

IQPD-700C

IQ+FLOW IQPD-700C EPC (P1-CONTROL)

Microfluidic Back Pressure Controller, Downported

- Small footprint ensures space efficiency
- Very small internal volume
- Economical solution, low cost of ownership
- Analog or digital communication



Microfluidic Back Pressure Controllers

Bronkhorst® model IQPD-700C Back Pressure Controllers are miniature devices which are ideal for use in cramped environments or in systems requiring minimum internal volume e.g. analytical equipment. The downported Pressure Controller has a chip-based (MEMS) sensor and is suited for pressure ranges between 0,1...0,5 bar and 2...10 bar absolute or gauge. Communication with the devices can be either in analog mode or digital over RS232 or RS485.

The ultra compact IQ+FLOW instruments are typically recommended for integration in analytical and medical equipment.

Technical specifications

Measurement / control system

Pressure ranges	min. 0,1 ... 0,5 bar max. 2 ... 10 bar
Accuracy (incl. linearity and hysteresis)	$\leq \pm 0,5$ % FS (Based on calibration at ambient temperature)
Repeatability	$\leq \pm 0,2$ % FS
Turndown ratio	1 : 5 (with flow range 1 : 50)
Fluids	Dry, clean, non-flammable and non-corrosive gases. Absolute pressure sensors not suitable for He.
Operating temperature	5 ... 50 °C
Temperature sensitivity	span: 0,1% RD/°C; zero: 0,05% FS/°C
Max. Kv-value	$2,37 \times 10^{-3}$
Leak integrity, outboard	1×10^{-6} mbar-l/s He
Attitude sensitivity	negligible

Mechanical parts

Material (wetted parts)	aluminium, Si, SiOx, epoxy; option: stainless steel body (SS316L)
Process connections	downported construction
Seals	standard: Viton®; other on request
Weight	120 g (Aluminium) / 180 g (SS316L)
Ingress protection	IP40

Electrical properties

Readout sample time	2 msec
Power supply	+15 ... 24 Vdc
Max. power consumption	100 mA
Analog output	0...5 (10) Vdc or 0 (4)...20 mA (sourcing output)
Digital communication	RS232, RS485 (Modbus-RTU/ASCII or FLOW-BUS)

Electrical connection

Power/Analog/RS232/RS485	RJ45 modular jack
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Technical specifications subject to change without notice.

For dimensional drawings and hook-up diagrams please visit the [product page](#) on our [website](#)

Recommended accessories



E-8000 SERIES

Digital Readout / Control Systems

Bright, wide angle, 1.8" display (TFT technology)

User friendly operation, menu driven with 4 push buttons



PIPS SERIES

Plug-in Power Supply

For lab-style or industrial devices

Interchangeable plugs (Euro, UK, USA, Australian, IEC) for mains connection

Related products



IQ+FLOW IQP-700C EPC (P1-CONTROL)

Min. pressure 0,1...0,5 bar
Max. pressure 2...10 bar
Ultra compact
MEMS technology



IQ+FLOW IQPD-600C EPC (P2-CONTROL)

Min. pressure 0,025...0,5 bar
Max. pressure 0,5...10 bar
Ultra compact; downported
MEMS technology



IQ+FLOW IQPD-500C

Min. pressure 0,01...0,5 bar
Max. pressure 0,2...10 bar
Ultra compact; downported
MEMS technology



IQ+FLOW IQFD-200C DOWNPORTED MFC

Min. flow 0...10 mln/min
Max. flow 0...5 ln/min
Pressure rating 10 bar
Ultra compact (MEMS technology)
Top-mount construction



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