BZ893T

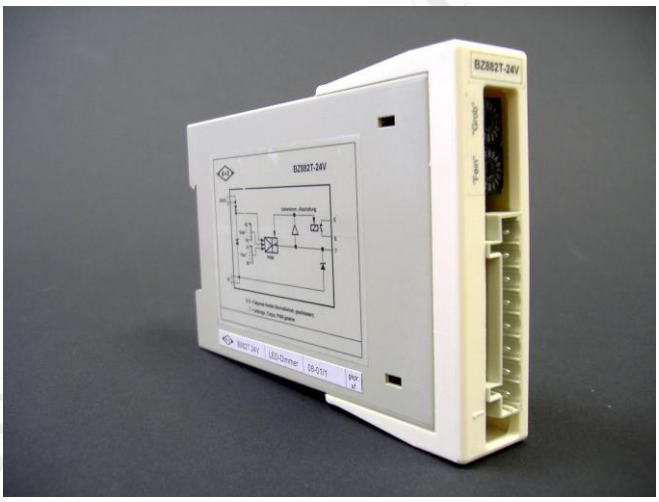
12W PWM LED / Bulb dimmer 36VDC

Without external control input

B+Z Art.Nr. 651

According to standard EN 50155

Electronic devices in rolling stock



Content: Page:

Application / function

B + Z Elektronik AG
CH-8108 Dällikon
Tel: +41(0)44 8440355
www.bahnelektronik.ch

This device is a digital 1-channel LED dimmer with 255 dimmer levels, for the flicker-free dimming of LED and / or bulb lights in the driver's cab, e.g. LED rows, illuminated pushbuttons, etc., for DIN rail mounting.

The output voltage is pulse width modulated with high clock frequency. The circuit is short-circuit-proof on the output side for a short time. If it is overloaded for a longer time, it switches off automatically and opens the diagnostic contact. Thereafter, an interruption of the operating voltage is required, so that the normal operating state can be restored.

In order to achieve different luminances of the illuminants, the pulse width of the output voltage can be varied between 0.1% and 99.5% by means of two digital coding switches in 255 steps

Technical data

Type designation: **BZ893T 36V**

• Standards

The product is manufactured in accordance with the following standards:

ISO 9001:2008
Electronic equipment used on rolling stock: EN50155
Electromagnetic compatibility: EN50121-3-2
Isolation: EN50124-1
Shock and vibration: EN50155/EN61373
Fire protection according to EN 45545

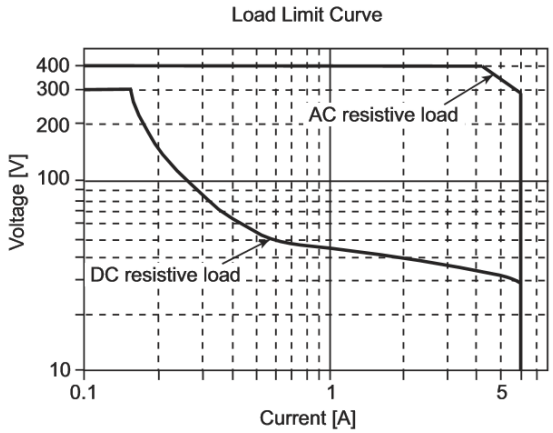
The standards applicable to this product are dependent on the version available at the time of development.

• Operating Voltage

Nominal voltage:	36VDC (version also available: 36VDC) Tolerance according to railway standard: -30% +25%
No load idle current:	45mA

• Output

Signal Output:	Pulse width modulated signal; Amplitude = operating voltage
Frequency:	240 ... 260 Hz
Output load:	max. 12W
Current switch off at:	ca. 0,5A
Short circuit max:	ca. 1,5A
Protection circuit:	Transzorb diodes and overload switch off protection



Diagnostic relay contact:

Normally closed contact, opens at overload mode. Normal mode = closed (N.C.)

Max. contact load: 0,7A / 45VDC

Load type		Voltage	Current	Ambient temperature	No. of ops.
Resistive load		250V AC	6 A	85°C 185°F	30,000
Inductive load	AC 15	250V AC	3 A	25°C 77°F	20,000
	DC 13	24V DC	2 A	25°C 77°F	6,000

Notes: 1. Switch contacts are all on N.O. side.
2. AC 15 and DC 13 comply with IEC-60947-5-1 testing conditions.

Mechanical data

Measures (WxHxD): 22.5x85x120mm
Weight: ca. 120g

- **Materials**

Housing: Plastic
PCB: Epoxy resin

Mounting: Horizontal on T standard rail 35mm, (EN-50022-35)
Connector type: 8-pin single row terminal strip, WAGO

Label on housing:

1,2	+24V	(connected internal)
3,4	0V	(connected internal)
5	Diagnose contact	
6	Diagnose contact	
7	Output PWM-Signal	
8	(not used)	

Other conditions

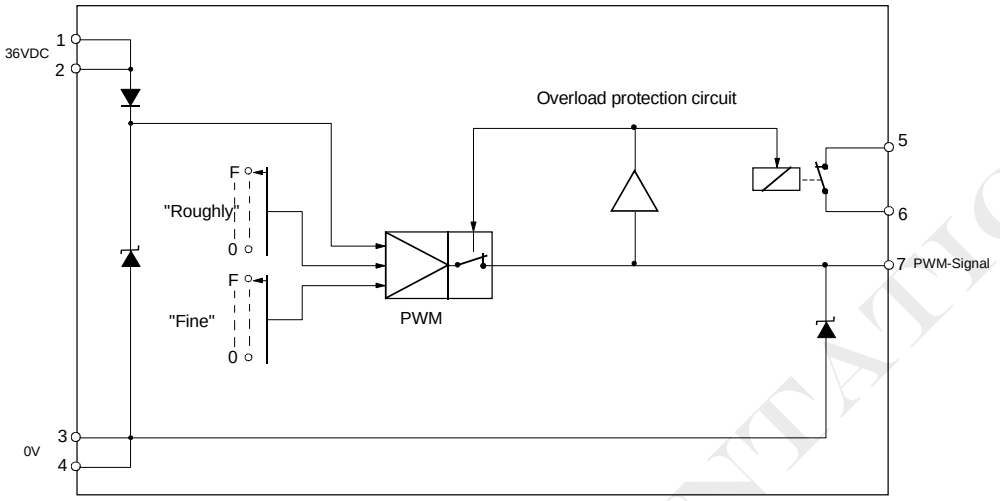
- **Climatic conditions**

Environment temperature: -40°C bis +60°C Class T3
Humidity : max 90% rF, at30°C, non condensing.

- **Disposal**

According to local regulations

Connection / Wiring diagram



5; 6 = Diagnostic contact (Normal = closed)
7 = PWM Signal Output

Measures / mounting