

LED Based Signals – Calling On Aspect



Customer: Indian Railways

As Per RDSO / SPN / 153 / 2011

Proposed By:

GENERAL AUTO ELECTRIC CORPORATION

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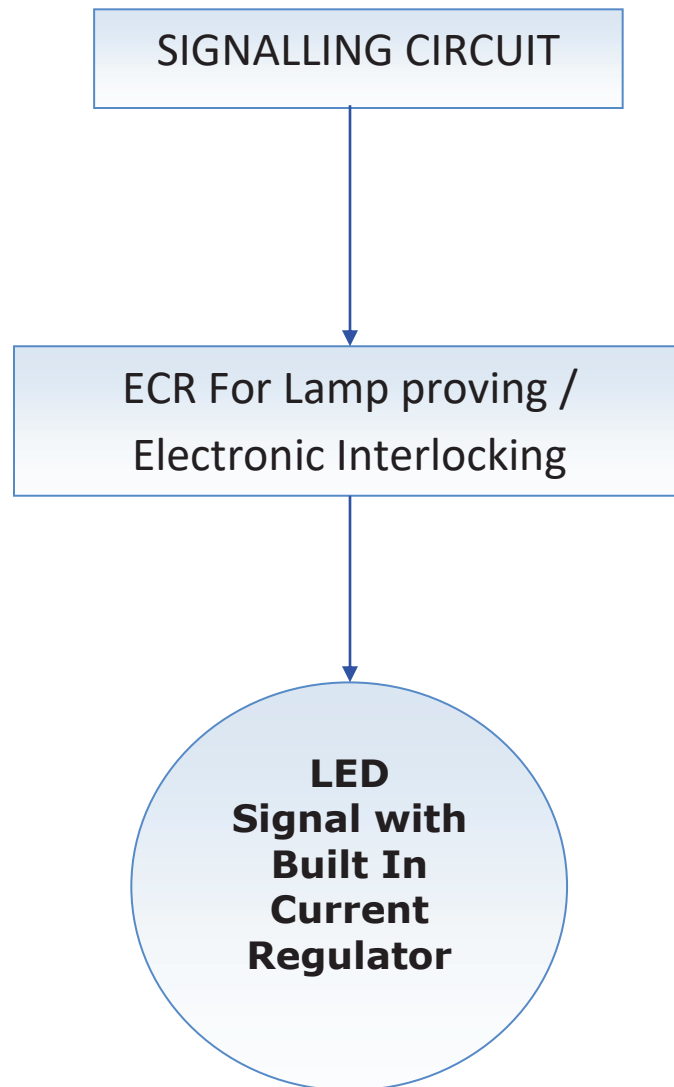
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FEATURES

TECHNOLOGY	Light Emitting Diode (LED) technology offers the ultimate in reliability, resulting in lower operating and maintenance cost.
COMPATABILITY	Compatible with SSI and Relay Interlocking.
DESIGN	Phantom Free Design, Multi array arrangement, Low Power Consumption, Fail Safe Design.
RE & NON RE AREA	Comply with the general and technical requirements of LED signal units for railway signaling application in RE & Non-RE areas.
VOLTAGE	110V AC fed LED Signal Lighting Units.
INPUT VARIATION	88 to 132 V
OUTPUT VARIATION	<2% over entire input voltage range of 88 to 132V.
ILLUMINATION	45 - 70 Lux when measured at 1.5 m in axial direction
EFFECT OF FLOATING VOLTAGE	Signal unit BLANK below 70 V.
VISIBILITY	Minimum visibility distance of Shunt LED Signal Lighting Units is min 200 Meter (In clear daylight with peak sunrays at rated voltage).
LAMP PROVING	Lamp proving can be done with suitable ECR or through SSI
COLOUR	YELLOW

Note: Colour and other parameters can be matched as per Customer's Specification.

BLOCK DIAGRAM

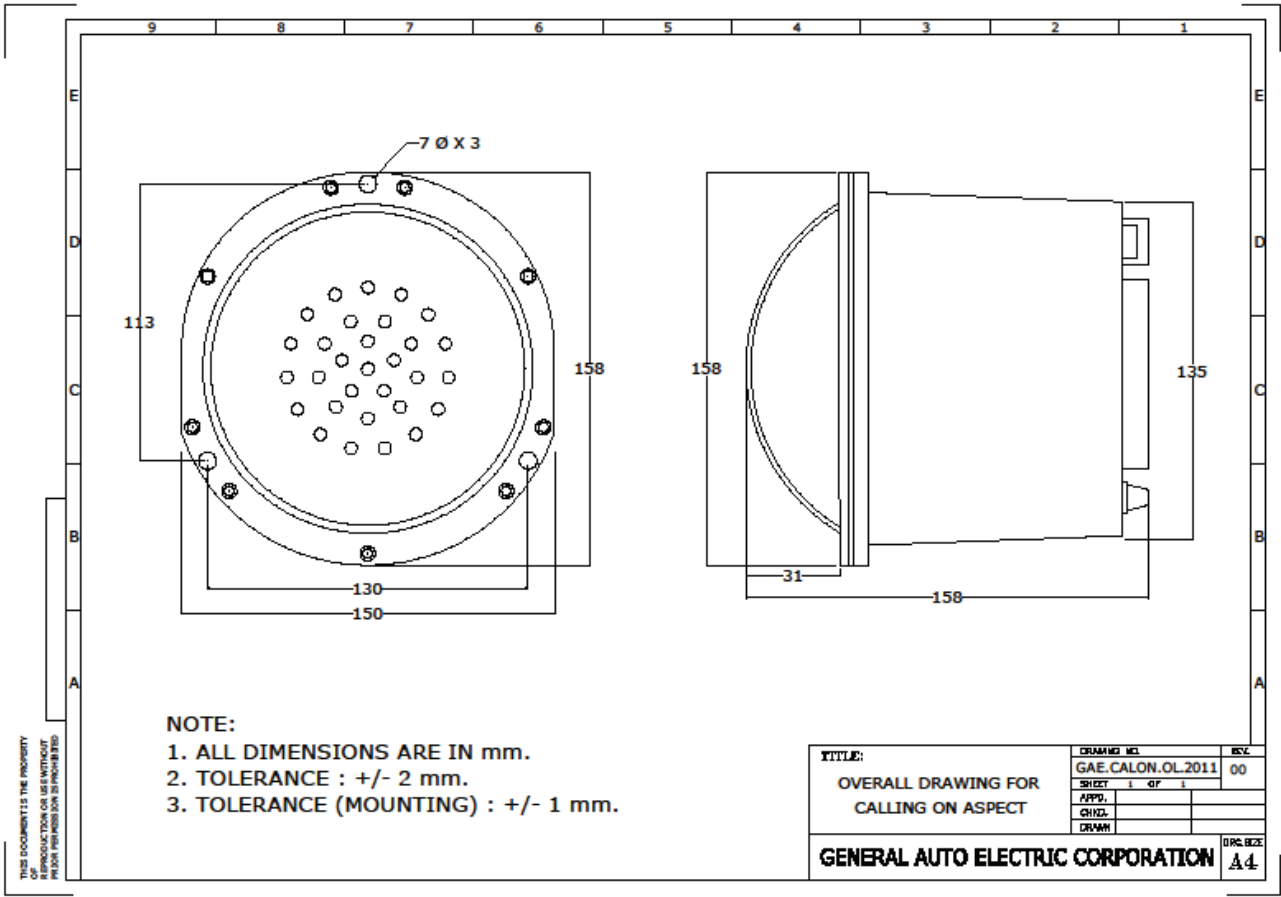


General Data

Color of the Unit	YELLOW
Power Supply	110 V AC, SINGLE PHASE, 50 Hz
Input Variation	88 to 132 V
Input Current	120 mA to 165 mA (Within 110V +/- 20% & -10°C To 70°C)
Load Regulation	< 2% (From 88 V to 132 V)
Display Area	125 mm dia ± 1 mm.
Operation Temperature	-10°C To 70°C. (RH UPTO 95%).
Illumination	45 to 70 Lux (at 1.5 mtr in Axial Direction)
Color Co-Ordinates	Class 'C' OF BS 1376-1974
Dispersion Angle	4° to 10°
No. of LEDs	Min. 30
Make Of LEDs	Avago / Nichia
Di-electric Strength	> 100 MΩ
H.V. Breakdown Test	1.5 kV applied between All current carrying shorted together and Earth for 1 minute.

Ordering Information	
Item Code	Description
LED.CO.2011.01	Calling On Signal Aspect

Outline Drawing



Rev.02

Due to continuous improvements in product performance, few variations might be seen during actual supply