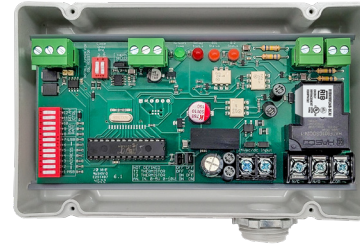
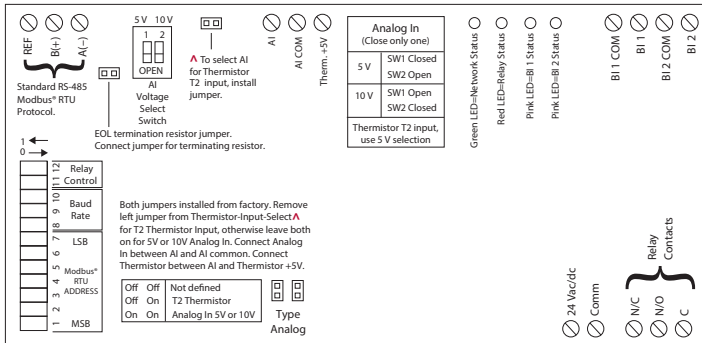


INTELLIGENT FIELD DEVICE

RIBTW24B-MBAI

MODbus RTU Network Relay Device, One Binary Output + Override, Two Binary Inputs, One Analog Input, 24 Vac/dc Power Input, NEMA 1 Housing



SPECIFICATIONS

- # Relays & Contact Type:** One (1) SPDT Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 18ms
- Network Communication:** Green LED
- Relay Status:** Red LED On = Activated
- Current Sensor Status:** Pink LED On = Activated
- Binary Input Status:** Pink LED On = Activated
- Dimensions:** 4.28"H x 7.00"W x 2.00"D with 0.75" NPT nipple
- Housing Detail:** See **Housing D** in housing guide for dimensions
- Origin:** Made of US and non-US parts
- Track Mount:** MT212-6 Mounting Track Provided
- Approvals:** CE, UL Listed, UL916, C-UL, RoHS
- Housing Rating:** UL Listed, NEMA 1, C-UL, CE Approved, UL Accepted for Use in Plenum, Also available NEMA 4 / 4X
- Gold Flash:** No
- Relay Override Switch:** DIP Switch Control
- Network Media:** Twisted Pair 22-24AWG, shielded recommended, EIA/TIA-485 (standard RS485)
- Terminations:** Functional Devices product installed at both ends of the standard RS485 Modbus® RTU network
 - Use 120 Ω end of line resistors. All other cases - Follow instructions from the device installed at the end of the Modbus® network.
- Polarity:** Network is polarity sensitive
- Baud Rate:** 9600, 19200, 38400, 57600 (DIP Switch Selectable)

- Contact Ratings:**
 - 20 Amp Resistive @ 277 Vac
 - 20 Amp Ballast @ 277 Vac
 - 16 Amp Electronic Ballast @ 277 Vac (N/O)
 - 10 Amp Tungsten @ 120 Vac (N/O)
 - 1110 VA Pilot Duty @ 277 Vac
 - 770 VA Pilot Duty @ 120 Vac
 - 2 HP @ 277 Vac
 - 1 HP @ 120 Vac
- Power Input Ratings:**
 - 81 mA @ 24 Vdc
 - 111 mA @ 24 Vac

- Notes:**
 - Modbus® Address & Baud Rate must be set prior to power up via DIP switches.
 - Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTW24B-MBAI-N4)
 - Order with grey lid by adding "-GY" to end of model number. (RIBTW24B-MBAI-GY)
 - Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTW24B-MBAI-N4-GY)
 - This model utilizes:
 - Physical coil 1 (Relay output)
 - Physical binary input 1 (Dry contact binary input)
 - Physical binary input 2 (Dry contact binary input)
 - Physical input register AI 1 (Analog input)
 - Thermistor Type 2 (T2) Precon 10 K @ 77°F (25°C) PN ST-R24, Model 24, (or equivalent.) Thermistor not included. (Range -39 to 187°F)
 - For all versions, raw analog default settings are 0 and 1023 (real), respectively.
 - **When connecting 24 Vac to both the RIB(s) and a half-wave device, damage to device can occur.**
 - Option 1: Use separate transformers for each device.**
 - Option 2: Add diode between devices, see Option 2 note below.^^**
 - Address and Baud Rate Settings on Bulletin B1676 available on website.

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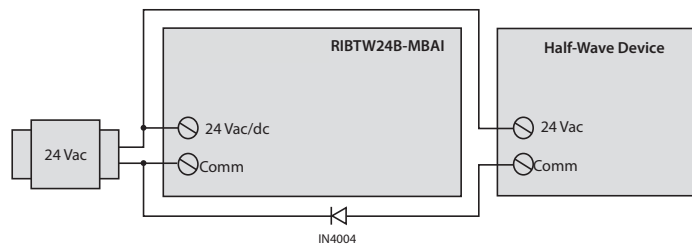
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600

All other combinations=9600 baud

DIP SWITCHES*		RELAY STATE**
11	12	
1	0	Auto
X	1	Override on
0	0	Override off

* 0 = Open ; 1 = Closed

** Device must be powered for override



^^ Option 2: Add diode on 24 Vac power (Comm) interconnection between devices. Band on diode faces towards RIB(s).

• Dry contact binary input is a general purpose input that is not tied to the relay internally. Can be used with any dry contact switching device, such as a current sensor, to feed back to the network.