DATASHEET IQP-700C

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

초소형 마이크로 역방향 압력 컨트롤러

Microfluidic Back Pressure Controllers

Bronkhorst® model IQP-700C Back Pressure Controllers are miniature devices which are ideal for use in cramped environments or in systems requiring minimum internal volume e.g. desktop equipment. The 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, bioprocessing and medical equipment.

기술 정보

Measurement / control system

절대 압력 센서	Code: 1K5AC (chip sensor) - Ranges (FS): 0,5 ... 1,5 bara - P-max: 3,0 bara Code: 3K0AC (chip sensor) - Ranges (FS): 1,0 ... 3,0 bara - P-max: 6,0 bara Code: 10KAC (chip sensor) - Ranges (FS): 3,0 ... 10 bara - P-max: 10 bara Code: 2K0AS (media-isolated) - Ranges (FS): 0,5 ... 2,0 bara - P-max: 3 bara Code: 6K0AS (media-isolated) - Ranges (FS): 2,0 ... 6,0 bara - P-max: 10 bara Code: 10KAS (media-isolated) - Ranges (FS): 3,0 ... 10 bara - P-max: 10 bara
Relative pressure sensors	Code: 1K5GC (chip sensor) - Ranges (FS): 0,5 ... 1,5 barg - P-max: 3,0 barg Code: 3K0GC (chip sensor) - Ranges (FS): 1,0 ... 3,0 barg - P-max: 6,0 barg Code: 10KGC (chip sensor) - Ranges (FS): 3,0 ... 10 barg - P-max: 10 barg Code: 0K6GS (media-isolated) - Ranges (FS): 0,2 ... 0,6 barg - P-max: 1 barg Code: 2K0GS (media-isolated) - Ranges (FS): 0,5 ... 2,0 barg - P-max: 3 barg Code: 6K0GS (media-isolated) - Ranges (FS): 2,0 ... 6,0 barg - P-max: 10 barg Code: 10KGS (media-isolated) - Ranges (FS): 3,0 ... 10 barg - P-max: 10 barg
정확도 (선형도 및 이력현상 포함)	≤ ± 0,5 % FS (Based on calibration at ambient temperature)
Repeatability	≤ ± 0,2 % FS
Pressure rangeability	measurement: 1 : 50 (2…100%) control: 1 : 5 (with flow range 1 : 50)
Fluids	Chip-sensor : dry, clean, non-flammable and non-corrosive gases. Absolute pressure sensors not suitable for Helium. Media-isolated sensor : Gases compatible with aluminium or stainless steel SS316L and Viton.
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)	body : aluminium or stainless steel SS316L; chip sensor (default) : Si, SiOx, epoxy, aluminium; media-isolated sensor (option) : stainless steel SS316L
Process connections	optional: 10-32 UNF threaded internal nut with 1/16" ferrule (SS316 or Peek), 1/16" or 1/8" OD compression type
Seals	FKM/Viton® seals and plunger (default); FKM/Viton® seals and FFKM/Kalrez® plunger (option)
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
아날로그 출력	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

Control valve options

External actuator options to be connected to the controller

Ex-proof specifications

Approvals / certificates

Technical specifications subject to change without notice.

도면 및 배선연결 정보 제품 페이지 우리의 웹사이트

Recommended accessories

E-8000 SERIES

디지털 단말기 / 제어 시스템

- 밝고 넓은 앵글, 1.8" 디스플레이 (TFT 기술)
- 사용자 친화적인 구동, 4개의 버튼으로 구동되는 메뉴

PIPS SERIES

전원 공급 액세서리

- 연구실용 / 산업용 제품
- 메인 연결을 위한 교환 가능한 플러그 (유럽, 영국, 미국, 호주, 국제 전기 표준)

Related products

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

- 최소 압력 0,1...0,5 bar
- 최대 압력 2...10 bar
- 초소형의 컴팩트한 모델; 다운포트
- MEMS 기술

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

- 최소 압력 0,025...0,5 bar
- 최대 압력 0,5...10 bar
- 초소형의 컴팩트한 모델
- MEMS 기술

IQ+FLOW IQP-500C

- 최소 압력 0,01...0,5 bar
- 최대 압력 0,2...10 bar
- 초소형의 컴팩트한 모델
- MEMS 기술

IQ+FLOW IQF-200C MFC

- 최소 유량 범위 0...10 mln/min
- 최대 유량 범위 0...5 ln/min
- 압력 범위 10 bar
- 초소형의 컴팩트 모델
- MEMS 기술

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Bronkhorst High-Tech designs and manufactures innovative instruments and subsystems for low-flow measurement and control for use in laboratories, machinery and industry. Driven by a strong sense of sustainability and with many years of experience, we offer an extensive range of (mass) flow meters and controllers for gases and liquids, based on thermal, Coriolis and ultrasonic measuring principles. Our global sales and service network provides local support in more than 40 countries. Discover Bronkhorst®!