

ACE-PLUS-IL Multifunction Panel Meter



1. Introduction

ACE IL meters are compact digital current meter, which logs maximum currents in all phases equipped with customized 128X64 LCD display. Four navigator keys simplifies Display & configuration of meter. ACE are available with accuracy class of 1.0 IEC62053-21/(Optional 0.5,0.2 IEC-62053-22) Communication on RS232.

2. Features

- Simultaneous Display of Measured Quantity & Parameter
- Logging Function enables user to have record of maximum current in 2 levels at particular instant time.
- Alarm indication for zero and set user maximum current.
- Password protection for user programmable parameters
- Communication on RS-232
- Meter / Wiring configuration is Star connection.
- Accuracy Class 1.0 IEC62053-21/(Optional 0.5;0.2 IEC62053-22)
- Selectable auto & manual scroll of display

3. Current Logging

- RTC based current recording.
- Two current recording values for R,Y,B,N are logged in descending order.
- Current recording values are saved respective of their time and date.
- There is provision of changing current period from 5 min to 999 min.
- User can reset individual currents or all currents at a time.
- User can set maximum Alarm current.

4. Specification

Accuracy	:Class1.0IEC62053-21/(Optional0.5;0.2IEC62053-22)
Input Voltage	:Vr,Vy,Vb,Vn
Input Voltage Range	:18-520V (L-L) / 10V-300V (L-N)
Isolation Voltage	:2000V
Input Current	:I _r ,I _y ,I _b
Input Current	:50mA-6A(Accuracy range)
Current with stand	:10Acontinuous,50Afor1Second
InputFrequency	:40 to 70Hz
AuxiliarySupply	:35-300V AC/DC
Auxiliariesupplyburden	:<4VA
Display	:LCD (128X64)
DisplayScrolling	:Automatic/Manual
Communication	:Comm. on RS-232
CT Primary setting	:1.0A to 999.9 kA
CT Secondary setting	:1.00A to 99.99A
PT Primary setting	:50V to 999kV
PT Secondary setting	:50V to 999 V

5. Auxiliary Supply :

SMPS Supply with input range 35-300VAC/DC. Burden on auxiliary supply is less than 4VA.

6. PT Supply:

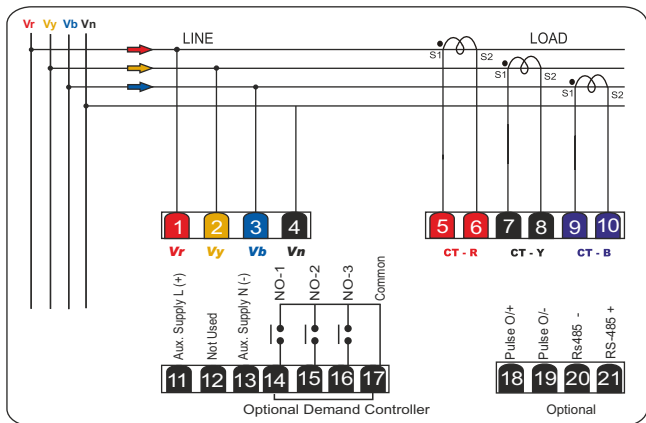
ACE IL can withstand maximum voltage of upto 1000V. Meter is configured for 3P-4Wire connection. Maximum Burden on PT is Less than 0.1VA.

7. CT Connection:





Nominal Current of ACE Meter is 6 Amp. Maximum Continuous Current is 10Amp & Current with stand is 50A for 1 Second. Burden on ct less than 0.2VA

8. Wiring Diagrams

3-Phase 4-wire connection



09. Key Functions

KEY	In EDIT Mode	In Measurement Mode
 Increment	Increment the value of selected parameters.	Long push (for 3sec approx for Scroll ON/OFF
 Decrement	Decrement the value of selected parameters.	-----
 Forward	Scrolling to the next parameter in EDIT mode	Scrolling between different measurements parameters.
 Backward	-----	Scrolling between different measurements parameters and move cursor position in parameter set mode.

10. Meter Measurement Scrolling :

Display can be set as auto scroll/Manual scroll Scrolling mode can be changes from auto to manual & vice versa by long press (for 3 sec) of increment key.

In auto scroll the measurement display changes to next page automatically while in manual mode (scroll) measurement page can be selected by pressing forward & backward keys.

11.0 Edit Mode Details

Display	Description	Range
CT PRIMARY	CTPrimaryValue	000.1-999.9 A/KA
CT SECONDARY	CTSecondaryValue	00.01-99.99 A
AMP PERIOD	Current Logging Period	5 - 999 minutes
CONFIG ALARM	Configure Alarm	Enable/Disable
ALARM MAX AMP	Max Current	1 – 9999 A/KA
DEVICE ID	Device Identification For Communication	1-247
BAUD RATE	Communication baud rate	1200,2400,4800,9600,19200
COMM PARITY	Communication parity bit	Even,odd, None
STOP BIT	Stop Bit for communication	1-2

12 . Setting/Configuration Modes :

12.1 EDIT Mode : Parameter values can be changed in 'EDIT' mode, 'EDIT' mode is password protected.



Press **Decrement** and **forward** key together



EDIT Mode Starts



Press **▶** key.

Display will show **Password**



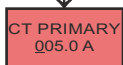
Press **▲ ▼** key to change password value

Default **Password** 123



Press **▶** key.

Password ok

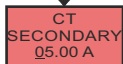


Press **▶** key.

Change CT Primary Value

Press **▲ ▼** key to change Primary Value

Press **◀** key to move the cursor

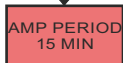


Press **▶** key.

Change CT Secondary Value

Press **▲ ▼** key to change Secondary Value

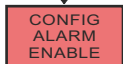
Press **◀** key to move the cursor



Press **▶** key.

Change Current Logging Period

Press **▲ ▼** key to change Value



Press **▶** key.

Change alarm configuration

Press **▲ ▼** key to change Value

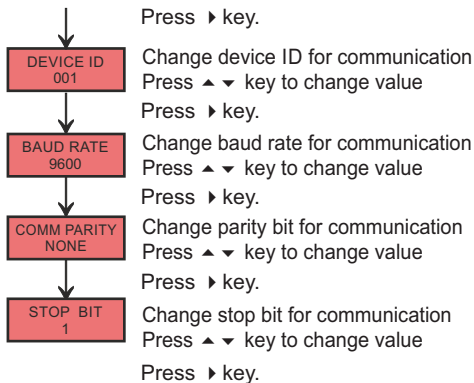


Press **▶** key.

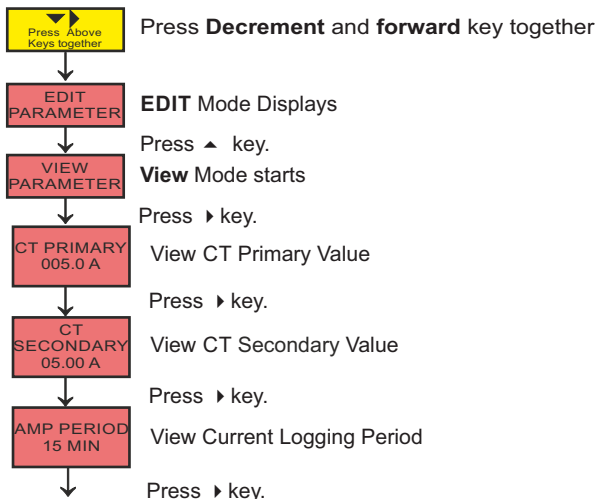
Change Alarm Current

Press **▲ ▼** key to change Value

Press **◀** key to move the cursor



12.2 View Mode: User can view all set values in this mode without entering password Change of values is not permitted in this mode.



CONFIG
ALARM
ENABLE

View alarm configuration

Press ▶ key.

ALARM
MAX AMP
0100 A

View Alarm Current

Press ▶ key.

DEVICE ID
001

View device ID for communication

Press ▶ key.

BAUD RATE
9600

View baud rate for communication

Press ▶ key.

COMM PARITY
NONE

View parity bit for communication

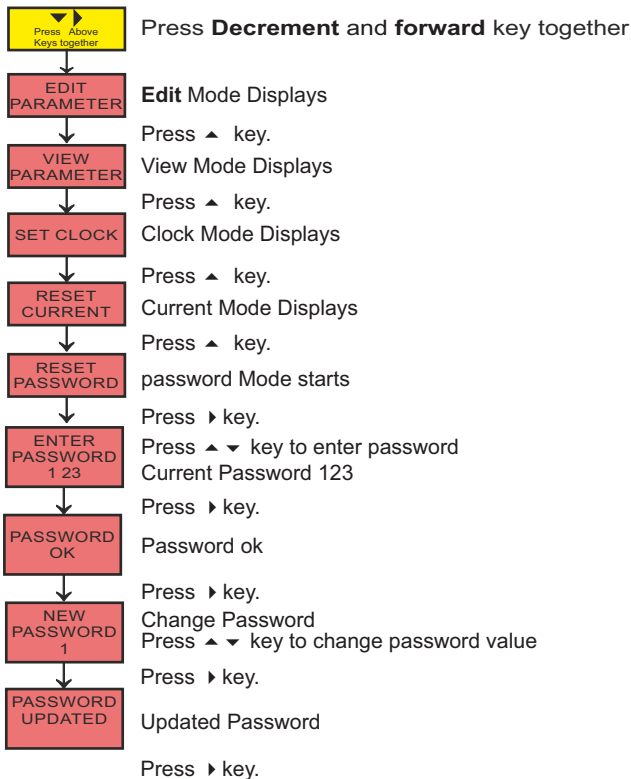
Press ▶ key.

STOP BIT
1

View stop bit for communication

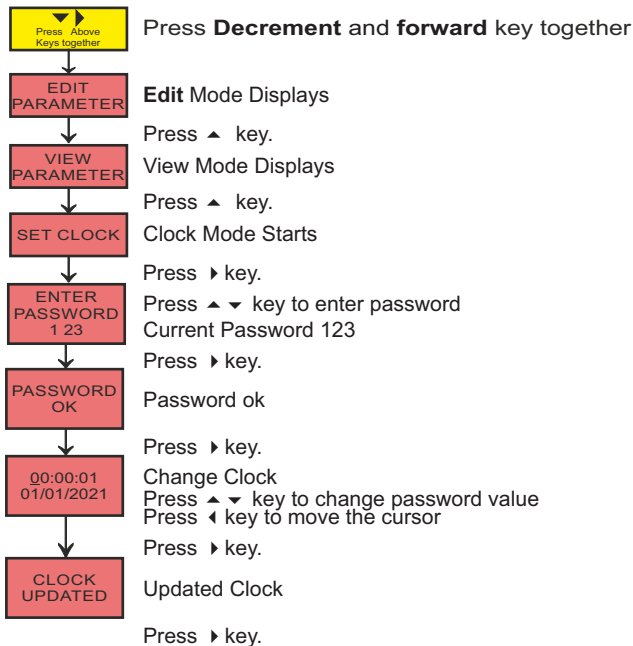
Press ▶ key.

12.3 RST Password :

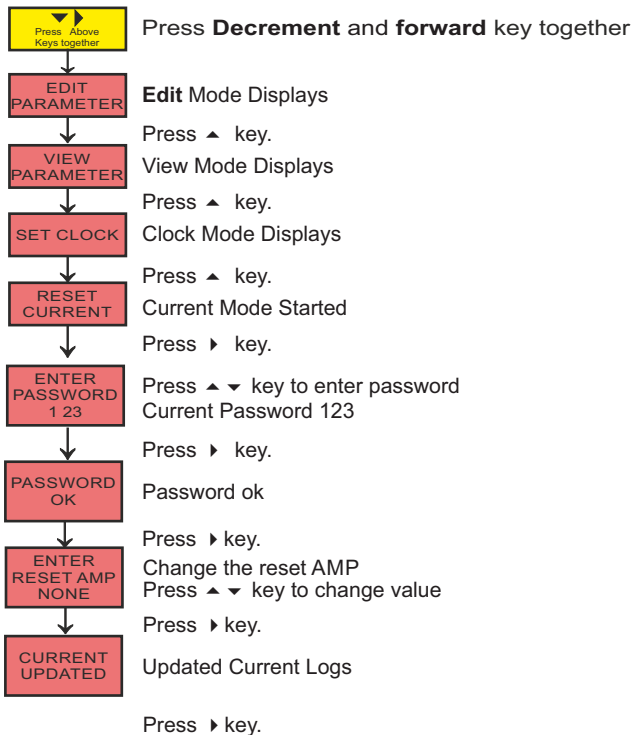


New password can be programmed in this mode. Once the password is changed, it is not possible to retrieve the old password, hence it is recommended to have a record of newpassword.

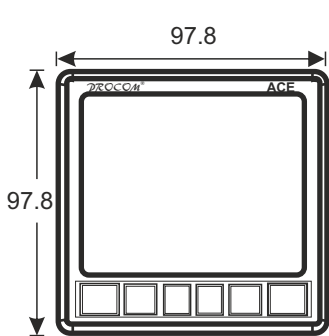
12.4 Set Clock :



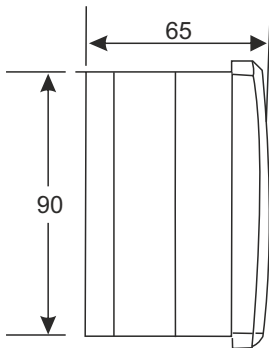
12.6 Reset Current :



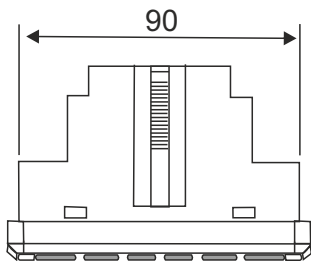
13. Dimensional Details



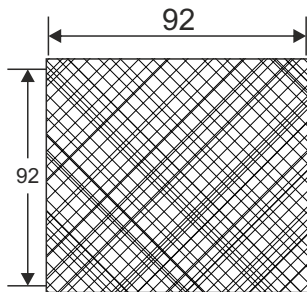
Front View



Left View

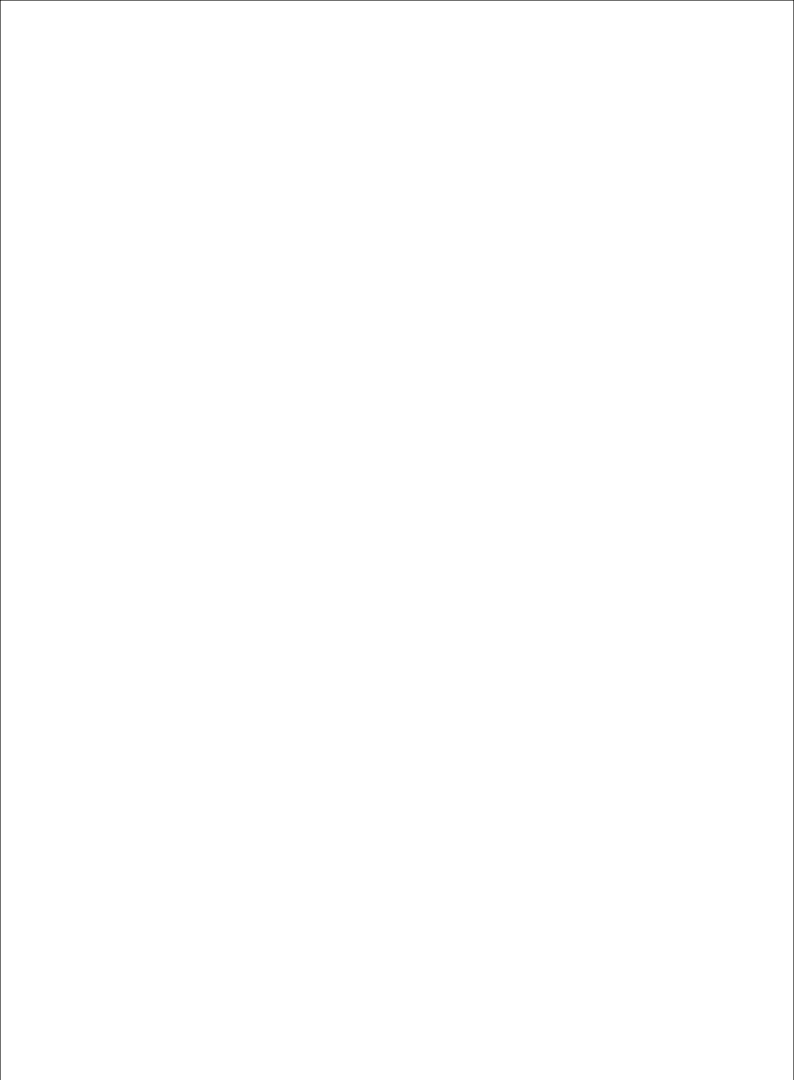


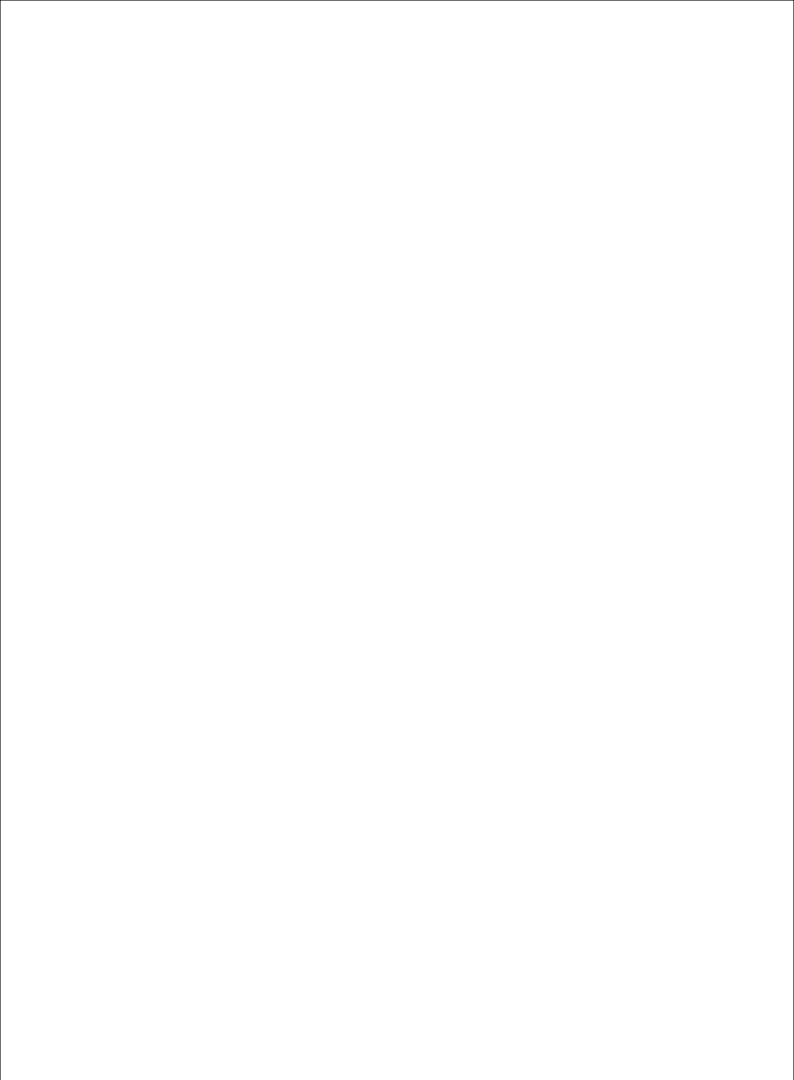
Top View



Panel Cutout

All dimensions are in mm.





MRM *PROCOM*[®] Pvt. Ltd.

Plot No. 20-21, Industrial Estate

Sector-59 (II), HUDA, Faridabad-121004, Haryana

Phone: 0129-4700400 (10 Lines), E-mail : info@mrmprocom.com

Website : www.mrmprocom.com