# Mini M135 & M145 Digital Panel Meters







- 3/64 DIN Indicator
- Minimum depth requires less than 0.7" (17mm) behind the panel
- Snaps right into panel no mounting hardware required

#### **Mounting Requirements**

The Mini indicators require a panel cutout of 2.71" (68.8mm) wide by 0.89" (22.6mm) high, and a panel area of 0.94" (24mm) high by 2.83" (72mm) wide. The depth behind the panel, including terminals, is 0.7" (17.8mm). The front bezel protrudes 0.16" (4mm) from the front of the mounting surface. The unit will snap-mount into panels from 0.050" to 0.125" thick. A 12-pin connector with 6" wire leads is included with each unit for quick installation. more >>

#### **Specifications**

**DISPLAY** 7-segment LCD Type 0.5" (12.7mm) Height

**Decimal point** 3 or 4 position user-programmable Overrange indication Most significant = "1" other digits blank Optional negative image, red backlighting at **Backlighting** 

5, 10, 12, 24 or 48 DCV

Auto with "-" indication, "+" indication implied **Polarity** 

**POWER REQUIREMENTS** 

**DC Power** 

±5V, +5V and +9V Low Power Indication included with 9V units

Power supply current

50mA typical. For 24 and 48DCV, 10mA typical **Backlight supply current** 

3 1/2 digit: ±(0.1% of reading + 1 count) **ACCURACY @ 25°C** 4 1/2 digit: ±(0.04% of reading + 1 count)

**ENVIRONMENTAL Operating Temperature** 0 to 55°C

Storage Temperature -10 to 60°C **Relative Humidity** 0 to 85% non-condensing @ 40°C

Warmup time Less than 20 minutes

**Temperature Coefficient** (All inputs)

± (0.02% of input ± 0.2 digit)/°C

**NOISE REJECTION** 

**NMRR** 60dB, 50/60Hz

**CMRR** (with 1K $\Omega$  unbalanced @ 60 Hz) 90dB min

A TO D CONVERSION

Technique Integrating

Rate 3 samples/second-typical

**MECHANICAL** 

0.94" x 2.83" Bezel 0.43" Depth

Panel cutout 0.89" x 2.71" (22.6mm x 68.8mm)

Weight 1.0oz (28.3g)

Case Material 94-VO, UL-rated ABS

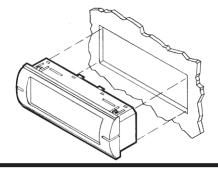
## **Input Specifications**

#### DC Voltage

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Range	Resolution		Max Input
		Impedance	(Unfused)
200mV	100µV	>100mΩ	50V
2V	1mV	$10 \text{m}\Omega$	250V
20V	10mV	10m $\Omega$	250V
200V	100mV	10m $\Omega$	250V

#### DC Current

	Range	Resolution	Voltage	Max Input	
			Drop	(Unfused)	
	200µA	100µA	200mV	10mA	
	2mA	1μA	200mV	40mA	
	20mA	10µA	200mV	100mA	
	200mA	100µA	200mV	400mA	

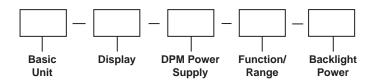


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## **Ordering Information**

Mini Indicators can be configured by making an entry in each section. Example: M135-0-2-11-0



Selection	Description	Selection Description
M135 M145	Basic Unit 3-1/2 Digit LCD 4-1/2 Digit LCD	Function/Range  11
0 1	<b>Display</b> Non Backlit Negative Red Backlight	21 200 DCμA 22 2 DCmA 23 20 DCmA 24 200 DCmA
	DPM Power Supply	Backlight Power
0 1 2	+ 5 DCV ± 5 DCV + 9 DCV	0 None 1 5 DCV 2 10 DCV 3 12 DCV 4 24 DCV 5 48 DCV

### **Installation and Panel Cutout**

