

F-002-003

SERIE F-002A, F-003A, F-003B

PILOT-OPERATED CONTROL VALVES

- Up to approx. 500 m³_n/h
- Pressure up to 64/100 bar
- Kv: 0.04...6.0



Control Valves for High Gas Flow

These are patented indirect acting control valves suitable for high flow rates, up to 500 m³_n/h N₂-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
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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
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Mechanical parts

Material (wetted parts)	stainless steel 316L/320; other on request
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Pressure rating (PN)	F-002 / F-003 series: 64 bar(a) F-012 / F-013 series: 100 bar(a)
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Max. ΔP	1,3...20 bar(d)
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Process connections	compression type or face seal (VCR/VCO) couplings
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Seals	standard: Viton®; options: EPDM, Kalrez® (FFKM), FDA and USP Class VI approved compounds
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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
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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 l/min
Pressure up to 64/100/200 bar
Kv-max: 6.6×10^{-2}



SERIES F-033, F-042

Vary-P Control Valves

Flow up to approx. 100 l/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 l/min
For low (differential) pressure applications
Kv: 0.03...1.0



FLOW-ADJUST SERIE

Manual operated valves

Flow up to 40 l/min
Standard or high resolution
Kv: 9.0×10^{-2}



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