Ethernet SHDSL Extender

DDW-120

- Save time and money reusing old cables
  - Up to 15.3 Mbit/s Ethernet over twisted pair cables
  - Simple to use – no software configuration
  - Up to 15 km point-to-point solution
- Designed for use in harsh industrial applications
  - Dual 10 – 60 VDC power input
  - Total galvanic isolation
  - TBU – transient blocking unit
- Robust for long service life
  - 600,000 hours MTBF to MIL-HDBK-217K
  - –40 to +70°C (–40 to +158°F) with no moving parts
  - Industrial EMC, shock and vibration testing
- Simple to use on industrial networking applications
  - Transparent to industrial protocols
  - Line data information available via diagnostic cable
  - Link fault forward function

CE FC Part 15 c UL us LISTED EN 61000-6-2 Industrial Immunity EN 61000-6-3 Residential Emission EN 50121-4 Railway Trackside NEMA TS 2-2003 Traffic Controller Assemblies with NTCIP Requirements

The Wolverine series of Ethernet extenders allow cost effective Ethernet networks to be created over long distances, at data rates of up to 15.3 Mbit/s. The SHDSL technology makes it possible to reuse many types of pre-existing copper cables. This can lead to considerable financial savings as expensive fibre cables do not need to be installed. Dependent on cable characteristics, distances up to 15 km (9.3 mi) can be achieved. Configuration of the DDW-120 is performed using only DIP switches, which ensures rapid installation.

The Wolverine DDW-120 is designed for use in heavy duty industrial applications. The wide power range, comprehensive diagnostics and TBU transient protection make it ideal for installation and monitoring in industrial applications.

Only industrial grade components are used which gives the DDW-120 an MTBF of 600,000 hours and ensures a long service life. A wide operating temperature range of –40 to +70°C (–40 to +158°F) can be achieved with no moving parts. The DDW-120 has been tested both by Westermo and external test houses to meet many EMC, isolation, vibration and shock standards, all to the highest levels suitable for heavy industrial environments and rail trackside applications.

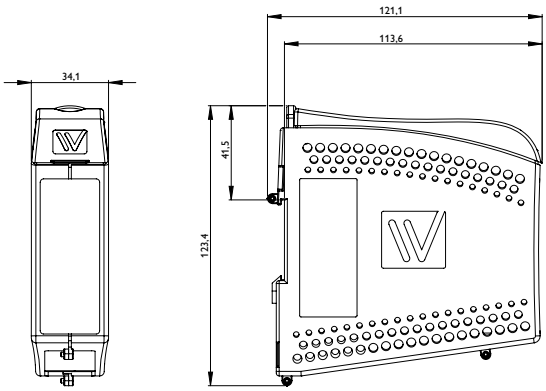
The DDW-120 is transparent for multicast addressing and VLAN packets, allows VPN pass-through for IPsec and can be used with protocols like MODBUS/TCP and Profinet IO. Line diagnostics can be collected using a simple plug-in diagnostic cable allowing the user to determine the quality of the line in use. The link fault forward function helps to transfer indication of media failure onto connected ports to ensure that the DDW-120 can be used in resilient network structures.

Ordering Information

Art.no	Description
3621-0110	DDW-120
1211-2027	Diagnostic cable (Console) (Accessories)
3125-0001	PS-30, Power supply, DIN mounted (Accessories)

Specifications DDW-120

Dimensional drawing



Dimension W x H x D	34 x 123 x 121 mm (1.33 x 4.84 x 4.76)
Weight	0.2 kg
Degree of protection	IP 21

Power	
Operating voltage	10 to 60 VDC
Rated current	240 mA @ 12 VDC 110 mA @ 24 VDC 60 mA @ 48 VDC

Interfaces	
DSL	1 x 2 positon detachable scerw terminal, 192 kbit/s to 15304 kbit/s
Diagnostic port	1 x 2.5 mm jack, 115.2 kbit/s
Ethernet TX	1 x RJ-45, 10 Mbit/s, 100 Mbit/s, manual or auto

Temperature	
Operating	–40 to +70°C (–40 to +158°F)
Storage & Transport	–40 to +70°C (–40 to +158°F)

Agency approvals and standards compliance	
EMC	EN 61000-6-2, Immunity industrial environments
	EN 55024, Immunity IT equipment
	EN 61000-6-3, Emission residential environments
	FCC part 15 Class B
	EN 50121-4, Railway signalling and telecommunications apparatus
Safety	EN 60950-1, IT equipment
	UL/CSA/IEC/EN 60950-1, IT equipment
SHDSL	ITU-T G.991.2, G.SHDSL and G.SHDSL.bis standard
Environmental	NEMA TS 2-2003 version 02.06 Traffic Controller Assemblies with NTCIP Requirements