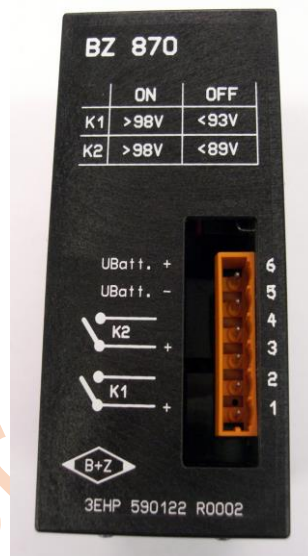


BZ 870

Voltage Monitoring Relay 110VDC

Ident Nr.: 3EHP590122R0002


B+Z Art. Nr: 338



Content:

page

1.	Function / Requirements	2
2.	Technical specifications	3
3.	Principle diagram	4
4.	Measurements / drawings	5

 B+Z Elektronik AG	Created: 22.12.1999 Modified: 04.11.2003 Index: File: BZ870_e_kd.doc	Geprüft: Geprüft: Seite: 1/5	BZ 870 Voltage Monitoring Relay 110V Ident.-Nr.:3EHP 590122 R0002
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1. Function / Requirements

1.1. Function

The BZ870 Voltage Monitoring Relay monitors two ON and two OFF voltage thresholds and forwards the status by its relay contacts. A typical application is to shut-off battery powered devices in case of low battery voltage. The unit comes in a sturdy plastic case and features a front connector.

The two independent relay contacts are used to control e.g. external relays or magnetic contactors. The threshold voltages and the hysteresis are preset by the manufacturer. As long as the input voltage criteria are in the preset working range (battery voltage is OK) the relay contacts remain closed.

2. Technical Specifications

2.1. Mechanical Data

- **Measurements**

W x H x D: 50 x 102 x 130 mm
Max. mounting depth : including connector approx. 160 mm
Weight : approx. 300 g

- **Material**

Case : Plastic

- **Mounting**

Fixation : clipping into place on TS35-rail as per EN50 022.

- **Front Panel**

Case cover : function range and connector layout printed

Front output connector : plug in CAGE - CLAMP connector, 6-pins
with locking bracket (delivered with)
model: WAGO type: 231-536 / 001 000



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Created: 22.12.1999
Modified: 04.11.2003
Index:
File: BZ870_e_kd.doc

Geprüft:
Geprüft:
Seite: 2/5

BZ 870
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Ident.-Nr.:3EHP 590122 R0002

2.2. Electrical Data

• Power requirements

Supply Voltage 110VDC (+25% -30%)
Current consumption: <40mA at 110VDC (relay contacts closed)
<10mA (relay contacts open)

• Input

Internal voltage monitoring of the supplied battery voltage

• Outputs

Two relay contacts (normally open). Potential free contacts featuring spark quenching by a blow out magnet.
Please note the correct polarity!

Max. current per contact: 4A
Max. voltage per contact: 250VDC

• Threshold / switching characteristics

		(Tolerance: $\pm 0.3V$)	% of UBatt	Hysteresis
Contact 1:	ON	> 98V (110V -11%)	(89%)	5V
	OFF	< 93V (110V -15%)	(85%)	
Contact 2:	ON	> 98V (110V -11%)	(89%)	9V
	OFF	< 89V (110V -19%)	(81%)	

• Electrical protection measures

Transient protection diodes on battery input

• General protection measures


protection norm: IP 20

2.3. Environment conditions

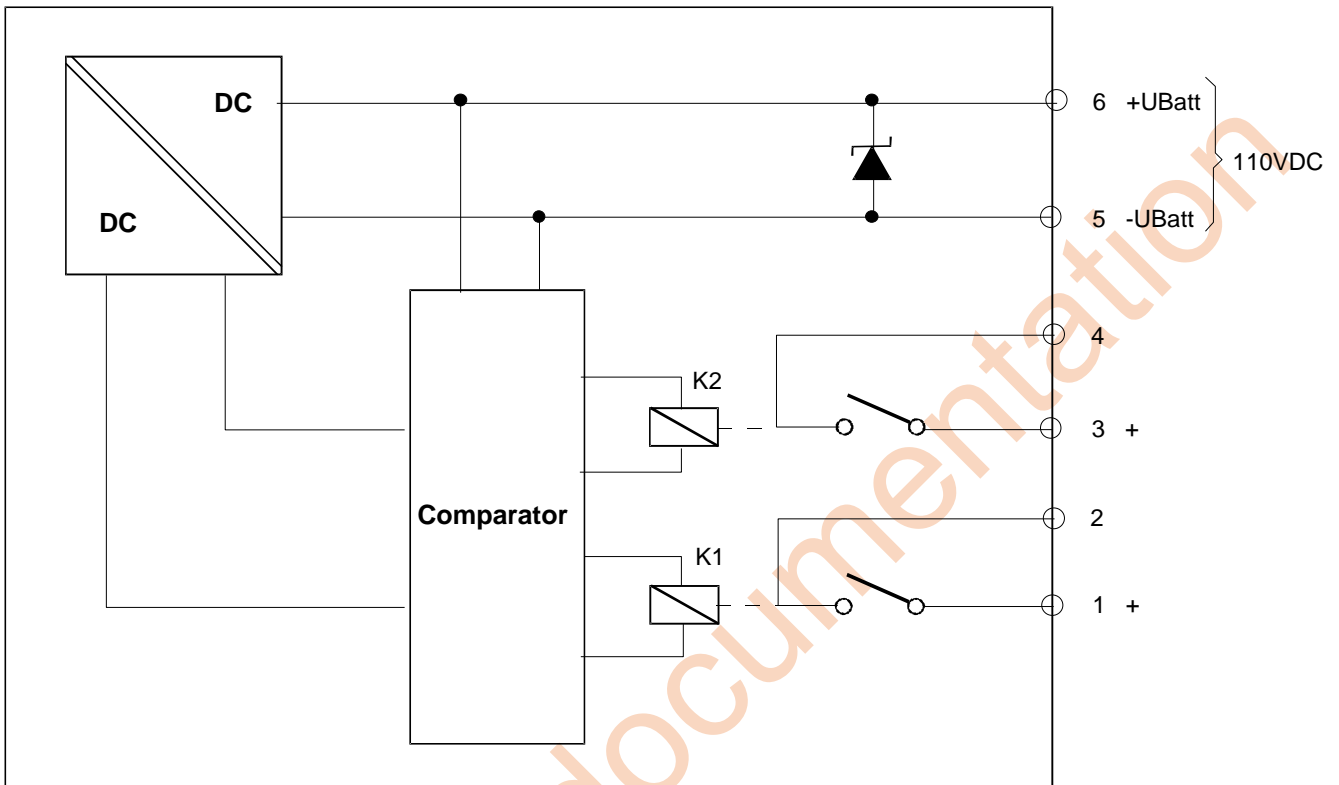
Operating temperature : -40°C to +70°C
Humidity: up to 95% rel. at 30°C

• Waste disposal

As per current local regulations

 B+Z Elektronik AG	Created: 22.12.1999 Modified: 04.11.2003 Index: File: BZ870_e_kd.doc	Geprüft: Geprüft: Seite: 3/5	BZ 870 Voltage Monitoring Relay 110V Ident.-Nr.:3EHP 590122 R0002
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3. Principle diagram




Relay K1 active if $U_{Batt} > 98VDC$
not active if $U_{Batt} < 93VDC$

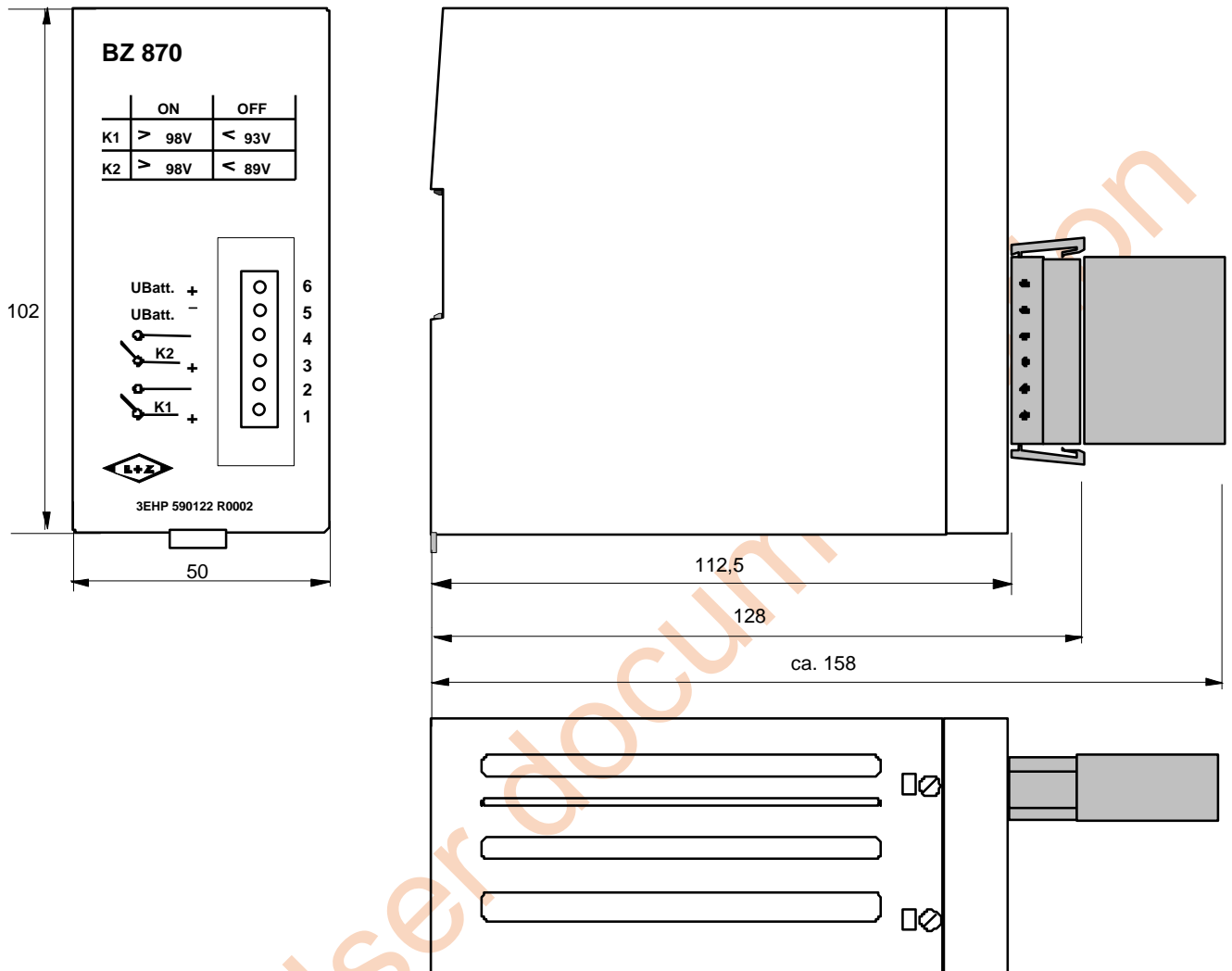
Relay K2 active if $U_{Batt} > 98VDC$
not active if $U_{Batt} < 89VDC$


IMPORTANT NOTICE

Please check for correct polarity of the contacts in order to enable the function of the blow out magnets.

 B+Z Elektronik AG	Created: 22.12.1999 Modified: 04.11.2003 Index:	Geprüft: Geprüft:	BZ 870 Voltage Monitoring Relay 110V Ident.-Nr.:3EHP 590122 R0002
	File: BZ870_e_kd.doc	Seite: 4/5	

4. Measurements



 B+Z B+Z Elektronik AG	Created: 22.12.1999 Modified: 04.11.2003 Index:	Geprüft: Geprüft:	BZ 870 Voltage Monitoring Relay 110V Ident.-Nr.: 3EHP 590122 R0002
	File: BZ870_e_kd.doc	Seite: 5/5	