Technology designed to take a beating

We regularly test our products to ensure quality at all times and safety is always an important consideration in our product design and production. Westermo products are certified and approved by some of the most trusted sources across the globe for product compliance. This is a small selection of approvals and standards that we work with:

ATEX The ATEX directive describes what equipment is allowed in an environment with a potentially explosive atmosphere. Even though the EU originally developed the directive, it is now being applied all over the world.

Class 1, Division 2 is the equivalent to the Ex classification we have in accordance with the ATEX directive, but for the US and Canadian market.
Westermo have obtained the Class 1, Division 2 certification through an independent third party approval company FM Approvals.

DNV The leading international provider of services for managing risks, Det Norske Veritas (DNV), has approved Westermo units for marine usage according to DNV Standard for Certification 2.4:2006 (covers the requirements in IACS UR E10:2006). The approval by the independent third party proves Westermo compliance according to national and international standards.

UL approval This safety standard is applicable to Information Technology Equipment and specifies requirements intended to reduce risks of fire, electric shock or injury for the operator and layman who may come into contact with the equipment and, where specifically stated, for a service person. This standard is intended to reduce such risks with respect to installed equipment, whether it consists of a system of interconnected units or independent units, subject to installing, operating and maintaining the equipment in the manner prescribed by the manufacturer.

EN 50155 A number of Westermo units have been tested according the European railway standard EN 50155 (Electronic Equipment Used On Rolling Stock). Performance standards are defined for a railway's operational environment, including shock, vibration, extended temperature range, humidity and many other factors. The standard has been defined so that electronics in rail cars will be able to operate continuously for approximately 250,000 hours.

EN 50121-4 outlines the principles for Electromagnetic Compatibility (EMC) behaviour and management process for achieving EMC at the interface between railway infrastructures and trains. The objective of this standard is to specify the EMC emission and immunity requirements for railway products, and for the railway as an installation.

IEC 61850-3 is is an international standard for electrical substation systems. The standard enables integration of all protection, control, measurement and monitoring functions within a substation. It combines the convenience of Ethernet with the performance and security, which is essential in substations today.

In general, almost all Westermo products comply with the immunity for industrial environments in accordance with **EN 61000-6-2** and emission for residential, commercial and light industrial environments in accordance with **EN 61000-6-3**. **EN 60950** and **UL 60950** for UL approved products.

Part 15 · Part 15 / 68 · LISTED · TYPE APPROVED PRODUCT DNV · Industrial IT enabled · FM APPROVED Class 1, Div 2 · lead-free · RoHS 2002/95/EC

EN 61000-6-2 Industrial Immunity · EN 61000-6-3 Residential Emission · EN 61000-6-4 Industrial Emission · 50121-4 Railway Trackside · EN 50155 On Board Rail

Unmanaged Switches	
Product	Approvals
SDW-550	Part 15 · TYPE APPROVED PRODUCT DNV · Industrial IT enabled · LISTED · EN 61000-6-2 Industrial Immunity · EN 61000-6-3 Residential Emission
SDW-541	Part 15 · TYPE APPROVED PRODUCT DNV · Industrial IT enabled · EN 61000-6-2 Industrial Immunity · EN 61000-6-3 Residential Emission
SDW-532	
SDI-550	
SDI-541	
SDI-862	
SDI-880	
Viper 008	Part 15 · EN 61000-6-2 Industrial Immunity · EN 61000-6-3 Residential Emission · 50121-4 Railway Trackside · EN 50155 On Board Rail

Managed Switches	
Product	Approvals
Viper 108	Part 15 · EN 61000-6-2 Industrial Immunity · EN 61000-6-3 Residential Emission · EN 50155 On Board Rail · 50121-4 Railway Trackside
Viper 408	
MDI-110-F3	
MDI-110-F3G	LISTED
MDI-112-F4G	
MDI-118-F2G	

Managed Routing Switches	
Product	Approvals
RFI-10	Part 15 · LISTED · TYPE APPROVED PRODUCT DNV · Industrial IT enabled · 50121-4 Railway Trackside · EN 61000-6-2 Industrial Immunity · EN 61000-6-4 Industrial Emission
RFI-14-F4G	
RFI-18-F4G-T4G	
RFI-18	
RFI-6-F4G	Part 15 · LISTED · Industrial IT enabled · 50121-4 Railway Trackside · EN 61000-6-2 Industrial Immunity · EN 61000-6-4 Industrial Emission
RFI-10-F4G-T4G	
RFI-10-F8	Part 15 · Industrial IT enabled · 50121-4 Railway Trackside · EN 61000-6-2 Industrial Immunity · EN 61000-6-4 Industrial Emission
RFI-18-F8	
RFI-18-F16	
RFI-14-F4G-F8	
RFI-18-F4G-T4G-F8	

Managed Routing Switches

Product	Approvals
L110-F2G	CE FC Part 15 c UL us LISTED Industrial IT enabled TYPE APPROVED PRODUCT DNV EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission EN 55022 ITE Emission 50121-4 Railway Trackside
L210-F2G	
L108-F2G-S2	CE FC Part 15 c UL us LISTED Industrial IT enabled TYPE APPROVED PRODUCT DNV EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission EN 55022 ITE Emission 50121-4 Railway Trackside
L208-F2G-S2	

Power over Ethernet Switches

Product	Approvals
PSI-660G	CE FC
PSI-1010G	

FX-TX Converters

Product	Approvals
MCW-211	CE FC Part 15 TYPE APPROVED PRODUCT DNV EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission
MCI-211G	CE FC
MCI-422	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission

Serial Converters

Product	Approvals
EDW-100	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside
EDW-100 Ex	CE FC Part 15 Ex EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside
EDW-120	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside
EDW-120 Ex	CE FC Part 15 Ex EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside

Unmanaged Ethernet Extenders

Product	Approvals
DDW-120	CE FC Part 15 FM APPROVED Class 1, Div 2 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission 50121-4 Railway Trackside
DDW-120 Ex	CE FC Part 15 Ex FM APPROVED Class 1, Div 2 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission 50121-4 Railway Trackside

Managed Ethernet Extenders

Product	Approvals
DDW-220	CE FC Part 15 Ex FM APPROVED Class 1, Div 2 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside
DDW-222	
DDW-225	CE FC Part 15 Ex Industrial IT enabled EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission 50121-4 Railway Trackside
DDW-226	CE FC Part 15 Ex EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission 50121-4 Railway Trackside

ADSL /VDSL Routers

Product	Approvals
FDV-206-1D-1S	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside

ADSL Routers

Product	Approvals
DR-260	CE FC Part 15

Mobile Routers

Product	Approvals
MRD-310	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission EN 61000-6-4 Industrial Emission
MRD-330	
MRD-350	

GSM / GPRS Routers

Product	Approvals
MR-210	CE FC Part 15
MR-260	
MR-270	
GDW-11	CE FC Part 15 50121-4 Railway Trackside EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission
GDW-11 485	
GD-01 US	CE FC Part 15 c UL us LISTED

Radio Modems

Product	Approvals
RM-80	CE FC Part 15
RM-90	
RM-240	

Telephone and Leased Line Modems

Product	Approvals
TDW-33	CE FC Part 15 / 68 cULus LISTED cULus 50121-4 Railway Trackside EN 61000-6-3 Residential Emission EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission
TD-36	CE FC Part 15 / 68 cULus LISTED 50121-4 Railway Trackside EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission EN 61000-6-4 Industrial Emission
TD-36 485	
TR-36B	CE FC Part 15 50121-4 Railway Trackside EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission
RV-07B	CE FC Part 15

ISDN adapter

Product	Approvals
IDW-90	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission 50121-4 Railway Trackside

Leased Line Modems

Product	Approvals
TD-23	CE FC Part 15 50121-4 Railway Trackside EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission
TD-29	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission
TD-29P	

Fibre Optic Modems

Product	Approvals
ODW-710-F1	CE FC Part 15 Industrial IT enabled EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission EN 61000-6-3 Residential Emission 50121-4 Railway Trackside
ODW-710-F2	
ODW-720-F1	
ODW-720-F2	
ODW-730-F1	
ODW-730-F2	

LonWorks

Product	Approvals
LRW-102PP	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission
LRW-102	
LRW-112PP	
LRW-112	

Short Haul Modems

Product	Approvals
MD-12	CE FC Part 15

Line Split Units

Product	Approvals
LD-01	CE FC Part 15
LD-02	

Repeaters / Isolators

Product	Approvals
MD-52	CE FC Part 15
RD-48	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission

Fieldbus Adapters / Converters

Product	Approvals
FD-10	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission
FD-40	

Current Loop Adapter

Product	Approvals
MD-21	CE FC Part 15

M-bus Converter

Product	Approvals
AD-01	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission

Serial Converters	
Product	Approvals
MDW-45	CE FC Part 15 Ex EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside
MD-45	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission

Serial Routers	
Product	Approvals
ED-200 ED-210	CE FC Part 15 EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emission 50121-4 Railway Trackside