

# **BZ882T**

# LED / Bulb dimmer, digital 24VDC Load max. 12W

Without external control input B+Z Art. Nr. 685

According to standard EN 50155

Electronic devices in rolling stock



Content:	Page
Ouritarit.	i ago

1.	Application / Function	2
2.	Technical data	2/3/4
3.	Block diagram	4
4.	Measures	4

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



## **Application / function**

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: BZ882T 24V

#### 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: 24VDC (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

B + Z Elektronik AG

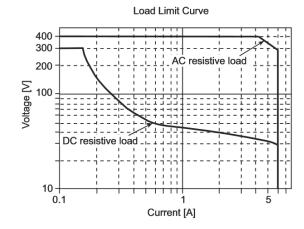
Created: 27.06.2008

Modified:

Index:

File: BZ882T\_24V\_e\_kd.doc Page: 2/4

BZ882T PWM / LED Bulb dimmer 24VDC



#### 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.
Resistiv	e 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.

#### **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.



Created: 27.06.2008

Modified:

Index:

File: BZ882T\_24V\_e\_kd.doc

Page: 3/4

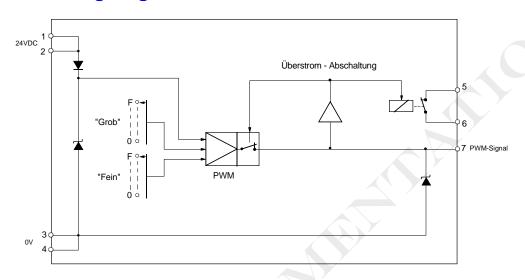
BZ882T PWM / LED Bulb dimmer 24VDC

<sup>2.</sup> AC 15 and DC 13 comply with IEC-60947-5-1 testing conditions.

#### • Disposal

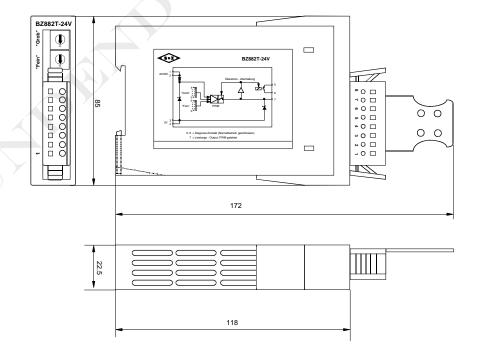
According to local regulations

# **Connection / Wiring diagram**



5; 6 = Diagnose-Kontakt (Normalbetrieb: geschlossen) 7 = Leistungs - Output, PWM getaktet

# **Measures / mounting**





27.06.2008 Created: Modified:

Geprüft: Geprüft: Index:

File: BZ882T\_24V\_e\_kd.doc Page: 4/4

**BZ882T** PWM / LED Bulb dimmer 24VDC