PRODUCT GUIDE
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 as well as 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.

We offer the highest levels of service to help our 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

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Managed Ethernet Switches
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Robust Ethernet switches that can withstand all industrial environments

Our industrial Ethernet switches are designed for use in harsh environments and allow you to build cost-effective, reliable, secure networks. Whether you require an unmanaged switch for a point-to-point link, a managed switch for redundancy or a layer 3 switch for network routing, we have the ideal solution, regardless of the environment. Our extensive range of switches are used in train, railway, energy, utilities and road applications.
## Managed Ethernet Switches

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
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</table>
| **L105-S1**  
3643-0210       | Managed Industrial Device Server Switch  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x Digital I/O  
1 x 50 bit/s to 115.2 kbit/s, 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) |
| **L205-S1**  
3643-0215       | Managed Industrial Device Server Switch  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x Digital I/O  
1 x 50 bit/s to 115.2 kbit/s, 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) |
| **L205-S1-EX**  
3643-5215       | Managed Industrial Device Server Switch  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x Digital I/O  
1 x 50 bit/s to 115.2 kbit/s, 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) |

| **L106-S2**  
3643-0220       | Managed Industrial Device Server Switch  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x Digital I/O  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-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) |
| **L206-S2**  
3643-0225       | Managed Industrial Device Server Switch  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x Digital I/O  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-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) |
| **L206-S2-EX**  
3643-5225       | Managed Industrial Device Server Switch  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x Digital I/O  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-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) |

| **L108-F2G-S2**  
3643-0200       | Managed Industrial Device Server Switch  
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 50 bit/s to 115.2 kbit/s, RS-232, RJ-45  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-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       | Managed Industrial Device Server Switch  
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 50 bit/s to 115.2 kbit/s, RS-232, RJ-45  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-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-EX**  
3643-5205       | Managed Industrial Device Server Switch  
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 50 bit/s to 115.2 kbit/s, RS-232, RJ-45  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-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) |
| **L108-F2G-S2-12VDC**  
3643-0240       | Managed Industrial Device Server Switch  
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 50 bit/s to 115.2 kbit/s, RS-232, RJ-45  
1 x 50 bit/s to 115.2 kbit/s, RS-232 or 50 bit/s to 2 Mbit/s, RS-422/485, RJ-45  
1 x USB  
1 x 2.5 mm jack, console  
Operating voltage: 9.8-36 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
<table>
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<tr>
<th>Product/Art. no</th>
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<tr>
<td>L106-F2G 3643-0230</td>
<td>Managed Industrial Switch 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)</td>
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<tr>
<td>L206-F2G 3643-0235</td>
<td>Managed Industrial Switch 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)</td>
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<td>L206-F2G-EX 3643-5235</td>
<td>Managed Industrial Switch 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)</td>
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<tr>
<td>L110-F2G 3643-0100</td>
<td>Managed Industrial Switch 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 USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>L210-F2G 3643-0105</td>
<td>Managed Industrial Switch 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 USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>L210-F2G-EX 3643-5105</td>
<td>Managed Industrial Switch 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 USB 1 x 2.5 mm jack, console Operating voltage: 19-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>L110-F2G-12VDC 3643-0110</td>
<td>Managed Industrial Switch 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 USB 1 x 2.5 mm jack, console Operating voltage: 9.6-60 VDC Operating temperature: -40 to +74 °C (-40 to +165 °F)</td>
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<tr>
<td>L210-F2G-12VDC 3643-0115</td>
<td>Managed Industrial Switch 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 USB 1 x 2.5 mm jack, console Operating voltage: 9.6-60 VDC Operating temperature: -40 to +74 °C (-40 to +165 °F)</td>
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<tr>
<td>Lynx-5512-F4G-T8G-LV 3643-0300</td>
<td>Managed Industrial Switch 8 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 x 100/1000 Mbit/s, SFP 1 x Digital I/O 1 x micro USB, console Operating voltage: 8.4-60 VDC Operating temperature: -40 to +74 °C (-40 to +165 °F)</td>
</tr>
<tr>
<td>Lynx-5512-E-F4G-T8G-LV 3643-0305</td>
<td>Managed Industrial Switch 8 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45 4 x 100/1000 Mbit/s, SFP 1 x Digital I/O 1 x micro USB, console Operating voltage: 8.4-60 VDC Operating temperature: -40 to +74 °C (-40 to +165 °F)</td>
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<td>RFI-111-F4G-T7G 3641-4315</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFI-211-F4G-T7G 3641-4310</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-211-F4G-T7G-EX 3641-5310</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFI-119-F4G-T7G 3641-4305</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;8 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-219-F4G-T7G 3641-4300</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;8 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-219-F4G-T7G-EX 3641-5300</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;8 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-207-F4G-T3G 3641-4210</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFI-207-F4G-T3G-EX 3641-5210</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-211-T3G 3641-4110</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;8 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-211-T3G-EX 3641-5110</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;8 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>RFI-215-F4G-T3G 3641-4200</td>
<td><strong>Managed Industrial Switch</strong>  3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  8 x 10/100 Mbit/s, Ethernet TX, RJ-45  4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP  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)</td>
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<tr>
<td>RFI-215-F4G-T3G-EX 3641-5200</td>
<td><strong>Managed Industrial Switch</strong>  3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  8 x 10/100 Mbit/s, Ethernet TX, RJ-45  4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP  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)</td>
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<td>RFI-219-T3G 3641-4100</td>
<td><strong>Managed Industrial Switch</strong>  3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  16 x 10/100 Mbit/s, Ethernet TX, 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)</td>
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<tr>
<td>RFI-219-T3G-EX 3641-5100</td>
<td><strong>Managed Industrial Switch</strong>  3 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  16 x 10/100 Mbit/s, Ethernet TX, 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)</td>
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<tr>
<td>RFI-219-F4G-T7G-F8 3641-4320</td>
<td><strong>Managed Industrial Switch</strong>  7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45  4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP  8 x 100 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP  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)</td>
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<tr>
<td>RFI-219-F4G-T7G-F8-EX 3641-5320</td>
<td><strong>Managed Industrial Switch</strong>  7 x 10/100/1000 Mbit/s, Gigabit Ethernet TX, RJ-45  4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP  8 x 100 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP  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)</td>
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</table>
| RedFox-5528-F4G-T24G-MV | Managed Industrial Switch 24 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 4 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-E-F4G-T24G-MV | Managed Industrial Switch 24 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 4 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-F4G-T24G-LV | Managed Industrial Switch 24 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 4 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-E-F4G-T24G-LV | Managed Industrial Switch 24 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 4 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-F16G-T12G-MV | Managed Industrial Switch 12 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 16 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-E-F16G-T12G-MV | Managed Industrial Switch 12 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 16 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-F16G-T12G-LV | Managed Industrial Switch 12 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 16 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-E-F16G-T12G-LV | Managed Industrial Switch 12 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 16 x 100/1000 Mbit/s, SFP  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-T28G-MV | Managed Industrial Switch 28 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-E-T28G-MV | Managed Industrial Switch 28 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-T28G-LV | Managed Industrial Switch 28 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| RedFox-5528-E-T28G-LV | Managed Industrial Switch 28 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45  
|                        | 1 x Digital I/O  
|                        | 1 x Micro USB, console  
|                        | 1 x Micro SD  
|                        | Operating voltage: LV 18-60 VDC, HV 36-154 VDC  
<p>|                        | Operating temperature: -40 to +74 °C (-40 to +165 °F) |</p>
<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
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<tr>
<td>RFIR-127-F4G-T7G-AC 3641-4030</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;16 x 10/100 Mbit/s, Ethernet FX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 or 100-240 VAC&lt;br&gt;Operating temperature AC: -40 to +55 °C (-40 to +131 °F)&lt;br&gt;Operating temperature DC: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFIR-127-F4G-T7G-DC 3641-4020</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;16 x 10/100 Mbit/s, Ethernet FX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 or 100-240 VAC&lt;br&gt;Operating temperature AC: -40 to +55 °C (-40 to +131 °F)&lt;br&gt;Operating temperature DC: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFIR-227-F4G-T7G-AC 3641-4035</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;16 x 10/100 Mbit/s, Ethernet FX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 or 100-240 VAC&lt;br&gt;Operating temperature AC: -40 to +55 °C (-40 to +131 °F)&lt;br&gt;Operating temperature DC: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFIR-227-F4G-T7G-DC 3641-4025</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;16 x 10/100 Mbit/s, Ethernet FX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 or 100-240 VAC&lt;br&gt;Operating temperature AC: -40 to +55 °C (-40 to +131 °F)&lt;br&gt;Operating temperature DC: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFIR-219-F4G-T7G-AC 3641-4015</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;16 x 10/100 Mbit/s, Ethernet FX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 or 100-240 VAC&lt;br&gt;Operating temperature AC: -40 to +55 °C (-40 to +131 °F)&lt;br&gt;Operating temperature DC: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFIR-219-F4G-T7G-DC 3641-4005</td>
<td><strong>Managed Industrial Switch</strong>&lt;br&gt;7 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;4 x 100/1000 Mbit/s, pluggable connections transceivers supported, Ethernet FX or TX, SFP&lt;br&gt;16 x 10/100 Mbit/s, Ethernet FX, RJ-45&lt;br&gt;1 x Digital I/O&lt;br&gt;1 x Micro USB, console&lt;br&gt;1 x USB&lt;br&gt;Operating voltage: 16-60 or 100-240 VAC&lt;br&gt;Operating temperature AC: -40 to +55 °C (-40 to +131 °F)&lt;br&gt;Operating temperature DC: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>RFR-212-FB 3641-1640</td>
<td><strong>Managed EN 50155 Backbone Switch</strong>&lt;br&gt;12 x 10/100 Mbit/s, Ethernet TX, M12 Dual by-pass relays&lt;br&gt;1 x M12 USB configuration plug&lt;br&gt;Operating voltage: 16.8-143 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>Product/Art. no</td>
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<tr>
<td>Viper-408 3641-0360</td>
<td>Managed EN 50155 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)</td>
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<tr>
<td>Viper-408 with E-mark 3641-6360</td>
<td>Managed EN 50155 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)</td>
</tr>
<tr>
<td>Viper-112A 3635-0010</td>
<td>Managed EN 50155 Switch 12 x 10/100 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-212A 3635-0020</td>
<td>Managed EN 50155 Switch 12 x 10/100 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-112A-T3G 3635-0310</td>
<td>Managed EN 50155 Switch 9 x 10/100 Mbit/s, Ethernet TX, M12  3 x 10/100/1000 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-212A-T3G 3635-0320</td>
<td>Managed EN 50155 Switch 9 x 10/100 Mbit/s, Ethernet TX, M12  3 x 10/100/1000 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>Viper-112A-T5G 3635-0610</td>
<td>Managed EN 50155 Switch 7 x 10/100 Mbit/s, Ethernet TX, M12  5 x 10/100/1000 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-212A-T5G 3635-0620</td>
<td>Managed EN 50155 Switch 7 x 10/100 Mbit/s, Ethernet TX, M12  5 x 10/100/1000 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-120A 3635-0910</td>
<td>Managed EN 50155 Switch 20 x 10/100 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-220A 3635-0920</td>
<td>Managed EN 50155 Switch 20 x 10/100 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-120A-T4G 3635-1210</td>
<td>Managed EN 50155 Switch 16 x 10/100 Mbit/s, Ethernet TX, M12  4 x 10/100/1000 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>Viper-220A-T4G 3635-1220</td>
<td>Managed EN 50155 Switch 16 x 10/100 Mbit/s, Ethernet TX, M12  4 x 10/100/1000 Mbit/s, Ethernet TX, M12  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-208-T4G-TBN 3635-2020</td>
<td>Managed EN 50155 Backbone Switch 4 x 1000 Mbit/s  4 x 100 Mbit/s  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>Viper-208-T8G-TBN 3635-2120</td>
<td>Managed EN 50155 Backbone Switch 8 x 1000 Mbit/s  1 x USB  1 x console port, RS-232  Operating voltage: 16.8-143 VDC  Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
</tbody>
</table>
# Unmanaged Ethernet Switches

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
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</thead>
</table>
| **SDW-500-series** 3644-xxxx | **Unmanaged Industrial 5-port Switch**  
**SDW-532**  
3 x 10/100 Mbit/s, Ethernet TX, RJ-45  
2 x 100 Mbit/s, Ethernet FX, LC or SC connector  
Operating voltage: 9.6-57.6 VDC  
Operating temperature: -25 ºC to +70 ºC (-13 ºF to +158 ºF)  
**SDW-541**  
4 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x 100 Mbit/s, Ethernet FX, LC or SC connector  
Operating voltage: 9.6-57.6 VDC  
Operating temperature: -25 ºC to +70 ºC (-13 ºF to +158 ºF)  
**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 ºC (-40 to +165 ºF)  
**SDW-550**  
5 x 10/100 Mbit/s, Ethernet TX, RJ-45  
Operating voltage: 96-57.6 VDC  
Operating temperature: -25 to +70 ºC (-13 to +158 ºF)  
**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 ºC (-40 to +165 ºF) |

| **Viper** 3641-0340 | **Unmanaged EN 50155 Switch**  
8 x 10/100 Mbit/s, Ethernet TX, M12  
Operating voltage: 16.8-143 VDC  
Operating temperature: -40 to +70 ºC (-40 to +158 ºF)  
**Viper-012** 3641-0540 | **Unmanaged EN 50155 Switch**  
12 x 10/100 Mbit/s, Ethernet TX, M12  
Operating voltage: 16.8-143 VDC  
Operating temperature: -40 to +70 ºC (-40 to +158 ºF) |
<table>
<thead>
<tr>
<th>Product/Art. no.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SDI-541-MM-SC2 3625-0001</td>
<td><strong>Unmanaged 5-port Fibre Switch</strong>&lt;br&gt;4 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x 100 Mbit/s, Ethernet FX, Multi-mode 2 km, SC connector&lt;br&gt;1 x Power/Relay, 4-pin terminal block&lt;br&gt;Operating voltage: 18-32 VDC or 18-27 VAC&lt;br&gt;Operating temperature: -10 to +60 °C (+14 to +140 °F)</td>
</tr>
<tr>
<td>SDI-541-SM-SC30 3625-0010</td>
<td><strong>Unmanaged 5-port Fibre Switch</strong>&lt;br&gt;4 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x 100 Mbit/s, Ethernet FX, Single-mode 30 km, SC connector&lt;br&gt;1 x Power/Relay, 4-pin terminal block&lt;br&gt;Operating voltage: 18-32 VDC or 18-27 VAC&lt;br&gt;Operating temperature: -10 to +60 °C (+14 to +140 °F)</td>
</tr>
<tr>
<td>SDI-550 3625-0050</td>
<td><strong>Unmanaged 5-port Switch</strong>&lt;br&gt;5 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x Power/Relay, 4-pin terminal block&lt;br&gt;Operating voltage: 18-32 VDC or 18-27 VAC&lt;br&gt;Operating temperature: -25 to +70 ºC (-13 to +158 °F)</td>
</tr>
<tr>
<td>SDI-862-MM-SC2 3625-0110</td>
<td><strong>Unmanaged 8-port Fibre Switch</strong>&lt;br&gt;6 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;2 x 100 Mbit/s, Ethernet FX, Multi-mode 2 km, SC connector&lt;br&gt;1 x Alarm relay, terminal block connector with 1 A @ DC 24 V carry ability&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -10 to +70 ºC (+14 to +158 °F)</td>
</tr>
<tr>
<td>SDI-862-SM-SC30 3625-0120</td>
<td><strong>Unmanaged 8-port Fibre Switch</strong>&lt;br&gt;6 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;2 x 100 Mbit/s, Ethernet FX, Single-mode 30 km, SC connector&lt;br&gt;1 x Alarm relay, terminal block connector with 1 A @ DC 24 V carry ability&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -10 to +70 ºC (+14 to +158 °F)</td>
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<tr>
<td>SDI-880 3625-0100</td>
<td><strong>Unmanaged 8-port Switch</strong>&lt;br&gt;8 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x Alarm relay, terminal block connector with 1 A @ DC 24 V carry ability&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -25 to +70 ºC (-13 to +158 °F)</td>
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</table>
## Managed PoE Ethernet Switches

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<tr>
<th>Product/Art. no</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Viper-112A-P8-HV</td>
<td>Managed EN 50155 PoE Switch 12 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability)</td>
</tr>
<tr>
<td>3635-0110</td>
<td>1 x USB</td>
</tr>
<tr>
<td>Viper-112A-P8-LV</td>
<td>1 x console port, RS-232</td>
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<tr>
<td>3635-0210</td>
<td>Operating voltage HV: 33.6-143 VDC</td>
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<tr>
<td>Viper-212A-P8-HV</td>
<td>Operating voltage LV: 16.8-49.4 VDC</td>
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<tr>
<td>3635-0120</td>
<td>Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>Viper-212A-P8-LV</td>
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<tr>
<td>3635-0220</td>
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</tr>
<tr>
<td>Viper-112A-T3G-P8-HV</td>
<td>Managed EN 50155 PoE Switch 9 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability)</td>
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<tr>
<td>3635-0410</td>
<td>3 x 10/100/1000 Mbit/s, Ethernet TX, M12</td>
</tr>
<tr>
<td>Viper-112A-T3G-P8-LV</td>
<td>1 x USB</td>
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<td>3635-0510</td>
<td>1 x console port, RS-232</td>
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<tr>
<td>Viper-212A-T3G-P8-HV</td>
<td>Operating voltage HV: 33.6-143 VDC</td>
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<tr>
<td>3635-0420</td>
<td>Operating voltage LV: 16.8-49.4 VDC</td>
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<tr>
<td>Viper-212A-T3G-P8-LV</td>
<td>Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>3635-0520</td>
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<tr>
<td>Viper-112A-T5G-P8-HV</td>
<td>Managed EN 50155 PoE Switch 7 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability)</td>
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<tr>
<td>3635-0710</td>
<td>5 x 10/100/1000 Mbit/s, Ethernet TX, M12</td>
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<tr>
<td>Viper-112A-T5G-P8-LV</td>
<td>1 x USB</td>
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<tr>
<td>3635-0810</td>
<td>1 x console port, RS-232</td>
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<tr>
<td>Viper-212A-T5G-P8-HV</td>
<td>Operating voltage HV: 33.6-143 VDC</td>
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<td>3635-0720</td>
<td>Operating voltage LV: 16.8-49.4 VDC</td>
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<td>Viper-212A-T5G-P8-LV</td>
<td>Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>Product/Art. no</td>
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<td>Viper-120A-P8-HV 3635-1010</td>
<td>Managed EN 50155 PoE Switch&lt;br&gt;20 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability)&lt;br&gt;1 x USB&lt;br&gt;1 x console port, RS-232&lt;br&gt;Operating voltage HV: 33.6-143 VDC&lt;br&gt;Operating voltage LV: 16.8-49.4 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<td>Viper-120A-P8-LV 3635-1110</td>
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<td>Viper-220A-P8-HV 3635-1020</td>
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<td>Viper-220A-P8-LV 3635-1120</td>
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<tr>
<td>Viper-120A-T4G-P8-HV 3635-1310</td>
<td>Managed EN 50155 PoE Switch&lt;br&gt;16 x 10/100 Mbit/s, Ethernet TX, M12 (8 with PoE capability)&lt;br&gt;4 x 10/100/1000 Mbit/s, Ethernet TX, M12&lt;br&gt;1 x USB&lt;br&gt;1 x console port, RS-232&lt;br&gt;Operating voltage HV: 33.6-143 VDC&lt;br&gt;Operating voltage LV: 16.8-49.4 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>Viper-120A-T4G-P8-LV 3635-1410</td>
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<tr>
<td>Viper-220A-T4G-P8-HV 3635-1320</td>
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<td>Viper-220A-T4G-P8-LV 3635-1420</td>
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<tr>
<td>PMI-110-F2G 3626-0200</td>
<td>Managed PoE Switch&lt;br&gt;8 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE&lt;br&gt;2 x 10/100/1000 Mbit/s, Ethernet TX or 100/1000 Mbit/s, Ethernet FX, SFP combo ports&lt;br&gt;Operating voltage: 46-57 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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</table>
# Unmanaged PoE Ethernet Switches

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<tr>
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<tbody>
<tr>
<td>PII-2G 3626-0300</td>
<td><strong>Unmanaged Industrial 2-Port PoE Injector</strong>&lt;br&gt;2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45, PoE&lt;br&gt;Operating voltage: 46-57 VDC&lt;br&gt;Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
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<tr>
<td>PSI-660G-24V 3626-0100</td>
<td><strong>Unmanaged PoE Booster Switch</strong>&lt;br&gt;4 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE&lt;br&gt;2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;Operating voltage: 12-24 VDC&lt;br&gt;Operating temperature: -25 to +60 °C (-13 to +140 °F)</td>
</tr>
<tr>
<td>PSI-1010G-24V 3626-0110</td>
<td><strong>Unmanaged PoE Booster Switch</strong>&lt;br&gt;8 x 10/100 Mbit/s Ethernet TX, RJ-45, PoE&lt;br&gt;2 x 10/100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;Operating voltage: 12-24 VDC&lt;br&gt;Operating temperature: -25 to +60 °C (-13 to +140 °F)</td>
</tr>
</tbody>
</table>
Industrial cybersecurity

The threat of a sophisticated cyberattack on mission-critical infrastructure networks is increasing all the time. A successful attack on these networks can have a profound impact on our society, causing great economic loss or worse. At Westermo we recognize that to effectively defend against potential attacks, it is necessary to deliver more than just a product.

Westermo offers:

Technical expertise at your service
Benefit from our 40+ years of industry knowledge to ensure that your cybersecurity measures are appropriate to the application.

Strong supply chain security
Westermo products and software solutions are made in Sweden within a secure development lifecycle.

Rapid incident response
Our Product Security Incident Response Team (PSIRT) always monitors and rapidly responds to any vulnerability that could affect our products.

Simple network security configuration
Security configurations are made easy and reliable with WeOS and our suite of network management tools.
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 EN 50155

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

- Point-to-Point Ethernet Extenders
- Managed Network Ethernet Extenders
Extend your network far beyond the normal limits of Ethernet

Our industrial 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.
## Point-to-Point Ethernet Extenders

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| DDW-120 3621-0110 | SHDSL Ethernet 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) |
| DDW-002-B1 3641-0900 | EN 50155 Ethernet Broadband Bridge  
  1 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  1 x 2-wire interface up to 70 Mbit/s, distance up to 300 m  
  Operating voltage: 16.8-143 VDC  
  Operating temperature: -40 to +70 °C (-40 to +158 °F) |

## Managed Network Ethernet Extenders

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| DDW-142 3642-0300 | Managed Industrial Ethernet Extender  
  2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal  
  1 x 300 bit/s to 115.2 kbit/s, RS-232, RJ-45  
  1 x Digital I/O, 4-position detachable screw terminal  
  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) |
| DDW-142-EX 3642-5300 | Managed Industrial Ethernet Extender  
  2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal  
  1 x 300 bit/s to 115.2 kbit/s, RS-232, RJ-45  
  1 x Digital I/O, 4-position detachable screw terminal  
  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) |
| DDW-242 3642-0320 | Managed Industrial Ethernet Extender  
  2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal  
  1 x 300 bit/s to 115.2 kbit/s, RS-232, RJ-45  
  1 x Digital I/O, 4-position detachable screw terminal  
  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) |
| DDW-142-12VDC 3642-0400 | Managed Industrial Ethernet Extender with bypass relay  
  2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal  
  1 x 300 bit/s to 115.2 kbit/s, RS-232, RJ-45  
  1 x Digital I/O, 4-position detachable screw terminal  
  1 x USB  
  1 x 2.5 mm jack, console  
  Operating voltage: 9.8-60 VDC  
  Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| DDW-242-12VDC 3642-0420 | Managed Industrial Ethernet Extender with bypass relay  
  2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal  
  1 x 300 bit/s to 115.2 kbit/s, RS-232, RJ-45  
  1 x Digital I/O, 4-position detachable screw terminal  
  1 x USB  
  1 x 2.5 mm jack, console  
  Operating voltage: 9.8-60 VDC  
  Operating temperature: -40 to +74 °C (-40 to +165 °F) |
| DDW-142-12VDC-BP 3642-0440 | Managed Industrial Ethernet Extender with bypass relay  
  2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
  2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal  
  1 x 300 bit/s to 115.2 kbit/s, RS-232, RJ-45  
  1 x Digital I/O, 4-position detachable screw terminal  
  1 x USB  
  1 x 2.5 mm jack, console  
  Operating voltage: 9.8-60 VDC  
  Operating temperature: -40 to +74 °C (-40 to +165 °F) |
<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDW-142-485 3642-0310</td>
<td>Managed Industrial Ethernet Extender 2 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 32 kbit/s to 15.3 Mbit/s (30.4 with bonding), SHDSL, 2-position detachable screw terminal 1 x 50 bit/s to 2Mbit/s, RS-422/485, 4-position detachable screw terminal 1 x Digital I/O, 4-position detachable screw terminal 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)</td>
</tr>
<tr>
<td>DDW-242-485 3642-0330</td>
<td>Managed Industrial 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 32 kbit/s to 15.3 Mbit/s, SHDSL 2-position detachable screw terminal 1 x Digital I/O, 4-position detachable screw terminal 1 x USB 1 x 2.5 mm jack, console Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
<tr>
<td>DDW-225 3642-0250</td>
<td>Managed Industrial Redundant Ring Ethernet Extender 4 x 10/100 Mbit/s, Ethernet TX, RJ-45 2 x 32 kbit/s to 15.3 Mbit/s, SHDSL, 2-position detachable screw terminal 1 x Digital I/O, 4-position detachable screw terminal 1 x USB 1 x 2.5 mm jack, console Operating voltage: 16-60 VDC Operating temperature: -40 to +70 °C (-40 to +158 °F)</td>
</tr>
</tbody>
</table>
Routers

- Mobile/Cellular/Wireless Routers
- Broadband DSL Routers
- EN 50155 WLAN Routers
Multiple media solutions for accessing your remote networks

We provide a whole range of routers for use in demanding applications such as railways, water treatment, substation automation, roads and tunnels. We ensure that connections to your remote sites are resilient and reliable offering remote access solutions using DSL broadband and wireless 4G technologies. As we know security is of paramount concern, all industrial routers include a powerful firewall to prevent unauthorised access.
## Mobile/Cellular/Wireless Routers

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| MRD-405 3623-0501 | **Industrial 4G LTE Gateway/Router**  
GPRS/3G/HSUPA/HSDPA/4G LTE  
2 x 10/100 Mbit/s, Ethernet TX, RJ-45  
1 x SIM slot  
Operating voltage: 10-36 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| MRD-415 3623-0515 | **Industrial Cellular Router**  
GSM/GPRS/EDGE/3G/HSPA/4G LTE  
2 x 10/100 Mbit/s  
1 x 300 bit/s to 115.2 kbit/s, RS-232  
1 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) |
| MRD-455-NA 3623-0601 | **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) |

## Broadband DSL Routers

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| BRD-355 3623-0311 | **Industrial ADSL/VDSL Router/Modem**  
ADSL/ADSL2/ADSL2+/VDSL2 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/ADSL2+/VDSL2, RJ-11  
Operating voltage: 10-48 VDC  
Operating temperature: -25 to +70 °C (-13 to +158 °F) |
## EN 50155 WLAN Routers

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| RT-220-LV EU 3623-072201 | **EN 50155 WLAN 2x2 Client/Bridge/Access Point**  
IEEE 802.11n 2x2 MIMO  
2 x 10/100Base-T, 2 x M12 D-coded connectors  
Operating voltage: 24 VDC or IEEE 802.3at type 1 powered device  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-220-LV NA 3623-072202 | **EN 50155 WLAN 2x2 Client/Bridge/Access Point**  
IEEE 802.11n 2x2 MIMO  
2 x 10/100Base-T, 2 x M12 D-coded connectors  
Operating voltage: 24 VDC or IEEE 802.3at type 1 powered device  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-220-HV EU 3623-072301 | **EN 50155 WLAN 2x2 Client/Bridge/Access Point**  
IEEE 802.11n 2x2 MIMO  
2 x 10/100Base-T, 2 x M12 D-coded connectors  
Operating voltage: 72-110 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-220-HV NA 3623-072302 | **EN 50155 WLAN 2x2 Client/Bridge/Access Point**  
IEEE 802.11n 2x2 MIMO  
2 x 10/100Base-T, 2 x M12 D-coded connectors  
Operating voltage: 72-110 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-310 EU 3623-071001 | **EN 50155 WLAN Access Point**  
IEEE 802.11n 3x3 MIMO  
2 x 10/100/1000 Mbit/s Ethernet TX, M12 X-code  
Operating voltage: 24 VDC or IEEE 802.3at (PoE)  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-310 NA 3623-071002 | **EN 50155 WLAN Access Point**  
IEEE 802.11n 3x3 MIMO  
2 x 10/100/1000 Mbit/s Ethernet TX, M12 X-code  
Operating voltage: 24 VDC or IEEE 802.3at (PoE)  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-320-LV EU 3623-072001 | **EN 50155 WLAN 3x3 Client/Bridge/Access Point**  
IEEE 802.11n 3x3 MIMO  
2 x 10/100/1000 Mbit/s Ethernet TX, M12 X-code  
Operating voltage: 24 VDC or IEEE 802.3at (PoE)  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-320-LV NA 3623-072002 | **EN 50155 WLAN 3x3 Client/Bridge/Access Point**  
IEEE 802.11n 3x3 MIMO  
2 x 10/100/1000 Mbit/s Ethernet TX, M12 X-code  
Operating voltage: 24 VDC or IEEE 802.3at (PoE)  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-320-HV EU 3623-072101 | **EN 50155 WLAN 3x3 Client/Bridge/Access Point**  
IEEE 802.11n 3x3 MIMO  
2 x 10/100/1000 Base-T, 2 x M12 X-coded connectors  
Operating voltage: 72-110 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-320-HV NA 3623-072102 | **EN 50155 WLAN 3x3 Client/Bridge/Access Point**  
IEEE 802.11n 3x3 MIMO  
2 x 10/100/1000 Base-T, 2 x M12 X-coded connectors  
Operating voltage: 72-110 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-370 3623-0770 | **Trackside WLAN Access Point**  
IEEE 802.11n 3x3 MIMO + monitoring antenna  
1 x 10/100/1000 Mbit/s Ethernet TX, M12 X-code  
1 x Gbit/s Ethernet FX, ODC connector  
Operating voltage: 100-240 VAC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-610-LV EU 3623-073001 | **EN 50155 WLAN Dual Radio Access Point**  
IEEE 802.11ac  
2 x 10/100/1000Base-T, 2 x M12 X-coded connectors  
Operating voltage: 24 VDC or IEEE 802.3at type 1 powered device  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-610-LV NA 3623-073002 | **EN 50155 WLAN Dual Radio Access Point**  
IEEE 802.11ac  
2 x 10/100/1000Base-T, 2 x M12 X-coded connectors  
Operating voltage: 24 VDC or IEEE 802.3at type 1 powered device  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-610-HV EU 3623-073101 | **EN 50155 WLAN Dual Radio Access Point**  
IEEE 802.11ac  
2 x 10/100/1000Base-T, 2 x M12 X-coded connectors  
Operating voltage: 72-110 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
| RT-610-HV NA 3623-073102 | **EN 50155 WLAN Dual Radio Access Point**  
IEEE 802.11ac  
2 x 10/100/1000Base-T, 2 x M12 X-coded connectors  
Operating voltage: 72-110 VDC  
Operating temperature: -40 to +70 °C (-40 to +158 °F) |
Modems

- Fibre Optic Modems
- Leased Line Modems
- Short Haul Modems
- Multidrop Modems
Industrial data modems for the harshest environments

We have a solution for you, 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. Our wide range of industrial modems is designed for use in demanding applications such as railways, water treatment, substation automation, roads and tunnels. All our modems exceed industrial standards and ensure robust and reliable communications.
### RS-232/RS-485

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| ODW-720-F1 3651-0721 | **Point-to-Point Fibre Converter, RS-232**  
1 x Pluggable transceivers, SFP  
1 x 300 bit/s to 250 kbit/s, RS-232, D-sub  
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) |
| ODW-720-F2 3651-0722 | **Ring/Multidrop Fibre Converter, RS-232**  
2 x Pluggable transceivers, SFP  
1 x 300 bit/s to 250 kbit/s, RS-232, D-sub  
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) |
| ODW-730-F1 3651-0731 | **Point-to-Point Fibre Converter, RS-422/485**  
1 x Pluggable transceivers, SFP  
1 x 300 bit/s to 1.5 Mbit/s, RS-422/485, D-sub  
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) |
| ODW-730-F2 3651-0732 | **Ring/Multidrop Fibre Converter, RS-422/485**  
2 x Pluggable transceivers, SFP  
1 x 300 bit/s to 1.5 Mbit/s, RS-422/485, D-sub  
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) |

### PROFIBUS

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| ODW-710-F1 3651-0711 | **Point-to-Point Fibre Converter, PROFIBUS**  
1 x Pluggable transceivers, SFP  
1 x 9 600 bit/s to 12 Mbit/s, PROFIBUS DP (RS-485), D-sub  
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) |
| ODW-710-F2 3651-0712 | **Ring/Multidrop Fibre Converter, PROFIBUS**  
2 x Pluggable transceivers, SFP  
1 x 9 600 bit/s to 12 Mbit/s, PROFIBUS DP (RS-485), D-sub  
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) |
## Leased Line Modems

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| LRW-702-F2 3651-1401 | Fibre Optic Repeater for TP/FT-10  
1 or 2 x 100 Mbit SFP transceivers  
1 x 78.5 kbit/s, TP/FT-10  
1 x 2-position detachable screw terminal  
Operating voltage: 10-60 VDC or 20-30 VAC  
Operating temperature: -40 to +60 °C (-40 to +140 °F) |

## Leased Line

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
</table>
| LD-02 3156-0001 | 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  
Operating temperature: +5 to +50 °C (+41 to +122 °F) |
Converters

- Serial Converters/Repeaters
- Current Loop Converters
- Ethernet Media Converters
- Protocol Converters
Industrial converters for industrial protocols

Our range of converters and repeaters suits 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. Westermo products are designed to operate in the harshest industrial environments and provide robust, reliable communications for peace of mind, whether a fibre media converter for an Ethernet link, a serial converter, or a repeater for an RS-485 network is needed.
## Serial Converters/Repeaters

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDW-100</strong> 3616-0020</td>
<td><strong>Serial Adapter</strong>&lt;br&gt;1 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub&lt;br&gt;1 x 300 bit/s to 115.2 kbit/s, RS-422/485, detachable screw terminal&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -25 to +70 ºC (-13 to +158 ºF)</td>
</tr>
<tr>
<td><strong>EDW-120</strong> 3616-0010</td>
<td><strong>Serial Adapter</strong>&lt;br&gt;1 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;2 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -25 to +70 ºC (-13 to +158 ºF)</td>
</tr>
<tr>
<td><strong>RD-48</strong> 3153-xxxx</td>
<td><strong>RS-422/485 Repeater</strong>&lt;br&gt;2 x 300 bit/s to 1.5 Mbit/s, RS-422/485 detachable screw terminal&lt;br&gt;Operating voltage: LV: 9.6-57.6 VDC&lt;br&gt;HV: 85.5-264 VAC or 88-300 VDC&lt;br&gt;Operating temperature: -40 to +70 ºC (-40 to 158 ºF)</td>
</tr>
<tr>
<td><strong>MDW-45</strong> 3617-0xxx</td>
<td><strong>RS-422/485 Converter</strong>&lt;br&gt;1 x 300 bit/s to 115.2 kbit/s, RS-232, D-sub&lt;br&gt;1 x 300 bit/s to 115.2 kbit/s, RS-422/485, detachable screw terminal&lt;br&gt;Operating voltage: LV: 9.6-57.6 VDC, HV: 85.5-264 VAC or 88-300 VDC&lt;br&gt;Operating temperature: -40 to +70 ºC (-40 to 158 ºF)</td>
</tr>
</tbody>
</table>

## Current Loop Converters

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MD-21</strong> 3151-xxxx</td>
<td><strong>20 mA Current loop converter</strong>&lt;br&gt;1 x Up to 19.2 kbit/s, RS-232, D-sub or detachable screw terminal&lt;br&gt;1 x Up to 19.2 kbit/s, 20 mA current loop, detachable screw terminal&lt;br&gt;Operating voltage: AC: 207-264 VAC, 103-132 VAC,&lt;br&gt;DC: 12-36 VDC, 36-55 VDC&lt;br&gt;Operating temperature: +5 to +50 ºC (+41 to 122 ºF)</td>
</tr>
</tbody>
</table>
## Ethernet Media Converters

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCW-211 3645-0xxx</td>
<td><strong>Industrial Ethernet Media Converter</strong>&lt;br&gt;1 x 10/100 Mbit/s, Ethernet TX&lt;br&gt;1 x 100 Mbit/s, Ethernet FX&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -25 to +70 ºC (-10 to +158 ºF)</td>
</tr>
<tr>
<td>MCW-211-F1G-T1G 3645-2001</td>
<td><strong>Industrial Ethernet Gigabit Media Converter</strong>&lt;br&gt;1 x 100/1000 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;1 x 100/1000 Mbit/s, Ethernet FX, SFP&lt;br&gt;Operating voltage: 9.6-57.6 VDC&lt;br&gt;Operating temperature: -40 to +74 ºC (-40 to +165 ºF)</td>
</tr>
</tbody>
</table>

## Protocol Converters

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCI-422-MM-SC2 3624-0100</td>
<td><strong>2-channel Ethernet to Fibre Media Converter</strong>&lt;br&gt;2 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;2 x 100 Mbit/s fibre port, multi-mode 2 km, SC connector&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -25 to +75 ºC (-13 to +167 ºF)</td>
</tr>
<tr>
<td>MCI-422-SM-SC30 3624-0110</td>
<td><strong>2-channel Ethernet to Fibre Media Converter</strong>&lt;br&gt;2 x 10/100 Mbit/s, Ethernet TX, RJ-45&lt;br&gt;2 x 100 Mbit/s fibre port, single-mode 30 km, SC connector&lt;br&gt;Operating voltage: 10-60 VDC&lt;br&gt;Operating temperature: -25 to +75 ºC (-13 to +167 ºF)</td>
</tr>
</tbody>
</table>

**AD-01 3612-0001**<br>M-Bus adapter<br>1 x Up to 9600 bit/s, RS-232, D-sub or detachable screw terminals<br>2 x Up to 9600 bit/s, RS-232, detachable screw terminals<br>2 x Up to 9600 bit/s, detachable screw terminals, M-Bus slave<br>Operating voltage: 207-253 VAC<br>Operating temperature: 0 to +50 ºC (+32 to +122 ºF)
Accessories

- Optical Transceivers
- Power Supplies/Adapters
- Backup Device
- Cables and Antennas
Applying the finishing touches to your industrial application

To complement your industrial data communication devices and complete the solution, Westermo supplies a range of vital accessories. 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 you covered.
Optical Transceivers

Westermo offers a wide selection of Small Form Pluggable (SFP) transceivers. The selection of transceivers is available in a variety of models offering transmission ranges from 2 km to 120 km (1.2 mi to 75 mi) over fibre. The CX transceiver allows SFP ports to be used to connect an Ethernet RJ-45 cable. Contact Westermo for detailed information.

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Mode Transceivers</td>
<td>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 (9.3 to 74.6 mi).</td>
</tr>
<tr>
<td>Multi Mode Transceivers</td>
<td>Multi Mode Transceivers are available in a variety of models. Transmission capacity from 100 Mbit to 1 Gbit and distances from 550 m to 2 km (1805 ft to 1.24 mi).</td>
</tr>
<tr>
<td>Bi-directional Transceivers</td>
<td>Bi-Di Transceivers are available in a variety of models. 100 Mbit transmission capacity and distances from 2 km to 60 km. (1.24 mi to 37.3 mi).</td>
</tr>
<tr>
<td>CX Transceiver</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS-30 3125-0001</td>
<td>Power supply, DIN-rail</td>
</tr>
<tr>
<td></td>
<td>Output: DC 24-28V/30 W PSU</td>
</tr>
<tr>
<td></td>
<td>Input: 85-264 VAC, 85-375 VDC</td>
</tr>
<tr>
<td>PS-100/48 3125-0050</td>
<td>Power supply DIN-rail, PoE Ready PSU</td>
</tr>
<tr>
<td></td>
<td>Output voltage: 48-56 VDC</td>
</tr>
<tr>
<td></td>
<td>*preset to: 48 V ± 0.5% @ 2.1 A</td>
</tr>
<tr>
<td></td>
<td>Input: AC 100-120/220-240 V (Auto Select), 47-63 Hz</td>
</tr>
<tr>
<td></td>
<td>(AC 85-132 V/AC 184-264 V, DC 220-375 V)</td>
</tr>
</tbody>
</table>

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 all the managed EN 50155 switches 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.

<table>
<thead>
<tr>
<th>Product/Art. no</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB M12 plug IP67 3641-0190</td>
<td>Electrical specification: USB v1.1</td>
</tr>
<tr>
<td></td>
<td>Data rate: Up to 480Mbit/s</td>
</tr>
<tr>
<td></td>
<td>Connection: M12 A-coded male</td>
</tr>
<tr>
<td></td>
<td>Memory size: 16 Mbyte.</td>
</tr>
</tbody>
</table>
Cables and Antennas

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.

<table>
<thead>
<tr>
<th>Cables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnostic cable</strong>&lt;br&gt;1211-2027</td>
<td>Cable for diagnostic DDW-120 and RedFox console port to USB</td>
</tr>
<tr>
<td><strong>M12 cables</strong></td>
<td>M12 - M12&lt;br&gt;1 m, 5 m and 15 m&lt;br&gt;(3.28 ft, 16.4 ft and 49.2 ft)</td>
</tr>
<tr>
<td><strong>M12-RJ45 cables</strong></td>
<td>M12 - RJ-45&lt;br&gt;1 m, 5 m and 15 m&lt;br&gt;(3.28 ft, 16.4 ft and 49.2 ft)</td>
</tr>
<tr>
<td><strong>Power cables</strong></td>
<td>M12&lt;br&gt;1.5 m and 5 m&lt;br&gt;(4.92 ft and 16.4 ft)</td>
</tr>
<tr>
<td><strong>Radio cables</strong>&lt;br&gt;RG213</td>
<td>Cables for antennas&lt;br&gt;3 m, 5 m, 7 m, 10 m and 15 m&lt;br&gt;(9.84 ft, 16.4 ft, 23 ft, 32.8 ft and 49.2 ft)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Antennas</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ICL-5</strong>&lt;br&gt;3623-0797</td>
<td>Inter-Consist Link Antenna 5 GHz&lt;br&gt;3 x 3 MIMO&lt;br&gt;IP67</td>
</tr>
</tbody>
</table>
WeConfig
– Networking made easy

WeConfig is a network configuration management tool that makes it easy to configure single or multiple Westermo devices. WeConfig simplifies both the initial installation of a network and ongoing maintenance once commissioned.

Easy replacement and reconfiguration

Project files store all associated backup files and network topology information. These enable fast and easy replacement and reconfiguration of a damaged switch in the field. A new device can be installed and will automatically be discovered on the network by WeConfig. The configuration file of the old unit can simply be restored from the project file and the network is repaired.

Configuration, monitoring and diagnostics

To achieve network resilience, Westermo devices are automatically reconfigured. In the event of a network failure, processes running on the network are therefore unaffected. Because processes are uninterrupted, the user might not be aware that a network failure has occurred. WeConfig graphically displays the failed link as well as record of the time.

Download WeConfig for free at www.westermo.com

www.westermo.com
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 at www.westermo.com
WeConnect
– Secure remote access

WeConnect is a networking tool that enables secure remote connections to the network edge. Strong encryption techniques make it possible to remotely access any device on the network using a PC, smartphone or tablet. This allows the network to be managed from anywhere in the world, resulting in significant time and cost savings.

Easy set up
WeConnect works with any type of internet connection and there are no limits to the type of media used including ADSL, VDSL2, fibre, cellular or even satellite. WeOS products connect to WeConnect automatically and there is no need for public IP-addresses or special SIM cards.

Reliable connectivity
WeConnect is a very scalable and multi-resilient solution, designed to provide individual secure networks completely isolated from each other. WeConnect is therefore not a multi-tenant solution, removing the possibility of data leakage or restrictions on IP-addresses.

Contact Westermo to find out more.