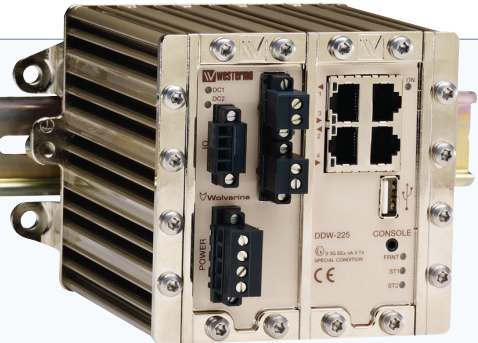


# EX Approved Redundant Ring Ethernet Extender

## DDW-225-EX

- ⌘ Global approval for hazardous area use
  - IECEx, International EX standard
  - ATEX 94/9/EC, EU directive
- ⌘ Save time and money reusing old cables
  - Up to 15.3 Mbit/s Ethernet over twisted pair cables
  - Up to 15 km between units
  - Easy and quick to configure with WeOS
- ⌘ Designed for use in harsh industrial applications
  - Dual 16 – 60 VDC power input
  - Extensive line diagnostics and fault I/O contact
  - TBU – transient blocking unit
- ⌘ Robust for long service life
  - 700,000 hours MTBF to MIL-HDBK-217K
  - –40 to +70°C (–40 to +158°F) with no moving parts
  - Industrial EMC, shock and vibration testing



The Wolverine DDW-225-EX is an Industrial Ethernet Extender, powered by the Westermo WeOS network operating system. Independently tested for IECEx and ATEX by Baseefa the Wolverine is the perfect solution for hazardous area applications in any part of the world.

The DDW-225-EX allows effective Ethernet networks to be created over long distances (up to 15 km) at data rates up to 15.3 Mbit/s. The SHDSL technology makes it possible to reuse many types of pre-existing copper cables which can lead to considerable financial savings. Dependent on cable characteristics, distances up to 15 km (9.3 mi) can be achieved. The DDW-225-EX is powered by the WeOS operating system allowing complex networking functions to be easily configured. For simple applications, no configuration is required making the unit ideal for rapid installation.

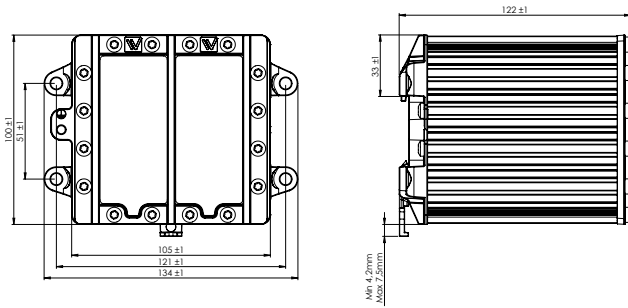
With its robust aluminium housing, the DDW-225-EX is designed for use in heavy duty industrial applications. The wide power range and I/O fault contact make it ideal for easy installation and monitoring in industrial applications.

Only industrial grade components are used which gives the DDW-225-EX an MTBF of 700,000 hours and ensures a long service life. A wide operating temperature range of –40 to +70°C (–40 to +158°F) can be achieved without the need for moving parts or cooling holes in the case. The DDW-225 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.

### Ordering Information

Art.no	Description
3642-5250	DDW-225-EX
1211-2027	CLI Cable (Console) (Accessories)
3125-0001	PS-30, Power supply, DIN mounted (Accessories)

# Specifications DDW-225



Dimension W x H x D 134 x 100 x 122 mm (5.25 x 3.93 x 4.80 in)  
 Weight 1.5 kg  
 Degree of protection IP 40

	DDW-225 @ 0.5 mm <sup>2</sup>	DDW-225 @ 0.4 mm <sup>2</sup>
Speed bit/s	Distance metre / miles	Distance metre / miles
192000	10000 / 6.21	6450 / 4.00
1024000	7650 / 4.75	4850 / 3.01
1280000	7050 / 4.38	4700 / 2.92
2304000	5950 / 3.69	4150 / 2.58
3328000	4900 / 3.04	3700 / 2.30
4544000	4250 / 2.64	3150 / 1.95
5696000	3650 / 2.26	2800 / 1.73
6200000	3000 / 1.86	2250 / 1.39
6712000	2500 / 1.55	1875 / 1.1
8760000	2000 / 1.24	1500 / 0.93
10296000	1500 / 0.93	1125 / 0.69
12344000	1000 / 0.62	750 / 0.46
15304000	700 / 0.43	525 / 0.32

Distance is tested without noise.

Power	
Operating voltage	16 to 60 VDC
Rated current	330 mA @ 20 VDC 150 mA @ 48 VDC

Interfaces	
Console	1 x 2.5 mm jack, use Westermo cable 1211-2027
USB	1 x USB 2.0 host interface
Digital I/O	1 x 4-position detachable screw terminal
Ethernet TX	4 x RJ-45, 10 Mbit/s or 100 Mbit/s
DSL	2 x 2-position detachable screw terminal, 192 kbit/s to 15.3 Mbit/s

Temperature	
Operating	-40 to +70°C (-40 to +158°F)
Storage & Transport	-40 to +85°C (-40 to +185°F)
Maximum surface temperature	135°C (275°F) (temperature class T4)

Agency approvals and standards compliance	
EMC	EN 55024, EN 55024 A1, EN 55024 A2, Electromagnetic compatibility – Immunity IT equipment.
	EN 55022, EN 55022 A1, IT equipment. Radio disturbance characteristics. Limits and methods of measurement.
	EN 61000-6-1, Immunity residential environments.
	EN 61000-6-2, Immunity industrial environments.
	EN 61000-6-4, Emission industrial environments.
	EN 61000-6-3, Emission residential, commercial and light-industrial environments.
	FCC part 15 Class A and Class B.
EN 50121-4, Railway signalling and telecommunications apparatus.	
Safety	EN 60950-1, IT equipment.
SHDSL	ITU-T G.991.2.
IEC EX	Explosive atmosphere
	IEC 60079-0, General requirements
	IEC 60079-15, Equipment protected by type of protection "n"
ATEX	Explosive atmosphere
	EN 60079-0, General requirements
	EN 60079-15, Equipment protected by type of protection "n"