

TECHNICAL DATA

# MFC-CB | Control Box



## Key features

- Allows setting and reading of 0 to 5 V or 4 to 20 mA on two channels simultaneously for interface with analog meters and controllers
- Offers complete front panel local control and remote operation via RS-232 and IEEE-488 interfaces.
- Advanced features: two-channel sum, difference, and ratio.
- Displays in V, mA, % FS, and flow units, and handles gas conversion (K) factors automatically.

## Product overview: MFC-CB | Control Box

### Gas mass flow controller and flow meter control box

MFC-CB is a compact and versatile, stand alone unit for setting and reading analog mass flow controller (MFC) and mass flow meter (MFM) instruments. Its front panel keypad and display make it suitable for manual, bench top operation. It also integrates into automated, computer controlled systems using its RS-232 or IEEE-488 interface.

MFC-CB is the standard analog voltage and current setting and measuring component in Fluke Calibration molbox RFM™ flow calibration systems. It can also be useful as a stand alone device in a variety of measurement and test systems that use an analog mass flow controller or mass flow meter.

MFC-CB is a stand alone control unit for setting and reading voltage and current to and from MFCs and MFMs on two

channels simultaneously. An optional MFC Switchbox allows switching between up to five devices on each channel that can all be continuously powered.

A 4 x 4 keypad and 2 x 20 character display support local operation. Standard RS-232 and IEEE-488 interfaces allow remote communication. An additional RS232 interface (COM2), is available for pass through communications to another device.

Current measurements are made by dropping the voltage over a precision 250 ohm resistor.

The set point output is automatically corrected based on an independent sense line measurement at the device being set.

MFC-CB uses MFC profiles as a convenient way to support advanced features. MFC profiles specify electrical signal and flow range allowing MFC-CB to support set point entry and measurement display in electrical, % FS or flow units. In addition, two units of measure can be displayed simultaneously and the sum, difference and ratio of the two control channels can be determined. MFC gas conversion factors can also be entered and applied automatically.

- Set and read gas mass flow controller and mass flow meter instruments
- Set and read 0 to 5 V or 4 to 20 mA on two (2) channels simultaneously
- Complete front panel local control and remote operation via RS-232 and IEEE-488 interfaces
- Includes advanced features such as two (2) channel sum, difference and ratio
- Displays in V, mA, % FS and flow units
- Handles gas conversion (K) factors automatically
- Switch each channel between five (5) channels using an MFC Switchbox™
- Common look, feel and protocol with other molbloc/ molbox™ flow products
- Compatible with COMPASS® for molbox software to set up automated molbloc/molbox based flow systems

## Ordering information



### MFC-CB Control Box

MFC-CB is delivered complete with:

- (2) MFC/MFM connection cable kits
- Calibration cable
- Power cord
- Operation and Maintenance Manual
- Calibration Report



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