



OSI *Ohio Semitronics, Inc.*

The **LEADER** in power measurement

ISO 9001 : 2008 QMS CERTIFIED

INSTALLATION & OPERATION GUIDE

OFM Series Meters

3¹/₂-DIGIT DISPLAY



OHIO SEMITRONICS, INC.

4242 Reynolds Drive

Hilliard, Ohio 43026

PHONE: 614-777-1005

FAX: 614-777-4511

EMAIL: sales@ohiosemitronics.com

<http://www.ohiosemitronics.com>

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CAUTIONS! - PLEASE READ!

INSTRUMENT POWER WIRING - For models with 120Vac and 220Vac instrument power, line voltages always present a hazardous condition. Care must be taken to ensure that power has been removed from the circuits being wired into.

WIRING - When using stranded wire, inspect the junctions to ensure that all of the strands are fully inserted into the terminal block before applying power to the meter.

CHASSIS GROUND - A chassis ground connection is provided on the power connector block. This connection is only tied to the exposed metal work of the meter, it is not referenced to power or signal grounds. The mounting ears do not provide a quality chassis connection and it is recommended that an earth ground wire be connected to this terminal.

SPECIFICATIONS, DIMENSIONS & CONNECTIONS

Refer to OFM spec sheet.

WIRING GUIDE for OFM81x-221 Models (DC Input)

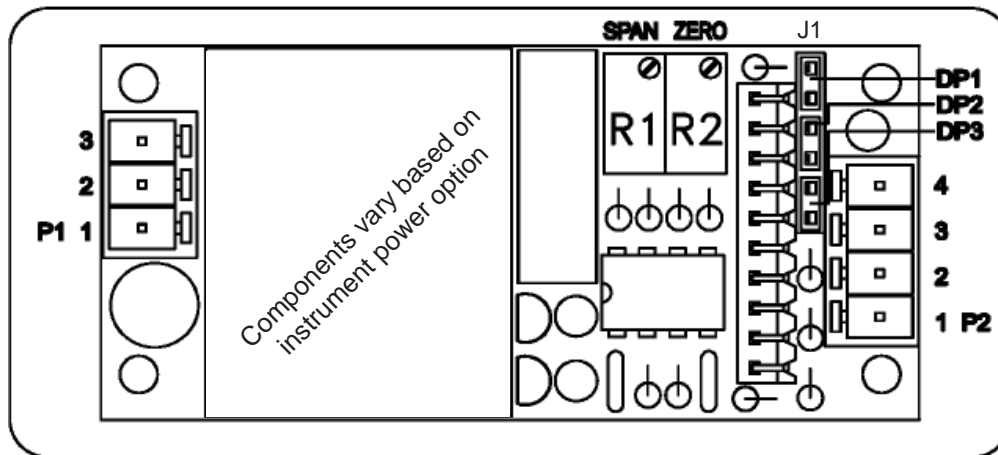


Figure 1: Rear View of OFMxxx-221 Meters

****Read all caution statements on page 2 related to wiring before connecting to this meter!***

INSTRUMENT POWER (P1)

P1 FOR OFM811-xxx MODELS		
PIN	SIGNAL	
1	LINE	Requires 120Vac, 50/60Hz, 25mA max. (3W)*
2	NEUT	Neutral Return*
3	GND	Chassis Ground*

P1 FOR OFM813-xxx MODELS		
PIN	SIGNAL	
1	LINE	Requires 220Vac (180-245Vac), 50/60Hz, 14mA max. (3W)*
2	NEUT	Neutral Return*
3	GND	Chassis Ground*

P1 FOR OFM818-xxx MODELS		
PIN	SIGNAL	
1	Negative Power Input (-)	
2	10-30Vdc, 110mA max. (+)	
3	Chassis Ground*	

SIGNAL INPUT & EXCITATION (P2)

P2 FOR ALL MODELS		
PIN	SIGNAL	
1	- SIG	Negative Signal Input
2	+SIG	Positive Signal Input
3	- EXCIT	Negative Excitation (-221 only)
4	+EXCIT	Positive Excitation (-221 only)

DECIMAL POINT LOCATOR (J1)

J1 FOR ALL MODELS	
POSITION	SIGNAL
(none)	Display 0
DP1	Display 0.0
DP2	Display 0.00
DP3	Display 0.000

SPAN ADJUSTMENT POTENTIOMETER (R1)

R1 FOR OFM81x-221 MODELS	
R1 adjusts the slope of the display as a function of the input signal level. This adjustment will affect the zero adjustment.	

ZERO ADJUSTMENT POTENTIOMETER (R2)

R2 FOR OFM81x-221 MODELS	
R2 adjusts the offset of the display as a function of the input signal level. This adjustment does not affect the slope of the display as set by R1.	

CALIBRATION (DC Input Models)

A known signal source roughly 50% to 60% of the full-scale input range of the meter is required for proper calibration (scaling) of the meter.

1. Short the signal inputs to the meter, adjust R2 to zero the display.
2. Apply the known signal to the meter input, adjust R1 until the meter displays the proper value.
3. If zero offset is required, short the signal inputs and adjust R2 for proper reading.
4. Calibration is now complete. R1 can be "tweaked" after installation to compensate for signal offsets.

WIRING GUIDE for OFM81x-305 & OFM81x-369 Models (AC Input)

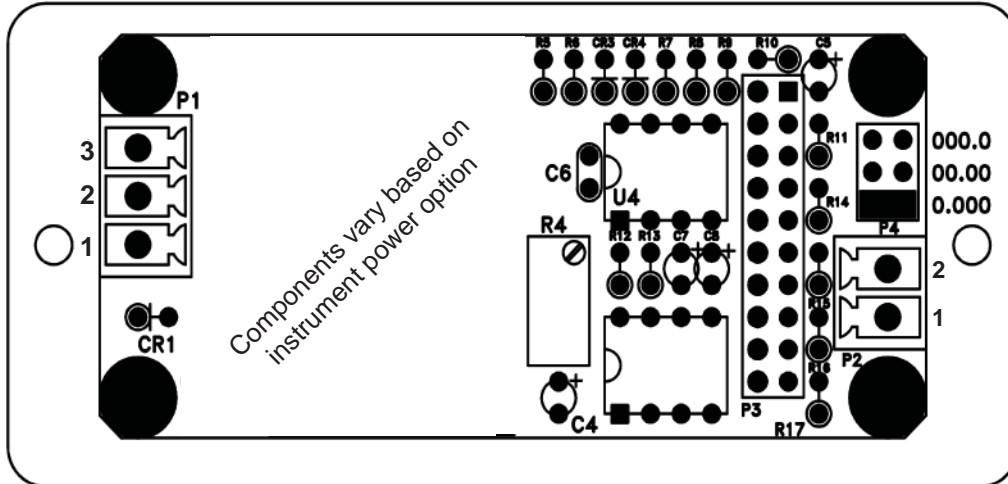


Figure 2: Rear View of OFM-81x-305 or OFM-81x-369 Meters

****Read all caution statements on page 2 related to wiring before connecting to this meter!***

INSTRUMENT POWER (P1)

P1 FOR OFM811-xxx MODELS		
PIN	SIGNAL	
1	LINE	Requires 120Vac, 50/60Hz, 25mA max. (3W)*
2	NEUT	Neutral Return*
3	GND	Chassis Ground*

P1 FOR OFM813-xxx MODELS		
PIN	SIGNAL	
1	LINE	Requires 220Vac (180-245Vac), 50/60Hz, 14mA max. (3W)*
2	NEUT	Neutral Return*
3	GND	Chassis Ground*

P1 FOR OFM818-xxx MODELS	
PIN	SIGNAL
1	Negative Power Input (-)
2	10-30Vdc, 110mA max. (+)
3	Chassis Ground*

SIGNAL INPUT & EXCITATION (P2)

P2 FOR OFM81x-305, OFM81x-369 MODELS		
PIN	SIGNAL	
1	SIG	Signal Input
2	SIG	Signal Input

DECIMAL POINT LOCATOR (P4)

P4 FOR OFM81x-305, OFM81x-369 MODELS	
POSITION	SIGNAL
(none)	Display 0
DP1	Display 0.0
DP2	Display 0.00
DP3	Display 0.000

SPAN ADJUSTMENT POTENTIOMETER (R4)

R4 FOR OFM81x-305, OFM91x-369 MODELS
R4 adjusts the slope of the display as a function of the input signal level.

CALIBRATION (AC Input Models)

A known signal source roughly 50% to 60% of the full-scale input range of the meter is required for proper calibration (scaling) of the meter.

1. Connect CT before this step. (-369 only)
2. Apply the known signal to the meter input, adjust R4 until the meter displays the proper value. Calibration is now complete. R4 can be "tweaked" after installation to compensate for signal offsets.