

# Adjustable Potential Monitor Type 8537

8537

ESN

## Description

The adjustable potential monitoring system HR-8537 is used to monitor voltage differences between 2 points (touch potential monitoring; AC and/or DC). The device functions without auxiliary voltage. When the monitored voltage difference is exceeded, an output contact is initiated for further processing.

The potential monitoring system is available in the standard version without response delay and in the delay version with a response time that takes the amount of voltage difference into account (see other side for characteristic curves).

The position of the delayed response characteristic curve ensures reliable cut-off before the permissible time-touch potential characteristic curve values are reached acc. to VDE 0115, whereby every operational interference voltage that is too short in duration or of insufficient strength does not result in an undesired response.

The main difference between this device and the potential monitoring system HR 8535 is that the potential monitoring system 8537 features an adjustable response value (in three ranges). The output contact of the adjustable potential monitoring system HR-8537 is only maintained as long as the set potential difference is exceeded. If the voltage

difference drops to values below the set response threshold, the output contact is automatically reset.

The corresponding response ranges are selected by attaching external bridges to terminals 4-6 (see technical data).

The adjustment potentiometer is protected against accident setting changes. To make settings, remove the plastic screw in "terminal hole 7". The setting screw of the multiple-helix potentiometer. Turning it clockwise means higher response values (with mechanical overturn prevention).

Once the setting has been made, close the adjustment opening with the plastic screw and secure it to prevent unauthorized settings changes using screw lacquer.

The potential monitoring system HR-8537 monitors both DC and AC differences. The response value for AC voltage (50 Hz AC) is lower than the DC value by a factor of  $1.4142 (\sqrt{2})$ .

The relay is installed in a modern plastic housing. It is suitable for both snap attachment by means of a relay mounting rail and bolted attachment.

The parts of the relay are cast-sealed and thus protected from environmental effects. Dielectric strength on the monitoring side opposed to the output contact is  $>4 \text{ kV}_{\text{eff}}$ .



## Technical Data

<b>Dimensions</b>	W/H/D 60/70/110 mm
<b>Housing</b>	Plastic
<b>Attachment</b>	2 holes acc. to DIN 43604 Standard rails acc. to DIN 46277
<b>Protection type</b>	Housing IP 30 Terminals IP 20
<b>Ambient temperature</b>	-20°C to +70°C
<b>Coil</b>	
<b>Nominal response voltage</b>	adjustable (independent of polarity)
DC	(AC <sub>eff</sub> )
130-160 V	(90-113 V)
Bridge 4-5	100-135 V (70-95 V)
Bridge 4-6	65-105 V (46-74 V)
<b>Auxiliary voltage</b>	None
<b>Resistance</b>	> 100 kOhm
<b>Overload capacity</b>	1000 V (≤ 60 s)
<b>Output</b>	non-delayed → 8537 00 delayed → 8537 01
(reed contact)	1 changeover contact
<b>Switching output</b>	max. 80 VA/60 W
<b>Switching voltage</b>	max. 250 V
<b>Switching current</b>	max. 1 A
<b>Dielectric strength</b>	4,3 kV <sub>eff</sub> coil-contact
<b>Installation location</b>	internal installation

## Ordering Information

Type	Order No.
853700	210300
853701	210301

Other utilization temperatures, nominal voltages, contacts and switching output levels are available on request.

