DATASHEET F-002-003

Serie F-002A, F-003A, F-003B

Pilot-Operated Control Valves



Control Valves for High Gas Flow

These are unique, indirect acting control valves suitable for high flow rates, up to 500 m^3_n/h N_2-equivalent. They use a the 'Vary-P' mechanism (see series F-033) as pilot valve. Hence they are also pressure compensated, so both the inlet pressure and the outlet pressure may change within the specified ΔP limits, without impact on the control function.

Technical specifications

Measurement / control system

Operating temperature	F-002AV / F-012AV / F-003AV / F-013AV: -10...70°C F-002AI / F-012AI / F-003AI / F-013AI: -10...70°C F-003BI / F-013BI: -10...70°C F-002AX / F-012AX / F-003AX / F-013AX: -10...65°C F-003BX / F-013BX: -10...65°C
Max. Kv-value	F-002A.. / F-012A.. series: 0,04...0,4 F-003A.. / F-013A.. series: 0,15...1,5 F-003B.. / F-013B.. series: 0,6...6

Mechanical parts

Material (wetted parts)	stainless steel 316L/320; other on request
Pressure rating (PN)	F-002 / F-003 series: 64 bar(a) F-012 / F-013 series: 100 bar(a)
Max. ΔP	1,3...20 bar(d)
Process connections	compression type or face seal (VCR/VCO) couplings
Seals	standard: Viton®; options: EPDM, Kalrez® (FFKM), FDA and USP Class VI approved compounds
Protection class	F-002AV / F-012AV / F-003AV / F-013AV: IP40 F-002AI / F-012AI / F-003AI / F-013AI / F-003BI / F-013BI: IP65 F-002AX-XBB / F-012AX-XBB / F-003AX-XBB / F-013AX-XBB: II 1 G/D Ex ia IIC T6 F-002AX-XCB / F-012AX-XCB: II 2 G/D Ex e mb II T4 F-003AX-XCB / F-013AX-XCB / F-003BX-XCB / F-013BX-XCB: II 2 G/D Ex e mb II T4

Electrical properties

Electrical connection

Control valve options

External actuator options to be connected to the controller

Ex-proof specifications

Approvals / certificates

Technical specifications subject to change without notice.

For dimensional drawings and hook-up diagrams please visit the product page on our website

Related products



SERIES F-001, F-011, F-021

Direct-operated control valves

- Flow up to approx. 50 ln/min
- Pressure up to 64/100/200 bar
- Kv-max: 6.6 x 10^{-2}



SERIES F-033, F-042

Vary-P Control Valves

- Flow up to approx. 100 ln/min
- Pressure up to 400/700 bar
- For high (differential) pressures applications



SERIES F-004A, F-004B

Bellows Valves with Pressure Compensation

- Flow up to approx. 1000 ln/min
- For low (differential) pressure applications
- Kv: 0.03...1.0

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