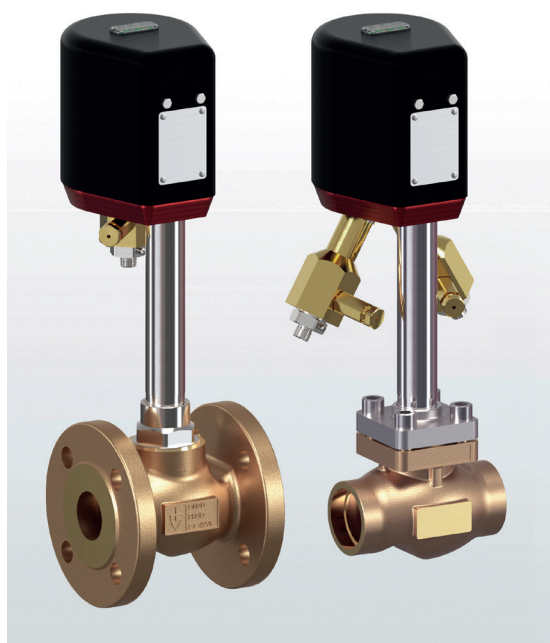


→ Series 2184



CE 0035

■ MATERIAL



■ SPECIFICATION



DN 25 / DN 40



-196°C to +65°C



PN 40 / PN 63

■ SUITABLE FOR

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

■ EXAMPLES OF USE

Safety shut-off valve (SAA) for shutting off the filling line of cryogenic tanks, cryogenic vessels and cryogenic systems for the storage of cryogenically liquefied gases such as LIN, LOX, LCO₂ and LAr.

The SAA consists of a pilot valve and a shut-off valve in a straightway form, which are mechanically coupled to one another. The pilot valve monitors the vessel pressure and, should an adjustable limit value be exceeded, triggers the closure of the shut-off valve in the filling line. Monitoring and closure take place without external power. The closure of the shut-off valve causes a flow interruption at the pump and triggers the pump protection mechanism of the filling unit

- N₂ for food/pharmaceutical applications
- O₂ for medical supply systems
- CO₂ for food/industrial applications
- Ar for welding

The fittings are factory-set, sealed and manufactured to be oil- and greasefree.

■ APPROVALS

EU type examination

DGRL 2014/68/EU

Requirements

AD 2000
DIN EN ISO 4126-4 and -5
DIN EN 1626

■ MATERIALS

Assembly	Component	Material	DIN EN	ASME
Cover	Cover hood	Aluminium	3.3523	AA 5052
	Window	Plastic	PC	PC
	Position indicator bracket	Plastic	PA6	PA6
Shut-off valve	Body	Gunmetal	CC499K	CC499K
	Valve bonnet	Stainless steel	1.4571, 1.4404	316 Ti, 316 L
	Screws	Stainless steel	1.4301	304
	Internal parts	Brass / stainless steel	CW617N / 1.4404	CW617N / 316 L
	Seal	Plastic	PTFE	PTFE
	Spring	Stainless steel	1.4568	631
Pilot valve	Inlet body	Stainless steel	1.4404	316 L
	Outlet body	Brass	CW617N	CW617N
	Internal parts	Brass / stainless steel	CW617N / 1.4404	CW617N / 316 L
	Seal	Plastic	PTFE	PTFE
	Spring	Stainless steel	1.4310	301

PILOT VALVE DESIGN

ps	Pressure switch (standard)	PS 40 [bar]	Oxygen (O ₂): max. 40 bar / max. +60°C
ds	Dual pressure switches	PS 40 [bar]	Oxygen (O ₂): max. 40 bar / max. +60°C

MEDIUM

GF	gaseous and liquid	cryogenically liquefied gases, steams and liquids
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Not suitable for acetylene (red brass casing).

PILOT VALVE CONNECTION

S	M14 x 1.5 threaded fitting for Ø 8 x 1 mm pipe (Standard)
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Further connections are available on request.

NOMINAL DIAMETER AND CONNECTION SIZE OF SHUT-OFF VALVE

Nominal diameter DN		25	40
Inlet		1" (25)	1 1/4" (32)
Outlet	1" (25)	■	
	1 1/4" (32)		■
	1 1/2" (40)		■

CONNECTION TYPE OF SHUT-OFF VALVE (INLET / OUTLET)

FCD4A / FCD4A	PN 40 cast flange / PN 40 cast flange	DIN EN 1092-3 Form B / DIN EN 1092-3 Form B
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

SHUT-OFF VALVE CONNECTION DIMENSIONS (INLET/OUTLET)

Nominal diameter	DN		25	40
Connection size			1" (25)	1 1/4" (32)
Dimensions of FCD4A flanges in accordance with DIN EN 1092 PN40 Form B	D1	mm	115	
	D2	mm	68	
	D3	mm	85	
	n x d	mm	4 x 14	
Order code	XX		25	
				40
Dimensions of LM1 Soldering socket for pipes in accordance with DIN EN ISO 1127	D	mm		42,4
	e	mm		2,6
Order code	XX			AM
				DE
Dimensions of the LM2 soldering socket for pipes to ASTM A312 S40	D	mm		42,16
	e	mm		2,77
Order code	XX			BA
				BC
Dimensions of the LM3 soldering socket for pipes to ASTM A312 S80	D	mm		48,26
	e	mm		3,68
Order code	XX			BD
Depth of socket weld	b	mm		13

DN 25 only with flange connections (FCD4A).

SEAL (SHUT-OFF / PILOT VALVE)

PTFE	Standard seal: Shut-off valve – metallic Pilot valve – PTFE	Oxygen (O ₂): Shut-off valve: max. 50 bar / max. +60°C Pilot valve: see 'Pilot valve design'
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PILOT VALVE SET PRESSURE

ps	2 - 40 bar
ds	4 - 40 bar

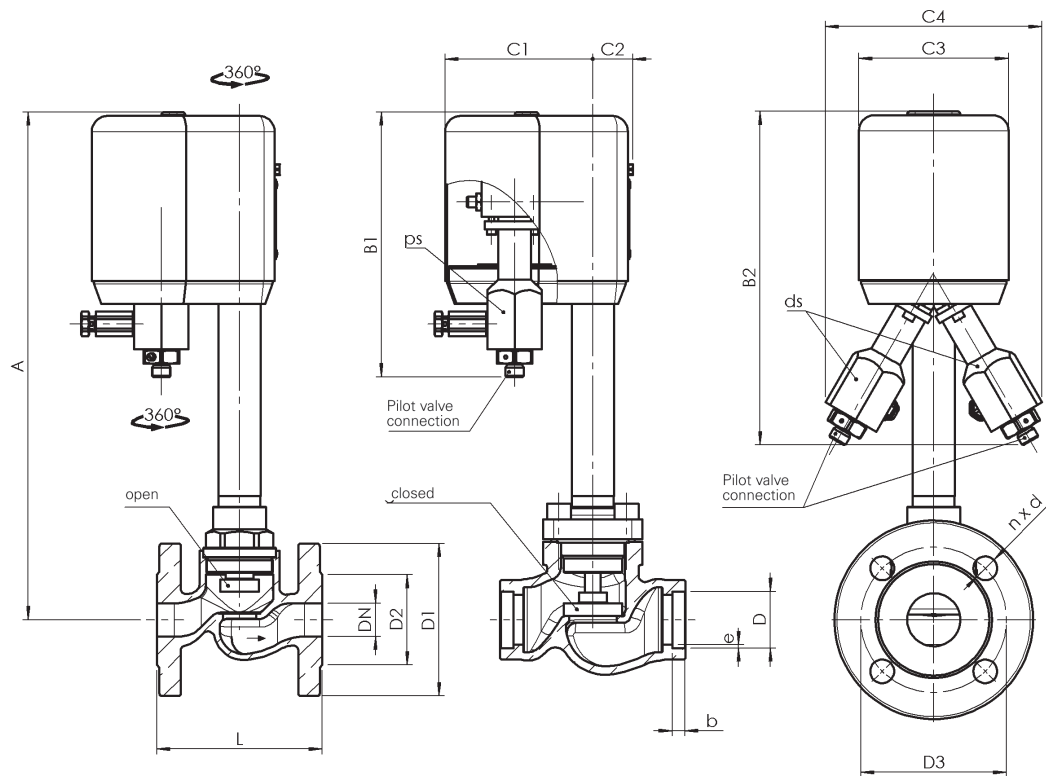
NOMINAL DIAMETERS, INSTALLATION DIMENSIONS, TECHNICAL DATA

Series 2184: Connection, installation dimensions					
Nominal diameter	DN		25	40	
Connection dimensions			1" (25)	1 1/4" (32)	1 1/2" (40)
Connection type			FC ²	LM ¹	FC ²
Pressure class	PN		40	63	40
Max. permissible pressure	PS	bar	40	63	40
Installation dimensions	A	mm	383		
	B1	mm	200		
	B2	mm	252		
	C1	mm	112		
	C2	mm	30		
	C3	mm	113		
	C4	mm	165		
	L	mm	125	140	
Weight	m	kg	8,3	7,3	11,5
Flow coefficient	Kvs	m ³ /h	12,0	21,2	29,0
	Cv	gal/min	14,0	24,7	33,8
Closing time	t _c	ms	< 30		

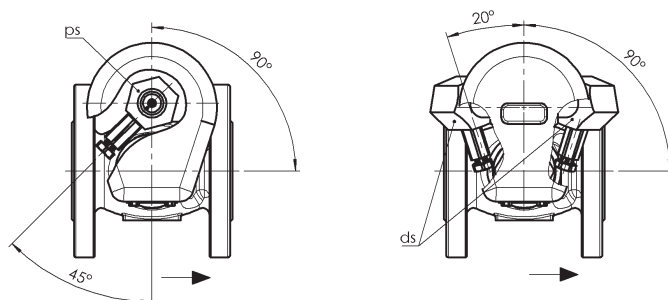
¹ Connection type: Soldering sockets

² Connection type: Cast flanges

MAIN DIMENSIONS, INSTALLATION DIMENSIONS



ALIGNMENT OF SHUT-OFF VALVE AND PILOT VALVE



Alternative alignment available on request.

Series 2184 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Version Pilot valve	Medium	Connection Pilot valve	Nominal diameter Shut-off valve	Connection type Shut-off valve		Connection size Shut-off valve	Seal	Pilot valve set pressure
					DN	Inlet Outlet			
2184	ps	GF	S	40	FCD4A	FCD4A	40 / 40	PTFE	18,9
2184	ds	GF	S	40	LM2	LM2	AM / AM	PTFE	18,9
2184									
2184									

■ APPROVALS / INSPECTIONS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	☐	C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ) ¹	☐
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)	☐			☐

¹Approvals / Inspections of the release function with order-specific Set pressure in the presence of a notified body.

■ APPROVALS

AA1	CE conformity assessment in accordance with Directive 2014/68/EU	☐		☐
		☐		☐

■ ENQUIRY

Copy and send to: order@goetze.de.