (5 bar)

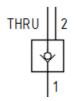
F 100 psi (7 bar)

Z 1 psi (0,07 bar)

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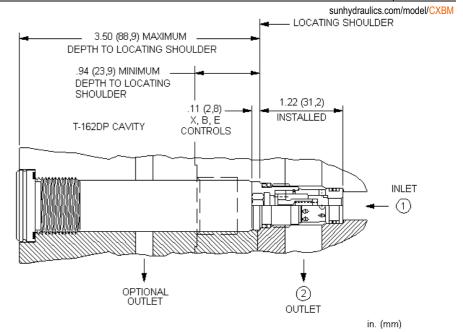






MODEL

CXBM



Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Valve Internal Hex Size	8 mm
Seal kit - Cartridge	Buna: 990162007
Seal kit - Cartridge	EPDM: 990162014
Seal kit - Cartridge	Polyurethane: 990162002
Seal kit - Cartridge	Viton: 990162006

CONFIGURATION OPTIONS

Model Code Example: CXBMXAN

CONTROL	(X)	CRACKING PRESSURE	(A)	SEAL MATERIAL	(N)
X Not Adjustable		A 4 psi (0,3 bar)		N Buna-N	
		B 15 psi (1 bar)		E EPDM	
		C 30 psi (2 bar)		V Viton	

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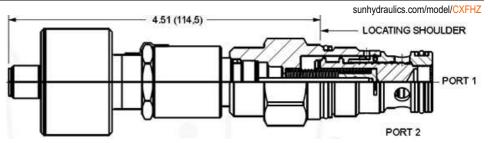




Free flow nose to side check valve with position switch SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-5A







Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

This valve incorporates a position switch to provide confirmation that the valve is in the transition position or seated (closed).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	Viton: 990203006

CONFIGURATION OPTIONS

Model Code Example: CXFHZCN

CRACKING PRESSURE	(C)	SEAL MATERIAL	(N)
C 30 psi (2 bar)		N Buna-N	
A 4 psi (0,3 bar)		V Viton	

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MODEL CXHHZ

Free flow nose to side check valve with position switch SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-16A



sunhydraulics.com/model/CXHHZ



Free-flow, nose-to-side check valves are on/off circuit components that allow free flow from the inlet (port 1) to the outlet (port 2) and block flow in the opposite direction.

This valve incorporates a position switch to provide confirmation that the valve is in the transition position or seated (closed).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,07 cc/min.
Transition leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006

CONFIGURATION OPTIONS

Model Code Example: CXHHZCN

CRACKING PRESSURE	(C) SEAL MATERIAL	(N)
C 30 psi (2 bar)	N Buna-N	
A 4 psi (0,3 bar)	V Viton	

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