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

Rail mounting

Front panel

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.

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 [1]	–	–	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

[1] 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;
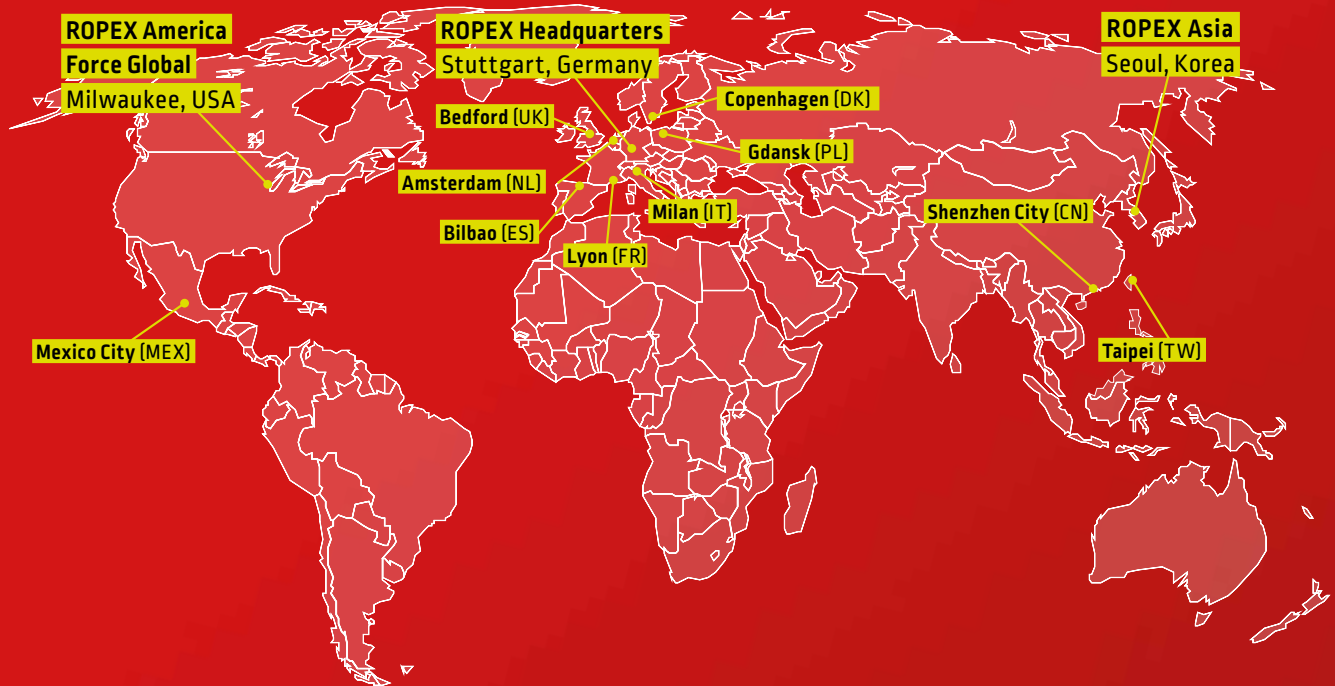Depth (from panel front) incl. attached connection terminals 161 mm

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 America
Force Global
Milwaukee, USA

Mexico City [MEX]

ROPEX Headquarters
Stuttgart, Germany

Bedford [UK]

Amsterdam [NL]

Bilbao [ES]

Lyon [FR]

Milan [IT]

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