

→ Series 2141



CE 0035 T 0035

■ MATERIAL



■ SPECIFICATION



DN 10 to DN 50

-196°C to +120°C

PN 63

■ SUITABLE FOR

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

■ EXAMPLES OF USE

Shut-off valve with position indicator 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, LCO₂, LAr and LCH₄ **with type testing for fire safety**. The valves are equipped with a spring-loaded, 'live loaded' spindle seal. Due to the standard position indicator, the stroke position / position can be immediately recognised via the yellow visual indicator of the manual actuator. The shut-off valve can also be designed with an integrated non-return function.

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

The pressure regulators are always manufactured free of oil and grease.

■ APPROVALS

EU type examination	DGR 2014/68/EU
Type of transportable pressure equipment	TPED 2010/35/EU
Requirements	
DIN EN 1626	
DIN EN ISO 10497:2024	
API 607 8th edition	

■ MATERIALS

Designation	Material	DIN EN	ASME
Body	Stainless steel	1.4409	CF3M
Valve insert	Stainless steel	1.4408	CF8M
Extension tube	Stainless steel	1.4571 (1.4404)	316 Ti (316 L)
Threaded bush	Tin bronze	CW459K	C52100
Packing and guide bushing	Tin bronze	CW459K	C52100
Valve cone	Stainless steel	1.4404	316 L
Disc springs	Nickel-based alloy	2.4668	N07718
Sacrificial disc	Plastic	PTFE Carbon	PTFE Carbon
Screws	Stainless steel	1.4301	304
Handwheel	Stainless steel	1.4408	CF8M

■ MATERIALS · CONTINUED

Designation	Material	DIN EN	ASME
Spindle seal	Mineral	Graphite, mica	Graphite, mica
Body seal	Mineral	Graphite	Graphite
Position indicator	Plastic	PA glass-fibre reinforced	PA glass-fibre reinforced
Spring*	Stainless steel	1.4310	302
Cone guide*	Stainless steel	1.4404	316L

* only for non-return function

Serie 2141 ■ VALVE VERSION

s	Standard	for neutral and non-neutral media
r	with non-return function	for neutral and non-neutral media

■ MEDIUM

GF	gaseous and liquid	Cryogenic liquified gases, vapours and liquids, for gaseous oxygen maximum 30 bar / maximum 60°C
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■ TYPE OF OPERATION

R	manual operation with position indicator
S	manual operation without position indicator

■ 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 1/4" (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)									

■ INITIATIVE HEIGHT

A1*	190mm (DN10-DN25) / 220mm (DN32-DN50)	Upper section without extension
A2	270 mm	Stainless steel extension tube
A3	370 mm	Stainless steel extension tube

*Recommended operating temperature: -60°C to +120°C

NOTE: Dimensions A1 - A3 with valve closed. | Please select a initiative height that does not cause icing on the spindle seal. | Further initiative heights on request.

■ 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

NOTE: 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 carbon	Polytetrafluoroethylene + carbon	- 196°C to + 120°C
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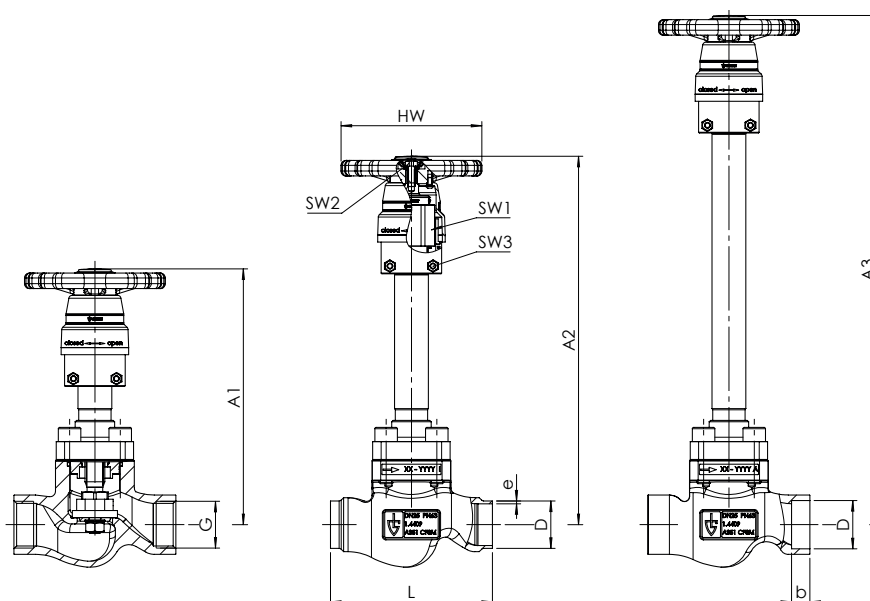
■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 2141: 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	50
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
	A1*	202		204	205	206	237	241		242
	A2*	282		284	285	286	287	291		292
	A3*	382		384	385	386	387	391		392
	HW	100		100	100	100	125	125		125
External hexagon	SW1	30		30	30	30	36	36		36
	SW2	3		3	3	3	5	5		5
Internal hexagon	SW3	3		3	3	3	3	3		3
	kg**	1,3		1,4	1,9	2,2	-	-		-
Weight (Height A1)	kg**	1,4		1,5	2,0	2,3	3,5	4,3		6,2
Weight (Height A2)	kg**	1,6		1,7	2,3	2,5	3,7	4,5		6,4
Weight (Height A2)	kg**	1,9		2,0	2,5	2,8	4,1	4,9		6,7
Kvs-value	m³/h	1,7		4,4	7,4	12,0	15,8	21,2		39,0
Cv-value	gal/min	2,0		5,1	8,6	14,0	18,4	24,7		45,4

* Dimensions A1 - A3 with valve open. Further initiative heights on request.

** Weights with threaded connection, other connections similar.

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 2141 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Type of operation	Initiative Height	Nominal diameter DN	Connection type		Connection size	Seal
						Inlet	Outlet	Inlet/Outlet	
2141	s	GF	R	A1	25	SE1	SE1	AJ / AJ	PTFE
2141	r	GF	S	A2	40	SM3	SM3	BD / BD	PTFE
2141									
2141									

■ 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	☐		☐
AA10	TPED Type examination acc. to Directive 2010/35/EU	☐		☐
		☐		☐

■ ENQUIRY

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