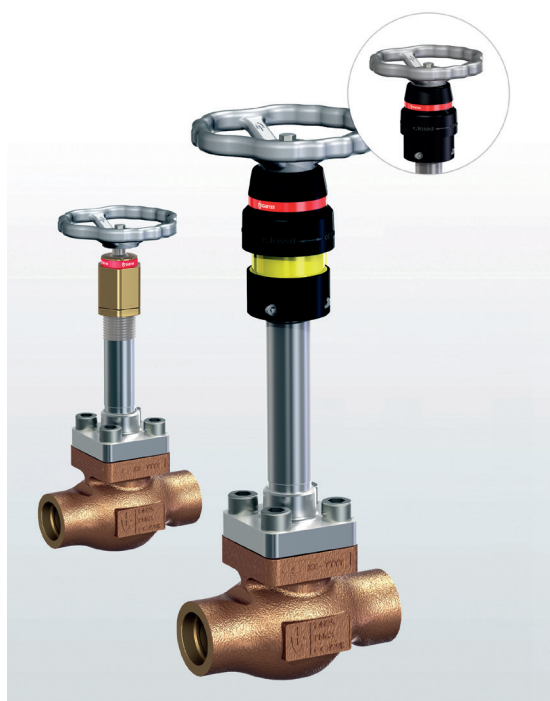


→ Series 2180



■ 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, CO₂, LAr, LNG. 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
- LAr for welding
- Cooling plants

The pressure regulators 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
DIN EN 1626
TPED 2010/35/EU

■ MATERIAL

Component	Material	DIN EN	ASME
Body	Gunmetal	CC499K	CC499K
Valve upper section	Stainless steel	1.4408	CF8M
Extension tube	Stainless steel	1.4404	316L
Threaded bush	Tin bronze	CW459K	C52100
Valve cone	Brass	CW617N	CW617N
Screws	Stainless steel	1.4301	304
Hand wheel	Stainless steel	1.4408	CF8M
Seals	PTFE mod.	PTFE mod.	PTFE mod.
Position indicator	Plastic	PA glass fibre reinforced	PA glass fibre reinforced
Compression spring*	Stainless steel	1.4310	302
Cone guide*	Stainless steel	1.4404	316L

* only with non-return function

Serie 2180 ■ 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 40 bar / maximum 60 C
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■ TYPE OF OPERATION

R	manual operation with position indicator (available for drive A1 to A3)
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 1/2" (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

A0¹	150mm (DN10-DN25)	Upper section without extension
A1¹	190mm (DN10-DN25) / 220mm (DN32-DN50)	Upper section without extension
A2	270 mm	Stainless steel extension tube
A3	370 mm	Stainless steel extension tube

¹Recommended operating temperature: -60°C to +120°C |

NOTE: Dimensions A0 - A3 with valve closed. Please select a initiativ height that does not cause icing on the spindle seal. | Further initiativ heights on request.

■ TYPE OF CONNECTION INLET / OUTLET

LM1 / LM1	soldering socket LM1 / soldering socket LM1	DIN EN ISO 1127 / DIN EN ISO 1127
LM2 / LM2	soldering socket LM2 / soldering socket LM2	ASTM A312 S10 / ASTM A312 S10
LM3 / LM3	soldering socket LM3 / soldering socket LM3	ASTM A312 S40 / ASTM A312 S40
LM4 / LM4	soldering socket LM4 / soldering socket LM4	DIN EN 12449 / DIN EN 12449
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	17,2	21,3	26,9	33,7	42,4	48,3	60,3
Dimensions for soldering socket LM1 / soldering socket LM1	e	2,3	2,6	2,9	3,2	3,2	3,6	3,6
Order code XX		CK	CL	CM	BN	CN	CO	CP
Connection type for pipes according to ASTM A312 S10	D	17,15	21,34	26,67	33,40	42,16	48,26	60,33
Dimensions for soldering socket LM2 / soldering socket LM2	e	1,65	2,11	2,11	2,77	2,77	2,77	2,77
Order code XX		AS	AU	AW	AY	BA	BC	BE
Connection type for pipes according to ASTM A312 S40	D	17,15	21,34	26,67	33,40	42,16	48,26	60,33
Dimensions for soldering socket LM3 / soldering socket LM3	e	2,31	2,77	2,87	3,38	3,56	3,68	3,91
Order code XX		AT	AV	AX	AZ	BB	BD	BF
Connection type for pipes according to DIN EN 12449	D	12	15	18	22	28,00	35	42,00
Dimensions for soldering socket LM4 / soldering socket LM4	e	1	1,5	1,5	1,5	1,5	1,50	2
Order code XX		AA	AC	BH	BI	BJ	BK	BL
							BL	BM

■ SEALS

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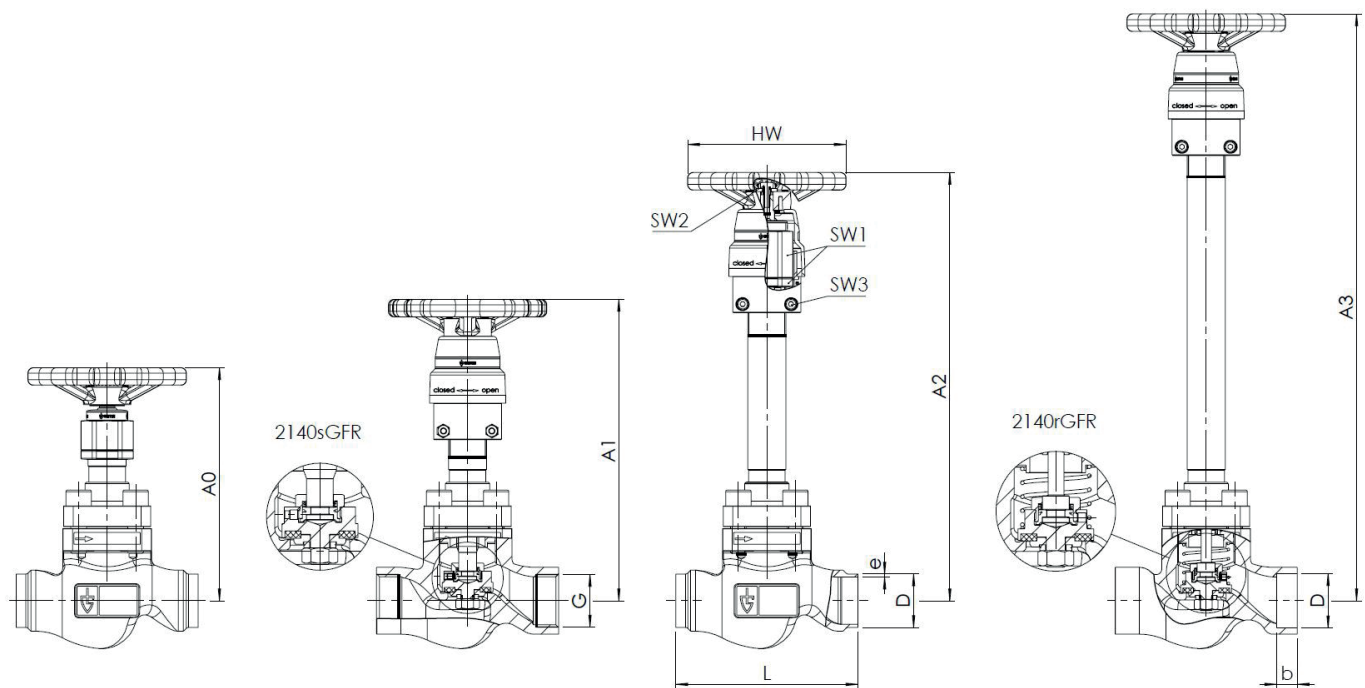
■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 2180: Connection, installation dimensions									
Nominal diameter	DN	10		15	20	25	32	40	50
Pressure level	PN	63	63	63	63	63	63	63	63
Operating pressure	bar	63	63	63	63	63	63	63	50
Threaded connection	G	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Installation dimensions in mm	L	70		85	100	115	115	130	155
	b	6		10	13	13	13	13	16
	A0*	154		157	155	160	-	-	-
	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
	SW1	30		30	30	30	36	36	36
	SW2	8		8	8	8	13	13	13
Weight (Height A0)	kg**	1,3		1,5	2,1	2,3	-	-	-
Weight (Height A1)	kg**	1,4		1,6	2,2	2,4	4,0	4,8	7,3
Weight (Height A2)	kg**	1,7		1,9	2,4	2,6	4,2	5,0	7,5
Weight (Height A3)	kg**	1,9		2,1	2,7	2,9	4,6	5,3	7,9
Kvs-value	m³/h	1,7		4,4	7,4	12,0	15,8	23,8	39,0
Cv-value	gal/min	2,0		5,1	8,6	14,0	18,4	27,7	45,4

* Dimensions A0 - A3 with valve open. Further initiative heights on request.

** Weights with threaded connection, other connections similar.

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series	Valve version	Medium	Type of operation	Initiative Height	Nominal diameter DN	Connection type		Connection size	Seal
						Inlet	Outlet		
2180	s	GF	R	A1	25	LM4	LM4	BJ / BJ	PTFE
2180	r	GF	S	A2	40	f	f	40 / 40	PTFE
2180									
2180									

■ CERTIFICATES / APPROVALS

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

■ 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	☐		☐