CROMPTON INSTRUMENTS LED SYNCHROSCOPES

APPLICABLE UP TO 480V AC

CLEARLY INDICATES SYNCHRONISING STATE WITH RELAY OUTPUT AND REAL-TIME FEEDBACK FOR BETTER MONITORING

APPLICATIONS

- Switchgear Panels

RELEVANT STANDARDS AND TEST REPORTS

- IEC 61010

KEY FEATURES

- Clear Synchronising indication
- Relay output for remote indication

TE Connectivity's (TE) Crompton Instruments LED Synchroscopes measure and display the frequency difference of two power sources. Monitoring the display allows the user to connect two synchronized power systems.

The LED indication gives real-time feedback on the synchronisation state. When the synchronised state is achieved, the indicator stays in the synchronising position.

The LED indication gives real-time feedback on the synchronisation state with relay output for systems integration. Dead bus monitoring is also available, as an option, combined with the Voltage and phase monitoring.

The 244-14H/G synchroscope is based on a microcontroller, which interprets the input signals and displays the phase and voltage information on a series of light emitting diodes (LED's)

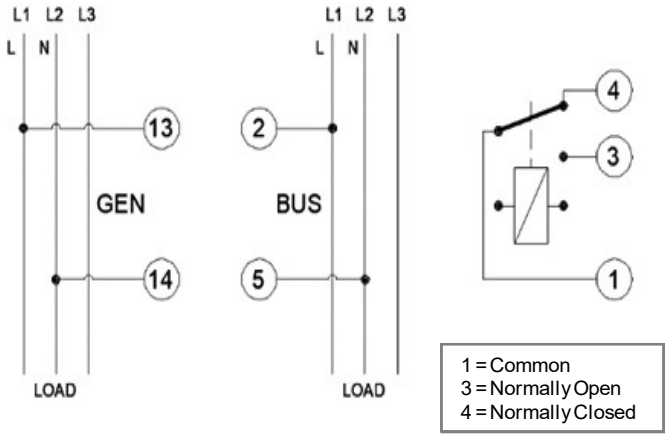
Twenty-four red LED's are arranged in a ring simulating the traditional 360° analogue movement. Only one LED is lit at any one time indicating the phase difference between the busbar (BUS) and generator (GEN) signals.

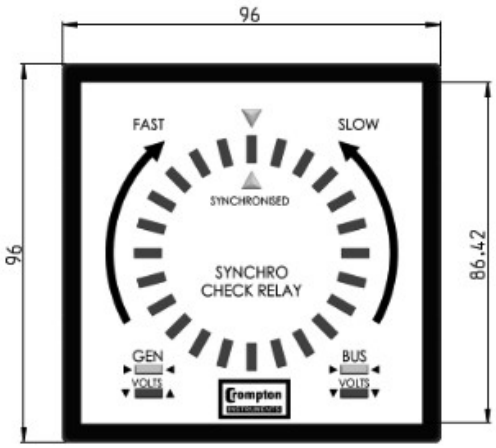
The unit will operate correctly at any frequency within its range. The voltage levels of the two input signals are continuously measured and compared with the user adjustable voltage difference setting. If the measured difference is outside the allowable range, the ring of LED's will be extinguished, and the red GEN LED will be lit. If the voltage difference is within range the green GEN LED will be lit and the ring of LED's will indicate the phase relationship.

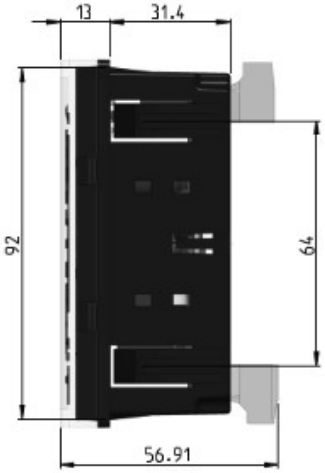
ORDERING INFORMATION

Model	Voltage	Operation
244-14HG-L-01	100-120V AC	Synchro check relay, Voltage Difference and Dead Bus
244-14HG-M-01	220-240V AC	
244-14HG-H-01	380-480V AC	
244-14GG-J-01	62-74V AC	Synchro check relay, and Voltage Difference
244-14GG-L-01	100-120V AC	
244-14GG-M-01	220-240V AC	
244-14GG-H-01	380-480V AC	

DIMENSIONAL INFORMATION & CONNECTION DIAGRAM







TECHNICAL SPECIFICATIONS

Parameters	
Nominal Voltage	± 10% of range
Nominal Frequency	45 / 65 Hz
Operating Position	Panel Mounted (Vertical)
Accuracy	1%
Overload	1.2x range max, continuous, 2x for 5 secs
Relay Output Type	Single Pole changeover
Relay Output Rating	250 V, 5 A AC resistive
Operating Temperature	-20°C to +55°C (-4°F to 131°F)
Storage Temperature	-30°C to +70°C (-22°F to 158°F)
Humidity	95% RH (non-condensing)
Insulation Between Circuits	2.2 kV
Insulation to Case	4 kV
Overvoltage Category	III
Pollution Degree	II
Enclosure Integrity	UL94-V0
Enclosure Style	DIN 96
Case Material	Polycarbonate
Ingress Protection	IP54 (with gasket)
Electrical Connections	Cage clamp, Plug / Socket
Mounting	Snap-In
Dimensions	96 x 96 x 65 mm
Weight	200 g
Burden	< 4 VA
Phase Difference	Adjustable 0-20 Degrees
Time Delay	Adjustable 0-2.5 Seconds

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