

RT406-1C Rotary Temperature Transmitter (852-401)

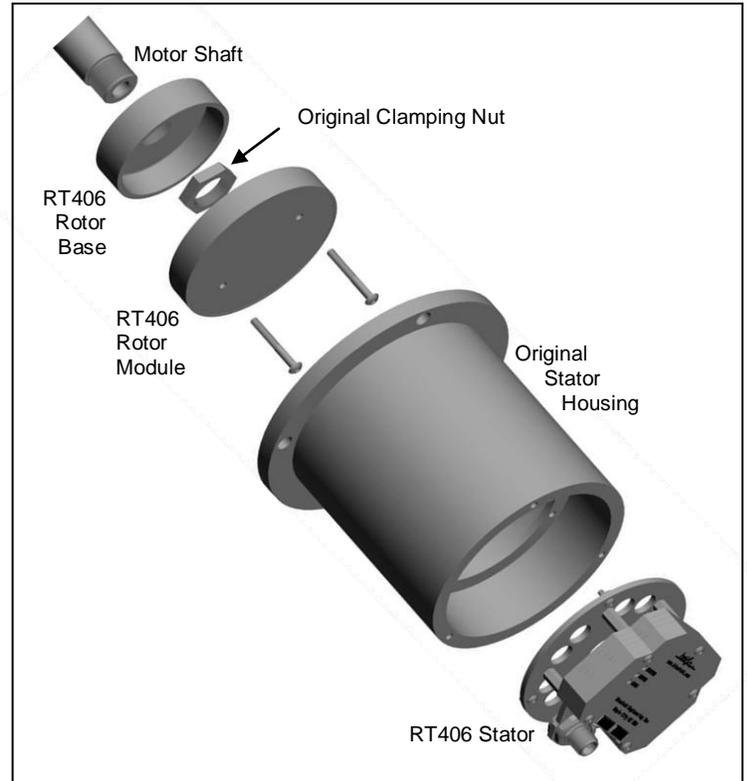
The RT406-1C is a multi-channel temperature measurement system designed to monitor temperature on heated godet roll shells. The system features CAN bus digital communication and is a drop-in replacement for the 6-channel Neumag Multichannel Godet Controller used on Neumag S5 machines.



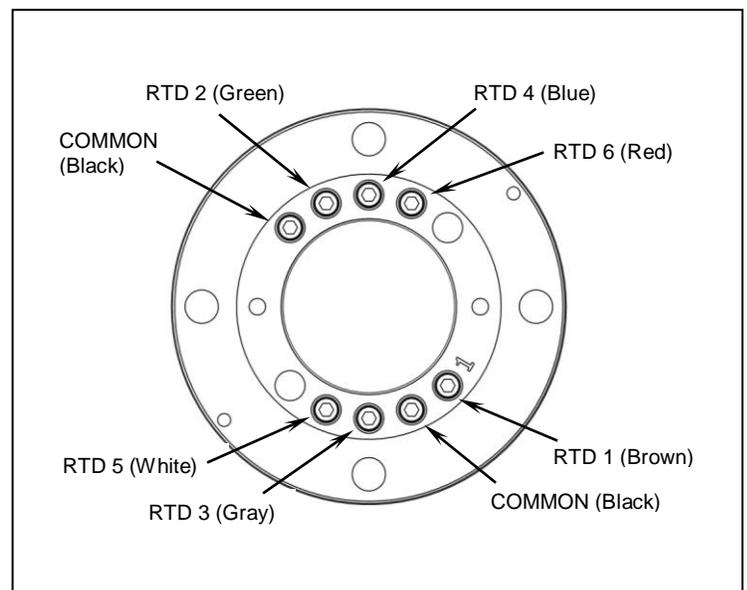
Installation

(Refer to diagram)

1. Disconnect cable and remove existing transmitter system from motor, including stator, rotor and rotor base.
2. Remove cover, circuit board assembly, and connectors from original Stator Housing.
3. Install Binsfeld RT406 Stator Module in housing and secure with three screws.
4. Remove RT406 Rotor Module from metal Rotor Base by removing 2 screws.
5. Screw RT406 Rotor Base on motor shaft and secure with original clamping nut.
6. Insert RTD leads in terminals on Rotor Module per diagram below and secure firmly with setscrews.
7. Reinstall Rotor Module on Rotor Base (2 screws) with RTD lead wires contained in base. (Binsfeld recommends using removable Loctite 222MS or equivalent to secure Rotor screws.)
8. Mount Stator Housing to motor. (Do not reinstall Stator Housing cover.)
9. Connect CAN bus interface cable to Stator Module.
10. Strain relief cable with tie wraps.
11. Discard original cover, stator circuit board, rotor module and base.



Installation Diagram



Rotor-RTD Wiring Diagram (Note color code)

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Troubleshooting

Three green lights are used to indicate the operational status of the RT406 system. If all lights are on solid, the system is operating properly. If there are any lights flashing or off, there is a problem or error in operation.

Stator Light

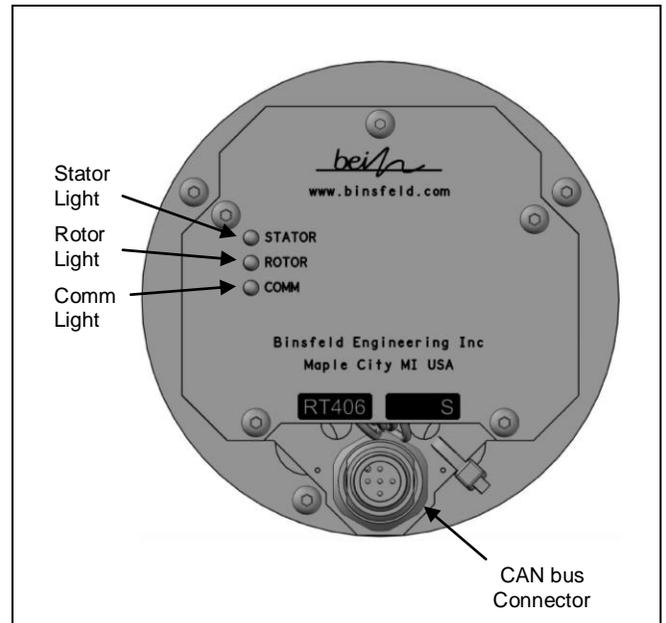
On solid: The Stator is functioning properly.
Flash: Power supply error, power supply out of range.
Off: No or very low power or fatal stator circuit error.

Rotor Light

On solid: Data is being received from the Rotor and all RTDs are in range.
Flash: Rotor power out of range, one or more of the RTDs measured out of range, or there is intermittent rotor-stator communication.
Off: No data from the Rotor.

Comm Light

On solid: Messages are being properly sent and received on CAN bus.
Flash/flicker: Intermittent errors on CAN bus.
Off: No communication on CAN bus.



Status Indicators

Fault Condition Display Codes

When a fault condition exists the following "temperature" will be displayed:

Fault Condition	Display Value
RTD sensor out of range low (including short)	0
RTD sensor out of range high (including open)	310

Specifications

Rotor:	Number of sensors:	6
	Sensor connection:	M3 set screw terminals with 2.38mm hole for ferrule access
	Input sensor type:	PT1000 RTD (1000 ohm at 0°C, alpha = .00385)
	Sensor range:	0 – 300°C
	Speed:	10,000 RPM
Stator:	I/O Connector:	CAN bus: 5-pin (CONEC PN: 43-01013)
	I/O signals:	CAN bus: 500k baud for communication with heater power controller
	Power Input:	17 – 30 VDC, 500mA (max)
General:	Accuracy (max error)	±0.5°C (max over ambient operating temperature range for 0-300°C RTD range)
	Operating Temperature	0 – 85°C

This document is subject to change without prior notification.

Warranty

Binsfeld Engineering Inc. warrants that its RT406 Series Transmitters will be free from defective materials and workmanship for a period of two years from the date of delivery to the original purchaser and that its products will conform to specifications and standards published by Binsfeld Engineering Inc. Upon evaluation by Binsfeld Engineering Inc., any product found to be defective will be replaced or repaired at the sole discretion of Binsfeld Engineering Inc. Our warranty is limited to the foregoing. Binsfeld Engineering Inc. disclaims any warranty of merchantability or fitness for intended purpose.