

■ LUW 1398/3-S02 Lamp Monitoring Unit

Highlights

- Monitoring the current of 3 lines
- 6 solid state output relays
- High reliability
- Low power consumption
- Small case

General

The unit **LUW 1398/3** was developed especially for locomotive applications. Capable of monitoring DC-currents of 3 lamps, the unit **LUW 1398/3** provide multiple solid state relay outputs for indicating the area in which a lamp has failed.

The solid state outputs can be used to drive an audible signaling device, a centrally located computer, or signaling LEDs.

The unit is measuring the currents which are supplying the lamps. Each measured current is monitored. If one of the 3 currents exceeds the adjusted limit, the internal solid state relays are switched on. For each input channel there are two separate solid state output contacts provided. These contacts are isolated from each other and can be used for different tasks.

Functions

The currents of the lamps are measured by the voltage drop of built-in resistances. To reduce the generation of heat the values of the resistances are very low. Resistances of only 40 mΩ are used.

The voltage drop of the resistances are measured and evaluated. If one of the 3 currents fall short of the adjusted limit, the internal solid state relay will be switched off.

Two output contacts belong to each input channel. These contacts are protected against overvoltage and spikes by suppressor diodes. That's why the contacts may switch voltages up to 33V.

The max current for each output contact is 100 mA.

Supply Voltage

The built-in electronic circuit must be supplied by 24VDC.

The negativ terminal of the supply voltage is connected via internal diodes to the negativ terminals of the 3 current input channels. By this way the 3 negativ terminals of the current input channels are allowed to accept different voltages.

For the positiv supply voltage there is a separate terminal provided.

Housing

The **LUW 1398/3** is built in a snap-in case for 35 mm DIN-rail mounting.



Specifications

Current input channel	
Input resistance	: 40 mΩ
Max.input current	: 4,5 A
Nominal current threshold	: approx. 0,85 A, other on request
Outputs	: 2 separate SPST for each lamp
Contact rating -Voltage	: max. 33V
Contac rating - Current	: max. 100 mA
Supply Voltage	: 16,8 VDC...31,2 VDC
Current Consumption	: max. 31 mA
Environmental Conditions	
EMV	: according ENV 50121-3-2
Protection	: IP40
Mounting	: EN 50022
Inflammability	: VO (UL94), DIN 5510-5
Resistance to shock	: according. VDE 0115/Teil 200/page 52/10.2.11
Printed board	: vamisid on both sides
Operating Temperature	: -25 bis +70 °C
Dimensions	: 99 x 114,5 x 35
Weight	: 200 g

Ordering Information

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