

PXM 4/6/8K meter 6" color touchscreen display features



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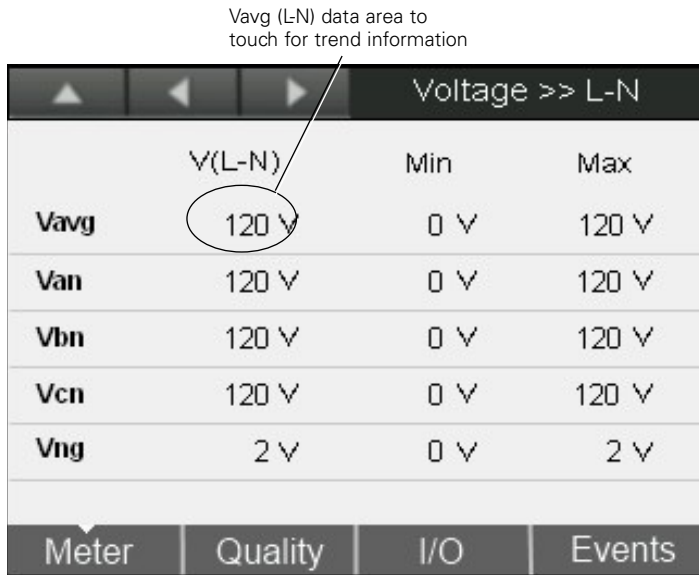


Figure 4. Selecting data to access trend information.

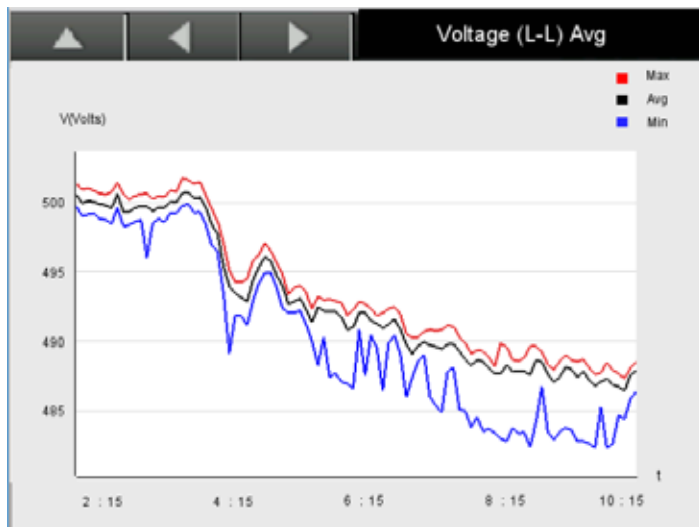


Figure 5. Typical data trend screen.

3.2 The Home screen

The Home screen appears when power has been applied to the PXM 4/6/8K meter 6" color touchscreen display and boot-up is complete. The Home screen displays the main data for the meter to which it is connected. This data includes:

- Voltage (L-L) Avg (V);
- Voltage (L-N) Avg (V);
- Current Avg (A);
- Real Power (kW);
- Apparent Power (kVA);
- Power Factor (Lead/Lag); and
- Real Energy (kWh).

Note: Trend information is available from the Home screen for all displayed data except Real Energy. To access the trend data, touch the touchscreen area corresponding to the data trend desired.

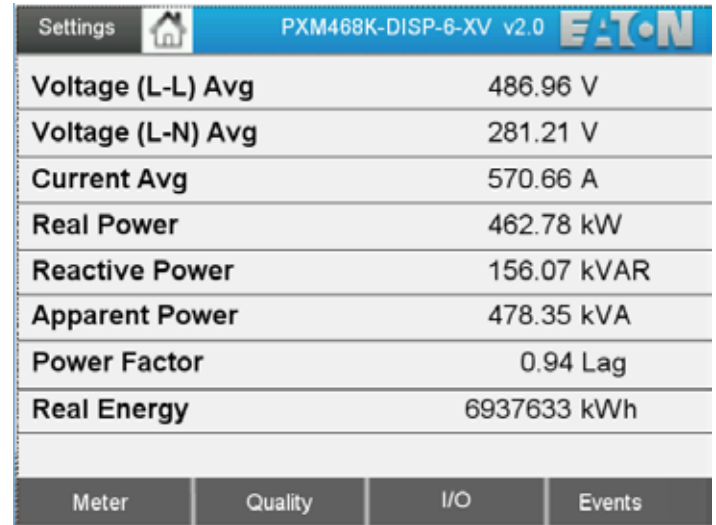


Figure 6. The Home screen.

In addition, the Home screen also gives the user direct access to the Meter, Quality, I/O, and Events screens. These are accessed by touching the tabs at the bottom of the screen.

3.3 The meter tab

Touching the meter tab on the Home screen takes the user to the Meter screen. The categories of data available from the Meter screen are:

- Voltage;
- Current;
- Frequency;
- Phasors;
- Power Factor;
- Power;
- Energy;
- Demand; and
- Peak Demand.

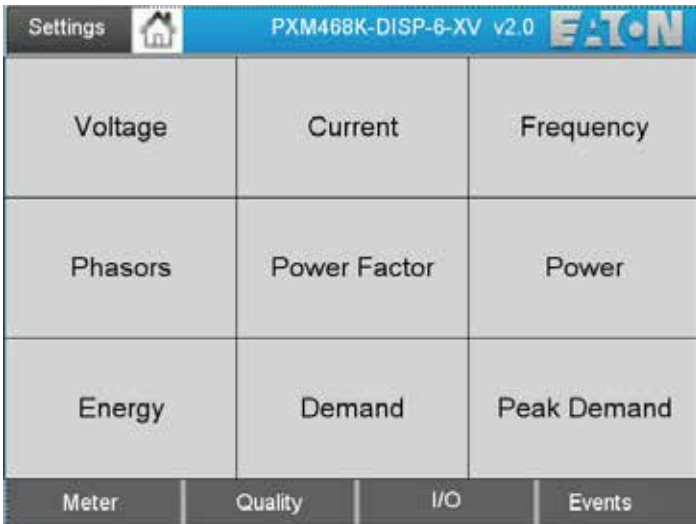


Figure 7. The Meter screen.

For the data available for each category, the data, type of data, values, and available trend information, please refer to Table 1 . Data available from the Meter screen.

From the Meter screen, the user can navigate back to the Home screen by touching the Home icon (see Figure 2). The user can also navigate to the Quality, I/O, and Events screens by touching the appropriate screen tab (see Figure 1).

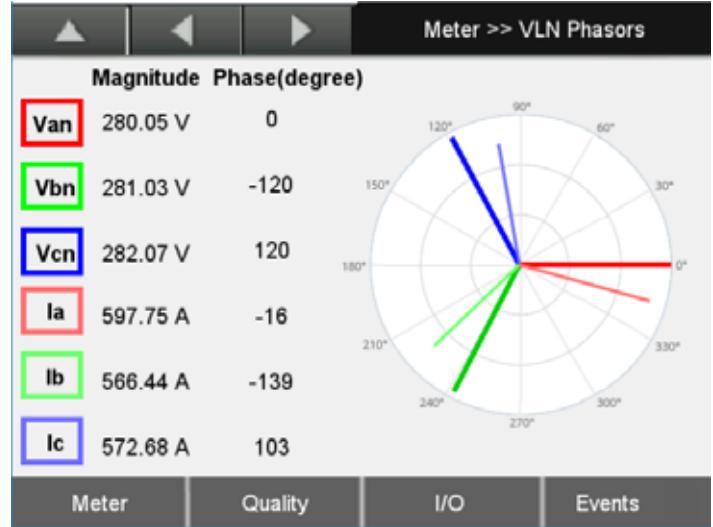


Figure 8. The Phasors screen.

3.4 The Quality screen

Touching the “Quality” tab on the Home screen takes the user to the Quality screen. The categories of data available from the Quality screen are:

- Factor;
- Flicker;
- THD Current; and
- THD Voltage.

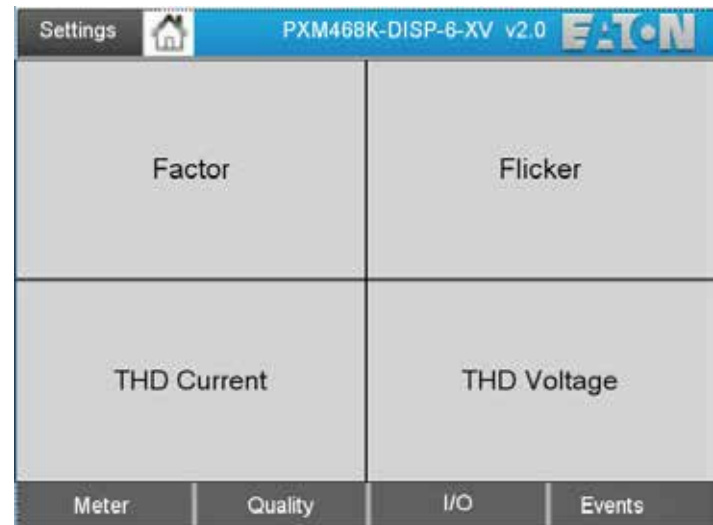


Figure 9. The Quality screen.

Table 1. Data available from the Meter screen.

Meter category	Data	Type	Values	Trend available
Voltage	Voltage (L-L)	Vavg, Vab, Vbc, and Vca	Present, minimum, and maximum values	Yes
	Voltage (L-N)	Vavg, Van, Vbn, Vcn, and Vng	Present, minimum, and maximum values	Yes
	Voltage (Aux L-L)*	Vavg, Vab, Vbc, and Vca	Present, minimum, and maximum values	Yes
	Voltage (seq comp [sequence components])	ZERO-SEQ, POS-SEQ, NEG-SEQ		Yes
Current	I(RMS)	Iavg, Ia, Ib, Ic, In, and Ig	Present, minimum, and maximum values	Yes
	I(seq comp [sequence components])	ZERO-SEQ, POS-SEQ, NEG-SEQ		Yes
Frequency	Frequency	Hz	Present, minimum, and maximum values	Yes
Phasors	Phasors	Va, Vb, and Vc	Magnitude and degree (with Phasor diagram)	
		Ia, Ib, and Ic	Magnitude and degree (with Phasor diagram)	
Power Factor	Displacement	System, phase A, phase B, and phase C	Present, minimum, and maximum	Yes
	Apparent	System, phase A, phase B, and phase C	Present, minimum, and maximum	Yes
Power	Real	Total, phase A, phase B, and phase C	Present	Yes
	Apparent	Total, phase A, phase B, and phase C	Present	Yes
	Reactive	Total, phase A, phase B, and phase C	Present	Yes
Energy	Real	Forward, reverse, net, and sum	Present	
	Apparent	Total	Present	
	Reactive	Received, delivered, net, and sum	Present	
Demand	Real	Forward, reverse, net, and sum	Present and peak today	
	Apparent	Total	Present	
	Reactive	Received, delivered, net, and sum	Present values	
	Amp	Average demand	Present and peak today	
Peak Demand	Real	Forward, reverse, net and sum	Peak since last reset and time of peak	
		Last reset	Date and time of last reset	
	Apparent	Total	Peak since last reset and time of peak	
		Last reset	Date and time of last reset	
	Reactive	Received, delivered, net, and sum	Present value and time of peak	
		Last Reset	Date and time of last reset	
	Amp	Average demand	Peak since last reset and time of peak	
		Last reset	Date and time of last reset	

* For meters equipped with auxiliary voltage channels.

For the data available for each category, the type of data, values, and available trend information, please refer to Table 2 – Data available from the Quality screen.

From the Quality screen, the user can navigate back to the Home screen by touching the Home icon (see Figure 2). The user can also navigate to the Meter, I/O, and Events screen by touching the appropriate screen tab (see Figure 1).

Table 2. Data available from the Quality screen.

Quality category	Data	Values	Trend available	
Factor	K-factor	Phase A, phase B, and phase C	Yes	
	Crest factor	Phase A, phase B, and phase C	Yes	
	ITIC factor	Phase A, phase B, and phase C	Yes	
Flicker*	Perceptibility	Total, AB, BC, CA, AN, BN, and CN	Yes (except total)	
	PST	Total, AB, BC, CA, AN, BN, and CN	Yes (except total)	
	PLT	Total, AB, BC, CA, AN, BN, and CN		
THD Current	Total amps	Phase A, phase B, phase C, and neutral	Yes	
	Odd amps	Phase A, phase B, phase C, and neutral	Yes	
	Even amps	Phase A, phase B, phase C, and neutral	Yes	
	Interharmonic amps	Phase A, phase B, phase C, and neutral	Yes	
	Total percentage	Phase A, phase B, phase C, and neutral	Yes	
	Odd percentage	Phase A, phase B, phase C, and neutral	Yes	
	Even percentage	Phase A, phase B, phase C, and neutral	Yes	
	Interharmonic percentage	Phase A, phase B, phase C, and neutral	Yes	
THD Voltage	Main L-L volts	Total volts	AB, BC, and CA	Yes
		Odd volts	AB, BC, and CA	Yes
		Even volts	AB, BC, and CA	Yes
		Interharmonic volts	AB, BC, and CA	Yes
	Aux L-L volts	Total volts	AB, BC, and CA	Yes
		Odd volts	AB, BC, and CA	Yes
		Even volts	AB, BC, and CA	Yes
		Interharmonic volts	AB, BC, and CA	Yes
	Main L-N volts	Total volts	AN, BN, and CN	Yes
		Odd volts	AN, BN, and CN	Yes
		Even volts	AN, BN, and CN	Yes
		Interharmonic volts	AN, BN, and CN	Yes
	Percentage L-L	Total percentage	AB, BC, and CA	Yes
		Odd percentage	AB, BC, and CA	Yes
		Even percentage	AB, BC, and CA	Yes
		Interharmonic percentage	AB, BC, and CA	Yes
	Percentage aux.	Total percentage	AB, BC, and CA	Yes
		Odd percentage	AB, BC, and CA	Yes
		Even percentage	AB, BC, and CA	Yes
		Interharmonic percentage	AB, BC, and CA	Yes
	Percentage L-N	Total percentage	AN, BN, and CN	Yes
		Odd percentage	AN, BN, and CN	Yes
		Even percentage	AN, BN, and CN	Yes
		Interharmonic percentage	AN, BN, and CN	Yes

* PXM 6000 and above.

3.5 The I/O screen

Touching the "I/O" (Input/Output) tab on the Home screen takes the user to the I/O screen. The categories of data available from the I/O screen are:

- Current Input Status and
- Current Output Status.

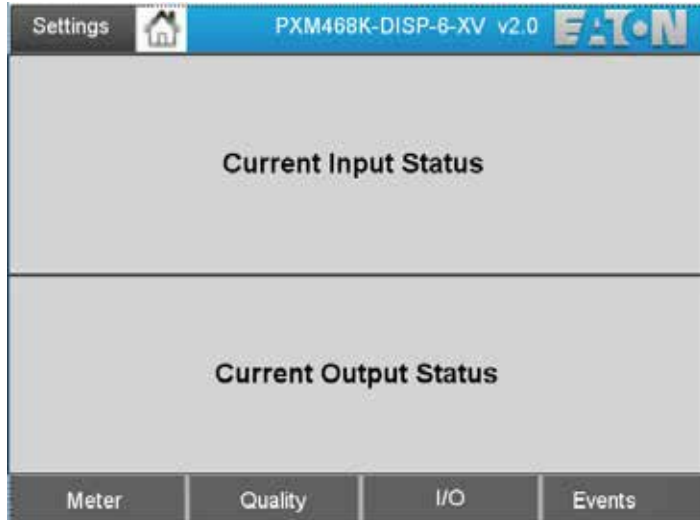


Figure 10. The I/O screen.

For the data available for each category, the type of data, values, and available trend information, please refer to Table 3 – Data available from the I/O screen.

I/O >> Discrete Input		
Input 1	OFF	1
Input 2	OFF	0
Input 3	OFF	0
Input 4	OFF	0
Input 5	OFF	0
Input 6	ON	1
Input 7	OFF	0
Input 8	ON	72

At the bottom of the screen is a navigation bar with four tabs: 'Meter', 'Quality', 'I/O', and 'Events'.

Figure 11. The Inputs screen.

I/O >> Current Output	
Output 1	De-Energized
Output 2	De-Energized
Output 3	Energized
Solid State 1	De-Energized
Solid State 2	De-Energized

At the bottom of the screen is a navigation bar with four tabs: 'Meter', 'Quality', 'I/O', and 'Events'.

Figure 12. The Outputs screen.

Table 3. Data available from the I/O screens.

I/O category	Data	Type	Values	Trend available
Current Input Status	Current Inputs	Inputs 1 through 8	Status and Count	
Current Output Status	Current Outputs	Output 1 through 3 Solid State 1 and 2	Status Status	

From the I/O screen, the user can navigate back to the Home screen by touching the Home icon (see Figure 2). The user can also navigate to the Meter, Quality, and Events screen by touching the appropriate screen tab (see Figure 1).

3.6 The Events screen

Touching the "Events" tab on the Home screen takes the user to the Events screen 1. There are five events screens. Each Events screen can display four events for a total of 20 events recorded.

Events Screen 1			
ID	Event Detail	Time Occurred	
2953	Sub-Cycle Disturbance WD Vag New Event	06/11/2019	11:26
2952	Sub-Cycle Disturbance WD Vag New Event	06/11/2019	11:26
2951	Sub-Cycle Disturbance WD Vcg New Event	06/10/2019	13:37
2950	Sub-Cycle Disturbance WD Vag New Event	06/10/2019	13:37

At the bottom of the screen is a navigation bar with four tabs: 'Meter', 'Quality', 'I/O', and 'Events'.

Figure 13. Typical Events screen (Events screen 1 shown).

Each event has an ID (identification number), short event detail, and the time the event occurred (see Table 4). Each event may also be viewed in a separate window displaying the event ID, when the event occurred, and a long event message. The Event Message screens are accessed by touching the Event Detail tab for the event listed on the Events screens.

Table 4. Event information available on the Events screens.

Event	Type	Information	Associated event message screen
Events screen 1 through 5	Messages (Up to 4)	Event ID Event Detail (Short) Time Occurred	Event ID Event Message (Long) Event Occurred (Time)

The event triggers for the PXM 4/6/8K meter 6" color touchscreen display are listed in Table 5.

Table 5. Event triggers.

Screen	Category	Item	Event trigger	
Meter	Voltage	Line-line	System AB - upper and lower BC - upper and lower CA - upper and lower	
		Line-neutral	System AN - upper and lower BN - upper and lower CN - upper and lower NG - upper and lower	
		Aux line-line	System AB - upper and lower BC - upper and lower CA - upper and lower	
		Symmetric components	V0 - upper zero sequence component V1 - upper positive sequence component V2 - upper negative sequence component	
	Current		Average - upper	
			Phase A - upper	
			Phase B - upper	
			Phase C - upper	
			Neutral - upper	
			Ground - upper	
			Symmetric components	I0 - upper zero sequence component I1 - upper positive sequence component I2 - upper negative sequence component
	Frequency	Upper and lower		
	Power	Real	System - upper	
			Phase A - upper	
Phase B - upper				
Phase C - upper				
Reactive		System - upper		
		Phase A - upper		
		Phase B - upper		
		Phase C - upper		
Apparent		System - upper		
		Phase A - upper		
		Phase B - upper		
		Phase C - upper		
Power Factor		Apparent		System - leading and lagging Phase A - Leading and lagging Phase B - Leading and lagging Phase C - Leading and lagging
			Displacement	System - leading and lagging Phase A - leading and lagging Phase B - leading and lagging Phase C - leading and lagging

Table 5. Event triggers (Cont.)

Screen	Category	Item	Event trigger	
Quality	THD Voltage	Line - line	System Phase AB - upper and lower Phase BC - upper and lower Phase CA - upper and lower	
		Line-neutral	System Phase AN - upper and lower Phase BN - upper and lower Phase CN - upper and lower	
	THD Current	System - upper Phase A - upper Phase B - upper Phase C - upper		
		Flicker Perceptibility*	Line - line	System Phase AB - upper and lower Phase BC - upper and lower Phase CA - upper and lower
			Line - neutral	System Phase AN - upper and lower Phase BN - upper and lower Phase CN - upper and lower
		Demand Overload	Real Power Forward Real Power Reverse Real Power Net Real Power Sum Real Power Delivered Real Power Received Reactive Power Net Reactive Power Sum VA Current	
	ITIC*		L2 Sags L4 Sags L8 Sags L2 Swells L4 Swells L8 Swells	
			Sub-cycle Disturbance	dV/dt Threshold Absolute Threshold
Fast Transient**		Vag dV/dt Vag Absolute Vbg dV/dt Vbg Absolute Vcg dV/dt Vcg Absolute Vng dV/dt Vng Absolute		
		SEMI F47	Sags	
Discrete Inputs	Status			
Manual captures				
Meter access (Log-in, log-out, Access of IP address)				

* PXM 6000 and above.
* PXM 8000.

From Events screens 1 through 5, the user can navigate to the Meter, Quality, and I/O screens by touching the appropriate screen tab (see Figure 1).

Note: The user can not go directly from any Events screens to the Home screen. The user must first access the Meter, Quality, or I/O screens then return to the Home screen.

4. Editing the IP address

The PXM 4/6/8K meter 6" color touchscreen display has the ability to set the meter's IP address.

Touching the Settings button brings up the meter's device information. Touching the Ethernet button provides a view on Ethernet settings. The LAN IP address, subnet mask and default gateway can be edited. (The address will not be prepopulated.)

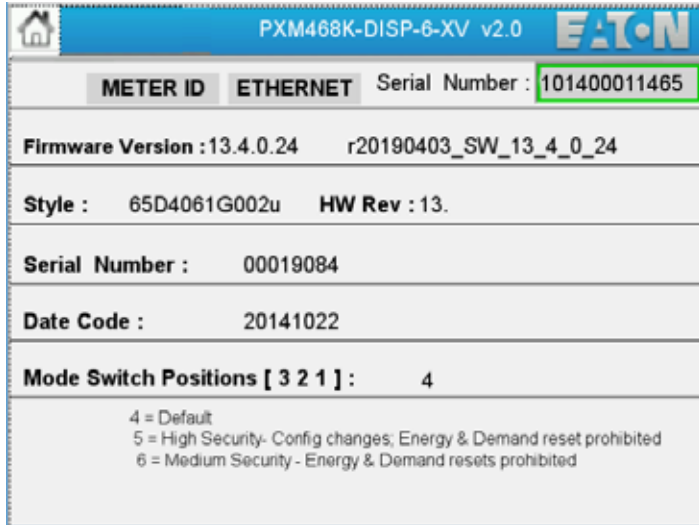


Figure 14. Setting the meter's IP address (screen 1).

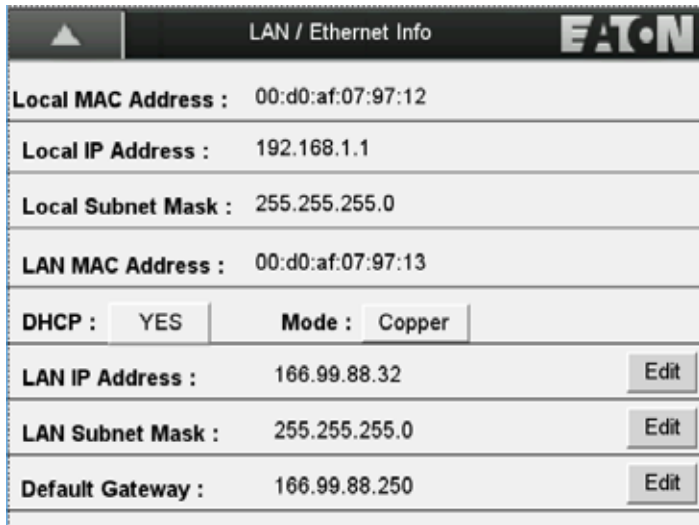


Figure 15. Setting the meter's IP address (screen 2).

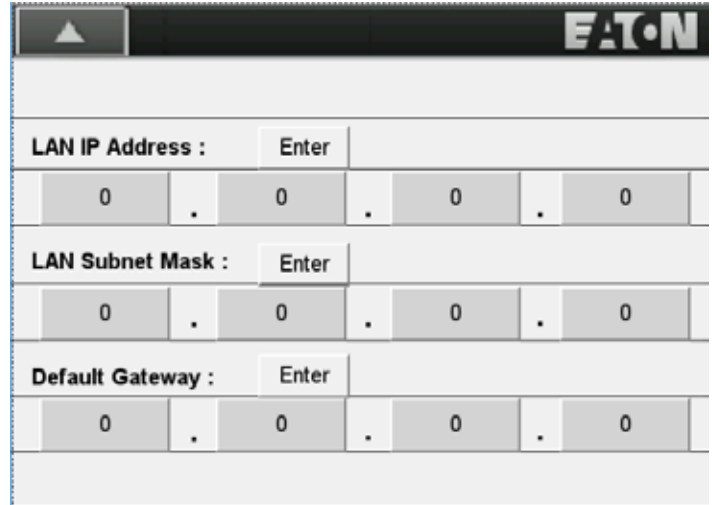


Figure 16. Setting the meter's IP address (screen 3).

Notes:

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