

# Datasheet Series F-004

## Control valves for low pressure drop applications

### > Introduction

For applications with higher flow rates and low pressure drop, Bronkhorst designed the control valve series F-004. The valves are closed by spring force. A bellows compensates the closing force acting on the plunger to such a degree that only a very small magnetic force is required and in this way large orifices can be opened. The bellows pressure compensated design enables the user to smoothly control large flows at extremely low pressures. Together with Bronkhorst mass flow meters it offers possibilities to constitute a compact flow or pressure control loop.

### > Technical specifications

#### Control specifications

Max. Kv-value	: F-004AC/F-004AI: 0,03...0,3 F-004BI: 0,1...1
Control span	: 1 : 50 (2...100%)
Temperature range	: -10...+70°C

#### Mechanical parts

Material (wetted parts)	: stainless steel 316L or comparable
Pressure rating	: 10 bar (g)
Max. $\Delta P$	: for gases: 5 bar (d) for liquids: 2 bar (d)
Process connections	: compression type or face seal male
Seals / Plunger	: Standard: Viton®; Optional: EPDM, Kalrez®
Weight	: F-004AC/F-004AI: 1,2 kg F-004BI: 3,4 kg
Protection class	: F-004AC: IP40 F-004AI/F-004BI: IP65

#### Electrical properties

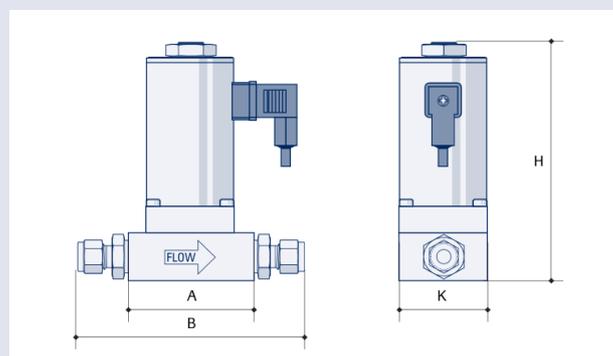
Power supply	: +15...24 Vdc $\pm 10\%$
Power consumption (at 15 Vdc)	: max. 3,5 W.

*Although all specifications in this datasheet are believed to be accurate, the right is reserved to make changes without notice or obligation.*



Control Valve model F-004BI

### > Dimensions (mm) and weights (kg)



Model	A	B	H	K	Weight (kg)
F-004AC/AI (1/4" OD)	64	121	122	45	1,2
F-004BI (1/2" OD)	85	152	174	65	3,4