

# Pressure Regulator

## Type 4186-1 - Combi-Regulator



### Cryogenic-Pressure Regulator, stainless steel, PN50

Set point range from 1.0 up to 38.0 bar

Connections: male thread for union connection, BSPP (G) thread or NPT thread

Cleaning Standard: " cleaned and degreased for oxygen service " - **for oxygen (O<sub>2</sub>) max. 30,0 bar**  
complete with installed strainer screens - mesh size 0.25 mm - on connection A and B

**Part No. 4186-X-1100\*** Set point range 1.0 up to 12.0 bar  
set at 8.0 bar unless otherwise noted on purchase order

**Part No. 4186-X-1200\*** Set point range 6.0 up to 24.0 bar  
set at 12.0 bar unless otherwise noted on purchase order

**Part No. 4186-X-1300\*** Set point range 16.0 up to 38.0 bar  
set at 20.0 bar unless otherwise noted on purchase order

\*connection C: 1 = M thread, 2 = BSPP (G) thread, 3 = NPT thread



### Applications:

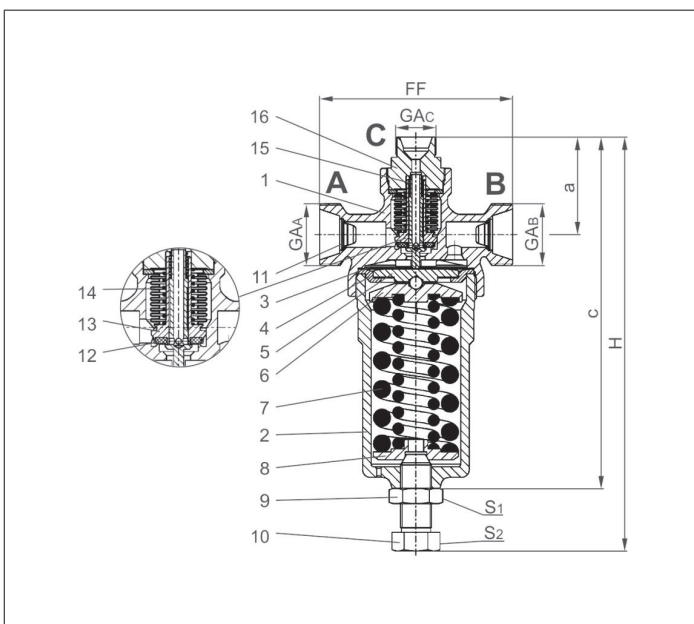
Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -196°C / -321°F (77K) up to +200°C / 392°F (473K)

Ambient temperature: -40°C / -40°F (233K) up to +65°C / 149°F (338K)

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Bonnet (cover)	1.4408	A 351 CF8M
3 Diaphragm	1.4404	A 240 Grade 316L
4 Supporting ring	1.4301	A 276 Grade 304
5 Diaphragm ring	1.4301	A 276 Grade 304
6 Spring plate	1.4301	A 276 Grade 304
7 Spring	1.4310	A 313 Grade 301
8 Spring clamp	1.4301	A 276 Grade 304
9 Locking nut	1.4301	A 276 Grade 304
10 Set point adjuster	1.4301	A 240 Grade 304
11 Strainer (option)	1.4301	A 240 Grade 304
12 Valve seal	PTFE	
13 Bellow disc	1.4571	A 276 Grade 316Ti
14 Bellow	1.4571	A 313 Grade 316Ti
15 Bellow spring	1.4571	A 313 Grade 316Ti
16 Connection fitting	1.4571	A 276 Grade 316Ti

Standard marking acc. to Pressure Equipment Directive 97/23/EC (PED).



Type 4186	Technical data		
Nominal size	DN	20	20
Dimension code	.X.	MM04020	MG12000
Face-to-face dimension	FF	125	125
Height	H	268	268
Thread	G <sub>A</sub>	M40x2.0	G 1-1/4
Thread	G <sub>B</sub>	M40x2.0	G 1-1/4
Thread	G <sub>C</sub>	M26x1.5	G 3/4
Length	a	63	63
Length	c	227	227
Wrench size across flats	S <sub>1</sub>	30	30
Wrench size across flats	S <sub>2</sub>	27	27
Weight	ca. kg	4.3	4.3
Kvs-Value	m <sup>3</sup> /h	1.2	1.2
Cv-Value	gal/min	1.4	1.4

Dimensions in mm.

**Essential:** Please confirm pressure range and valve set pressure on purchase order

# Pressure Regulator

## Type 4186-3 - Combi-Regulator



### Cryogenic-Pressure Regulator, stainless steel, PN40

Set point range from 2.0 up to 38.0 bar

Connections: male thread for union connection, BSPP (G) thread or NPT thread

Cleaning Standard: "cleaned and degreased for oxygen service" - **for oxygen (O<sub>2</sub>) max. 30.0 bar**  
complete with installed strainer screens - mesh size 0.25 mm - on connection A and B

**Part No. 4186.X.3100\*** Set point range 2.0 up to 10.0 bar  
set at 8.0 bar unless otherwise noted on purchase order

**Part No. 4186.X.3200\*** Set point range 8.0 up to 22.0 bar  
set at 12.0 bar unless otherwise noted on purchase order

**Part No. 4186.X.3300\*** Set point range 20.0 up to 38.0 bar  
set at 20.0 bar unless otherwise noted on purchase order

\*connection C: 1 = M thread, 2 = BSPP (G) thread, 3 = NPT thread



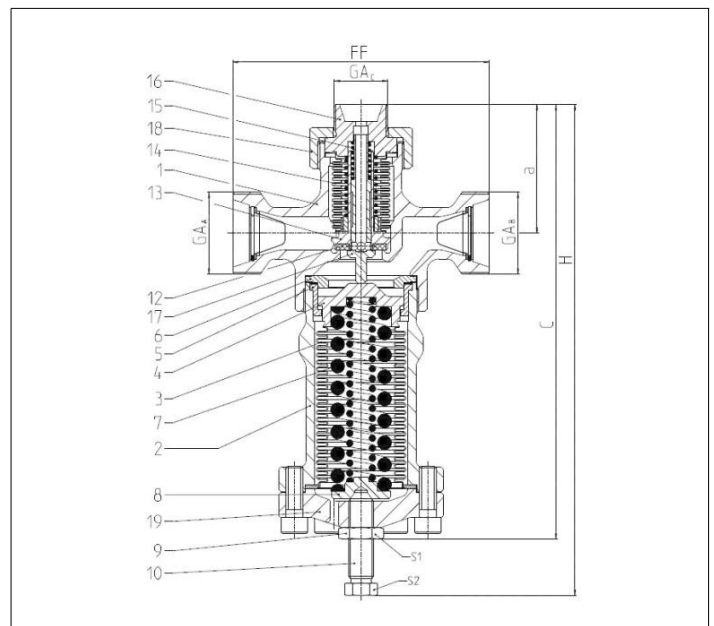
### Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -196°C / -321°F (77K) up to +200°C / 392°F (473K)

Ambient temperature: -40°C / -40°F (233K) up to +65°C / 149°F (338K)

Materials	DIN EN	ASTM
1 Body	1.4308	A 351 CF8
2 Bonnet (cover)	1.4408	A 351 CF8M
3 Bellow	1.4571	A 313 Grade 316Ti
4 Spring plate	1.4571	A 276 Grade 316Ti
5 Lift stopper	1.4571	A 276 Grade 316Ti
6 Lift stopper	1.4571	A 276 Grade 316Ti
7 Spring	1.4310	A 313 Grade 301
8 Spring clamp	1.4301	A 276 Grade 304
9 Locking nut	1.4301	A 276 Grade 304
10 Set point adjuster	1.4301	A 240 Grade 304
11 Strainer (option)	1.4301	A 240 Grade 304
12 Valve seal	PTFE	
13 Bellow disc	1.4571	A 313 Grade 316Ti
14 Bellow	1.4571	A 313 Grade 316Ti
15 Bellow spring	1.4571	A 313 Grade 316Ti
16 Connection fitting	1.4571	A 313 Grade 316Ti
17 Tubular overflow	1.4571	A 276 Grade 316Ti
18 Union nut	1.4301	A 276 Grade 304
19 Flange cover	1.4308	A 351 CF8



Standard marking acc. to Pressure Equipment Directive 97/23/EC (PED).



Type 4186	Technical data		
Nominal size	DN	20	20
Dimension code	.X.	MM04020	MG12000
Face-to-face dimension	FF	125	125
Height	H	239	239
Thread	GA <sub>A</sub>	M40x2.0	G 1-1/4
Thread	GA <sub>B</sub>	M40x2.0	G 1-1/4
Thread	GA <sub>C</sub>	M26x1.5	G 3/4
Length	a	63	63
Length	c	212	212
Wrench size across flats	S <sub>1</sub>	19	19
Wrench size across flats	S <sub>2</sub>	14	14
Weight	ca. kg	3.2	3.2
Kvs-Value	m <sup>3</sup> /h	3.2	3.2
Cv-Value	gal/min	3.7	3.7

Dimensions in mm.

**Essential:** Please confirm pressure range and valve set pressure on purchase order

