# **DIGITAL MEASURING INSTRUMENTS**

## Eine + - Z / 1- phase Digital measuring instrument





The digital meter programmable Eine  $\pm$  - Z 1- phase have been designed for industrial application ,which frequently require precise and on-site adjustment of the display range. It can be used in industrial automation and for laboratory uses.

#### Installation and dimensions:

#### **True RMS Measurement**

The instrument measures distorted waveform upto 15th harmonic.

#### **Display parameters**

Voltage VLN or Current.

#### Ultra bright LED Display

Voltage has 3 digit 1 line seven segment LED display. Ammeter/Current has 4 digit 1 line seven segment LED display

#### Front panel keys

Two keys are useful for easy setup navigation and changing setup parameters.

## On site programmable PT parameters:(For volt)

Potential Transformer (PT) primary and secondary is programmable on site through front panel keys.

PT Primary value ranging from 57.5 VLN to 900 kVLN.

PT Secondary value ranging from 57.5 VLN to 480 VLN.

#### On site programmable CT parameters:(For Ammeter)

Current Transformer (CT) primary and secondary is programmable on site through front panel keys.

CT Primary value ranging from 1A to 9999A.

CT Secondary value ranging from 1A/5A.

#### **Auxiliary supply**

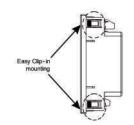
Higher Auxiliary power supply with voltage range 60V-300V AC/DC.

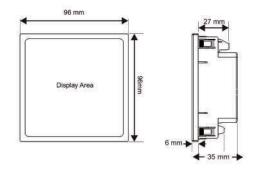
#### Enclosure Protection for dust and water

Conforms to IP 50 (for front face) and IP 20 (for back) and as per IEC60529.

#### **EMC** Compatibilty

Compliance to IEC61326





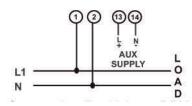


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Technical Specif	ications	
Operating measuring ranges	Voltage Range Current Range	10V 519V For 1A(15mA -1.2A) and For 5A(55mA- 6A)
	Frequency	4565 Hz.
Input voltage (for Volt)	Full Scale Input voltage (AC RMS)	(FS) 480 VLN.
	Max continuous input voltage Input voltage burden	519 VLN. (OL >1.083 X PT Primary). <0.3 VA approx at 230V.
Input current (for Ammeter)	Input current.	1A or 5A.
	Max continuous input current Input current burden	120% of CT Primary.(OL > 1.21 X CT Primary). <0.3 VA approx.
Auxiliary supply	Higher AC-DC External Aux.	60-300V AC/DC.
	Frequency range VA burden	45 to 65 Hz. 5 VA Approx.
Overload withstand	Voltage	600VLN for 1 second, repeated 10 times at 10 second intervals.
	Current	2 x 5A for 1 second, repeated 5 times at 5 second intervals.
Reference conditions of accuracy	Reference temperature	23°C±2°C.
	Input waveform	Sinusoidal (distortion factor 0.005). 50 or 60 Hz ±2%.
	Input frequency Auxiliary supply voltage	Nominal Value ±1%.
	Auxiliary supply frequency	Nominal Value ±1%.
Display update rate:	Response time to step input	Less than 1 second.
Acurracy	Voltage	± 1.0 % of FS (optional ± 0.5 %)
	Current	± 1.0 % of 5A (optional ± 0.5 %)
Influence of variations	Temperature coefficient	0.03 % /°C for Voltage.
	(for range of use (0°C to 55°C)	0.05 % /°C for Current.
Applicable standards	EMC	IEC 61326-1 (Table-2).
	Safety IP for water and dust	IEC 61010-1-2018,Permanently connected use. IEC 60529.
		0°C to +55°C.
Environmental	Operating temperature Storage temperature	-25°C to +70°C.
	Relative humidity	0 90% non condensing.
	Warm up time	Minimum 3 minute.
	Shock	Half sine wave, Peak acceleration 30gn (300 m/s^2),
	Vibration	10 55 Hz, 0.15mm amplitude.
Enclosure	Front	IP 50
	Back	IP 20
Dimensions	Housing dimensions	96 x 96 x 40 mm.
	Panel cut-out	92.8 x 92.8 mm.
Safety	Pollution degree	2
	Installation	category III
	High Voltage Test	2 kV AC, 50Hz for 1 minute between

## **Electrical connection:**

## a) For voltage



## b) For current



#### Order example:

- Eine + -Z, 1 phase, Voltage 57.5-480V L-N, 30-60V AC/DC, Class 0.5