



# Power Supply/ Readouts



## FOR MKS MASS FLOW CONTROLLERS/METERS

MKS Mass-Flow controllers/meters can be used with several MKS electronics modules. These modules provide power and a set point signal to the mass flow controller. In addition, the electronics modules provide a readout of gas flow, a gas correction potentiometer, and external input/output signals for remote indicating, recording, and controlling purposes.

### 246 & 247 Single & Four Channel Power Supply/Readout

The 246 and 247 Power Supplies/Readouts are designed to control and display any flow transducer. The flow rate set point can be adjusted either through front panel controls or remotely through the rear panel analog interface. The 246 is a single channel/single-readout unit and the 247 is a four channel/sequentially selectable single readout.

## Specifications

	246	247
<b>Power Supply/ Readouts</b>		
	<b>Single-Channel, Power Supply/Readout</b>	<b>Four-Channel Power Supply/Readout</b>
<b>Display Type</b>	3 1/2 digit 0.56" red LED, continuous display	3 1/2 digit 0.56" red LED, display is 1 of 4 sequentially selectable
<b>Number of Channels</b>	1	4
<b>Signal Inputs from MFC/MFM</b>	1 x 0-5 VDC	4 x 0-5 VDC
<b>Gas Correction Factor (Scaling)</b>	0.1 - 4.0 (rear panel)	0.1 - 4.0 (rear panel)
<b>External Set Point (by-passes on-board set point controls)</b>	0-5 VDC	0-5 VDC
<b>External ON/OFF</b>	TTL-compatible	TTL-compatible
<b>RS-232</b>	n/a	n/a
<b>MFC/MFM Signal Output</b>	Minimum load impedance: 10 k Ohm/channel	Minimum load impedance: 10 k Ohm/channel
<b>Signal Outputs Unscaled</b>	1 x 0-5 VDC = 0-100% of F.S.	4 x 0-5 VDC = 0-100% of F.S.
<b>Signal Outputs Scaled</b>	0-2 VDC (max.)	0-2 VDC (max.)
<b>Trip Points</b>	n/a	n/a
<b>Control Outputs</b>	n/a	n/a
<b>Power Supply Outputs</b>	±15 VDC at 0.5 Amp, max. ripple < 10 mV	±15 VDC at 1.0 Amp, max. ripple < 10 mV
<b>Power Input</b>	117/234 VAC ±15%, 50-60 Hz	117/234 VAC ±15%, 50-60 Hz
<b>Compatible MFCs/MFMs</b>	Mass Flow Controllers 179, 180, 579, 1179, 1479, 1480, 1559, 1579, 2179, M10M, M100	Mass Flow Controllers 179, 180, 579, 1179, 1479, 1480, 1559, 1579, 2179, M10M, M100
<b>Operating Temperature</b>	15°C to 40°C	15°C to 40°C



### MKS Instruments, Inc. Global Headquarters

2 Tech Drive, Suite 201  
Andover, MA 01810  
Tel: 978.645.5500  
Tel: 800.227.8766 (in U.S.A.)  
Web: [www.mksinst.com](http://www.mksinst.com)

### MKS Instruments, Inc. Flow Solutions

Six Shattuck Road  
Andover, MA 01810  
Tel: 978.975.2350