Industrial Ethernet Extender with bypass relay
DDW-142-12VDC-BP

⠿ Save time and money reusing old cable and equipment
  • Up to 15.3 Mbit/s Ethernet over twisted pair or 30.6 Mbit/s with bonding
  • 2 port 100 Mbit L2 switch supporting VLAN and QoS
  • Legacy connection via RS-232 port

⠿ Security, legacy resilient networking from WeOS
  • Port access control (802.1x) or MAC authentication
  • RSTP and multimedia ring solutions
  • Modem replacement, serial to IP, Modbus Gateway functions

⠿ Easy to Use
  • Basic installation with no configuration needed
  • Web screen for simple configuration and CLI for professional use
  • USB fluid configuration for easy maintenance

⠿ Robustly designed for mission critical applications
  • 437,000 hours MTBF to MIL- HDBK -217F for extreme reliability
  • Extensive line diagnostics and fault I/O contact and SNMPv3
  • Robust design for vibration, temperature and dual power input

CE **EN 50121-4** Railway Trackside **EN 61000-6-1** Residential Immunity **EN 61000-6-2** Industrial Immunity **EN 61000-6-3** Residential Emission **EN 61000-6-4** Industrial Emission

Westermo's Ethernet extender technology based on SHDSL makes it possible to reuse many types of pre-existing copper cables, which can lead to considerable financial savings when installing new systems. DDW-142-12VDC-BP allows effective Ethernet networks to be created over long distances (up to 15 km/9.3 mi) at data rates up to 15.3 Mbit/s on a single twisted pair cable. By using two pairs ''bonded'' this rate can be doubled up to 30.6 Mbit/s. The integral switch allows 2 Ethernet devices to be attached and an RS-232 port for a legacy piece of equipment to be incorporated into the IP network.

The WeOS (Westermo Operating Systems) has been developed to allow cross platform and future proof solutions. WeOS can deliver unique security functionality for this class of product as well as allowing the DDW-142-12VDC-BP to form part of a resilient multimedia ring network using the Westermo FRNT protocol or industry standard STP/RSTP. WeOS has been developed to provide industrial networking solutions and contains amazing serial connectivity capability – from being able to simulate an old AT modem, convert Modbus RTU to TCP or encapsulate serial data into an IP packet. The DDW-142-12VDC-BP is incredibly flexible and easy to use. A basic point to point or multidrop network can be created without the need for any kind of configuration.

The DDW-142-12VDC-BP is often used in applications on railways, roads or with utilities where failure could result in significant costs. All Westermo products are designed with high MTBF in mind to improve operational reliability and also give long service life. Even features like the SHDSL diagnostics and management allow indication of line degradation allowing planned maintenance. As the unit is designed for these applications Westermo also ensure that testing is carried out to ensure the unit can operate at extremes of temperature, EMC and vibration and still provide robust communications.

Ordering Information	
Art.no	**Description**
3642-0440	DDW-142-12VDC-BP
1211-2027	Diagnostic cable (Console) (Accessories)
3125-0001	PS-30, Power supply, DIN mounted (Accessories)

Specifications DDW-142-12VDC-BP

Dimensional drawing
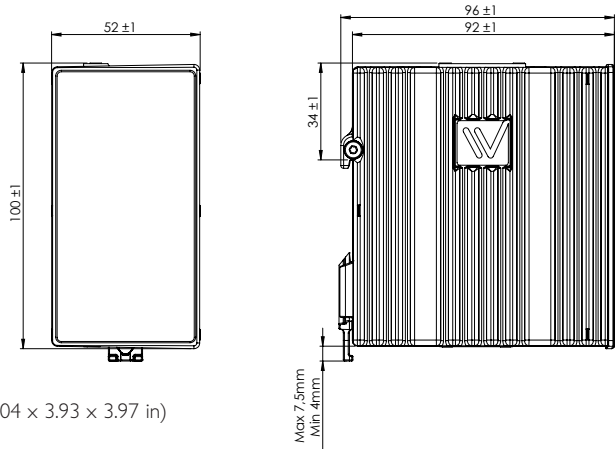
Dimension W x H x D	52 x 100 x 101 mm (2.04 x 3.93 x 3.97 in)
Weight	0.8 kg
Degree of protection	IP40

Power	
Rated voltage	12 to 48 VDC
Operating voltage	9.6 to 60 VDC
Rated current	475 mA (765 mA) @ 12 VDC (with 500 mA USB load) 245 mA (405 mA) @ 24 VDC (with 500 mA USB load) 124 mA (200 mA) @ 48 VDC (with 500 mA USB load)

Interfaces	
Ethernet TX	2 × RJ-45, 10 Mbit/s, 100 Mbit/s, manual or auto
SHDSL	2 × 2-position detachable screw terminal
RS-232	1 × RJ-45, 300 bit/s – 115.2 kbit/s
Digital I/O	1 × 4-position detachable screw terminal
USB	1 × USB 2.0 host interface
Console	1 × 2.5 mm jack, use only Westermo cable 1211-2027

Temperature	
Operating	–40 to +74°C (–40 to +165°F)
Storage & Transport	–40 to +85°C (–40 to +185°F)

Agency approvals and standards compliance	
EMC	EN 61000-6-1, Immunity residential environments
	EN 61000-6-2, Immunity industrial environments
	EN 61000-6-3, Emission residential, commercial and light-industrial environments
	EN 61000-6-4, Emission industrial environments
	EN 50121-4, Railway signalling and telecommunications apparatus
	IEC 62236-4, Railway signalling and telecommunications apparatus
Safety	EN 60950-1, IT equipment

Specfications may change without prior notice.

Westermo *Robust Industrial Data Communications – Made Easy*