

RT501I-IOL-D: IO-Link Interface (802-500)

The RT501I-IOL-D is an IO-Link interface for Binsfeld rotors and stators that have a digital data output, such as the Binsfeld RT41x and RT42x series. This interface allows Binsfeld rotary transmitters to be integrated into any common industrial bus through an IO-Link Master. (The IO-Link Master is an off-the-shelf item.) The RT501I-IOL-D will connect one rotor/stator system to one IO-Link master. The IO-Link Masters are capable of either 4 or 8 IO-Link interfaces and connect to standard industrial busses. Power for the RT501I-IOL-D and the connected rotor/stator is supplied by the Master through the IO-Link connection.



Installation

Top Connector: Stator connections

Connections numbered back to front

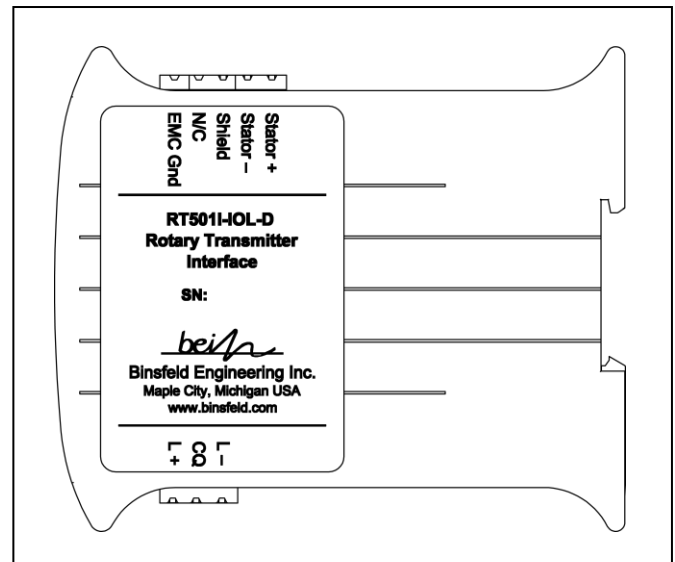
- 1 Stator + Positive power output to the stator
- 2 Stator - Negative power output to the stator
- 3 Shield Stator cable shield connection.
- 4 N/C No Connection
- 5 EMC Gnd Electro-Magnetic Compliance. Connect to frame/earth ground to reduce EMI generated

Interface to Stator cable: 20 – 24 AWG, 2-conductor shielded cable, with conductors tinned.

Note: See System Wiring diagram for wiring details.

Bottom Connector: IO-Link connections

- 1 L + Power supply voltage positive
- 2 CQ Data
- 3 L - Power supply voltage negative



IO-Link Interface Connections

Specifications

Enclosure: DIN rail mount

(23 mm wide x 102 mm high x 120 mm deep (0.90" x 4.00" x 4.70"))

Note: Leave adequate room on top and bottom of enclosure for venting/cooling: 13mm (0.5") minimum

Operating Temperature Range: 0 - 70°C, non-condensing

Power Supply Input: 18 – 30 VDC 4 W max, 2 W nom

Note: Power is supplied through the IO-Link by the Master

Electrical Connections: Pluggable screw terminal blocks

Temperature Output Signal: IO-Link data interface at 230.4Kbaud

Output Signal Accuracy: Same as the rotor-stator

This document is subject to change without prior notification.

Warranty

Binsfeld Engineering Inc. warrants this product to 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. Binsfeld's warranty is limited to the foregoing. Binsfeld Engineering Inc. disclaims any warranty of merchantability or fitness for intended purpose.

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Troubleshooting

Power

Condition

On: Power supply input voltage is within range.
Flash: A problem has been detected with the power
Off: No or insufficient power.

Corrective Action

No action required
Check the power supply and IO-Link wiring and connections.
Make sure the IO-Link Master's power supply input meets its specifications. Check the power supply and IO-Link wiring and connections.

Comm Link

Condition

On: Communication with the IO-Link Master is operating properly.
Flash: Intermittent communication problems with the IO-Link Master.
Off: No communication with the IO-Link Master.

Corrective Action

No action required
Check the IO-Link Master for proper operation.
Check the IO-Link wiring and connections.

Stator & Rotor Condition

On: Stator and rotor are operating properly.
Flash: A fault with the stator and/or rotor has been detected.
Off: No data from stator and rotor are detected.

Corrective Action

No action required
Check the stator/rotor spacing and connections.
Check the stator/rotor mounting and spacing.
Check the wiring and connections between the interface and the stator.

RTD

Condition

On: The RTDs are measuring within range.
Flash: The RTDs are measuring out of range,
Off: No data from stator and rotor is present.

Corrective Action

No action required
Check the RTD probe and all RTD connections to the rotor
Check the stator/rotor mounting and spacing.
Check the wiring and connections between the RTDs and the rotor.