BZ887 T

Safety Relay 72V DC

B+Z Art. Nr. 619

According to standard EN 50155

Electronic devices in rolling stock

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Application and function

This safety relay is designed for use in industrial continuous operation applications.
Safety relay according to standard EN61810 type A with forcibly guided contacts and integrated circuit protection for mounting on standard T Rail system.

The LED on the front panel indicates when power is applied to the coil.

- Contacts : 3 NO / 3 NC
- Nominal voltages available for 15VDC / 24VDC / 36VDC / 48VDC / 110VDC
- With reverse polarity protection, overvoltage surge protection, LED status indicator
- Wire connector : 1 wire terminal block on all pins
- Screwless front connector - wires plugable without special tools; AWG 24-16
- Optional front connector block for looping through on all pins available

Technical data

Type designation: **BZ887T 72V**

• Standards

The product is manufactured in accordance with the following standards:

ISO 9001:2015
Electronic equipment used on rolling stock: EN50155
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: 72V DC
Tolerance according to railway standard: -30% +25%
Current : ca. 16mA at 72VDC
Hold power: 0.2Watt

Protection circuits: Reverse polarity protection, protective circuit for relay coil and Transiet surpression diodes

• Internal electrical protection

Transient voltage suppressor diode protecting against voltage spikes
Polarity protection diode

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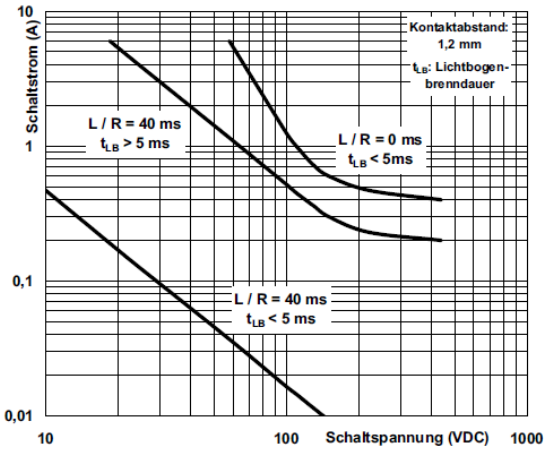
- ## Contact loads

Relay type: A, according to EN61810, IEC 61810-1, UL 508
Max. load current: AC-15 230/240V Ie = 3,0 A; DC-13 24V Ie = 2,5 A
Minimum current: 10mA at 10 VDC

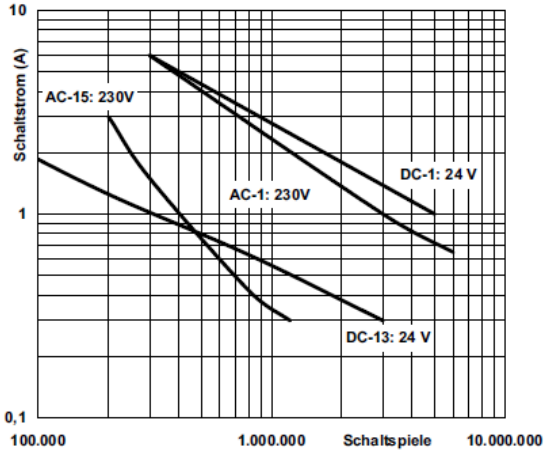
- ## Relay data

Mech. Lifetime without load	$>10^7$ switch cycles	Contaktmaterial	AgCuNi+0,2-0,4µm Au
Elec. Lifetime (using nom. load)	$>10^5$ switch cycles	Contakt type	Singlekontakt
Switching frequency mechanical	max 10 Hz	Switching load	AC 1.380 VA, DC *W
Delay time NO	typical 21 ms	Max. switching voltage	AC 230/240 V, DC *V
Delay time NC	typical 16 ms	Max. current Ith2	6 A
Reopening delay NO	typical 6 ms	Max. current Ith2 2 contacts same time used	6,0 A
Reopening delay NC	typical 11 ms		
		Max. current Ith2 3 contacts same time used	4,9 A
Schock resistancy NO/NC 10/8 g,	11 ms halfsinus	Max. current Ith2 4 contacts same time used	4,2 A
Swingresistancy NO /NC 10/5 g,	10–200 Hz	Max. current Ith2 5 contacts same time used	3,8 A
Test voltage Coil to contacts	2'500Veff 1min		
Testvoltage contact to contact	2'500Veff 1min		
		Switching voltage range	10 to 250VDC/VAC
		Switching current range typical	10 mA bis 6A
		Switching poer range typical	100mW bis 1'300W (VA)
Coil resistance value ca. 600 Ohm ati 20 degree celsius			
		* see DC-Switchoff characteristics	

Max. Load DC



Lifecycle values



Connector

- ## Screwfree front edge connector

14-pin edge connector: WAGO (codeable)

- ## Counter connector (optional)

14-pin female connector strip: WAGO single row or double row available
Grid 5.08mm. (not included at delivery)

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Mechanical data

Measures (WxHxD): 22,5 x 85 x 72mm
Weight: ca. 115g (without counterconnector)

- **Materials**

Housing: Plastic
PCB: Epoxy resin

Mounting: Horizontal on standard Rail 35mm, (EN-50022-35)
Connector type: 14-pin single row terminal strip, Type WAGO

- **Marking / Labeling**

Wiring label on housing

Other conditions

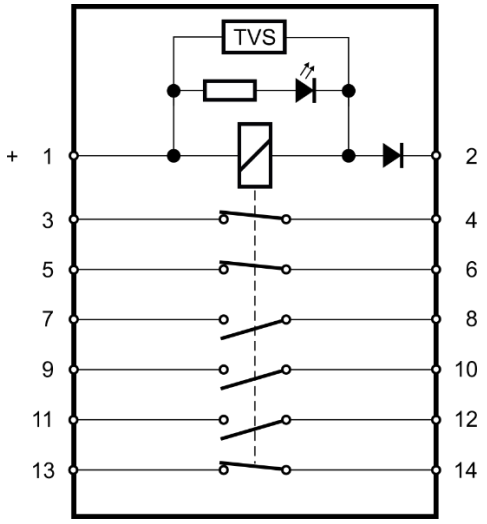
- **Climatic conditions**

Environment temperature: -20°C bis +70°C Class T3
Humidity : max 90% rF, at30°C, non condensing.

- **Disposal / Recycling**

According to local regulations

Connection / Wiring diagram



*TVS: Transient voltage suppression

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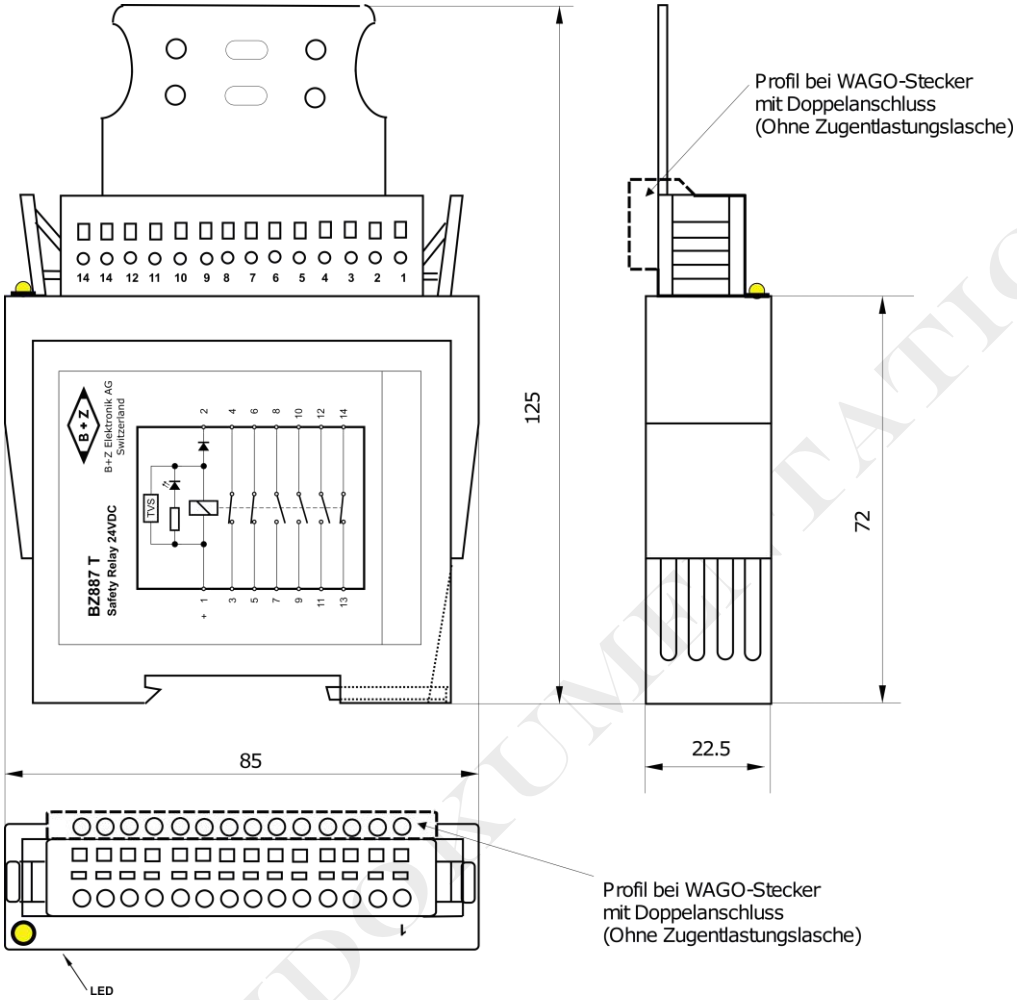
Measures / mounting



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