



F-Series Multiways Bellows Shut-Off Valve

Features

Q+ Process: internally electropolish
 Ra < 0.15 µm (6 µin).

Available with High T° option (240°C)

Body design :

- Various Fitting Configuration.
- Standard Moduline Dimensions.
- Rigid mechanical connection between the stem tip and the actuator.
- All tube connection are TIG orbital welded.
 1/4" Flat metallic gasket fittings.

Materials :

- Body and Bellows in 316 L Stainless Steel.
- Hastelloy® Bellows as option (for corrosive gases).
- Non rotating stem tip in K el-F®.
- Non rotating stem tip in Polyimide (VespeL®) for High Temp. option (240°C).
- Silvered stainless steel 316 L O-ring between body and actuator.

Actuator Design :

- Interchangeable aluminium actuators:
 - Manual 1/4 Turn or Toggle,
 - Pneumatic NO or NC.
- Permanent color id. for NO or NC.
- Actuator O-ring in Viton®.
- Actuator O-ring in Kalrez® (≤ 240°C).

Verification and Packaging

- Warranty and leak test certificate.
- Stainless Steel Plugs on fittings.
- Vacuum sealed double packaging with N2 purge.



Ratings

Dead volume :
 3 ways (standard and high temperature) 2.4 cm³ (92 in³)
 4 ways (standard and high temperature) 3.5 cm³ (140 in³)
 Orifice Size :4.5 mm (0.177 inch).
 Flow coefficient : Cv = 0.31.

Temperature

Operating : -23°C to 70°C (-10°F to 158°F)
 (for standard).
 -23°C to 240°C (-10°F to 464°F)
 (for High Temperature option).

Pressure rating

Vacuum to 15 bar (220 psi).
 Vacuum to 100 bar (1500 psi) as option (only with 1/4Turn actuator).
 Pneumatic Operator : 5~7 bar

Life Expectancy:

> 2 000 000 cycles with non corrosive gas.
 > 200 000 cycles (for high temperature option).

Helium Leak Rate :

External :individually tested less than 5.10⁻¹⁰ atm cm³/s.
 Across Seat : individually tested less than 2.10⁻⁹ atm cm³/s.

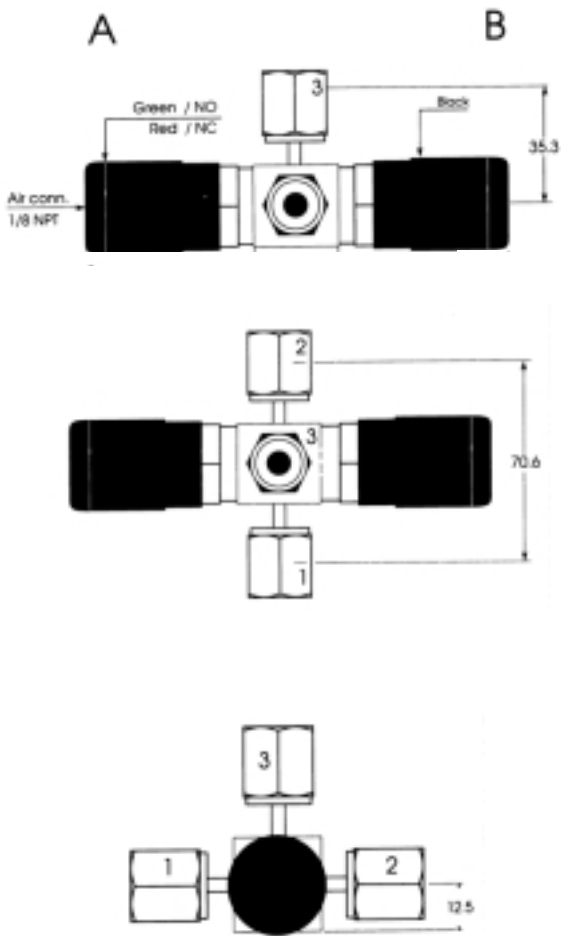
Options and accessories :

- Hastelloy® bellows for corrosive gases.
- Welding Picture.
- Position indicators for pneumatic operators : single position, double position.
- Position indicators for 1/4 Turn operators : two positions.
- Security Locker for Manual Toggle.
- High Temperature (up to 240°C).

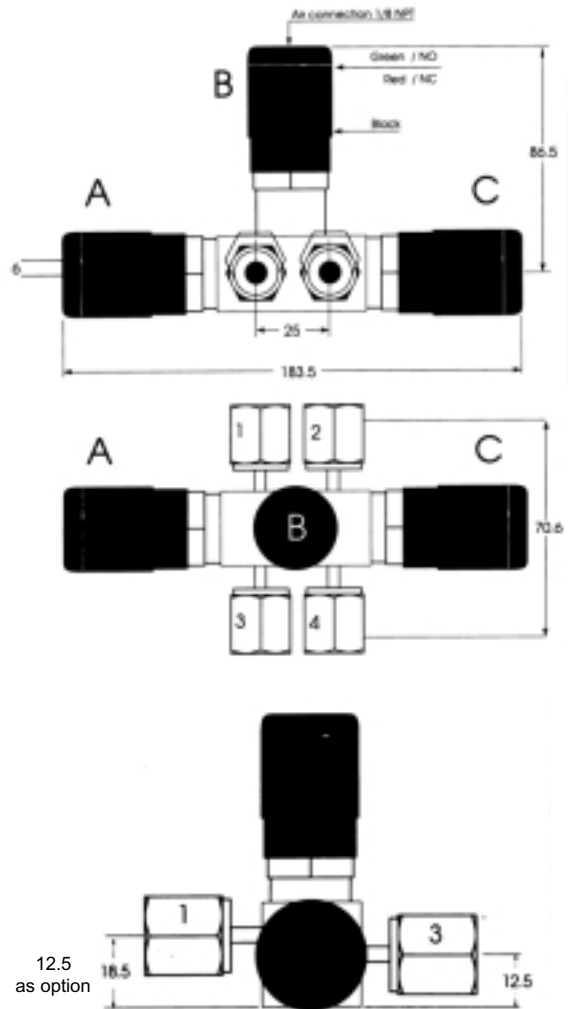
Table of Dimension (mm)

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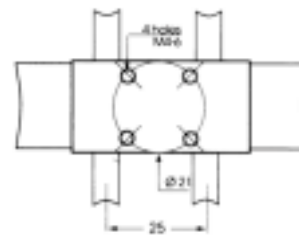
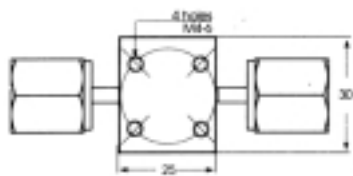
3 WAYS PNEUMATIC



4 WAYS PNEUMATIC



MOUNTING DIMENSIONS



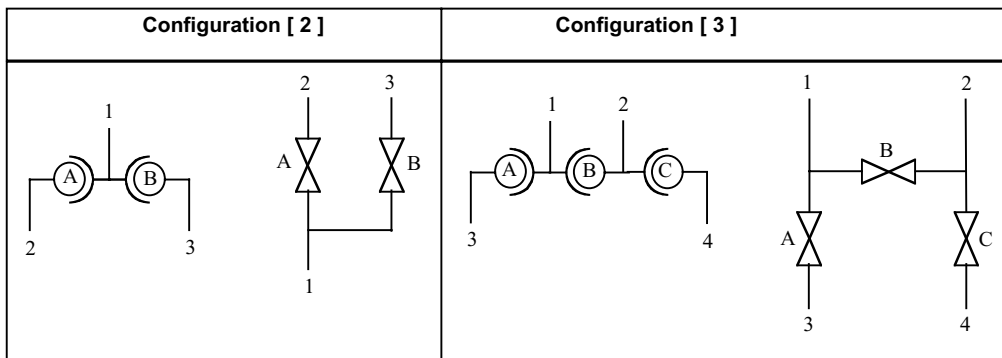


Multiways Bellows Shut-Off Valve Part Number Description

www.qualiflow.com
the catalogue D 10-03 V02

M [b] [p] [A, B, C] - [1, 2, 3, 4]

[b]- **Body Configuration**



[p]- **Process Configuration**

- [S] for Standard: Q+ (Ra < 0.15 μm)
- [T] for High Temperature (Ra < 0.15 μm)

[A, B, C]- **Actuator Type**

Specify :

- [A, B] for Configuration 2
- [A, B, C] for Configuration 3
- [Q] for Manual 1/4 Turn
- [T] for Manual Toggle
- [O] for Pneumatic Normally Open
- [C] for Pneumatic Normally Close
- [V] for Manual 1/4 Turn with VPI

[1, 2, 3, 4]- **Fitting Type**

Specify :

- . [1, 2, 3] for 3 port manifold
- . [1, 2, 3, 4] for 4 port manifold
- [F] for 1/4" VCR Female
- [M] for 1/4" VCR Male
- [C] for Swagelok 1/4"
- [G] for Swagelok 6mm
- [W] for Welded (on request)

