Ohio Semitronics, Inc.
The LEADER in power measurement
ISO 9001 : 2008 QMS CERTIFIED

OPERATION & INSTALLATION GUIDE

OFC Series Meters

0.6in. 4-DIGIT LED METER

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CAUTIONS! - PLEASE READ!

INSTRUMENT POWER WIRING - For models with 120Vac 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 OFC Spec Sheet.

METER WIRING GUIDE (ALL MODELS)

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

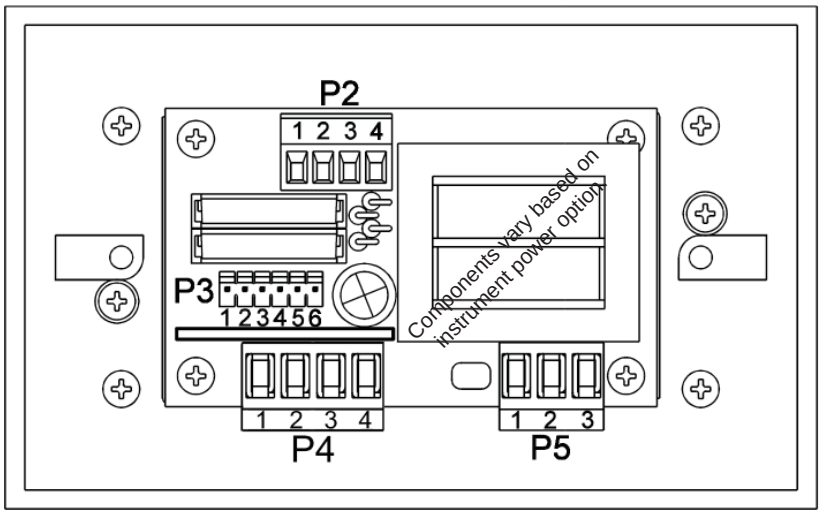


Figure 1: Rear View of OFC Meters

SETPOINT RELAY OUTPUT (P2)

P2 (For OFC11x-xxx Models Only)	
PIN	**SIGNAL**
1	Setpoint 1 relay
2	Setpoint 1 relay
3	Setpoint 2 relay
4	Setpoint 2 relay

NOTE: Setpoint relays are rated at 1A max., 200Vac/dc.

REMOTE CONTROL INPUTS (P3)

P3 (All Models)	
PIN	**SIGNAL**
1	Ground Return
2	Tare
3	Setpoint/Reset
4	Peak/^(Set)
5	Valley/>(Step)
6	Menu

P2 & P3 inputs are active low. Short input to ground return, or pull to logic low to activate function. See front panel control section for a description of each function.

SIGNAL INPUT (P4)

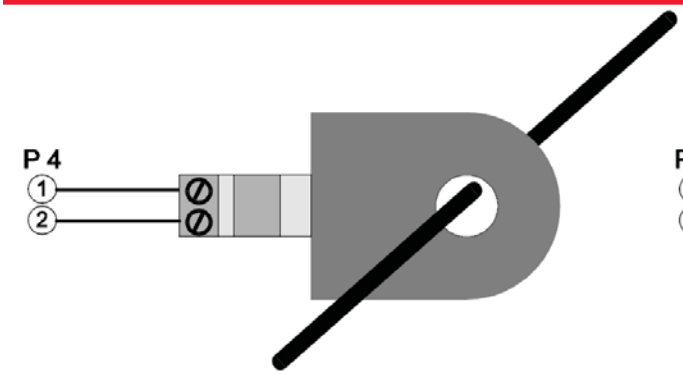
P4 (All Models)		
PIN	**OFC1xx-1xx**	**OFC1xx-925**
1	+ DC Signal Input	AC Signal Input
2	Signal Ground	AC Signal Input

NOTE: Pins 3 & 4 are not used.

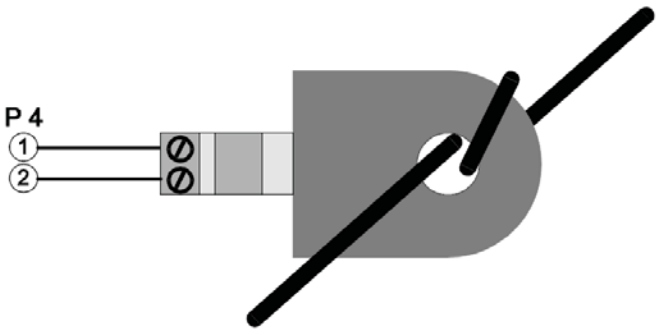
INSTRUMENT POWER (P5)

P5 (All Models)		
PIN	**OFC1x1-xxx**	**OFC1x8-xxx**
1	Neutral	– DC
2	120Vac hot line*	+ DC
3	Chassis Ground*	Chassis Ground*

CT WIRING GUIDE (OFC1xx-925 Only)



FOR USE AT NOMINAL INPUT RANGE, PRIMARY WIRE MAKES A SINGLE PASS THROUGH CURRENT SENSOR HOLE



MAKE ADDITIONAL PASSES THROUGH CURRENT SENSOR HOLE TO REDUCE INPUT RANGE (2.5A RANGE SHOWN)

FRONT PANEL CONTROLS (ALL MODELS)

SETPT / RESET (OFC11x-xxx models only)

- Press to view/set Setpoint 1 (the upper setpoint LED flashes) - See Instructions Below to Set a Setpoint or Calibration Point.
- Press again to view/set Setpoint 2 (the lower setpoint LED flashes). See instructions below to set a setpoint or calibration point.
- Press again to return to normal operation.
- Press while holding “PEAK”, “VALLEY” or “TARE’ button to reset those values.

PEAK / ^ (SET)

- Press and hold to view peak value.
- To reset the peak value - while holding “PEAK” press “SETPT / RESET” button.
- When in the setpoint or menu mode, this button changes the setting for a parameter or increments to the flashing digit.

VALLEY / > (STEP)

- Press and hold to view valley value.
- To reset the valley value - while holding “VALLEY” press “SETPT / RESET” button.
- When in the setpoint or menu mode, this button advances to the next parameter or to the next digit.

MENU

- Press to enter the menu / calibration mode.
- Press again to exit the menu / calibration mode.

TARE

- Press momentarily to zero meter display.
- To reset the tare value, while holding “TARE” press “SETPT / RESET” button momentarily.

SET-UP MENU OPTIONS (ALL MODELS)

TO SET A SETPOINT OR CALIBRATION POINT:

1. Press the “PEAK / ^” button until the flashing digit reaches the desired value.
2. Press the “VALLEY / >” button to advance to the next digit.
3. Repeat until all digits are set.

   NOTE 1: This meter is equipped with leading zero suppression - blank digits are assumed to be zeros. (They will not flash.)

   NOTE 2: To allow the entry of negative values, the MSD (left-most digit) will increment 0 through 9, -1, -(0).

PARAMETER >	CHOICES ^	DESCRIPTION
DECIMAL POINT	**d .**	**No Decimal Point**
	d .	0.0
	d .	0.00
	d.	0.000
AVERAGING	Av.16	4096 Conversions Averaged; 1 Update / Second
	Av. 8	2048 Conversions Averaged; 2 Update / Second
	Av. 4	1024 Conversions Averaged; 4 Update / Second
	Av. 2	512 Conversions Averaged; 8 Update / Second
	Av. 1	256 Conversions Averaged; 16 Update / Second
	S1.no	Setpoint 1 output will be normally open
	S1.nc	Setpoint 1 output will be normally closed
	S2.no	Setpoint 2 output will be normally open
	S2.nc	Setpoint 2 output will be normally closed
	CAL1	Announces Cal 1 Step *
	1234	Adjust display to desired value for Cal 1 Input *
	CAL2	Adjust display to desired value for Cal 2 Input *
	1234	Adjust display to desired value for Cal 2 Input *

* After Cal Point 2 is entered, “d” is displayed. Press “VALLEY” once then “MENU” once.

CALIBRATION INSTRUCTIONS (ALL MODELS)

All OFC meters require 2 known input signals for calibration / scaling. These inputs can be of any polarity with respect to each other, and should be as far apart as possible in magnitude. (Usually 0 Volts and an appropriate positive voltage.)

1. Apply the first known input signal to the meter input.
2. Press the “MENU” button.
3. Press the “VALLEY / >” button until the cal 1 message appears on the display, then press “VALLEY / >” once more to advance to the value setting step.
4. Adjust the value on the display until it is at the desired value for the known input - See the instructions above to set a setpoint or calibration point (Scaling value).
5. At the same time, press both the “SETPT / RESET” and “TARE” buttons to enter this calibration point (Scaling value).
6. Press the “VALLEY / >” button until the Cal 2 message appears on the display, then press “VALLEY / >” once more to advance to the value setting step.
7. Apply the second known input signal to the meter input.
8. Adjust the value on the display until it is at the desired value for the known input.
9. At the same time, press both the “SETPT / RESET” and “TARE” buttons to enter this calibration point.
10. Now press the “VALLEY” button once, then the “MENU” button once. Calibration / Scaling is now complete.