



Elecon Measurements

A group of **ElMeasure India Private Limited**

HO & Unit-I

764, 4th Phase, 707, Yelahanka New Town, Bangalore - 560 064. INDIA
 T : +91 80 2846 1777/744 F : +91 80 41272461
 CS : +91 80 3290 4489 E : contactblr@elmeasure.com

Unit-II:

Goutham Garden, No. 4, Veerapandi, Coimbatore - 641019 INDIA
 T : 0422 2697200. TF : 0422 2695200 E : contactctbe@elmeasure.com

Unit-III

Plot No.: 323/19, Camp Road, Selaqi, Dehradun, UTTARANCHAL
 C : 097600 02492, 12492 E : contactddn@elmeasure.com

Unit-IV

1049, MIG 3rd Phase, Yelahanka New Town, Bangalore - 560 064. INDIA

Sales Offices:

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PG/OMLG/V2/0715

PROGRAMMING GUIDE

OMEGA / LG 1300

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1. FEATURES

- STAR (Wye)/ DELTA/1 phase programmable
- Universal Auxiliary (80 - 300 VAC / DC) supply (for OMEGA Series)
- Universal Auxiliary 150 - 300 VAC supply (for LG 1300 Series)
- PT ratio / CT ratio programmable including CT secondary
- User configurable (editable) password
- Simultaneous sampling of Volts & Amps
- True RMS measurement
- Universal Voltage Input (50 - 550 VAC) and Current Secondary (0.05 to 6A)

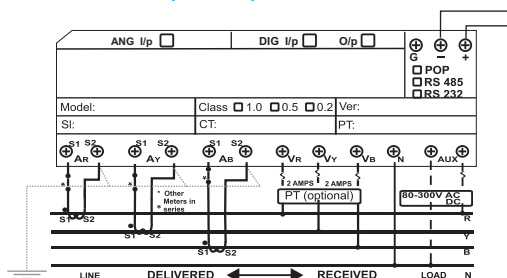
2. UNIQUE FEATURES

- Optional Programmable relay output maximum 2 (up to 6 threshold parameters) and tripping time up to 180 seconds. (Only for OMEGA Series)
- Clearance & creepage distance meets UL61010
- 3 Row, 4 digit display for better readability.
- Auto-scaling of kilo, decimal point.
- Compact size and weight

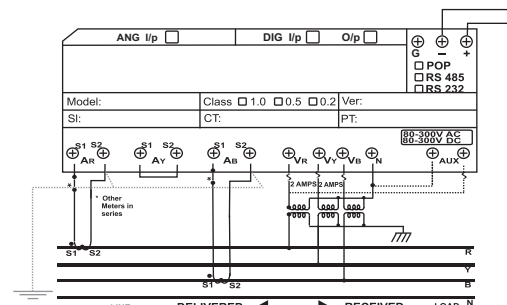
3. KEY FUNCTIONS

Key	In SET (Programming) mode	In RUN (Measurement) mode
	To select the value and accept the value (it act as a Right key in programming mode)	To scroll pages in UPWARD direction and view different parameters
	To edit the value/system type down-ward in edit mode and scroll through the parameters.	To scroll pages in DOWNWARD direction and view different parameters

WIRING DIAGRAM (LG 1300)



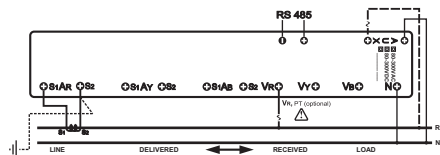
Star connection (3E) 3Phase 4wire system



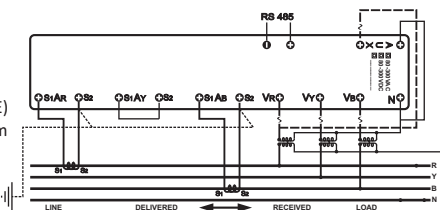
Delta connection (2E) 3Phase 3wire system

4. WIRING DIAGRAM (OMEGA)

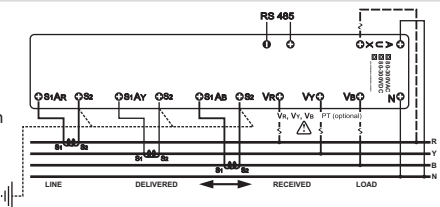
Single phase connection



Delta connection (2E) 3Phase 3 wire system



Star connection (3E) 3Phase 4wire system



5. ENTERING CONFIGURATION (SETUP) MODE

To configure the setup parameters through front panel, the following steps can be followed.

Step	Actions	Display Reads	Range/Options/Comments
1	Press UP & DOWN keys together to enter SETUP	Row 1: 0000 Row 2: 5EETP "0" blinking	Row 1: 0000 with first digit "0" blinking Row 2: SETP (SETUP)
2	Press DOWN key to decrement the first digit to "9" sequentially come to digit "1"	Row 1: 1000 Row 2: 5EETP "1" blinking	Row 1: 1000 with first digit "1" blinking Row 2: SETP (SETUP)
3	Press UP key four times to accept the password.	Row 1: 5EAr Row 2: ELEn	Row 1: STAr Row 2: ELEm Options: STAR / DELTA / SINGLE PHASE
4	Press UP key to select STAR/DELTA/1. PHASE	Row 1: 5EAr Row 2: ELEn	Options can be changed by pressing DOWN key.
5	Press UP key to accept the selected mode	Row 1: 5EAr Row 2: ELEn	Selected system stabilizes
6	Press DOWN key	Row 1: xxxx Row 2: P.Pri	Row 1: xxxx (415.0 - default /factory set) Row 2: P. Pri (PT Primary)

7	Press UP key to set the PT primary value		Row 1: First digit blinks. Edit the digit using DOWN key. Row 2 : P. Pri (PT Primary)	
8	Press UP key to accept the edited value for first digit.		Row 1: Second digit blinking, can be edited using DOWN key. Press UP key to accept the edited value. Continue the same method till fourth digit. Row 2 : P. Pri (PT Primary)	Program Range for PT Primary : 100V to 999kV Comment: If value set is above the limit, display returns to maximum PT Pri value.
9	Press UP key.		Row 1: Decimal point blinking. Can be set at appropriate location using DOWN key. Ascertain the correct scale (Kilo) is selected by Letter K. Press UP key to accept the edited value. Row 2 : P. Pri (PT Primary)	E.g.: To set 11.00kV Set first four digits (1100) as explained above keep pressing DOWN key to place decimal point at appropriate location. Letter K will indicate the Kilo.
10	Press DOWN key		Row 1: xxxx (415.0 -default /factory set) Row 2: P.SEC (PT Secondary). Follow the procedure as described in steps 8 to 11.	Range: 50V to 550V If value set is above the limit, display returns to the maximum PT sec value.

24*	Press DOWN key		Row 1: 4.000 Row 2: POLS (POLES)	Range: 2-28 (FOR RPM).
25	Press DOWN key		Row 1: S A V E Row 2: "Y" blinking	If "n"(no) is selected then Meter enters into RUN mode without affecting any edited Values in the setup
26	Press DOWN key		Row 1 : xxxx Row 2 : xxxx Row 3 : xxxx	Returns to Home Page

★ Applicable for OMEGA Series only.

Once the required parameter is programmed press the DOWN key continuously till it reaches SAVE page directly.

6. The List of parameters can be configured and the range is given below

Sl.No.	Parameter	Default setup	Range / Options
1	Connection mode(ELEm)	STAR	STAR/ DELTA/ 1.Phase
2	PT Primary (P.Pri)	415.0	100V- 999kV
3	PT Secondary (PT SEC)	415.0	50V - 550V
4	CT Primary (C.Pri)	5.000	0.5A - 99kA
5	CT Secondary (C.SEC)	5.000	0.5A - 6A

11	Press DOWN key		Row 1: xxxx (5.000-default/factory set) Repeat steps 8 to 11 to change the settings. Row 2 : C. Pri (CT Primary)	Program Range for CT Primary 0.5A to 99kA
12	Press DOWN key		Row 1: xxxx (5.000 -default /factory set) Row 2: C.SEC (CT Secondary). Repeat steps 8 to 11.	Range: 0.5A to 6A
13*	Press DOWN key			1st digital output parameter Options: Over (VLL, A, Freq) Under(VLL, A, Freq)
14*	Press UP key to select the required parameter			The required parameter can be set using DOWN key. Press UP key to accept the edited value.
15*	Press Down key			Digital output parameter1 threshold value. Range :0.001 to 999.9K
16*	Press Down key			2nd digital output parameter Options: Over (VLL, A, Freq) Under (VLL, A, Freq)
17*	Press UP key to select the required parameter			The required parameter can be set using DOWN key. Press UP key to accept the edited value.

6 *	1st Digital Output parameter (d1.Pr)	dSbL	Over(VLL, A, Freq, Under VLL, A, Freq)
7 *	1st Digital Output threshold Value (d1.th)	1000.	0.001 to 999.9K
8 *	2nd Digital Output parameter (d1.Pr)	dSbL	Over(VLL, A, Freq, Under VLL, A, Freq)
9 *	2nd Digital Output threshold Value (d2.th)	1000.	0.001 to 999.9K
10*	Digital output trip delay (d.dEL)	3.000	1.000 to 180.0 Sec
11*	Baud rate (bAUd)	9600	2400 to 19.2k
12*	Parity (Prty)	Even	Even/ Odd/ no
13*	Device Id (dEV.Id)	1.000	1.000 to 247.0
14	Password (PWd)	1000	1000 to 9999
15*	No of Poles (POLES)	4.000	2.000 to 28.00

★ Applicable for OMEGA Series only.

7. Enabling and disabling of Auto scrolling:

Enabling auto scrolling: Press UP key continuously for 5 seconds or until display shows EnbL Auto.Sc for upward scrolling. Press Down key continuously for 5 seconds or until display shows EnbL Auto.Sc for downward scrolling.

Disabling auto scrolling: Press any key (UP/DOWN), display show dSbL Auto.Sc and returns to normal mode.

18*	Press Down key			Digital output parameter threshold value. Range :0.001 to 999.9K
19*	Press Down key		Row 1: x.xxx (3.000 default/factory set) Row 2: d.dEL (digital output trip delay time)	Range: 1 to 180 seconds
20*	Press Down key		Row 1: xxxx (9600 default /factory set) Row 2: bAUd (baud rate) communication speed.	Defines the baud rate. Option:2400,4800,9600, 19.20k
21*	Press Down key			EUEn (even)/odd(odd)/no (no parity) Internal communication error check
22*	Press Down key			Defines the (ID) communications identification number. Option:1 to 247
23	Press Down key		Row 1: ---- Row 2: Pw d (Password user definable).	Range: 1000-9999. CAUTION: Password can be reset only at the factory. CAUTION: memorize the Password. Use the same Password for next time. Instruments will reject other Passwords.

8. LED INDICATION

LED Status	Meaning
R	R Phase
Y	Y Phase
B	B Phase
K - ON	Kilo

LED Status	Meaning
VLL	Voltage Line to Line
VLN	Voltage Line to Neutral
A	Amps
HZ	Frequency
	Communication On

9. Mechanical Specification:

Dimension Bezel:
96 x 96 mm (Depth 50mm behind Bezel)

Panel Cutout:
90⁺² x 90⁺² mm

