sifam tinsley
PRECISION INSTRUMENTATION

DATASHEET Issue 1.0



Multifunction Meters

Transducers & Isolators

Temperature Controllers

Converters & Recorders

Digital Panel Meters

Current Transformers

Analogue Panel Meters

Shunts

Digital Multimeters

Clamp Meters

Insulation Testers

PLATINUM SERIES SYNCHROSCOPE

Features

- Touch Screen Graphics display
- Potential free Relay Contact
- Easy Navigation

SUBJECT TO CHANGE WITHOUT NOTICE
This manual superseded all previous versions – please keep for future reference

Platinum Series Synchroscope

Features

- Touch Screen Graphics display
- Potential free Relay Contact
- Easy Navigation



ST SYNC displays actual difference of voltage, frequency & phase angle between the BUS (Reference) voltage & generator (Incoming) voltage. When two alternators or sources are to be parallel it is necessary that their frequency & amplitude should be equal and phase difference be near to zero. When all these 3 parameters are within the required limits ST SYNC indicates that the two sources can be paralleled.

Application Areas

Synchronizing two different BUS inputs.
Synchronizing two different Generator inputs.
Synchronizing Generator & BUS inputs

Product Features

Touch Screen Graphics display
ST SYNC has touch sensible colour graphics LCD display with resolution of 320 x 240.

Casing Material
Thick Steel Sheet EDD grade CR material

Graphical Analysis
Graphical representation of Synchronization status.
Frequency delta & phase angle delta and voltage delta.

Measured Parameters
Measurement of Frequency difference (BUS & Gen.) Af.
Measurement of Phase angle difference (BUS & Gen.) A0.
Measurement of Voltage amplitude difference (BUS & Gen.) AV.
BUS voltage & BUS Frequency.
Generator Voltage & Generator Frequency.

Potential free relay contact
Potential free Relay contact for indicating sync status.

Technical Specifications

Network Supported	Single phase / Three phase

Accuracy

Phase Angle difference (0)	±20
Voltage Difference (AV)	±1% of Nominal value
Frequency Difference (AF)	±0.15 Hz

Reference Conditions for accuracy

Ambient Temperature	23°C +/- 2°C
Input Voltage	Rated Voltage ± 2%

Input Voltage

Nominal input voltage (AC RMS)	100 - 500 V
Max continuous input voltage	600V
Overload Withstand	2x times of Nominal voltage for 1 second, repeated 10 times at 10 second intervals

Frequency Measuring Range	45Hz to 66Hz
Nominal input voltage burden	< 0.2 VA approx.

Auxillary Supply

Auxillary Voltage & Burden	100-500 V AC / DC, 45-65 Hz , 8VA

Display update rate

Response time to step input	1 sec approx.

Applicable Standards

Safety	IEC 61010-1-2010, Permanently connected use
IP for water & dust	(IP 54 for Front) IE C 60529
Pollution degree:	2
Installation category:	III
Isolation between running & incoming circuits	2kV RMS for 1 minute

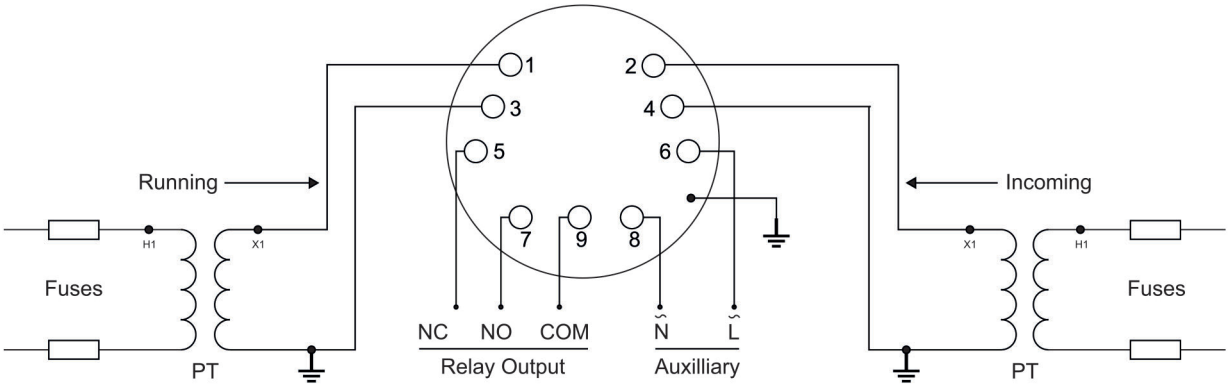
Environmental Conditions
Other information

Operating temperature	-10 to +55°C
Storage temperature	-20 to +65°C
Relative humidity	0 ... 95% non condensing
Warm up time	Minimum 3 minute
Shock	15g in 3 planes
Vibration	10 ... 150 .... 10 Hz, 0.075mm amplitude
Temperature Coefficient	0.05%/°C

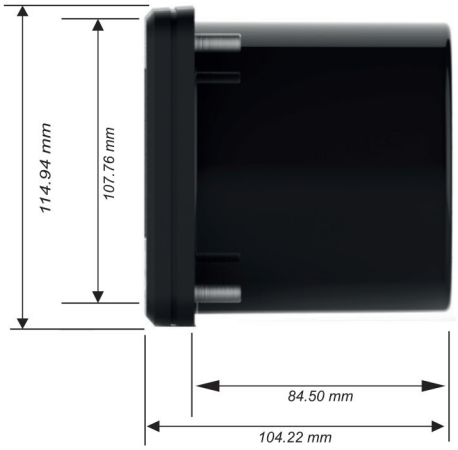
Relay Contact (For Sync Status)

Contact Rating	240 VAC, 5 A

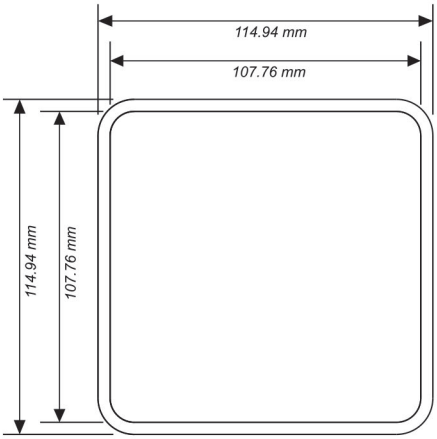
Electrical Connections



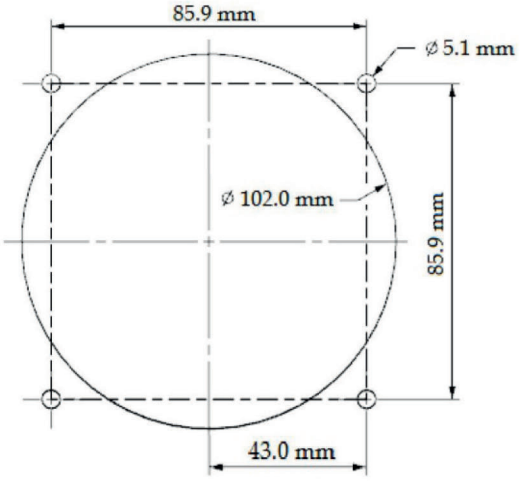
Dimensional Details



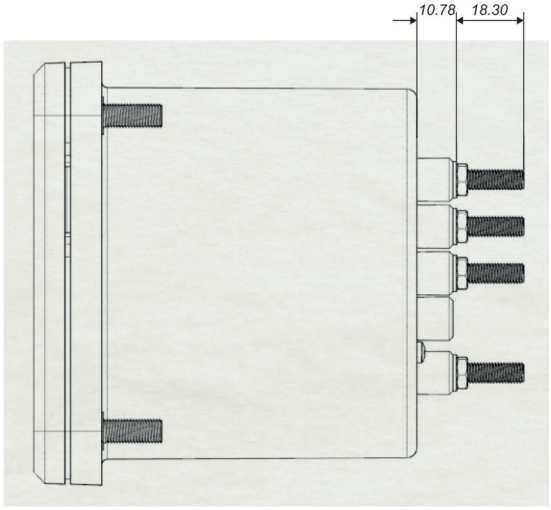
Side View



Front View



Panel Cutout



Contact

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