

→ Series 2142

■ SUITABLE FOR

Liquids	neutral and non-neutral	
Air, gases and vapours	neutral and non-neutral	

■ EXAMPLES OF USE

Non-return valve in straight-through form for use on cryogenic tanks, cryogenic containers, transport containers and systems for the production, storage and transport of cryogenic liquefied gases such as LIN, LOX, CO₂, LAr, LNG. Opening pressure approx. 0.1 bar.

- N₂ in pharmaceutical / foodstuffs applications
- O₂ for medical supply equipment
- CO₂ for foodstuffs/ industrial applications
- LAr for welding
- Cooling plants

The fittings are always manufactured free of oil and grease.



■ MATERIAL



■ SPECIFICATION



DN 10 - DN 50



-196°C to +120°C



PN 63

■ APPROVALS

EU type examination

TR ZU 032/2013 - TR ZU 010/2011

Requirements

DGR 2014/68/EU

■ MATERIAL

Component	Material	DIN EN	ASME
Body	Stainless steel	1.4409	CF3M
Valve upper section	Stainless steel	1.4408 / 1.4404	CF8M / 316L
Valve cone	Stainless steel	1.4404	316L
Screws	Stainless steel	1.4301	304
Seals	PTFE mod.	PTFE mod.	PTFE mod.
Compression spring*	Stainless steel	1.4310	302
Cone guide*	Stainless steel	1.4404	316L

r	Standard with non-return cone	for neutral and non-neutral media
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■ MEDIUM

GF	gaseous and liquid	Cryogenic liquified gases, vapours and liquids, for gaseous oxygen maximum 40 bar / maximum 60 C
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■ TYPE OF OPERATION

0	without lifting device
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■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN		10	15	20	25	32	40	50	
Inlet		1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Outlet	1/4" (8)								
	3/8" (10)								
	1/2" (15)								
	3/4" (20)								
	1" (25)								
	1 1/4" (32)								
	1 1/2" (40)								
	2" (50)								

■ TYPE OF CONNECTION INLET / OUTLET

SE1 / SE1	butt weld SE1 / butt weld SE1	DIN EN ISO 1127 / DIN EN ISO 1127
SE2 / SE2	butt weld SE2 / butt weld SE2	ASTM A312 S10 / ASTM A312 S10
SE3 / SE3	butt weld SE3 / butt weld SE3	ASTM A312 S40 / ASTM A312 S40
SM1 / SM1	socket weld SM1 / socket weld SM1	DIN EN ISO 1127 / DIN EN ISO 1127
SM2 / SM2	socket weld SM2 / socket weld SM2	ASTM A312 S10 / ASTM A312 S10
SM3 / SM3	socket weld SM3 / socket weld SM3	ASTM A312 S40 / ASTM A312 S40
f / f*	female thread BSP-P / female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1
NPT-f / NPT-f*	female thread NPT / female thread NPT	ANSI B1.20.1 / ANSI B1.20.1

* Threaded connection and other connections on request.

■ DIMENSIONS AND ORDERING CODE FOR PIPE CONNECTIONS

Nominal diameter	DN	10		15		20	25	32*		40		50
Connection type for pipes according to DIN EN ISO 1127	D	12,0	16,0	17,2	21,3	22,0	26,9	33,7	38,0	42,4	48,3	60,3
Dimensions for butt weld SE1 / socket weld SM1	e	1,0	1,5	1,6	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0
Order code XX		AA	AD	AE	AF	AG	AH	AJ	AK	AL	AN	AO
Connection type for pipes according to ASTM A312 S10	D	13,72		17,15	21,34		26,67	33,40		42,16	48,26	60,33
Dimensions for butt weld SE2 / socket weld SM2	e	1,65		1,65	2,11		2,11	2,77		2,77	2,77	2,77
Order code XX		AQ		AS	AU		AW	AY		BA	BC	BE
Connection type for pipes according to ASTM A312 S40	D	13,72		17,15	21,34		26,67	33,40		42,16	48,26	60,33
Dimensions for butt weld SE3 / socket weld SM3	e	2,24		2,31	2,77		2,87	3,38		3,56	3,68	3,91
Order code XX		AR		AT	AV		AX	AZ		BB	BD	BF

* Other connection types on request.

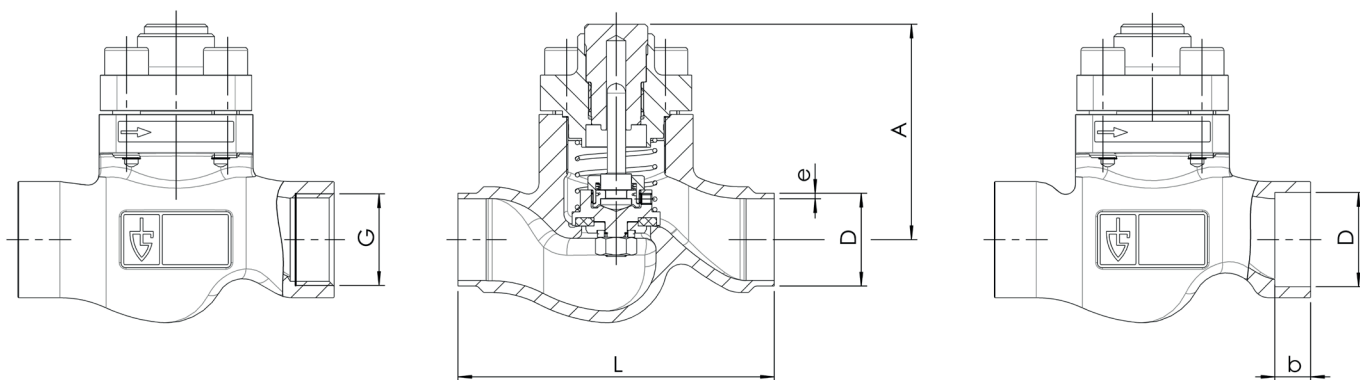
■ SEALS

PTFE	Polytetrafluoroethylene	PTFE mod.	- 196°C to + 120°C
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■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 2142: Connection, installation dimensions										
Nominal diameter	DN	10		15	20	25	32	40		50
Pressure level	PN	63	63	63	63	63	63	63	63	63
Operating pressure	bar	63	63	63	63	63	63	63	63	63
Threaded connection	G	1/4	3/8	1/2	3/4	1	1 1/4	1 1/4	1 1/2	2
Installation dimensions in mm	L	70		85	100	115	115	130		155
	b	6		10	13	13	13	13		16
	A	75		77	74,5	78,5	106	104		106,5
Weight	kg	0,7		0,9	1,2	1,4	2,2	3,1		4,7
Kvs-value	m³/h	1,7	2,3	4,4	7,4	12,0	15,8	21,2	23,8	39,0
Cv-value	gal/min	2,0	2,7	5,1	8,6	14,0	18,4	24,7	27,7	45,4

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 2142 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Type of operation	Nominal diameter DN	Connection type		Connection size	Seal
					Inlet	Outlet	Inlet/Outlet	
2142	r	GF	0	25	SE1	SE1	AJ / AJ	PTFE
2142	r	GF	0	40	SM3	SM3	BD / BD	PTFE
2142								
2142								

■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	☐	C06	ATEX evaluation acc. to 2014/34/EU	☐
C02	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	☐	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	☐
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	☐			☐

■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	☐		☐
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	☐		☐