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 pilotting valve or electronically controlled, or set with a spanner thanks to the needle valve block differential version, balanced design optional back pressure regulator.

Applications:
- Gas distribution/mixing
- Pressure test rigs

- Marine industries
- Off shore / aggressive environments
- 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:
Flow rate indication is given for an equivalent flow with air which is 48 Nm³/h per Bar of absolute pressure downstream (internal Ø 10 mm and ports 1”)

Leakage:
Helium leak tested:
Internal leak tight: >10⁻⁸ mbar.l/sec
External leak tight: >10⁻⁶ mbar.l/sec

Helium leak tested to 10⁻⁸ atm.cm³/sec⁻¹ (on request)

Weight:
3.5 kg

Ambient/Media temperature:
-20 ... +50°C (-4 ... +122°F)

For more information please be in touch:
contact@imi-precision.fr

Materials:
Body: Brass or stainless steel
Valve insert: PCTFE, Peek or Torlon
Seat: Stainless steel

More options are available upon specific request.

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

Valve material Substitute
NBR R
EPR 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:

0 ... 1 bar 89
0 ... 10 bar 88
0 ... 20 bar 82
0 ... 40 bar 83
0 ... 60 bar 87
0 ... 100 bar 86

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

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

Max 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:
Flow rate indication is given for an equivalent flow with air which is 48 Nm³/h per Bar of absolute pressure downstream (internal Ø 10 mm and ports 1”)

Leakage:
Helium leak tested:
Internal leak tight: >10⁻⁸ mbar.l/sec
External leak tight: >10⁻⁶ mbar.l/sec

Helium leak tested to 10⁻⁸ atm.cm³/sec⁻¹ (on request)

Weight:
3.5 kg

Ambient/Media temperature:
-20 ... +50°C (-4 ... +122°F)

For more information please be in touch:
contact@imi-precision.fr

Materials:
Body: Brass or stainless steel
Valve insert: PCTFE, Peek or Torlon
Seat: Stainless steel

More options are available upon specific request.
**Warning**

Do not use these products where pressures and temperatures can exceed those listed under «Technical features».

Before using these products with fluids other than those specified within published specifications, consult IMI NORGREN.

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.

For more information please be in touch:
contact@imi-precision.fr