Microlok® II gateway

Resilient network solutions for rail networks

⊞ Migration of Microlok II signalling protocol to Ethernet networks
- 64 Address translation and monitoring
- Legacy Key on/Key off
- Hot/standby controller function

⊞ High reliability and long service life
- All hardware exceeds 500,000 hours MTBF
- 5 year warranty

⊞ Easy to install in trackside location
- EN-50121-4 & IEC 62236-4 railway signalling EMC levels
- Compact metal housing with integral DIN clip
- −40°C cold start to 70°C operation with no fan

⊞ Creation of resilient muliti-media networks
- Layer 2 ring over Gbit fibre
- Layer 3 routing protocols
- Ethernet extender technology reusing copper cables

The Westermo Microlok® II gateway is available in our Lynx Ethernet device server switches and Wolverine Ethernet extenders. This functionality delivered by WeOS allows rail operators and system integrators to implement cost savings on interlocking and signalling projects as well as helping provide additional resilience to networks.

Microlok® II is a protocol developed by AnsaldoSTS specifically used within rail interlocking solutions. The Westermo gateway converts data from the native serial format to a UDP (user datagram protocol) packet that can then be transmitted alongside other data on a trackside Ethernet network. Westermo Lynx and Wolverine also provide the networking infrastructure capability allowing the use of gigabit fibre optic inter-connections and also the ability to use existing twisted pair or telecoms cables as the data path.

Functionality is provided to allow up to 64 Microlok® address translations to be made and monitored. Legacy key-on/key-off support is provided as well as a unique hot/standby configuration to provide a resilient channel for hot standby controllers.

For the kinds of installation where Microlok® is used product reliability is critical to ensure maintenance costs are minimised and trains are not delayed. To provide the best solutions Westermo design all these products to have MTBF figures in excess of 500,000 hours (MIL-HDBK-217F (Gb) 25°C).

Operation at the trackside can be tough on Ethernet switches, but the Lynx and Wolverine are designed for that environment. The products will cold start at −40°C and operate over a long life time at 70°C without the need for cooling holes or fans. EMC levels trackside can be harsh and hence these products are tested and certified to meet the EN50121-4 and IEC 62236-4 standards.

Resilient layer 2 and layer 3 protocols like RSTP, FRNT, LACP and OSPF allow highly reliable backbone networks to be created, bringing layer 3 routing protocols to the edge of the network. Built in firewall functionality also allows security to be implemented down to individual port level to ensure both accidental and deliberate security breaches are prevented.

Supported products

Product	Description
⋁ Lynx	
L105-S1	Managed Device Server Switch
L106-S2	Managed Device Server Switch
L108-F2G-S2	Managed Device Server Switch
L205-S1	Managed Device Server Switch with Routing Functionality
L206-S2	Managed Device Server Switch with Routing Functionality
L208-F2G-S2	Managed Device Server Switch with Routing Functionality
⋁ Wolverine	
DDW-142	Industrial Ethernet Extender
DDW-226	Ethernet extender with serial support