

RT310 | Rotary Temperature Transmitter

*TempTrak® All-Digital Technology
For Precise Roll Temperature Control*

The RT310 Series Transmitter is an extremely reliable multi-channel calender roll temperature measurement system. The digital transmitter circuit and digital controller interface circuit are immune to electrical noise and drift. Generous 12 mm clearance between the rotating and stationary parts eliminate rubbing and impacting - a cause of failure in other designs. The stationary electronics are housed in a small DIN-rail mount enclosure to remove them from the harsh roll environment. Models are available to accommodate from one to four RTD signals.

- RT311 Single-Zone
- RT312 Two-Zone
- RT313 Three-Zone
- RT314 Four-Zone



FEATURES

- Accurate** ■ Within $\pm 0.3\%$ across entire sensing range.
- Robust** ■ Fully encapsulated rotating electronics with generous clearance between rotor and stator.
- Flexible** ■ Programmable for different sensors and different outputs.
- Versatile** ■ Easily configured to fit various roll shafts.
- Digital Circuitry** ■ Digital rotor and stationary circuitry immune to noise and drift.
- Multiplexed Channels** ■ One to four-channel systems available.
- Intelligent** ■ Protects heater if sensor, transmitter or cable malfunctions.
- Product Support** ■ Backed by BEI's reputation for the strongest customer support in the industry and a **two-year warranty**.

BINSFELD ENGINEERING INC.

4571 W. MacFarlane Rd. ■ Maple City, MI 49664 ■ USA
Phone: (+1) 231.334.4383 ■ Fax: (+1) 231.334.4903 ■ Toll Free: 800.524.3327 ■ www.binsfeld.com

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RT310 Rotary Temperature Transmitter

The RT310 series utilizes a digital transmitter circuit and digital controller interface circuit. Its inductive power and data transfer scheme is completely noncontact. Components are completely interchangeable and will handshake and adjust power levels as required. Different models are available to accommodate from one to four RTD signals.

TYPICAL SPECIFICATIONS

Number of Sensors:	Models available for 1-4 sensors
Sensor Input:	PT100 RTD (100 Ω at 0°C, $\alpha = .00385$, two wire) standard (other configurations available including nonstandard RTDs)
Sensor Range:	0° to 300°C standard (other configurations available)
Sensor Connection: (Transmitter)	M3-0.5 screw terminals with socket-head cap screws (designed for #4 ring terminals on customer sensor leads)
Output Connection: (Controller Interface)	Quick connect screw terminal block
Output Signal:	Discrete 4-20 mA current source (each channel)
Accuracy:	$\pm 0.3\%$ span over operating range
Ambient Temperature:	
Rotating Unit:	0°C – 100°C
Stationary Housing:	0°C – 100°C
Controller Interface:	0°C – 85°C
Humidity:	0-90% RH, non-condensing
Power Input:	22-35 VDC or 17-27 VAC; 2A max, 0.5A nominal
Rotor Speed:	5,000 RPM maximum

Specifications subject to change without notice.



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