

The Optimum Sealing System®



Perfect Seals... Every Time



PIREG-545 Controller Specifications

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The center of TOSS Technology is the PIREG Heatseal Temperature Controller.

This controller is specifically built with the high response and precise control needed for sealing the wide variety of polymeric films used in contemporary packaging.

Extremely precise and fast measuring technology is essential in order to accurately determine and control the temperature of a heatsealing band. In a sealing system with a PIREG temperature controller, this is done without sensors by measuring the band voltage and current. This measurement is repeated fifty or sixty times a second. By taking the voltage and current values, the actual temperature can then be calculated from the heatsealing bands resistance characteristics. The primary voltage of the transformer is adjusted by phase-angle control if the measured values deviate from the set point. The resulting change in the current through the heatsealing band leads to a change in the band resistance and thus also its temperature. This change is measured and evaluated by the PIREG temperature controller, which then increases or reduces the temperature accordingly. Even small thermal loads are immediately detected and can be corrected quickly and precisely. Separate, slow-to-respond temperature sensors (e.g. Thermocouples) are thus a thing of the past.

Precise control assures easy validation because every sealing cycle will be the same, minute to minute, day to day, year to year. High response allows more cycles per minute because the heatseal band can be energized and brought to sealing temperature before the jaw bars close. Precise control eliminates temperature overshoot, extends heatseal band life and aids in the preservation of anti-stick cover strips.

The PIREG-545 described in this document are conveniently panel mounted with temperature range of 0°-500°C and voltage ratings of 115, 230, & 400 VAC. Power ratings are up to 15KVA by use of the optional booster. Be sure to call our TOSS Application Engineers for any assistance you may need in configuring your system.

Features Applications	With Timer Function, Simple Control Functions can be Realized
Display	Multilingual OLED-Display
Control Loop	Primary
Auto Zero Calibration	Keypad or 24VDC Signal
Auto Optimization	Yes
Auto Freq. Adjustment 47 63Hz	Yes
Set Point Selection	Keypad or Isolated Analog Adjustment
Analog Output for Actual Temp.	Yes - Isolated
Temperature Range	200°C/300°C/400°C/500°C Selectable via Keypad
Heatsealing Band Alloy	A20C @ 1235ppm/A20K @ 862ppm L @ 746ppm/Norex® @ 4830ppm Variable from 400 9999
Alarm Indication	Display + I/O
Alarm Output & Fault Diagnosis	Yes
Alarm Output Invertable	Yes
Alarm Reset	Keypad or 24VDC Signal
Preheat Function	Yes - via 24VDC Signal
Relay Output	Yes - Configuration via Keypad
Timer Function	Yes
"Temperature OK" Signal	Yes - Isolated
Compatible With	RES-440 & RES-445
Languages	English, German, French, Italian, Spanish, and Russian
Password Protection	3 Levels
Recipe Storage	Store up to 9 recipes

Extra K Relay | Single-Point Calibration Batch Counter | Communicate via RS232 or USB

PIREG-545 This workhorse controller has temperature control rated up to 500°C. It has programmable control of the heating and cooling timing as well as preheat capability. The sealing cycle can be activated by external switch or by a 24VDC signal. It has analog output of the actual temperature for remote display and two end of cycle programmable relays. Further, this very popular controller has alarms and error diagnosis to identify faults if they occur plus a complete set of terminals for connection to a PLC. This, in effect, enslaves the PIREG-545 to a master PLC so that it can be completely controlled by it. This feature is especially useful on machines that employ a multiplicity of temperature controllers.

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FREE 9 Steps to Heatsealing Perfection Order your free booklet and learn more about why TOSS Technology is unique. Visit our website: www.tossheatseal.com

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TOSS Machine Components, Inc.