

3200 Series

Mass Flow Meters & Mass Flow Controllers



The Porter Models 3261 mass flow controller (MFC) and 3271 mass flow meter (MFM) are designed to be an integral component in surface mount fluid distribution systems utilized in process analyzer and sample handling applications. Specifically configured to ANSI/ISA-76.00.02 specifications for surface-mount components, Models 3261 and 3271 can be installed on two (2) spaces of an SP-76 compliant manifold without the use of process connections.

Models 3201 MFC and 3211 MFM include compression fitting or metal gasket face seal process connections for inline installation. All models are CSA-certified for Class I, Division 2, Groups A, B, C and D hazardous locations and provide the accuracy, repeatability and response necessary for demanding process applications.



Contact Information:

Parker Hannifin Corporation
Porter Instrument Division
245 Township Line Road
Hatfield, PA 19440

Phone 215 723 4000
Fax 215 723 2199
industrial@parker.com

www.porterinstrument.com

Product Features:

- ANSI/ISA- 76.00.02- Compliant (Models 3261 & 3271)
- CSA Certified For Class I, Division 2, Groups A, B, C and D Hazardous
- 2-Position Surface Mount (Models 3261 & 3271)
- 15 to 24 Vdc Power



ENGINEERING YOUR SUCCESS.

Specifications

Flow Capacity	Maximum flows from 5 SCCM to 10 SLPM (based on nitrogen)
Response Time	1 to 2 seconds
Accuracy & Linearity	±1% full scale
Repeatability	Within ±0.2% full scale at any constant temperature within operating temperature range
Rangeability (Control Range)	50; 1 (2% - 100% full scale) (accuracy and control)
Ambient & Operating Temperature Range	-10°C to 70°C (-14°F to 158°F)
Maximum Operating Pressure	1000 PSIG
Temperature Coefficient	±0.05% full scale/°C of zero; ±0.05% of reading/ °C of span
Pressure Coefficient	±0.1%/atmosphere typical using nitrogen (N ₂)
Setpoint Input / Flow Signal Output	4-20 mAdc/4-20 mAdc (sourcing) (200-750 ohm load resistance for 15-30 Vdc loop supply voltage)
Power Supply Requirements (Models 3211 & 3271) (current consumption <45 mAdc)	+15 (±5%) to 24 (±15%) Vdc
Power Supply Requirements (Models 3201 & 3261) (current consumption <250 mAdc)	+15 (±5%) to 24 (±15%) Vdc
Mounting Orientation	Attitude insensitive
Warm-up Time	10 minutes
External Electrical	Ten (10)- foot, 22 AWG, 8-conductor power-limited tray cable (provides high level of RF shielding) with stripped and tinned ends
Inlet/Outlet Process Connections	(Models 3261 & 3271) Manifold-mount configuration. (Models 3201 & 3211) Compression or metal gasket face seal. Refer to dimensional data for details.
Weight (Approximate)	2.2 lbs

Material of Construction

Body	316 Stainless Steel
Sensor Assembly	316L Stainless Steel
Orifice	316 Stainless Steel
Valve Components	302 Stainless Steel, 316 Stainless Steel, 430F Stainless Steel & Sandvik® 1802
Elastometers	Buna N, EPDM, Kalrez®, Neoprene or Viton®
Process Connections	316 Stainless Steel

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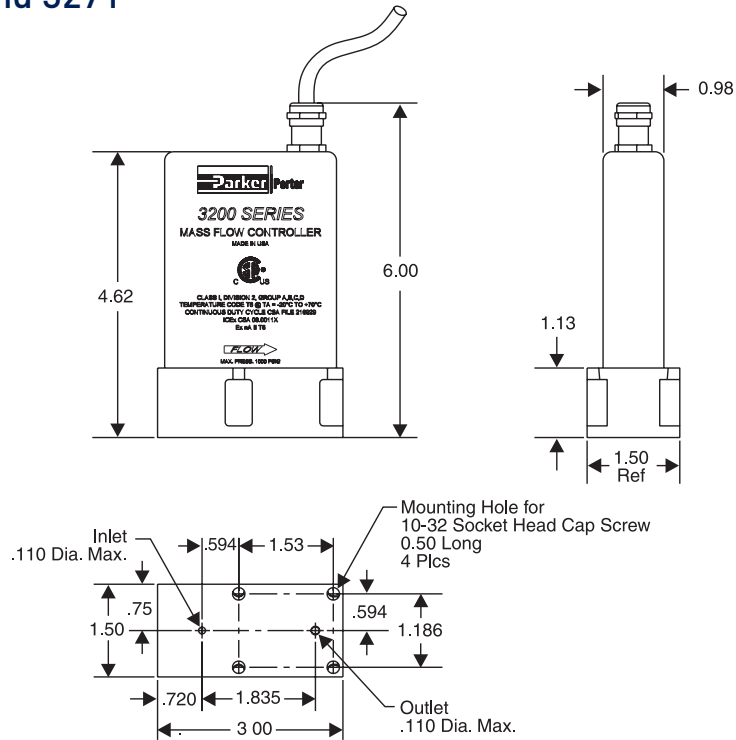
External Wiring

Cable Assembly Wire Designation and Color	Function
1- ONE (Black)	Flow Signal
1- ONE (Red)	ABZ Disable
2- TWO (Black)	Power In
2- TWO (Red)	Setpoint
3- THREE (Black)	Power Common/ 0 Vdc
3- THREE (Red)	Signal Common
4- FOUR (Black)	Not Used
4- FOUR (Red)	Valve Voltage Monitor
Cable Shield	Ground

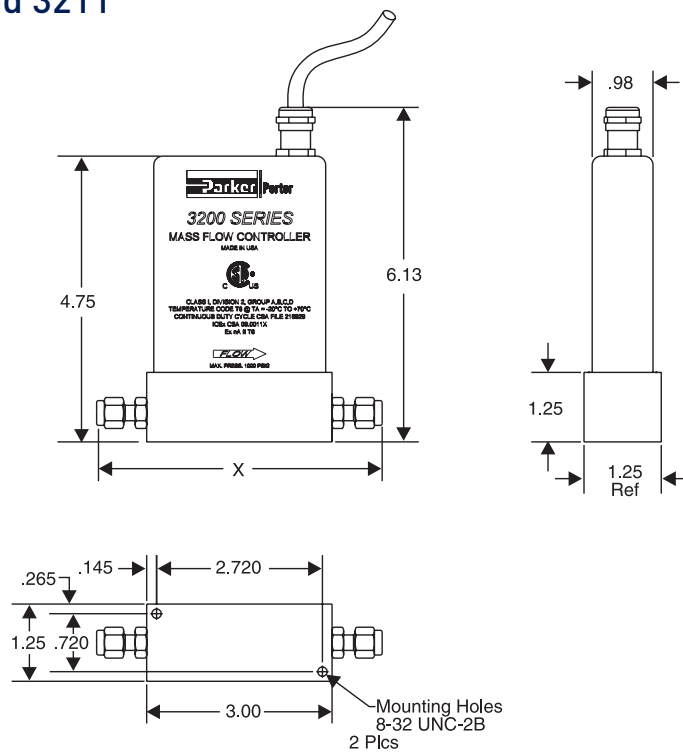
Dimensions

(Dimensions shown in inches)

Models 3261 and 3271



Models 3201 and 3211



Ordering Information

Model Number and Description

Example: 3261 F R H S V X AA

Model

3201
3211
3261
3271

Model Revision

Factory Assigned

PC Board Electrical Connector

R 10 Ft Power Limited Tray Cable

Setpoint Signal/Output Signal

H 4-20 mAdc/4-20 mAdc (sourcing)

Body Material

S 316 Stainless Steel

Assembly/Calibration Features

AA Factory Standard

Process Connection Size and Type

B 1/8" Compression
C 1/4" Compression
D 3/8" Compression
P 1/4" MMGFS⁽²⁾
U 3/8" A-LOK®
Y 1/4" A-LOK®
6 1/8" A-LOK®
8 1/4" VacuSeal™
X None (Models 3261 & 3271)

⁽²⁾ MMGFS = Male Metal Gasket Face Seal

Elastomers (Valve Seat/O-Rings)

B Buna N
E EPDM
K Kalrez®
N Neoprene
V Viton®

To order, specify:

- Model Number
- Type of output signal
- Elastomer Material
- Process connection size and type
- Flow Capacity
- Gas Type
- Operating Temperature
- Inlet (supply) pressure
- Outlet Pressure
- Calibration standard (i.e. 0°C, 20°C, 21.1°C or 25°C)
- Additional accessories required

⚠ WARNING – USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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