

TRACKLINK® III – Track to Train Communication

READER DESCRIPTION

The Tracklink® III Reader is an RFID interrogation device used in the UHF radio frequency band. It is a robust unit designed to be used in the harsh electrical and mechanical conditions of rail rolling stock. It is designed to be mounted on the underside of the vehicle.

The Tracklink® III Reader is capable of reading the Tracklink® III tags at distances of up to 800 mm and read them at passing speeds of 70 mph or more.

The Tracklink® III Reader is normally mounted on the underside of the vehicle with the antenna facing the track to read the track mounted beacons. A version of the Tracklink® III reader is capable of connecting to two antennas and can identify which antenna has detected Tracklink® III tags/beacons. The two antenna version is typically used when the tags are mounted on platform inverters. The reader is capable of reading data from both antennas at the same time.

The Tracklink® III Reader has a microprocessor controller which monitors for correct operation and reports its status over the RS485 communication port. The reader also has discreet inputs and outputs to enable it to interface directly with localised train control circuits.

Typical utilisation is for train and vehicle location schemes, train Door selective opening systems. This system can be used to transmit the same information as the Tracklink® II system which is used for Selective Door Operation Systems providing information such as:

- **Unique Location Identification (ULI)**
- **Length of Platform**
- **Correct Side Door Enable (CSDE)**
- **Traction current limiting**
- **Location spares for additional applications**
- **Additional capacity for future applications**

FEATURES

- **Rugged construction suitable for harsh rolling stock environments**
- **IP 66 sealed**
- **UHF License free band**
- **Frequency Hopping for interference free operation**
- **Compliant with UK and European Railway Standards**
- **Compliant with RIS-2795-RST**



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Tracklink® III Reader Technical Specifications

Power supply:	110 V DC or 24 V DC
Power Consumption:	Maximum 20 Watts at 110 V DC
Communication:	RS485
Outputs :	1 x Volt free relay outputs outputs rated 150mA at 110 V DC (Resistive) 2 x Volt free safety relay outputs outputs rated 900mA at 110 V DC (Resistive). Outputs are combined to give 1 off SIL2 output.
Inputs :	2 x 110 V DC or 2 x 24 V DC Inputs
Optional Inputs:	2 off pulse inputs, 0 – 2kHz, 0 – 15V DC
Ingress protection:	IP66
Frequency:	865.7 to 867.9MHz or 918 to 926MHz, Frequency Hopping
Operating temperature:	-25°C to 55°C
Typical operating range:	Reader mounted between 300mm and 400mm above rail height
Dimensions:	Reader - 300 x 205 x 136mm (inclusive of bracket, not including connectors) Optional separate antenna - 300 x 211 x 25mm
Weight:	Reader - 3.4 Kg, Reader bracket - 1.6 Kg
Material:	Reader - Die-cast aluminium enclosure with polycarbonate lid.
Colour:	RAL 9017 Traffic Black
Standards:	Compliant with RIS-2795-RST
Security:	16 bit Cyclic Redundancy Check (Track to Train communications)
Type Test Certifications:	BS EN 50155 - Supply variations and interruptions BRB/RIA No.12 - supply related surges, direct transients (110VDC version only) BS EN 50121-3-2 - Fast Transient Burst Susceptibility BS EN 50121-3-2 - Conducted Emissions BS EN 50121-3-2 - Radiated Electrical Field Emissions BS EN 50121-3-2 - Radiated Immunity BS EN 50121-3-2 - Conducted Immunity BS EN 50121-3-2 - Electrostatic Discharge BS EN 50155 - Insulation Measurement & Voltage Withstand BRB/RIA No.13 - Earth Continuity Test BS EN 60068-2-1 - Cold test & Low temp BS EN 60068-2-2 - Dry heat test BS EN 60068-2-30 - Cyclic damp heat test BS EN 60068-2-14 - Temperature Shock BS EN 50155 - Salt Mist test BS EN 61373 Category 1 Class B - random vibration, shock and simulated long life testing

This data sheet is provided for general information only.

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