

D166 Dome loaded regulator

- Port size: G1
- Robust design
- Options are designed to tailor or customize D166 to application needs, hence increasing overall efficiency



Technical features

Ideal for variable inlet pressure and environmental temperature the D166 maintains stable downstream pressure control. The heavy duty construction makes the D166 perfect for arduous conditions and harsh environments. Suitable for medium and high pressure. It's manually adjustable with the use of a small piloting valve or electronically controlled, or set with a spanner. Thanks to needle valve block an integrated solution delivers high performance and low installation costs. Many other options are available on demand.

Applications:

- Gas distribution/mixing
- Pressure test rigs
- Marine industries
- Off shore/aggressive environments
- Oxygen use approved
- Compressor regulation
- Air, O₂, CH₄ compressor

Medium:

Any gases, air, N₂, O₂, Ar, H₄, H₂, C₂H₂, CO₂, N₂O or some liquids

Maximum inlet pressure:

15 barg (217 psig)
100 barg (1450 psig)

Outlet pressure range:

0,3 ... 5 barg (4,3 ... 72 psig)
0,5 ... 100 barg (7,2 ... 1450 psig)

Flow rate indication:

Under sonic conditions (P₁>2P₂) air flow rate indication is given for an equivalent flow with air which is 48 Nm³/h per Bar of absolute pressure downstream (internal Ø 9 mm and ports 1").

Leakage:

Helium leak tested:
Internal leak tight:
>10⁻³ mbar.l/sec
External leak tight:
>10⁻⁴ mbar.l/sec
Helium leak tested to
10⁻⁸ mbar.l/sec (on request)

Weight:

3,5 kg

Ambient/Media temperature:

-20 ... +50°C (-4 ... +122°F)

Note:

Advised filter:
F545L Option 1006
F545I Option 1006
Advised fittings:
T1552 (G1") or T1569 (G1")

Material:

Body: Brass or stainless steel
Valve insert: PCTFE, PEEK or PAI
Seat: Stainless steel



Option selector

Main material	Substitute
Brass	L
Stainless steel	I
Maximum inlet pressure	Substitute
15 barg	C
100 barg	G
Outlet pressure range	Substitute
0,3 ... 5 barg	17
0,5 ... 100 barg	43
O-rings material *1)	Substitute
NBR	N
EPDM	E
FPM	V
Valve material *1)	Substitute
NBR	N
EPDM	E
FPM	V
Seat material	Substitute
Brass	L
Stainless steel	I
When a pilot is being flanged the Outlet pressure range/code is defined by the capability of the pilot valve — For electronic proportional control:	Substitute
0 ... 1 bar	89
0 ... 10 bar	88
0 ... 20 bar	82
0 ... 40 bar	83
0 ... 60 bar	87
0 ... 100 bar	86

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Main options *1)	Substitute
Standard version 9 mm	2000
Standard version 12 mm	2001
Dome with only G1/4" piloting port	2009
Hydraulic version 12mm	2023
With electronic proportional control pilot D466 0-40 bar (apres 4-20 mA)	2158
Equipped with ISO DN25 PN40 swivelling flange and G1/4" piloting port	2030
Equipped with manual piloting D420 directly flanged on the dome	2036

*1) More options are available upon specific request

Option selector service kits

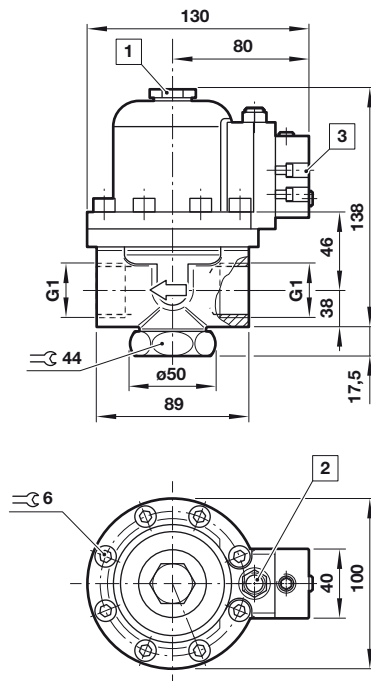
Service kit	Substitute
Complete repair and maintenance kit with valve assembly	K
O-rings only	J

★D166*****

Manufacture code	Substitute
Norgren internal use	
Elastomere	Substitute
NBR	N
EPDM	E
FPM	V

Dimensions

Dimensions in mm
Projection/first angle



- 1 Dome filling or gauge port
- 2 Venting port
- 3 Loading port, built in side

Warning

Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.
 Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI, IMF sas.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.