

CHECK VALVES



I.T.E.
INDUSTRIAL TECHNICAL EQUIPMENT

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FEATURES

Across years of experience in instrumentation sector and increasing its know-how, today I.T.E. is able to offer a wide range of check valves and accessories for several application and sector. All products shown on this catalogue are available with integral compression ends (performance system improved, safety factors, size and weight reduction). R&D dept. is constantly committed to refining and improving the quality of the products.

STANDARD FEATURES

Wetted parts according to **NACE MR.0175/MR.0103** as standard.

Shell test and seat leakage test are performed according to **API 598** and **ASME B16.34** (1.5 of max rating pressure).

Certificate 3.1 certificate according to EN 10 204 on valve body material.

MATERIAL

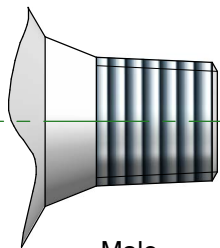
MATERIAL GROUP	I.T.E. DESIGNATION	ASTM	UNS	AVAILABILITY ON STOCK
Stainless Steel	316/316L	316/316L	S31600	YES
	6Mo		N08367	ON REQUEST
Ferritic Stainless Steel	Duplex	F51	S31803	YES
	Superduplex	F55	S32750	YES
Carbon Steel	LF2	LF2		ON REQUEST
	A105	A105		ON REQUEST
Alloy	Alloy 400		N04400	YES
	Alloy C276		N10276	ON REQUEST
	Alloy 625		N06625	ON REQUEST
	Alloy 825		N08825	ON REQUEST
Titanium	Ti Gr.2		R50400	ON REQUEST



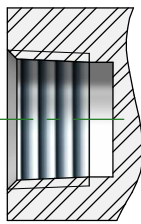
I.T.E. manufactures a lot of different connections and combinations. Below are some of the most used. If you don't find your option please contact us.

CONNECTIONS

TAPERED PIPE THREADS



Male

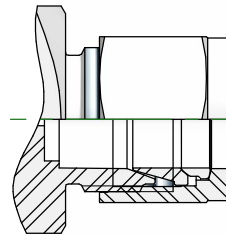


Female

NPT threads acc. to.
ASME B 1.20.1

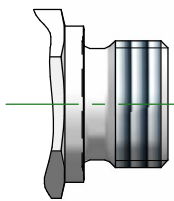
BSPT threads acc. to.
ISO 7/1

TWIN FERRULE TUBE FITTINGS

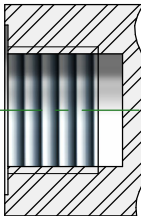


The direct pipe connection
is available in both metric
and inch sizes.
All components are made
by I.T.E. s.r.l.

PARALLEL PIPE THREADS (1) (2)



Male



Female

BSPP threads acc. to.
ISO 228-1
ISO 1179-1

Metric threads acc. to.
ISO 261

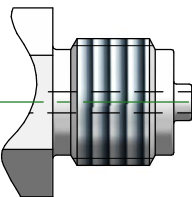
NOTE

(1) Cylindrical connection for fittings hydraulic or gas applications. The seal between male and female is made by metal to metal contact between two parallel surfaces.

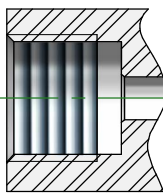
(2) Pressure connection for use with pressure gauges. The end can be fixed or rotatable according to the needs of use. The seal is carried out by means of a flat gasket placed at the bottom of the female thread.

Size from 1/8" to 1"
Metric size: M20 x 1.5

PARALLEL PIPE THREADS - GAUGE CONN. (1)



Male



Female

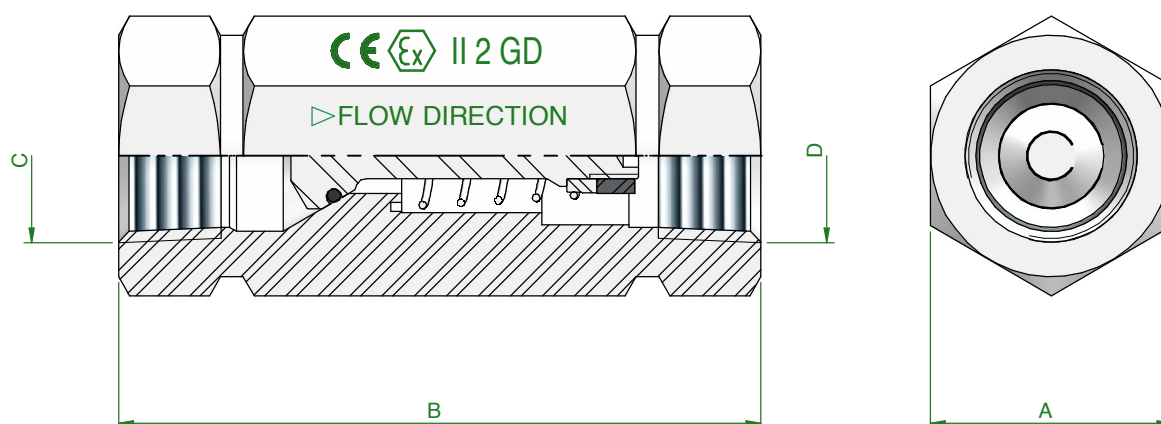
G Threads acc. to.
ISO 228-1
EN 837-1

Metric threads acc. to.
ISO 261



VR1

VR1 check valves (Non-Return Valves) are designed for a max. allowable working pressure of 10.000 psi. The check valve allows flow in one direction only, closing the position when the flow reverses. in case you do not find your product solution please do not hesitate to contact us. VR1 check valves are available with a lot of options. *We are showing on this page just the standard types.*



VR1 CHECK VALVE IS DESIGNED ACCORDING TO STD. SNAM GASD A 6.42.01

GENERAL DIMENSION				
RATING	A	B	C	D
3K psi	19	60	1/4" NPT-F	1/4" NPT-F
6K psi	22			
10K psi	24		3/8" NPT-F	3/8" NPT-F
3K psi	22			
6K psi	24	85	1/2" NPT-F	1/2" NPT-F
10K psi	27			
3K psi	30		3/4" NPT-F	3/4" NPT-F
6K psi	32			
10K psi	36	100	1" NPT-F	1" NPT-F
3K psi	41			
6K psi	46		1" NPT-F	1" NPT-F
10K psi	50			

3.000 PSI VALVE:

Max operating pressure: 210 Bar
 Hydraulics pressure test: 315 Bar
 Pneumatic sealing test: 6 Bar
 Opening differential pressure: 0.2 Bar
 Perfect tightness with d.p.: 0.2 Bar
 Temperature range: -20 / +205 °C

6.000 PSI VALVE:

Max operating pressure: 420 Bar
 Hydraulics pressure test: 630 Bar
 Pneumatic sealing test: 6 Bar
 Opening differential pressure: 0.2 Bar
 Perfect tightness with d.p.: 0.2 Bar
 Temperature range: -20 / +205 °C

10.000 PSI VALVE:

Max operating pressure: 690 Bar
 Hydraulics pressure test: 1035 Bar
 Pneumatic sealing test: 6 Bar
 Opening differential pressure: 0.2 Bar
 Perfect tightness with d.p.: 0.2 Bar
 Temperature range: -20 / +205 °C

STD. spring material: X10CrNi18-8
 STD. packing: VITON



VR1 CHECK VALVES - HOW TO ORDER

V R 1 - 0 6 S V 4 N

MODEL

VR1 Check Valve VR1

RATING

- 03 Series 3.000 PSI
- 06 Series 6.000 PSI
- 10 Series 10.000 PSI

MATERIAL

- | | | | |
|---|-----------------|---|------------|
| S | Aisi 316L | F | Alloy 400 |
| A | A105 | G | Alloy C276 |
| D | Duplex F51 | H | 6 Mo/F44 |
| E | Superduplex F55 | I | Alloy 625 |

PACKING (VBV ONLY)

- V Viton

CONNECTIONS

- 4 1/4"
- 6 3/8"
- 8 1/2"
- 12 3/4"
- 20 M20 x 1,5

THREAD

- N NPT
- K BSPT R/RC (ISO 7)
- I BSPP GAS (ISO 1179)
- R BSPP GAS (EN 837-1) - Gauge connection
- M Metric (similar EN 837-1)

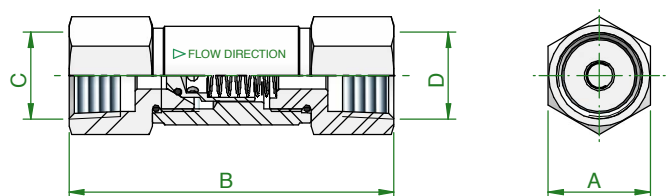
Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your



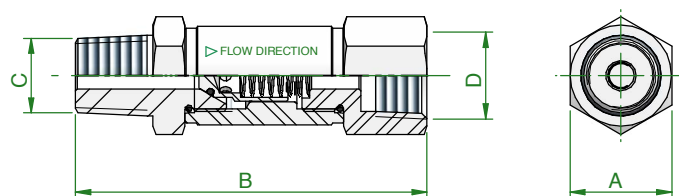
CK

CK check valves (Non-Return Valves) are designed for a max. allowable working pressure of 6.000 psi. The check valve allows flow in one direction only, closing the position when the flow reverses. in case you do not find your product solution please do not hesitate to contact us. CK check valves are available with a lot of options. *We are showing on this page just the standard types.*

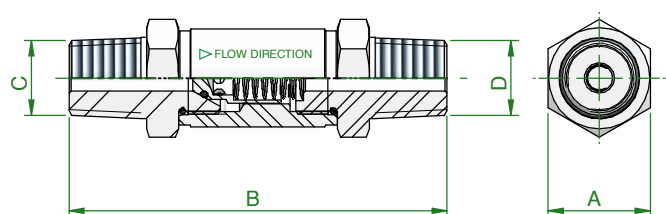
CK1 - FEMALExFEMALE THREAD



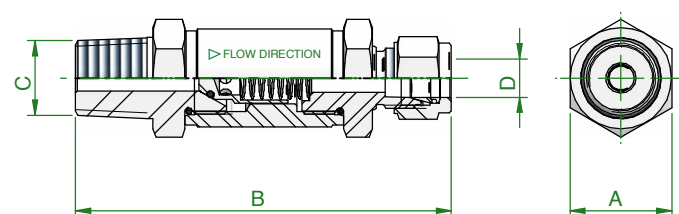
CK2 - MALExFEMALE THREAD



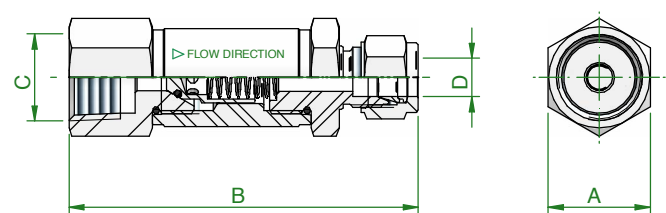
CK3 - MALExMALE THREAD



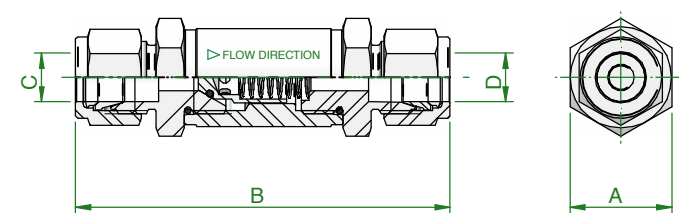
CK4 - MALExFEMALE - THREADxTUBE OD



CK5 - FEMALExFEMALE - THREADxTUBE OD

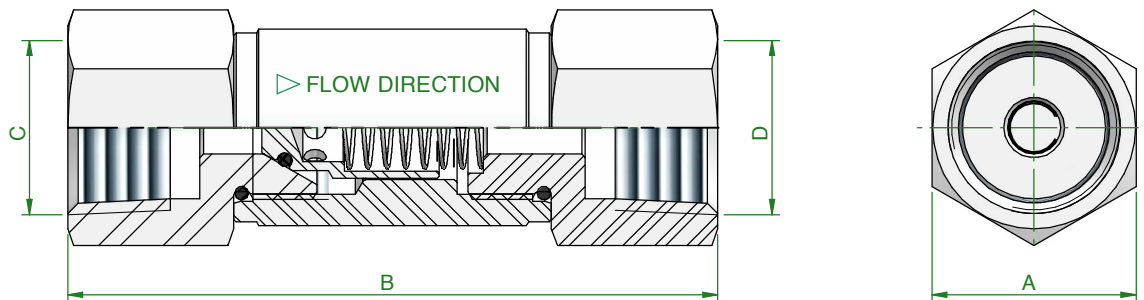


CK6 - FEMALExFEMALE TUBE OD



CK

CK check valves (Non-Return Valves) are designed for a max. allowable working pressure of 6.000 psi. The check valve allows flow in one direction only, closing when flow reverses. Should you still not find your option please contact the factory. CK check valves are available with a lot of options. *We are showing on this page just the standard types.*



GENERAL DIMENSION

MODEL	RATING	A	B	C (IN)	D (OUT)
CK1	6K psi	27	78	1/4" NPT-F	1/4" NPT-F
			82	3/8" NPT-F	3/8" NPT-F
			86	1/2" NPT-F	1/2" NPT-F
CK2			78	1/4" NPT-M	1/4" NPT-F
			86	3/8" NPT-M	3/8" NPT-F
			93	1/2" NPT-M	1/2" NPT-F
CK3			89	1/4" NPT-M	1/4" NPT-M
			90	3/8" NPT-M	3/8" NPT-M
			100	1/2" NPT-M	1/2" NPT-M
CK4			90	1/4" NPT-M	6 OD
			92	3/8" NPT-M	8 OD
			100	1/2" NPT-M	10 OD
			102		12 OD
CK5			85	1/4" NPT-F	6 OD
			89	3/8" NPT-F	8 OD
			92	1/2" NPT-F	10 OD
			94		12 OD
CK6			92	1/4 OD	1/4 OD
			96	3/8 OD	3/8 OD
			99	1/2 OD	1/2 OD
			102	3/4 OD	3/4 OD

3.000 PSI VALVE:

Max operating pressure: 210 Bar
 Hydraulics pressure test: 315 Bar
 Pneumatic sealing test: 6 Bar
 Opening differential pressure: 0.2 Bar
 Perfect tightness with d.p.: 0.2 Bar
 Temperature range: -20 / +205 °C

6.000 PSI VALVE:

Max operating pressure: 420 Bar
 Hydraulics pressure test: 630 Bar
 Pneumatic sealing test: 6 Bar
 Opening differential pressure: 0.2 Bar
 Perfect tightness with d.p.: 0.2 Bar
 Temperature range: -20 / +205 °C

STD. spring material: X10CrNi18-8
 STD. packing: VITON



CK CHEK VALVES - HOW TO ORDER

	C	K	-	0	6	S	T	8	I	8	I
MODEL											
CK	Check Valve										
RATING											
03	Series 3.000 PSI										
06	Series 6.000 PSI										
MATERIAL											
S	Aisi 316L	F	Alloy 400								
A	A105	G	Alloy C276								
D	Duplex F51	H	6 Mo/F44								
E	Super Duplex F55	I	Alloy 625								
PACKING											
V	Viton										
IN											
4	1/4"	12	3/4"								
6	3/8"	16	1"								
8	1/2"	20	M20 x 1,5								
THREAD											
N	NPT	I	BSPP GAS (ISO 1179)								
K	BSPT R/RC (ISO 7)	R	BSPP GAS (EN 837-1) - Gauge connection Tube OD								
M	Metric (similar EN 837-1)										
OUT (Same as "IN" standard)											
4	1/4"	12	3/4"								
6	3/8"	16	1"								
8	1/2"	20	M20 x 1,5								
THREAD (Same as "IN" standard)											
N	NPT	I	BSPP GAS (ISO 1179)								
K	BSPT R/RC (ISO 7)	R	BSPP GAS (EN 837-1) - Gauge connection Tube OD								
M	Metric (similar EN 837-1)										

Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your order