Product Guide
Industrial Data Communications
2016

Westermo

Robust Industrial Data Communications – Made Easy

Industrial Data Communications Heritage

Westermo was established in 1975. The head office is located 150 km (95 miles) southwest of Stockholm, Sweden. Over the years Westermo has grown with subsidiaries being established in Sweden, Finland, UK, Germany, France, Singapore, Taiwan, North America and Australia and sales partners appointed in over 35 countries worldwide.

The first Westermo data communications product was an RS-232 line driver, the KM-1, that allowed data to be transmitted over great distances using twisted pair cables. Today we still sell a product, the MD-12, that is plug compatible with this device.

In the 1990s, Westermo created the world's first industrial DIN rail mount telephone modem, the TD-22, pioneering remote access solutions for industrial devices like PLCs and HMIs.

Swedish Engineering Excellence

Westermo provides a full range of data communications solutions for demanding applications in industries that include transport, water and energy markets. Since 1975 we have been at the forefront of technological development and continue to push the limits of what is technically possible.

Westermo offers the highest levels of service to help customers to select, configure and install the right solution for their needs. Our experience and expertise goes far beyond our own product range, so that regardless of whether your installation is in a substation, water treatment plant or alongside a railway, we understand the specific demands and are able to provide the right advice.

Made in Sweden

To ensure the highest quality, all Westermo products are manufactured in our own state of the art industrial electronics manufacturing facility in Sweden.

For more information about products and services from Westermo, please visit our website at
www.westermo.com

Contents

Ethernet Switches

- *Managed Switches*
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The Westermo range of industrial Ethernet switches is designed for use in harsh environments and allows the creation of cost-effective, reliable and secure networks.

Our extensive knowledge of the various standards used in railway, defence, water treatment, substation automation and road applications means we have the ideal solution for our customers, regardless of the environment.

*Switches that can
withstand all industrial
environments*

Managed Ethernet Switches

WeOS Lynx

Product/Art. no	Description
L105-S1 3643-0210 **L105-S1-EX** 3643-5210	**Managed Device Server Switch** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × Digital I/O 1 × RS-232, RJ-45 1 × USB 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L106-F2G 3643-0230 **L106-F2G-EX** 3643-5230	**Managed Ethernet Switch** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × USB 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L106-S2 3643-0220 **L106-S2-EX** 3643-5220	**Managed Device Server Switch** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × Digital I/O 1 × RS-232, RJ-45 1 × RS-232 or 422/485, RJ-45 1 × USB 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L108-F2G-S2 3643-0200 **L108-F2G-S2-EX** 3643-5200	**Managed Device Server Switch** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × RS-232, RJ-45 1 × RS-232 or 422/485, RJ-45 1 × USB 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L110-F2G 3643-0100 **L110-F2G-EX** 3643-5100	**Managed Ethernet Switch** 8 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

Lynx

Product/Art. no	Description
L205-S1 3643-0215 **L205-S1-EX** 3643-5215	**Managed Device Server Switch with Routing Functionality** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x Digital I/O 1 x RS-232, RJ-45 1 x USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L206-F2G 3643-0235 **L206-F2G-EX** 3643-5235	**Managed Ethernet Switch with Routing Functionality** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 x Digital I/O 1 x USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L206-S2 3643-0225 **L206-S2-EX** 3643-5225	**Managed Device Server Switch with Routing Functionality** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x Digital I/O 1 x RS-232, RJ-45 1 x RS-232 or 422/485, RJ-45 1 x USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L208-F2G-S2 3643-0205 **L208-F2G-S2-EX** 3643-5205	**Managed Device Server Switch with Routing Functionality** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 x Digital I/O 1 x RS-232, RJ-45 1 x RS-232 or 422/485, RJ-45 1 x USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
L210-F2G 3643-0105 **L210-F2G-EX** 3643-5105	**Managed Ethernet Switch with Routing Functionality** 8 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 x Digital I/O 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

WeOS RedFox

Product/Art. no	Description
RFI-111-F4G-T7G 3641-4315	Industrial Routing Switch 7 × 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45 4 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFI-119-F4G-T7G 3641-4305	Industrial Routing Switch 7 × 10/100/1000 Mbit/s, Ethernet TX, RJ-45 8 × 10/100 Mbit/s, Ethernet TX, RJ-45 4 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFI-207-F4G-T3G 3641-4210 **RFI-207-F4G-T3G-EX** 3641-5210	Industrial Routing Switch 3 × 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFI-211-T3G 3641-4110 **RFI-211-T3G-EX** 3641-5110	Industrial Routing Switch 3 × 10/100/1000 Mbit/s, Ethernet TX, RJ-45 8 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFI-211-F4G-T7G 3641-4310 **RFI-211-F4G-T7G-EX** 3641-5310	Industrial Routing Switch 7 × 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45 4 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

WeOS RedFox

Product/Art. no	Description
RFI-215-F4G-T3G 3641-4200 **RFI-215-F4G-T3G-EX** 3641-5200	**Industrial Routing Switch** 3 × 10/100/1000 Mbit/s, Ethernet TX, RJ-45 8 × 10/100 Mbit/s, Ethernet TX, RJ-45 4 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFI-219-T3G 3641-4100 **RFI-219-T3G-EX** 3641-5100	**Industrial Routing Switch** 3 × 10/100/1000 Mbit/s, Ethernet TX, RJ-45 16 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFI-219-F4G-T7G 3641-4300 **RFI-219-F4G-T7G-EX** 3641-5300	**Industrial Routing Switch** 8 × 10/100 Mbit/s, Ethernet TX, RJ-45 7 × 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45 4 × 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 1 × Digital I/O 1 × Micro USB, console 1 × USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

RFI-219-F4G-T7G-F8
3641-4320
 	
RFI-219-F4G-T7G-F8-EX
3641-5320
	Industrial Routing Switch
	7 × 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45
	4 × 100/1000 Mbit/s, pluggable connections transceivers
	    supported, Ethernet FX or TX, SFP
	8 × 100 Mbit/s, pluggable connections transceivers supported,
	    Ethernet FX or TX, SFP
	1 × Digital I/O
	1 × Micro USB, console
	1 × USB
	Operating voltage: 16-60 VDC
	Operating temperature: -40 to +70 °C (-40 to +158 °F)

WeOS RedFox

Product/Art. no	Description
RFIR-127-F4G-T7G-AC 3641-4030 **RFIR-127-F4G-T7G-DC** 3641-4020	Industrial Routing Switch 7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 16 x 10/100 Mbit/s, Ethernet FX, RJ-45 1 x Digital I/O 1 x Micro USB, console 1 x USB Operating voltage: 100-240 VAC or 16-60 VDC Operating temperature AC: -40 to +55 °C (-40 to +131 °F) Operating temperature DC:-40 to +70 °C (-40 to +158 °F)
RFIR-219-F4G-T7G-AC 3641-4015 **RFIR-219-F4G-T7G-DC** 3641-4005	Industrial Routing Switch 7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 8 x 10/100 Mbit/s, Ethernet FX, RJ-45 1 x Digital I/O 1 x Micro USB, console 1 x USB Operating voltage: 100-240 VAC or 16-60 VDC Operating temperature AC: -40 to +55 °C (-40 to +131 °F) Operating temperature DC: -40 to +70 °C (-40 to +158 °F)
RFIR-227-F4G-T7G-AC 3641-4035	Industrial Routing Switch 7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 16 x 10/100 Mbit/s, Ethernet FX, RJ-45 1 x Digital I/O 1 x Micro USB, console 1 x USB Operating voltage: 100-240 VAC Operating temperature: -40 to +55 °C (-40 to +131 °F)
RFIR-227-F4G-T7G-DC 3641-4025	Industrial Routing Switch 7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP 16 x 10/100 Mbit/s, Ethernet FX, RJ-45 1 x Digital I/O 1 x Micro USB, console 1 x USB Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RFR-212-FB 3641-1640	EN50155 Backbone Routing Switch 12 x 10/100 Mbit/s, Ethernet TX, M12 Dual by-pass relays 1 x M12 USB configuration plug Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

🐍 Viper

Product/Art. no		Description
Viper-408 3641-0360		**EN50155 M12 Switch** 8 × 10/100 Mbit/s, Ethernet TX, M12 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-408 **with E-mark** 3641-6360		**EN50155 M12 Switch** 8 × 10/100 Mbit/s, Ethernet TX, M12 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

WeOS 🐍 Viper

Product/Art. no		Description
Viper-112 3641-0555		**EN50155 Switch** 12 × 10/100 Mbit/s, Ethernet TX, M12 1 × USB 1 × console port, RS-232 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-112-T3G 3641-0530		**EN50155 GigE Switch** 9 × 10/100 Mbit/s, Ethernet TX, M12 3 × 10/100/1000 Mbit/s, Ethernet TX, M12 1 × USB 1 × console port, RS-232 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-212 3641-0560		**EN50155 Routing Switch** 12 × 10/100 Mbit/s, Ethernet TX, M12 1 × USB 1 × console port, RS-232 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-212-T3G 3641-0550		**EN50155 GigE Routing Switch** 9 × 10/100 Mbit/s, Ethernet TX, M12 3 × 10/100/1000 Mbit/s, Ethernet TX, M12 1 × USB 1 × console port, RS-232 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

Unmanaged Ethernet Switches

Product/Art. no	Description
SDW-500-series 3644-xxxx	**Industrial Ethernet 5-port Switch** **SDW-532** 3 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 100 Mbit/s, Ethernet FX, LC, SC or ST connector Operating voltage: 9.6-57.6 VDC Operating temperature: -25 °C to +70 °C (-13 °F to +158 °F) **SDW-541** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 100 Mbit/s, Ethernet FX, LC, SC or ST connector Operating voltage: 9.6-57.6 VDC Operating temperature: -25 °C to +70 °C (-13 °F to +158 °F) **SDW-541-F1G-T4G** 4 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 1 x 100/1000 Mbit/s, Ethernet FX, SFP Operating voltage: 9.6-57.6 VDC Operating temperature: −40 to +74 °C (−40 to +165 °F) **SDW-550** 5 x 10/100 Mbit/s, Ethernet TX, RJ-45 Operating voltage: 96-57.6 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F) **SDW-550-T5G** 5 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 Operating voltage: 9.6-57.6 VDC Operating temperature: −40 to +74 °C (−40 to +165 °F)

Viper

Product/Art. no	Description
Viper-008 3641-0340	**EN50155 M12 Switch** 8 x 10/100 Mbit/s, Ethernet TX, M12 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-012 3641-0540	**EN50155 Switch** 12 x 10/100 Mbit/s, Ethernet TX, M12 Operating voltage: 16.8-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

i-line

Product/Art. no.	Description
SDI-541-MM-SC2 3625-0001	**5-port Ethernet Fibre Switch** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × 100 Mbit/s, Ethernet FX, Multi-mode 2 km, SC connector 1 × Power/Relay, 4-pin terminal block Operating voltage: 18-32 VDC or 18-27 VAC Operating temperature: -10 to +60 °C (+14 to +140 °F)
SDI-541-SM-SC30 3625-0010	**5-port Ethernet Fibre Switch** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × 100 Mbit/s, Ethernet FX, Single-mode 30 km, SC connector 1 × Power/Relay, 4-pin terminal block Operating voltage: 18-32 VDC or 18-27 VAC Operating temperature: -10 to +60 °C (+14 to +140 °F)
SDI-550 3625-0050	**5-port Ethernet Switch** 5 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × Power/Relay, 4-pin terminal block Operating voltage: 18-32 VDC or 18-27 VAC Operating temperature: -25 to +70 °C (-13 to +158 °F)
SDI-862-MM-SC2 3625-0110	**8-port Ethernet Fibre Switch** 6 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100 Mbit/s, Ethernet FX, Multi-mode 2 km, SC connector 1 × Alarm relay, terminal block connector with 1 A @ DC 24V carry ability Operating voltage: 10-60 VDC Operating temperature: -10 to +70 °C (+14 to +158 °F)
SDI-862-SM-SC30 3625-0120	**8-port Ethernet Fibre Switch** 6 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100 Mbit/s, Ethernet FX, Single-mode 30 km, SC connector 1 × Alarm relay, terminal block connector with 1 A @ DC 24V carry ability Operating voltage: 10-60 VDC Operating temperature: -10 to +70 °C (+14 to +158 °F)
SDI-880 3625-0100	**8-port Ethernet Switch** 8 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × Alarm relay, terminal block connector with 1 A @ DC 24V carry ability Operating voltage: 10-60 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F)

Managed PoE Ethernet Switches

WeOS Viper

Product/Art. no	Description
Viper-112-P8 3641-0580	**EN50155 PoE Switch** 12 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability) 1 x USB 1 x console port, RS-232 Operating voltage: 33.6-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-112-T3G-P8 3641-0570	**EN50155 PoE GigE Switch** 9 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability) 3 x 10/100/1000 Mbit/s, Ethernet TX, M12 1 x USB 1 x console port, RS-232 Operating voltage: 33.6-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-212-P8 3641-0590	**EN50155 PoE Routing Switch** 12 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability) 1 x USB 1 x console port, RS-232 Operating voltage: 33.6-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
Viper-212-T3G-P8 3641-0595	**EN50155 PoE GigE Routing Switch** 9 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability) 3 x 10/100/1000 Mbit/s, Ethernet TX, M12 1 x USB 1 x console port, RS-232 Operating voltage: 33.6-143 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

i-line

Product/Art. no.	Description
PMI-110-F2G 3626-0200	**Managed PoE GigE Switch** 8 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE 2 x 10/100/1000 Mbit/s, Ethernet TX or 100/1000 Mbit/s, Ethernet FX, SFP combo ports Operating voltage: 46- 57 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

Unmanaged PoE Ethernet Switches

i-line

Product/Art. no.	Description
PII-2G 3626-0300	**Industrial 2-Port PoE Injector** 2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45, PoE Operating voltage: 46-57 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
PSI-660G 3626-0100	**PoE Booster Switch** 4 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE 2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 Operating voltage: 12-24 VDC Operating temperature: -25 to +60 °C (-13 to +140 °F)
PSI-1010G-24V 3626-0110	**PoE Booster Switch** 8 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE 2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 Operating voltage: 12-24 VDC Operating temperature: -25 to +60 °C (-13 to +140 °F)
PSI-1010G-48V 3626-0150	**PoE Switch** 8 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE 2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 Operating voltage: 46-57 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F)

Ethernet Extenders

⦂ *Point-to-Point*
⦂ *Managed Network*

The Westermo Wolverine series of industrial Ethernet extenders allow cost-effective Ethernet networks to be created over long distances, at high data rates. The SHDSL technology employed makes it possible to reuse many types of pre-existing cabling which in turn can lead to considerable financial savings.

With support for multidrop networks, redundant rings, legacy serial connections and layer 3 routing functions, our range of Ethernet extenders can meet any demand the application requires.

*Extend
networks far
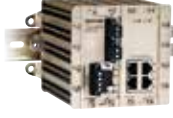beyond the normal
limits of Ethernet*

Point-to-Point Ethernet Extenders

Wolverine	
Product/Art. no	Description
DDW-120 3621-0110	**Ethernet SHDSL Extender** 1 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 192 kbit/s to 15.3 Mbit/s, DSL, 2 position detachable screw terminal 1 x 115.2 kbit/s, diagnostic port, 2.5 mm jack Operating voltage: 10-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

Managed Network Ethernet Extenders

Wolverine	
Product/Art. no	Description
DDW-220 3642-0200	**Industrial Ethernet Extender** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 192 kbit/s to 5.7 Mbit/s, DSL, 2-position detachable screw terminal Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
DDW-222 3642-0220	**Ethernet Extender with Serial Support** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, 9-pin D-sub (male) 2 x 192 kbit/s to 5.7 Mbit/s, DSL, 2-position detachable screw terminal Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)

Wolverine

Product/Art. no	Description
DDW-142 3642-0300 **DDW-142-EX** 3642-5300	**Industrial Ethernet Extender** 2 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal 1 × 300 bit/s to 115.2 kbit/s, RS-232, RJ-45 1 × Digital I/O, 4-position detachable screw terminal 1 × USB 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
DDW-142-485 3642-0310	**Industrial Ethernet Extender** 2 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal 1 × 50 bit/s to 2 Mbit/s, RS-422/485, 4-position detachable screw terminal 1 × Digital I/O, 4-position detachable screw terminal 1 × USB 1 × 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
DDW-225 3642-0250 **DDW-225-EX** 3642-5250	**Redundant Ring Ethernet Extender** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 32 kbit/s to 15.3 Mbit/s, SHDSL, 2-position detachable screw terminal 1 × Digital I/O, 4-position detachable screw terminal 1 × USB 1 × 2.5 mm jack, console Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
DDW-226 3642-0240 **DDW-226-EX** 3642-5240	**Ethernet Extender with Serial Support** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × 300 bit/s to 115.2 kbit/s, RS-232, 9-pin D-sub (male) 2 × 32 kbit/s to 15.3 Mbit/s, SHDSL 2-position detachable screw terminal 1 × Digital I/O, 4-position detachable screw terminal 1 × USB 1 × 2.5 mm jack, console Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
DDW-242 3642-0320	**Advanced Industrial Ethernet Extender** 2 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × SHDSL, 2-position detachable screw terminal 1 × 300 bit/s to 115.2 kbit/s, RS-232, RJ-45 1 × Digital I/O, 4-position detachable screw terminal 1 × USB Operating voltage: 19-60 VDC Operating temperature: –40 to +70 °C (–40 to +158 °F)
DDW-242-485 3642-0330	**Advanced Industrial Ethernet Extender** 2 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × SHDSL, 2-position detachable screw terminal 1 × 50 bit/s to 2 Mbit/s, RS-422/485, 4-position detachable screw terminal 1 × Digital I/O, 4-position detachable screw terminal 1 × USB Operating voltage: 19-60 VDC Operating temperature: –40 to +70 °C (–40 to +158 °F)

Routers

- *Serial/PSTN Routers*
- *Wireless Routers*
- *Broadband DSL Routers*

Westermo provides a whole range of routers for use in demanding applications such as railways, water treatment, substation automation, roads and tunnels. We ensure connections to our customers remote sites are resilient and reliable offering remote access solutions using ADSL or VDSL broadband and wireless 3G (UMTS, HSDPA, HSUPA) or GPRS technologies.

As we know security is of paramount concern, all Westermo industrial routers include a powerful firewall to prevent unauthorised access.

*Multiple media solutions
for accessing
remote networks*

Mobile/Cellular/Wireless Routers

Product/Art. no	Description
MRD-305-DIN 3623-0030	**Industrial M2M/3G Router** GSM/GPRS/EDGE/3G/HSPA 2 x 10/100 Mbit/s, Ethernet TX 1 x SIM slot Operating voltage: 10-36 VDC Operating temperature: –40 to +70 °C (–40 to +158 °F)
MRD-315 3623-0050	**Industrial 3G Router** GSM/GPRS/EDGE/3G/HSPA 2 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 1 x SIM slot Operating voltage: 10-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
MRD-355 3623-0250	**Industrial Mobile Broadband/3G Router** GSM/GPRS/EDGE/3G/HSPA 2 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 2 x SIM slot Operating voltage: 10-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
MRD-455 3623-0401	**Industrial Mobile Broadband/4G Router** GSM/GPRS/EDGE/3G/HSPA/4G LTE 2 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 2 x SIM slot Operating voltage: 10-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
MR-210 3622-0201	**Mobile Broadband Router** 1 x 10/100 Mbit/s., Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 2 x SIM slots 1 x USB Operating voltage: 9-48 VDC Operating temperature: -20 to +55 °C (-4 to +131 °F)
MR-260 3622-0202	**Mobile Broadband Router** 1 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 2 x SIM slots 1 x USB Operating voltage: 9-48 VDC Operating temperature: -20 to +55 °C (-4 to +131 °F)
MR-270 3622-0205	**Mobile broadband router** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 2 x SIM slots 1 x USB Operating voltage: 11-58 VDC Operating temperature: 0 to +55 °C (+32 to +131 °F)

Broadband DSL Routers

WeOS Falcon	

Product/Art. no	Description
FDV-206-1D-1S 3660-0100	**Industrial Broadband Router** 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 50 bit/s to 115.2 kbit/s, RS-232, RJ-45 1 x ADSL, ADSL2/ASDL2+/VDSL2, RJ-11 1 x USB 1 x Digital I/O 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -20 to +70 °C (-4 to +158 °F)

Product/Art. no	Description
ADSL-350 3623-0301	**Industrial ADSL Router** 2 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, DB-9 1 x ADSL, ADSL2/ASDL2+, RJ-11 Operating voltage: 10-60 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F)

Product/Art. no	Description

DR-270
3622-xxxx
	Multiple media ADSL/VDSL2 router
	4 x 10/100 Mbit/s, Ethernet TX, RJ-45
	1 x 300 bit/s to 115.2 kbit/s, RS-232, DB-9
	1 x ADSL/ADSL2/ADSL2+/ADSL2++/VDSL2, RJ-11
	2 x SIM
	1 x USB
	Operating voltage: 9-36 VDC
	Operating temperature:
	    DR-270, DR-270 + 3G: -40 to +75 °C (-40 to +167 °F)
	    DR-270 + WiFi, DR-270 + WiFi + 3G,: -20 to +75 °C (-4 to +167 °F)

3622-0310	Multiple media ADSL/VDSL2 router DR-270A
3622-0315	Multiple media ADSL/VDSL2 router DR-270A + WiFi
3622-0320	Multiple media ADSL/VDSL2 router DR-270A + 3G
3622-0325	Multiple media ADSL/VDSL2 router DR-270A + 3G + WiFi
3622-0340	Multiple media ADSL/VDSL2 router DR-270B
3622-0345	Multiple media ADSL/VDSL2 router DR-270B + WiFi
3622-0350	Multiple media ADSL/VDSL2 router DR-270B + 3G
3622-0355	Multiple media ADSL/VDSL2 router DR-270B + 3G + WiFi
4200-3006	Optional VPN tunnel extension upgrade; additional 50 tunnels
4200-3010	Optional VPN tunnel extension upgrade; additional 100 tunnels

Serial/PSTN Routers

Product/Art. no	Description
ED-200 3609-5010	**Ethernet Router** 4 × 10/100 Mbit/s, Ethernet TX, RJ-45 1 × 300 bit/s to 115.2 kbit/s, RS-232, 9-pin D-sub (male) 1 × 300 bit/s to 115.2 kbit/s, RS-422/485 4-position detachable screw terminal Operating voltage: 10-60 VDC Operating temperature: -25 to +65 °C (-13 to +149 °F)
ED-210 3609-5001	**Ethernet Router** 4 × 10 Mbit/s, 100 Mbit/s, Ethernet TX, RJ-45 1 × 600 bit/s to 33.6 kbit/s, 2 position detachable screw terminal, Leased Line 1 × 600 bit/s to 33.6 kbit/s, PSTN, RJ-11C Operating voltage: 10-60 VDC Operating temperature: -25 to +65 °C (-13 to +149 °F)

Westermo Delivers Robust Industrial Networks

Westermo delivers resilient network solutions through its WeOS operating system, which is at the heart of our range of robust hardware platforms. WeOS provides an extensive suite of IP networking standards allowing resilient and flexible networks to be created.

Robustness
Westermo hardware is designed and externally verified to work in the harshest industrial environments over a long service life.

Cyber Security
With virtually every network today somehow connected to the Internet, WeOS can deliver firewall functionality to every port on the network.

Resilience
Westermo networks are mission critical and designed to operate even when there are media or power failures on parts of the system.

Multimedia Support
Fibre, UTP, RS-232, RS-485, VDSL2, ADSL and any twisted pair cable are all supported within the WeOS family of products.

Network Application Support
Industrial protocols come in many different formats; however, Westermo's expertise and WeOS legacy serial support allows simple migration to IP technology.

Production Quality
All WeOS products are manufactured at our own facility in Sweden to the highest quality standards.

Visit our website for more information www.westermo.com

Modems

- *Fibre Optic Modems*
- *GSM/GPRS Modems*
- *ISDN Modems*
- *Leased Line/PSTN Modems*
- *Short Haul Modems*
- *Multidrop Modems*

Whether the need is to communicate through a PSTN or ISDN line, across a private wire or leased line, down a fibre optic cable, or even over GSM/GPRS, Westermo has a solution.

Our wide range of industrial modems is designed for use in such demanding applications as railways, water treatment, substation automation, roads and tunnels. All Westermo modems exceed industrial standards and ensure robust and reliable communications.

Industrial data modems for the harshest environments

Fibre Optic Modems

RS-232/RS-485

Product/Art. no		Description
ODW-720-F1 3651-0721		**Point-to-Point Fibre Converter, RS-232** 1 × Pluggable transceivers, SFP 1 × 300 bit/s to 250 kbit/s, RS-232, D-sub 1 × Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +70 °C (-40 to +158 °F)
ODW-720-F2 3651-0722		**Ring/Multidrop Fibre Converter, RS-232** 2 × Pluggable transceivers, SFP 1 × 300 bit/s to 250 kbit/s, RS-232, D-sub 1 × Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +60 °C (-40 to +140 °F)
ODW-730-F1 3651-0731		**Point-to-Point Fibre Converter, RS-422/485** 1 × Pluggable transceivers, SFP 1 × 300 bit/s to 1.5 Mbit/s, RS-422/485, D-sub 1 × Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +70 °C (-40 to +158 °F)
ODW-730-F2 3651-0732		**Ring/Multidrop Fibre Converter, RS-422/485** 2 × Pluggable transceivers, SFP 1 × 300 bit/s to 1.5 Mbit/s RS-422/485, D-sub 1 × Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +70 °C (-40 to +158 °F)

PROFIBUS

Product/Art. no		Description
ODW-710-F1 3651-0711		**Point-to-Point Fibre Converter, PROFIBUS** 1 × Pluggable transceivers, SFP 1 × 9 600 bit/s to 12 Mbit/s, PROFIBUS DP (RS-485), D-sub 1 × Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +70 °C (-40 to +158 °F)
ODW-710-F2 3651-0712		**Ring/Multidrop Fibre Converter, PROFIBUS** 2 × Pluggable transceivers, SFP 1 × 9 600 bit/s to 12 Mbit/s, PROFIBUS DP (RS-485), D-sub 1 × Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +60 °C (-40 to +140 °F)

LonWorks®	
Product/Art. no	**Description**
LRW-102 PP 3650-xxxx	**Fibre Optic LON Repeater for TP/FT-10, Point-to-Point** 1 x pluggable transceivers, SFP 1 x 78.5 kbit/s, TP/FT-10, detachable screw terminal 1 x Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +70 °C (-40 to +158 °F)
LRW-102 3650-xxxx	**Fibre Optic LON Repeater for TP/FT-10, Multidrop and Redundant Ring** 2 x pluggable transceivers, SFP 1 x 78.5 kbit/s, TP/FT-10, detachable screw terminal 1 x Detachable status screw terminal Operating voltage: 10-60 VDC or 20-30 VAC Operating temperature: -40 to +60 °C (-40 to +140 °F)

ISDN Modems

Product/Art. no	**Description**
IDW-90 3620-0001	**Industrial ISDN Modem** 1 x 300 bit/s to 115.2 kbit/s, RS-232 1 x 300 bit/s to 115.2 kbit/s, RS-422/485 1 x 300 bit/s to 128.0 kbit/s, ISDN 1 x Digital I/O Operating voltage: 10-60 VDC, 10-42 VAC Operating temperature: +5 to +55 °C (+41 to +131 °F)

PSTN/Leased Line Modems

PSTN	
Product/Art. no	Description
TDW-33 3619-0001	**Industrial Telephone Modem** 1 x 300 bit/s to 115.2 kbit/s, RS-232 1 x 300 bit/s to 56.7 kbit/s, PSTN Operating voltage: 10-60 VDC or 10-42 VAC Operating temperature: -25 to +70 °C (-13 to +158 °F)
TD-36 3618-xxxx	**Industrial PSTN and Leased Line Modem** 1 x 300 bit/s to 115.2 kbit/s, RS-232 1 x 300 bit/s to 33.6 kbit/s, Leased Line 1 x 300 bit/s to 33.6 kbit/s, PSTN Operating voltage: AV: 18-300 VDC, 22-264 VAC, LV: 12-48 VDC, 12-27 VAC Operating temperature: -25 to +70 °C (-13 to +158 °F)
TD-36 485 3618-xxxx	**Industrial backup PSTN and Leased Line Modem** 1 x 300 bit/s to 115.2 kbit/s, RS-232 1 x 300 bit/s to 115.2 kbit/s, RS-422/485 1 x 300 bit/s to 33.6 kbit/s, Leased Line 1 x 300 bit/s to 33.6 kbit/s, PSTN Operating voltage: AV: 18-300 VDC, 22-264 VAC, LV: 12-48 VDC, 12-27 VAC Operating temperature: -25 to +70 °C (-13 to +158 °F)
TR-36B 3614-0510	**Industrial Rack Modem** Connected to rack RV-07B, see below Operating voltage: 10-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)
RV-07B 3130-3010	**19" Rack for TR-36B Telephone and Leased Line Modem** 1 x 300 bit/s to 115.2 kbit/s, RS-232 1 x 300 bit/s to 115.2 kbit/s, RS-422/485 1 x 300 bit/s to 33.6 kbit/s, Leased Line 1 x 300 bit/s to 33.6 kbit/s, PSTN 1 x Alarm Output Up to 16 x TR-36B's and 2 x PSU Operating voltage: LV: 10-60 VDC 10-30 VAC, HV: 48-300 VDC, 90-254 VAC Operating temperature: -40 to +70 °C (-40 to +158 °F)

Leased Line	
Product/Art. no	Description
TD-23 3600-xxxx	**Multidrop Modem** 1 x 300 bit/s to 115.2 kbit/s, RS-232 1 x 300 bit/s to 115.2 kbit/s, RS-422/485 1 x 300 bit/s to 1200 bit/s, Leased Line 1 x Detachable screw terminal, Relay (optional). Operating voltage: LV: 10-60 VDC 10-30 VAC, HV: 48-300 VDC, 85.5-264 VAC Operating temperature: -25 to +70 °C (-13 to +158 °F)

Short Haul Modems

RS-232, point-to-point		
Product/Art. no		Description
MD-12 3150-xxxx		Short-Haul Modem, Point-to-Point 1 x Up to 38.4 kbit/s, RS-232, D-sub 1 x Up to 38.4 kbit/s, RS-232, detachable screw terminal 1 x ±10 mA balanced current loop, detachable screw terminal, Line connection Operating voltage: 12-36 VDC Operating temperature: +5 to +50 °C (+41 to +122 °F) -40 to +70 °C (-40 to +158 °F)

Multidrop Modems

RS-232, multidrop		
Product/Art. no		Description
LD-02 3156-xxxx		Line Sharing Modem 1 x D-sub, up to 38.4 kbit/s, RS-232 1 x Up to 38.4 kbit/s, RS-232, detachable screw terminal 1 x Up to 38.4 kbit/s, RS-422/485, detachable screw terminal 1 x ±10 mA balanced current loop, detachable screw terminal, line connection Operating voltage: 12-36 VDC or 36-55 VDC or 207-264 VAC or 103-132 VAC Operating temperature: +5 to +50 °C (+41 to +122 °F)

Converters

- *Serial Converters/Repeaters*
- *Current Loop Converters*
- *Ethernet Media Converters*
- *Protocol Converters*

Westermo can supply a range of converters and repeaters to suit a whole host of industrial protocols and communication methods, including Ethernet, RS-232, RS-422, RS-485, PROFIBUS DP, M-Bus and 20 mA current loop.

Whether a fibre media converter for an Ethernet link, a serial converter, or a repeater for an RS-485 network is needed, rest assured that Westermo has a solution which will operate in the harshest industrial environments and provide robust, reliable communications for peace of mind.

Industrial converters
for industrial
protocols

Serial Converters/Repeaters

Product/Art. no	Description
EDW-100 3616-0020 **EDW-100 EX** 3616-5020	**Serial Adapter** 1 x 10/100 Mbit/s, Ethernet TX, RJ-45 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 1 x 300 bit/s to 115.2 kbit/s, RS-422/485, detachable screw terminal Operating voltage: 10-60 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F)
EDW-120 3616-0010	**Serial Adapter** 1 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub Operating voltage: 10-60 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F)
RD-48 3153-xxxx	**RS-422/485 Repeater** 2 x 300 bit/s to 1.5 Mbit/s, RS-422/485 detachable screw terminal Operating voltage: LV : 9.6-57.6 VDC HV: 85.5-264 VAC or 88-300 VDC Operating temperature: -40 to +70 °C (-40 to 158 °F)
MDW-45 3617-0xxx	**RS-422/485 Converter** 1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub 1 x 300 bit/s to 115.2 kbit/s, RS-422/485, detachable screw terminal Operating voltage: LV: 9.6-57.6 VDC, HV: 85.5-264 VAC or 88-300 VDC Operating temperature: -40 to +70 °C (-40 to 158 °F)

Current Loop Converters

Product/Art. no	Description
MD-21 3151-xxxx	**20 mA Current loop converter** 1 x Up to 19.2 kbit/s, RS-232, D-sub or detachable screw terminal 1 x Up to 19.2 kbit/s, 20 mA current loop, detachable screw terminal Operating voltage: AC: 207-264 VAC, 103-132 VAC, DC: 12-36 VDC, 36-55 VDC Operating temperature: +5 to +50 °C (+41 to 122 °F)

Ethernet Media Converters

Product/Art. no		Description
MCW-211 3645-0xxx		**Industrial Ethernet Media Converter** 1 × 10/100 Mbit/s, Ethernet TX 1 × 100 Mbit/s, Ethernet FX Operating voltage: 10-60 VDC Operating temperature: -25 to +70 °C (-10 to +158 °F)
MCW-211-F1G-T1G 3645-2001		**Industrial Ethernet Gigabit Media Converter** 1 × 100/1000 Mbit/s, Ethernet TX, RJ-45 1 × 100/1000 Mbit/s, Ethernet FX, SFP Operating voltage: 10-57 VDC Operating temperature: –40 to +74 °C (–40 to +165 °F)

i-line

Product/Art. no		Description
MCI-211G 3624-0001		**Gigabit Ethernet Media Converter** 1 × 10/100/1000 Mbit/s, Ethernet TX, RJ-45 1 × 1000 Mbit/s, pluggable transceivers, SFP Operating voltage: 12-48 VDC Operating temperature: -25 to +70 °C (-13 to +158 °F)
MCI-422-MM-SC2 3624-0100		**2-channel Ethernet to Fibre Media Converter** 2 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100 Mbit/s fibre port, multi-mode 2 km, SC connector Operating voltage: 10-60 VDC Operating temperature: -25 to +75 °C (-13 to +167 °F)
MCI-422-SM-SC30 3624-0110		**2-channel Ethernet to Fibre Media Converter** 2 × 10/100 Mbit/s, Ethernet TX, RJ-45 2 × 100 Mbit/s fibre port, single-mode 30 km, SC connector Operating voltage: 10-60 VDC Operating temperature: -25 to +75 °C (-13 to +167 °F)

Protocol Converters

M-Bus Converter		
AD-01 3612-0001		**M-Bus adapter** 1 × Up to 9600 bit/s, RS-232, D-sub or detachable screw terminals 2 × Up to 9600 bit/s, RS-232, detachable screw terminals 2 × Up to 9600 bit/s, detachable screw terminals, M-Bus slave Operating voltage: 207-253 VAC Operating temperature: 0 to +50 °C (+32 to +122 °F)

Accessories

- *Optical Transceivers*
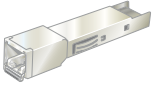- *Power Supplies*
- *Cables and Antennas*

As well as industrial data communications devices, Westermo can also supply a range of vital accessories to provide a complete a solution. Whether the application requires an industrial rated power supply, optical transceivers for use with our many fibre optic devices, or cables and antennas for a wireless application, Westermo has it covered.

Transceivers

Westermo offer a wide selection of Small Form Pluggable (SFP) transceivers. The selection of transceivers are available in a variety of models and lengths offering transmission rages from 2 km to 120 km (1.2 mi to 74.5 mi) over fibre. The CX transceiver allows SFP ports to be used to connect an Ethernet RJ-45 cable. Contact Westermo for detailed information.

Product		Description
Single Mode Transceivers		Single Mode Transceivers are available in a variety of models. Transmission capacity from 100 Mbit to 1 Gbit and distances from 15 to 120 km (9.6 to 74.5 mi).
Multi Mode Transceivers		Multi Mode Transceivers are available in a variety of models. Transmission capacity from 100 Mbit to 1 Gbit and distances from 550 m to 60 km (1805 ft to 37.5 mi).
Bi-directional Transceivers		Bi-Di Transceivers are available in a variety of models. 100 Mbit transmission capacity and distances from 2 km to 60 km. (1.25 mi to 37.2 mi).
CX Transceiver		CX transceivers link an SFP port to a copper-based network, using a standard RJ-45 connection 1 Gbit transmission capacity and 100 m (328 ft) distance.

Power Supplies/Adapters

Westermo provides a set of industrially approved power supplies complying with many mayor safety approvals. The most common power supplies, PS-30 and PS-100, come in a DIN-mounted housing and can operate in a extended temperature range.

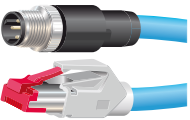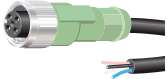| Product/Art. no		Description
PS-20 HV 3120-3101		**Power supply for RV-07B** Rated voltage: 100-240 VAC Operating voltage: 90-254 VAC
PS-30 3125-0001		**Power supply, DIN-rail** Output: DC 24-28V/30 W PSU Input: 85-264 VAC, 85-375 VDC
PS-100/48 3125-0050		**Power supply DIN-rail, PoE Ready PSU** Output voltage: 48-56 VDC *preset to: 48 V ± 0.5% @ 2.1 A Input: AC 100-120/220-240 V (Auto Select), 47-63 Hz (AC 85-132 V/AC 184-264 V, DC 220-375 V)

Backup Device

The USB-M12 is a configuration backup device designed to meet the full requirements of the rail vehicle market.

This device can be used with the Viper 212, Viper 112 and RFR-12-FB, and allows the configuration of the switch to be saved. The device can then be left attached to the switch for easy maintenance exchange of units. Alternatively, the device allows configurations to be updated by simply plugging it in to the unit and repowering.

Product/Art. no		Description
USB M12 plug IP65 3641-0190		Electrical specification: USB v1.1 Data rate: Up to 480Mbit/s Connection: M12 A-coded male Memory size: 16 Mbyte.

Cables

Special cables for reading diagnostics, antennas, radio, fibre and Ethernet are available in a variety of lengths and jacketing options. Please contact Westermo for further information.

Product/Art. no		Description
Diagnostic cable 1211-2026		Cable for diagnostic DDW-100 DDW-100 to RS-232
Diagnostic cable 1211-2027		Cable for diagnostic DDW-120 and RedFox console port to USB
M12 cables		M12 - M12 In length, 1 m, 5 m and 15 m (3.28 ft, 16.40 ft and 4921 ft)
M12-RJ45 cables		M12 - RJ-45 In length, 1 m, 5 m and 15 m (3.28 ft, 16.40 ft and 4921 ft)
Power cables		M12 In length, 1.5 m and 5 m (4.92 ft and 16.40 ft)
Radio cables **RG213**		Cables for antennas In length, 3 m, 5 m, 7 m, 10 m and 15 m (984 ft, 22.96 ft, 16.40 ft, 32.80 ft and 4921 ft)

Westermo Quality and Approvals

Westermo designs and manufactures robust data communication devices for harsh environments. We supply products that provide the communication infrastructure for control and monitoring systems, derived from proven commercial technology. These products are used in mission critical solutions, where commercial grade products are not sufficiently resilient.

To ensure the highest quality products, Westermo has a state-of-the-art industrial electronics manufacturing facility in Sweden. To maximise the reliability of the product, testing is carried out at many stages of the manufacturing process.

▦ *Manufacturing to IPC-A-610 under ISO9001-2008 QMS*
▦ *Solder Paste Inspection and Automated Optical Inspection*
▦ *X-ray examination and PCB testing*
▦ *Functional testing*
▦ *Burn-in testing to EN50155*

EN 61000-6-1	EN 61000-6-2	EN 61000-6-3	EN 61000-6-4	EN 50121-4	EN 50155	EN 55022	EN 55024
Residential Immunity	Industrial Immunity	Residential Emission	Industrial Emission	Railway Trackside	On Board Rail	ITE Emission	ITE Immunity

WeOS
– Westermo Operating System

Westermo delivers resilient network solutions through its WeOS operating system, which is at the heart of our range of robust hardware platforms.

WeOS provides an extensive suite of IP networking standards allowing resilient and flexible networks to be created. Fast recovery times and highly reliable solutions can be achieved even in very complex networks. WeOS also provides multiple layers of security to provide protection against cyber-attacks at the network edge.

Simple and flexible configuration

Made Easy is at the core of the WeOS development, which is why we ensure our intuitive command-line interface is logical and our web interface is simple to use.
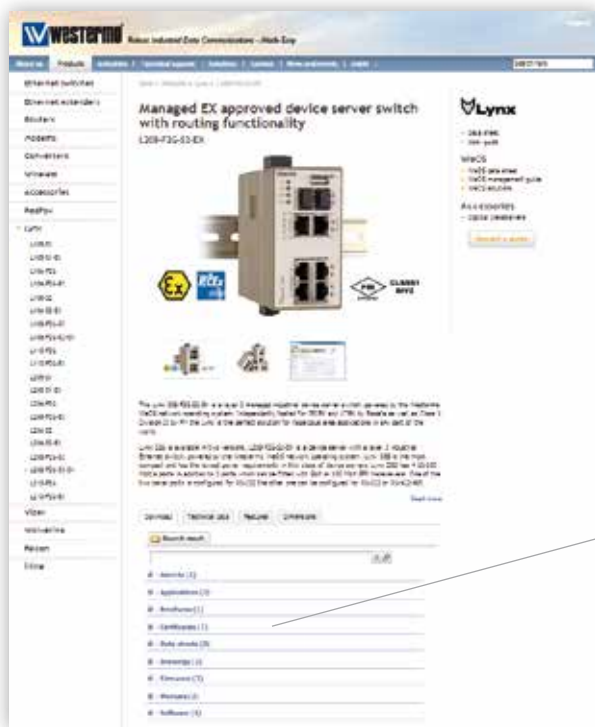
Download the latest version of WeOS for free at www.westermo.com

Visit Our Website for the Latest Information on Approvals

We are constantly working to certify our products for use in various industrial environments. New approvals and certifications are continuously added, please visit our website for the latest information, **www.westermo.com**

- A brief overview on product approvals can be found on each data sheet
- Detailed information about product approvals can be found in the User Guide and in the Technical Data section on the website
- For some industry-specific approvals, the complete supported product range can be overviewed in the Industries section

All product certificates are found in the downloads tab on the website

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For complete contact information, please visit our website at
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