



## ERE/EBE Temperature controller/temperature limiter

### Features

- Sensor input, intrinsically safe
- Temperature range from 0 to +450 °C
- Sensor fault and short circuit monitoring
- Remote unlocking possible for the limiter
- Low temperature alarm

### Description

The intrinsically safe devices ERE and EBE monitor temperatures between 0 and + 450 °C from heaters and other temperature dependant equipment. The ERE is a two-position controller, the EBE is a limiter with permanent disconnection and of intrinsically safe construction. Because of the intrinsically safe Pt 100 inputs, commercially available Pt 100 sensors can be utilised.

### Function

Using the potentiometer on the front of the housing, the temperature setting can be set between 0 and +450 °C.

Temperatures below -100 °C are identified by the device as an error.

A further potentiometer is used for line balancing when a 2-wire Pt 100 is connected. For sensor temperatures above the target value, the ERE switches the relay off automatically.

If the temperature is then fallen below, the relay will be switched on again. The limiter causes a permanent switching off of the relay. The line can only be reopened by means of an unlocking key.

### Additional products

Pt 100 M, media-protected  
Type 03-9040-000.  
Type 03-8140-00..

### Explosion protection

#### Ex protection type

Ⓔ II 2G [EEx ib] IIC

#### Certifications

ERE: TÜV 00 ATEX 1627

EBE: TÜV 00 ATEX 1624

#### Min. ambient temperature

-20 °C

#### Max. ambient temperature

+50 °C

### Technical data

#### Protection class

IP 20

#### Measuring input

2-/3-wire Pt 100

#### Measuring range Pt 100

0 °C up to +450 °C

#### Switching hysteresis

1.5 K

#### Switch point precision

+/-1 K

#### Low temperature alarm (ERE)

5 K below switch point

#### Weight

360 g

#### Dimensions

Length 110 mm

Width 55 mm

Depth 75 mm

#### Electrical data

#### Nominal voltage

AC 230 V, 50/60 Hz

#### Output

Switch current AC 3 A, cos φ 0.7

Voltage AC 250 V

Switch current DC 0.1 A

Voltage DC 24 V

#### Alarm relay (ERE)

Switch current AC 3 A, cos φ 0.7

#### Contact type

1 change-over contact

#### Terminals

2.5 mm<sup>2</sup>

### Order no.

**Controller ERE**  
**17-8881-4632/2300**

**Limiter EBE**  
**17-8885-4631/1300**

Technical data subject to change without notice.

### System circuit diagram

