EN

EX-FLOW

F-111BX

Ex-Protected Mass Flow Meter for Gases



Bronkhorst®

Technical specifications

Measurement & control

Type of media	Gases
Flow range	min. 0.3…15 ml_n/min max. 0.4…20 l_n/min
Accuracy	±1% FS (incl. linearity, based on actual calibration)
Repeatability	< ±0.2% Rd
Turndown ratio	1:50 (2…100%)
Operating temperature	EX-FLOW sensor: -10…+70°C; XB-coil: -40…+65°C XC-coil: -40…+ 65°C
Temperature sensitivity	zero: < ±0.05% FS/°C; span: < ±0.05% Rd/°C
Leak integrity, outboard	tested < 2 x 10^{-9} mbar l/s He
Mounting	max. error at 90° off horizontal 0,2% at 1 bar, typical N2
Warm-up time	30 minutes
Storage/transport conditions	0...+50°C, max. 95% RH (non-condensing)

Approvals

Marking	CE, UKCA, RoHS, WEEE, REACH
Ex-Protection	ATEX Zone 1, ATEX Zone 2, IECEx Zone 1, IECEx Zone 2, TIIS/JP Ex, KCs

Mechanical specs

Pressure rating (PN) - in barg	100
Ingress protection	IP65
Material wetted parts	stainless steel 316L or comparable
Housing material	anodized aluminum
Sealing material	standard: FKM/Viton® / options: EPDM, FFKM/Kalrez®, FDA and USP Class VI approved compounds
Process connections	Compression type or face seal (VCR/VCO) couplings

Electrical properties

Analog output	15…20 mA (linear). Additional power supply and readout unit required
Analog setpoint	For MFC, additional power supply, readout and control unit required

Electrical interfaces

Function (instrument connector)	Analog
Measuring head	Terminal connection, cable gland M16x1,5

Last modified 01-12-2025.
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