

# Temperature Controller

Perfect control when sealing,  
heat-sealing and cutting.



Shaping together.  
Growing together.  
**Being together.**

# Temperature Controller

## The Heart of the Heat-Sealing System

### RESISTRON Technology

The RES temperature controllers have been custom developed for use with heat-sealing tools and are also suitable for other heat-sealing applications such as the control of hot air systems, hot caulking or iron soldering. They are available in two designs: as a **front panel installation device with an integrated display** and as a **rail mounting version** for integration in a control cabinet. They offer different functions and interfaces to the higher-level machine control system.



### CIRUS Technology

ROPEX offers custom developed temperature controllers for precise temperature generation and control of CIRUS heat-sealing tools. The UPT controllers enable heat impulses within a few **hundred milliseconds** with heating rates of up to 6000 K/s.

#### Advantages of a rail mounting devices

- Compact control cabinet integration
- Central control via PLC/machine HMI
- Industrial bus connection (optional)
- Cost-effective solution when no direct operation is required

#### Advantages of front panel devices

- Self-sufficient operating concept: all parameters can be set via the integrated HMI
- Actions can be initiated via the integrated HMI
- Display of parameters and operating states via the integrated HMI
- Simple installation in a front panel

### Advantages

depending on the controller type

- Galvanic isolation
  - Electrical potential-free.
  - Robustness against interference due to clear separation between control and power electronics.
- Several configurable, galvanically isolated output and/or input signals.
- Booster output: A booster can be used to realize a higher current on the primary side of the impulse transformer.
- Fault diagnosis: Display of fault codes enables the cause of a fault to be quickly determined and rectified.
- UL/CSA approval: Devices can be used worldwide.
- Integrated time control: A start signal initiates when the timed and repeatable sequence begins.
- Alarm output: A separate fuse for the heating circuit enables the system to be switched off.
- Recipe manager: Save up to 9 recipes with personalized names.
- Preheating: Improved heat-sealing result after machine downtime.
- Temperature diagnosis: Error message if the temperature is above or below the temperature window.
- Heating time monitoring: Error message if the defined heating time has been exceeded.

# Software

## for Temperature Controller

### ROPEXvisual

- Display of settings and configuration data
- Transferring configuration data to another device
- Display of target and actual temperature in real time
- Storage of data and events for diagnostic purposes
- Compatible with Microsoft Windows 10 and 11



ROPEXvisual: Download software for temperature controller

### ROPEXupdate

- Keep your temperature controllers up to date with the latest firmware
- Carry out updates independently
- Compatible with the temperature controllers of the 5000 and 6000 series



Discover all the features on our website!

Temperature Controller	Interface	HMI	Mounting type	Approval	Temperature adjustment	Temperature coefficient (ppm/K)	Temperature range °C	Booster output	Configurable in/outputs	Recipe manager	Password lock	Time control	Force and temperature measurement
RES-5002 <sup>1</sup>	-	-	Rail mounting	-	0...10 VDC / Potentiometer	1100	300	-	-	-	-	-	-
RES-5007	-	-	Rail mounting	UL	0...10 VDC / Potentiometer	780 / 1100 / 3500 / variable	300 / 500	-	-	-	-	-	-
RES-5027	Analog	-	Rail mounting	UL	0...10 VDC / Potentiometer	780 / 1100 / 3500 / variable	300 / 500	X	X	-	-	-	-
RES-5008	Sep. terminal with control panel: T-408	External 7-segment LED display, T-408	Rail mounting Terminal	-	Terminal	780 / 1100 / 3500 / variable	300 / 500	X	X	-	-	-	-
RES-5006	PROFIBUS-DP	-	Rail mounting	-	BUS	780 / 1100 / 3500 / variable	300 / 500	X	-	-	-	-	-
RES-5009	CAN 2.0A (CANopen-Protocoll)	-	Rail mounting	UL	BUS	780 / 1100 / 3500 / variable	300 / 500	X	-	-	-	-	-
RES-5010	PROFINET (2 x RJ-45)	-	Rail mounting	UL	BUS	780 / 1100 / 3500 / variable	300 / 500	X	-	-	-	-	-
RES-5011	EtherNet/IP (2 x RJ-45)	-	Rail mounting	UL	BUS	780 / 1100 / 3500 / variable	300 / 500	X	-	-	-	-	-
RES-5012	EtherCAT (2 x RJ-45)	-	Rail mounting	UL	BUS	780 / 1100 / 3500 / variable	300 / 500	X	-	-	-	-	-
RES-5200	Analog / digital	TFT	Display	CSA	Display	780 / 1100 / 3500 / variable	300 / 500	X	X	X	X	-	-
RES-5400	Analog / digital	TFT	Display	CSA	Display / 0...10 VDC / Potentiometer	780 / 1100 / 3500 / variable	300 / 500	X	X	X	X	X	-
RES-5450	Analog / digital	TFT	Display	CSA	Display / 0...10 VDC / Potentiometer	780 / 1100 / 3500 / variable	300 / 500	X	X	X	X	X	X
UPT-6006	PROFIBUS-DP	-	Rail mounting	-	BUS	1700 / variable	300 / 500	X	-	-	-	-	-
UPT-6010	PROFINET (2 x RJ-45)	-	Rail mounting	UL	BUS	1700 / variable	300 / 500	X	-	-	-	-	-
UPT-6011	EtherNet/IP (2 x RJ-45)	-	Rail mounting	UL	BUS	1700 / variable	300 / 500	X	-	-	-	-	-
UPT-6012	EtherCAT (2 x RJ-45)	-	Rail mounting	UL	BUS	1700 / variable	300 / 500	X	-	-	-	-	-
UPT-6400	Analog / digital	TFT	Display	CSA	Display / 0...10 VDC / Potentiometer	1700 / variable	300 / 500	X	X	X	X	X	-
UPT-6450	Analog / digital	TFT	Display	CSA	Display / 0...10 VDC / Potentiometer	1700 / variable	300 / 500	X	X	X	X	X	X

<sup>1</sup> Entry-level model for standard impulse sealing applications: Up to max. 120 VAC secondary. No additional components available.

**Dimensions of front panel units:**  
144 x 72 mm front frame; 136 x 66 mm housing;  
Depth (from panel front) incl. attached connection terminals 161 mm

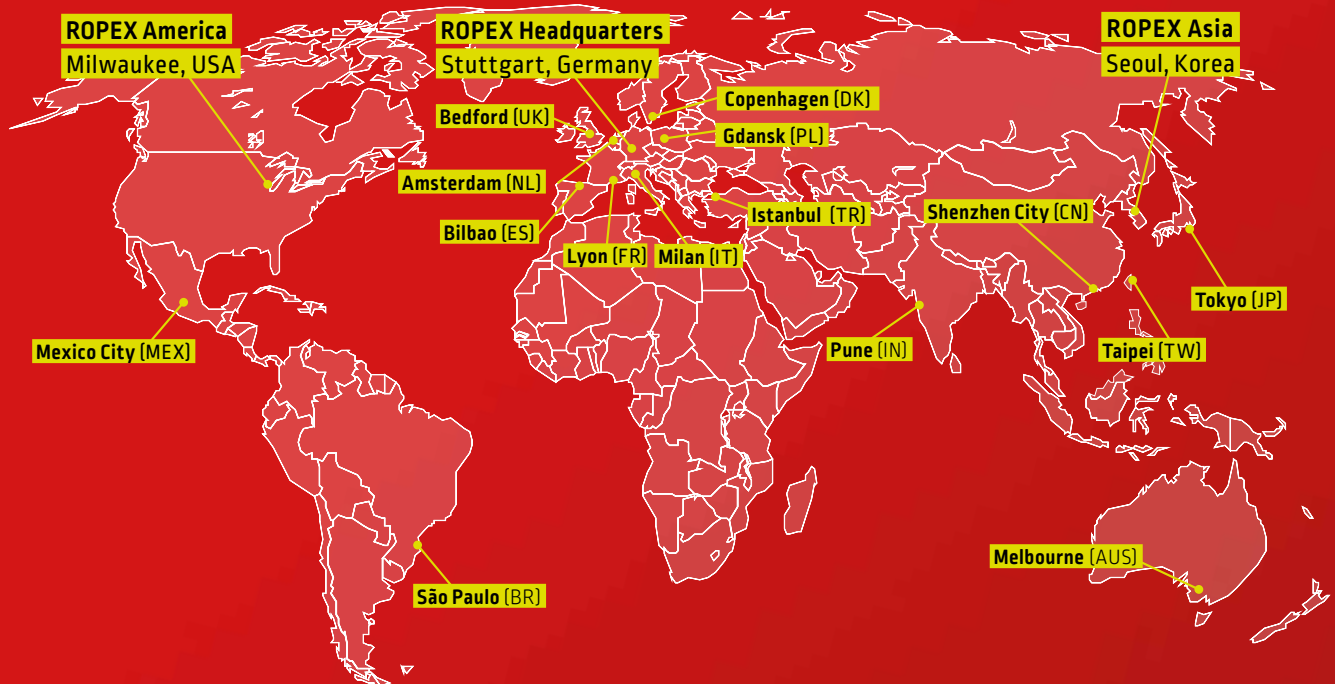
**Measurement rail mounting:**  
90 x 75 mm housing surface; 113 mm housing depth;  
Depth incl. attached connection terminals 135 mm

**Grid connection:**  
Rail mounting devices: 24 VDC supply, heating circuit 110...480 VAC  
Front panel devices: Supply and heating circuit: 110...480 AC

**Weight:**  
Rail mounting devices: ca. 0.5 kg  
Front panel devices: ca. 0.8 kg

# ROPEX worldwide

In addition to international subsidiaries, ROPEX has a global network of sales partners as solution providers.



ROPEX Industrie-Elektronik GmbH  
Carl-Zeiss-Straße 20-22  
D-74321 Bietigheim-Bissingen  
Phone: +49 7142 7776 0

[ropex-group.com](http://ropex-group.com)