

Certificate of Acceptance

OFFICIAL
PA05/07874

Manufacturer:
Dual Inventive

Issue : 2
Valid From : 04/11/2024

RSS 3000 - Remote Safety Switch

Product Description

The Remote Safety Switch - RSS 3000 is used for remote controlled activating lockout relays during planned engineering operations. It will be remotely controlled by the MTinfo 3000 mobile application, and the engineering operations can be planned in the MTinfo 3000 platform.

Product Image



Scope of Acceptance

Full Acceptance

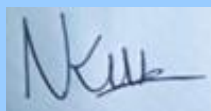
The Remote Safety Switch (RSS 3000) is designed to secure railway signalling equipment in a safe state allowing additional protection to staff working on the railway meeting Safety Integrity Level 4 standards. The RSS 3000 is typically installed in Signalling Equipment Rooms or line-side equipment cases. The operating environment provided by these housings must be compatible with the requirements of the RSS 3000 unit. The RSS 3000 is designed to receive commands from MTinfo 3000 app wirelessly via DI-Net. Available communications signal strength should be verified prior to installation.

The RSS 3000 has been approved for use by the Track Warning Systems – SRP, refer to Minutes 10/09/24.

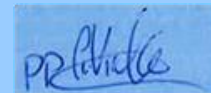
Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:



Neil Kilby
Product Acceptance Coordinator



Jerry Morling BEng, MSc, MIET, MITSE
Network Technical Head Signalling

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Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) See General Terms and Conditions.

User

- 1) All staff must be fully briefed of the use of the RSS 3000 prior to entering the worksite.
- 2) The installation SHALL be in accordance with the Signalling Installation Handbook and the latest version of the manufacturer's RSS 3000 User Manual.
- 3) Equipment Operator(s) and planners SHALL ensure that equipment is maintained in accordance with equipment manufacturer's recommendations detailed in the RSS 3000 User Manual. Excluding pre-use maintenance activities, all other maintenance SHALL ONLY be conducted by the OEM or their approved agencies.
If at any point a product is found to be defective it SHALL be removed from the infrastructure, labelled 'DO NOT USE' (with a fault description if possible) and returned to the provider.
- 4) Equipment Operator(s) SHALL ensure that all staff required to use the equipment are suitably trained and authorised.
- 5) Local telecommunications coverage SHALL be established prior to the deployment of an RSS 3000 unit to determine if it can be suitably managed during operation.
- 6) In the event of product/communications failure it is possible to operate the unit manually via a key operated switch. Such keys SHALL ONLY be retained by the persons responsible (as defined within the work plan) to operate the product (i.e. the delegated RSS 3000 user or suitably briefed equivalent).
- 7) All pre-use inspections SHALL be completed before each operation either using the Dual Inventive Application or on-site inspection.
- 8) When using an RSS 3000 or Dual Inventive Application all maintenance and control procedures SHALL be adhered to.
- 9) All deployment and operations of the RSS 3000 SHALL be managed via the MTinfo process (as defined within the training programme). Access and use of this software process SHALL ONLY be done by person(s) competent in the activity and with suitable knowledge of worksite/activity planning procedures.
- 10) The MTinfo 3000 App SHALL ONLY be downloaded from an approved store (iOS App Store, Google Play or Windows store).
- 11) The MTinfo 3000 App SHALL **NOT** be used on a device that has been jailbroken or rooted.
- 12) Certified users of MTinfo3000 are responsible for keeping their username, password and/or PIN code strictly confidential.
- 13) Every user of the RSS 3000 must have the correct training, certification and authorisation as per the latest version of the RSS 3000 user manual to work with the RSS 3000.
- 14) The RSS 3000 shall be used in accordance with any conditions highlighted in the manufacturers documentation and SRACs within the product Safety Case and the ISA report.
- 15) RSS 3000 is to be recorded in Ellipse prior to installation.

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Product Configuration

System or Complete Assembly

Part No.	Description	Catalogue No.
10.30.0044.00	RSS 3000 package	0086/045157
N/A	MTInfo 3000 Smartphone Application for use on iOS, Android or Windows smart devices	iOS App Store, Google Play or Windows store
N/A	MTInfo 3000 (version 5.xx) web interface	Access only via: https://mtinfo3000.com

Hardware (Maintenance Spares and Line Replaceable Units)

Part No.	Description	Catalogue No.
40.30.0010.00	RSS 3000 Antenna	0086/045158
40.30.0010.01	RSS 3000 Antenna extension 2 meters	0086/045159
40.30.0010.02	RSS 3000 Antenna extension 5 meters	0086/045160
40.30.0010.03	RSS 3000 Emergency plug	0086/045161

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
BE013262	ISO/IEC 27001:2013	1	11/01/2023	T1
BE013027	ISO 14001:2015	3	22/03/2022	T1
BE013028	ISO 9001:2015	3	22/03/2022	T1
-	Summary EN 50159	-	16/06/2020	T1
-	MTI_GEN_016	50	11/04/2023	T1
-	71038 - RSS 3000 - Version statement	1	01/05/2023	T1
KEM_C1099_250_VA C_SMD	Surface Mount Multilayer Ceramic Chip Capacitors (SMD MLCCs) 250 VAC AC Rated Capacitors, CAN series	-	22/08/2023	T1
-	ALUMINUM ELECTROLYTIC CAPACITORS	-	-	T1
-	Data Sheet Item number: 721-110/026-000	-	10/08/2023	T1
-	Data Sheet Item number: 209-130	-	09/10/2023	T1
C22.002-P22.004	Test Certificate C22.002-P22.004	-	21/06/2022	T1
M22.004-P22.004	Climate tests on an RSS3000	-	21/06/2022	T1
-	Design test overview RSS 3000	-	-	T1
-	20220804 Full Functional Test RSS 3000	-	04/08/2022	T1
-	20230828 RSS 3000 Drop Test	6	31/08/2023	T1
C22.001-P22.003	Test Certificate C22.001-P22.003	-	09/06/2022	T1
20220345RPT02	Partial Test Report - Electromagnetic compatibility	-	06/10/2022	T1
P000197871 001	Test Report for EN 50121-4:2016	3	03/11/2022	T1
M22.003-P22.003	Random vibration and shock tests on an RSS3000	-	09/06/2022	T1
-	Summary of Switch endurance test RSS 3000	1	18/09/2023	T1

Certificate of Acceptance

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Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
8.2.1, 8.2.2	71038 - RSS 3000 - Good practices guidelines for DfR	1	15/08/2023	T1
-	OP04 Support	32	16/01/2023	T1
1	71038 - RSS 3000 - System Definition-v19	19	21/07/2022	T1
2	71038 - RSS 3000 - GAP Analysis-131023-083902	65	13/10/2023	T1
3	RSS_3000_RelaySpecification	1.0	-	T1
4	Acronyms and Abbreviations list ISA assessment report 220190.003	-	-	T1
5	71038 - RSS 3000 - SRS-v125	125	04/04/2023	T1
6	71038 - RSS 3000 - CyberSecurity - DfR	1.00	15/08/2023	T1
7	71038 - RSS 3000 - Hazard log-v11	11	18/04/2023	T1
8	20200602_Summary_EN 50159	-	16/06/2020	T1
9	20200901 General terms and conditions Dual Inventive		01/09/2020	T1
10.30.0031.00	A187 RSS 3000_3.00	3.00	-	T1
DR/22/220190/003	220190.003 ISA assessment report RSS3000 v1.0	1.0	16/12/2023	T1
8.10.4	71038 - RSS 3000 - MTBF - DfR	1.00	26/04/2023	T1
8.2.1, 8.2.2	71038 - RSS 3000 - Good practices guidelines for DfR	1	15/08/2023	T1
8.2.4	71038 - RSS 3000 - Operating process flowchart-v12	12	17/05/2022	T1
8.3.2	71038 - RSS 3000 - Robustness study-v4	4	26/07/2022	T1
8.3.3	71038 - RSS 3000 - Design FMEA - DfR	1.00	25/04/2023	T1
8.4.2	71038 - RSS 3000 - Installation process FMEA - DfR	1.00	25/04/2023	T1
8.5.2	71038 - RSS 3000 - Manufacturing FMEA - DfR	1.00	25/04/2023	T1
-	Copy of RSS planning v4.0 GCR & SS review 110423	-	-	T1
-	Integration Test RSS 3000 Network Rail-v3	3	26/07/2022	T1
-	MTI_GEN_016-v50	50	11/04/2023	T1
Carbon Footprint Dual Inventive RSS3000 V2	Carbon Footprint Overview for Dual Inventive RSS 3000	-	20/08/2024	2
20	Ergonomics Review For Dual Inventive RSS 3000	-	06/09/2024	2
14	RSS 3000 Critical Review Report	1.1	23/09/2024	2
12	Railway Integration Pilot for Dual Inventive RSS 3000	-	05/01/2024	2
15	Datalogger - Ferrybridge	-	-	2
16	Datalogger – 9231 Stourton	-	-	2
17	RSS3000 trial Appendix B	-	-	2
18	User Feedback – RSS Install Report May 24	-	-	2
19	User Feedback – Installation of RSS unit	-	-	2
220190.003 ISA assessment report	DEKRA Rail ISA assessment rapport	2.0	02/10/2024	2
SRP minutes	SRP – Track Warning System	-	10/09/2024	2
21 20240815	Switch Temperature test RSS 3000	4	02/10/2024	2

Certificate of Acceptance

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Issue : 2
Valid From : 04/11/2024

Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
-	71038 - RSS 3000 - Maintainability analysis	1	18/08/2022	T1
-	OP03 Service & Maintenance	39	25/04/2023	T1
RSS labelling	Information document RSS labelling	-	05/09/2023	T1
-	User manual RSS 3000	0.3	01/08/2023	T1
RSS 3000_User Manual_V1.0.0_EN-1	User Manual RSS 3000	1.0.0	29/10/2024	2

Certificate History

Issue	Date	Issue History
T1	30/11/2023	First accepted for trial use
2	04/11/2024	First full acceptance certificate issued

Contact Details

Manufacturer

Lex van der Poel
Lex.vanderpoel@dualinventive.com

Applicants

Steven Spencer
Steven.Spencer@networkrail.co.uk

Lead Reviewing Engineer

Michelle Anderton
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General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the relevant Network Technical Head or nominated delegate. Any alterations made by a other persons will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) If this is a Trial Certificate which includes a Trial Monitoring Period or Trial Expiry date, evidence should be submitted to meet the included trial criteria before the date has passed for the Lead Reviewing Engineer to assess if the product can be given Full Acceptance. If this cannot be achieved, the Product Acceptance team should be contacted via prodacc@networkrail.co.uk to seek guidance. If this is a Full Certificate and includes a review date, the Product Acceptance team should be contacted via prodacc@networkrail.co.uk to seek guidance.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Network Rail Design for Reliability Standard (DFR) NR-L2-RSE-0005 and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance in writing (email prodacc@networkrail.co.uk):
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance or National Supply Chain (NSC) at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement, where the specification and/or Product Acceptance Certificates specify quality assurance classifications for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.
- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsoring applicant shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations

2) As required in Railway Group Standard RIS-8270-RST, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.

4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail and Road) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.

2) Products may be purchased by Network Rail or its agents, suppliers or contractors.

3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.