

TRACKLINK® III – Track to Train Communication

BEACONS DESCRIPTION

The Tracklink® III Beacons are beam powered RFID device used in the UHF radio frequency band. They are specially constructed from extruded GRP and stainless steel, and are factory sealed. They have been designed to be easily mounted on rail sleepers and are available for mounting on various standard rail fixings.

The Tracklink® III Beacons are robust and have been extensively tested on the UK rail network and have been approved by Network Rail.

The Tracklink® III Beacons can be factory programmed, as required by the customer, or they can be user programmed in the field using the Tracklink® III programmer.

The programmer gives the user the flexibility to hold a limited amount of spares to cover the Beacon installed base.

The Tracklink® III Beacons are beam powered, which means that the RF field generated by the Tracklink® III reader mounted on the underside of the train, energises the Tracklink® III Beacon circuit so that no internal battery is required.

The Tracklink® III Beacon transmits and reflects an encoded signal back to the Reader which decodes the signal for application specific functions.

Typical utilisation is for train Automatic Selective Door Opening (ASDO), Correct Side Door Enabling (CSDE) and other applications such as in/out regeneration area, PIS trigger, pantograph up/down, traction limiting, speed limiting and any other geographical application triggers.

For ASDO applications a standard format for the information data contained on the Beacon has been adopted which consists of:

- Station Identifier (uses the standard Network Rail three letter CRS code)
- Platform number
- Platform length (1m resolution)
- Correct Side Door Enable (CSDE)
- Approach direction
- SDO on/off
- Application Code

FEATURES

- Rugged construction suitable for harsh environments
- Factory or field programmable
- IP 67 sealed
- 16 Bit Cyclic Redundancy check
- No battery
- Easy mounting on to the infrastructure, typically 5 minutes dependant on type



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Tracklink® III Beacons Technical Specifications

Four different types for mounting in the track:



Tracklink® III Beacon
E-Clip Fixing
HSD2300/070
PADS 086/011790



Tracklink® III Beacon
Fastclip Fixing
HSD2300/071
PADS 086/011791



Tracklink® III Beacon
Screw & bolt Fixing
HSD2300/090
PADS 086/011794



Tracklink® III Beacon
Vossloh Fixing
HSD2300/092
PADS 086/011796

Power supply:	None. Beam powered
Ingress protection:	IP67
Polarization:	Parallel with the length
Weights:	Between 2.6 Kg and 4.4 Kg dependant on type
Material:	Extruded GRP and stainless steel
Colour:	RAL 1007 Daffodil Yellow
Standards:	Compliant with RIS-2795-RST
Security:	16 bit Cyclic Redundancy Check
Track Gauge:	Standard / 4 ft 8½ inch / 1,435 mm
Sleeper Compatibility:	
HSD2300/070	F24BS-4R, F23A, F24, F27, F27A, F27B, F40, F34S EF28, EF29, 5EF28, 5EF29 and F35S.
HSD2300/071	EG47 (Std, 3R and 4R), EG53 and G44.
HSD2300/090	Flat Top Concrete Bearers/Sleepers, Slab Track, Steel sleepers, Wooden Bearers/Sleepers, G54, GV54 GV001, (Including check rail areas)
HSD2300/092	Sonnerville blocks.
Type Test Certifications:	BS EN 60068-2-1:200 -cold test, BS EN 60068-2-2:2007 - dry heat test, BS EN 50125-3, (on rail levels) - random vibration up to 325 m/s², shock up to 1200 m/s² BS EN 50121-3-2:2006 - Electrostatic Discharge
Network Rail Product Acceptance Certificate:	PA05/02124

This data sheet is provided for general information only.

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