

MEMS based MFC and Wide Range Cold Cathode Transducer by MKS Instruments

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C-Series: MEMS based MFC

The MKS C-Series is a Compact Fast Response Mass Flow Controller with a Microelectromechanical (MEMS) Mass Flow Sensor and a High Reliability Control Valve offering World Class Flow Control Performance and Embedded Diagnostics. It is compatible with inert, non-corrosive gas applications. This device features an ultra-low zero drift and a very fast (less than 100ms) response time. The C-Series MFCs are available in flow rates from 50 sccm to 50 slm (N₂ equivalent). The control range is from 100% down to 0,1% of full scale Full Scale. The C-Series MFC includes an embedded Web server similar to the well-established G-Series MFCs. The fast response, wide dynamic control range and 1% of set point accuracy make the C-Series MFC an excellent choice for flow control in critical process applications where non-corrosive gases are used.

Series 523 – Wide Range Cold Cathode Transducer

Series 523 is a low cost wide range cold cathode transducer. It is using three different types of discharge:

- Inverted Magnetron for the pressure area from 1e-7 Torr up to 1e-2 Torr
- The area between 1e-2 Torr and 10 Torr is measured by using Paschens Law
- Above 10 Torr, a traditional arc discharge provides the measurement

The polymer used is characterized by very low outgassing (compared to stainless steel). The leakage rate is less than 1e-9 atm cc/sec. The analogue output signal is logarithmic from 1 to 9V.