

RAILWAY ASSET MONITORING

RML6.0 Datalogger

Continuous Monitoring of Railway Assets

The RML6.0 is the latest evolution of the successful voestalpine MiniLogger family — a cost effective, railway approved solution for data acquisition in Fixed Infrastructure Asset Monitoring systems. All versions include fixed network communications and an integral wireless modem (with the exception of the LITE variant), together with on board data storage and real time clock. Operation is controlled by a dedicated real time microprocessor with specific, well proven algorithms for railway applications such as track circuit monitoring and switch condition monitoring. Configuration is managed using a flexible XML interface and the Logger's on board web server. The RML6.0's small size and the ability to link multiple units to a common communications channel make it ideal for both small and medium/large scale installations.

Benefits

- » Early stage detection of faults.
- » Condition based maintenance.
- » Enables 'Predict & Prevent' maintenance, leading to increased asset availability.
- » Supports full range of fixed asset monitoring applications.
- » Meets UK & International railway safety standards.
- » Proven reliability in extreme environments.



Options and Variants



RXM Rail Crossing Monitoring



SCM Switch Condition Monitoring



TDM Train Detection Monitoring



SPM Signaling Power Monitoring



TRM Track and Rail Monitoring

Application

Optimised Fixed Asset Management

The RML6.0 unit provides real time monitoring of fixed assets using a range of sensors and transfers data to a central server system using GPRS, 3G, 4G or Ethernet communications. Sensors with RS485 connections can be easily integrated utilising the RML6.0's fully isolated RS485 port and the configuration file allows for easy interpretation of non-standard protocols.

voestalpine Signaling www.voestalpine.com/railway-systems VOESTAIPINE ONE STEP AHEAD.

Key Features

- » Comparable physical dimensions & mounting to the MiniLogger Series.
- » Comparable I/O configurations to the MiniLogger range.
- $\,\,$ > $\,$ Comparable power requirements to the MiniLogger range.
- » Battery backup in the event of power loss.
- » Improved webpage interface utilising JavaScript & CSS3.
- » XML based configuration via webpage or local/remote download.
- » Powerful scripting within the configuration file allows complex configurations to be easily implemented.

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Specifications

Power:	90-264 V AC, 47-63 Hz, 9-36 VDC (DC Variant).
Power connector:	Two pin, latching.
Power safety:	IEC Class II, 3 kV isolation.
Power consumption:	10 W unloaded, 20 W typical, 130 W maximum.
Analogue inputs:	Up to 10 x 4-20 mA, isolated (1 kV/chassis, 2.5 kV/inter-channel) Sensor excitation 24 V DC, 80 mA.
Digital inputs:	Up to 8 x voltage/volt free contact, fully iso- lated (1 kV/chassis, 2.5 kV/inter-channel).
Digital output:	Relay x 2, 30 V/2 A max, NO or NC (not fitted as standard).
Serial input:	Fully isolated (2.5 kV) RS485.
Communications:	2G, 3G, 4G (LTE Cat 1) modem & Ethernet (dual port).
Additional ports:	Ethernet (Diagnostic/Interlink) & USB-A.
Operating temperature:	-25 °C to +70 °C
Ingress protection rating:	IP41
EMC:	EN50121-4

Mechanical

Input connectors:Two part,Weight:900 gDimensions (unit only):[W × H × I]

Two part, screw terminal, 3.5 mm pitch 900 g [W × H × D] 55 mm × 135 mm × 183 mm

- » Interlink to connect multiple units for system expansion.
- » Internal PSU isolated, earth-free & auto-ranging.
- » Isolated inputs for monitoring railway signalling systems.
- » Dynamic power calculation for accurate condition monitoring of AC switch machines.
- » Footprint size of most signalling relays, with DIN rail & BR930 rack mounting options.
- » Compatible with voestalpine ROADMASTER® monitoring platform & third party monitoring systems.

Railway assset monitoring

Part Number Configurator

<u>RML600</u> – <u>x x x</u> –	$\underline{BM} - \underline{x} \underline{O} \underline{x}$
Product Family Designation	Unit Mounting Options
RML600 = RML6.0 = Original	1 = 930 Relay Rai
Supply PSU Type	2 = DIN Rail Flat Mounted
0 = AC (no BBU)	4 = DIN Rail End-On Mounted
1 = DC (no BBU)	Non Variable
2 = AC with BBU	Antenna Options
3 = DC with BBU	0 = No Antenna
Unit Description	5 = Whip Antenna + 10m Extension
1 = BASIC (4DI + 2AI + RS485 + Modem + USB)	6 = Dome Antenna (2m)
2 = MEDIUM (8DI + 6AI + RS485 + Modem + USB)	7 = Mag-Mount Antenna (2m)
3 = MAX (8DI + 10AI + RS485 + TI + Modem + USB)	Non Variable
4 = DI (32DI + Modem + USB)	Modem Type
5 = LITE (8DI + 10AI + RS485 + TI)	0 = Europe (or none for LITE)
6 = LITE DI (32DI)	1 = USA
7 = PHM/SSI (4DI + 2DO + 8AI + RS485 + Modem + USB)	2 = Australia

Key: Al ... Analogue Input, Dl ... Digital Input, DO ... Digital Output, Tl ... Temperature Input



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