

# Industrial Ethernet Gigabit Media Converter

## MCW-211-F1G-T1G



- ⌘ Easy to install and use
  - Flexible SFP transceiver design
  - Gbit or FE auto-negotiation and polarity detection
  - Transparent to industrial Ethernet protocols
- ⌘ Designed for use in harsh industrial applications
  - Dual 9.6 – 57.6 VDC power input
  - Total galvanic isolation between each cable screen
  - IP21
- ⌘ Robust for long service life
  - 1.426.000 hours MTBF to MIL-HDBK-217K
  - –40 to +74 °C (–40 to +165 °F) with no moving parts
  - Industrial EMC, shock and vibration testing
- ⌘ Diagnostic fault indication and legacy connectivity
  - Link fault forwarding
  - Diagnostic LEDs
  - DIP switches to lock port parameters for old equipment



**EN 50121-4**  
Railway Trackside

**EN 61000-6-1**  
Residential Immunity

**EN 61000-6-2**  
Industrial Immunity

**EN 61000-6-4**  
Industrial Emission

**NEMA TS 2**  
Traffic Controller Assemblies  
with NTCIP Requirements

The MCW-211-F1G-T1G is an unmanaged media converter with one SFP fibre port supporting 100 Mbit/s or Gbit Ethernet, and one copper port supporting 10/100 Mbit/s or Gbit Ethernet. It is designed for easy use in heavy duty industrial, maritime and rail trackside applications. The unit supports 802.1Q long packets which allow all standard industrial Ethernet protocols to be used.

The Westermo range of 100Mbit or Gbit Small Form-factor Pluggable (SFP) transceivers are available as multimode, singlemode or Bi-Di transceivers with distance up to 120 km.

The MCW-211-F1G-T1G is designed for use in industrial applications with dual 9.6 to 57.6 VDC power input. The unique "tri-galvanic" isolation provides isolation between the ports and the power supply, and avoids ground loop currents. The IP21 rating ensures that the unit can be installed in locations where condensed water may occur.

Only industrial grade components are used which gives the MCW-211-F1G-T1G an MTBF of 1.426.000 hours and ensures a long service life. A wide operating temperature range of –40 to +74 °C (–40 to +165 °F) can be achieved with no moving parts.

The MCW-211-F1G-T1G has been tested both by Westermo and external test houses to meet EMC, isolation, vibration and shock standards, all to the highest levels suitable for heavy industrial, trackside and maritime environments.

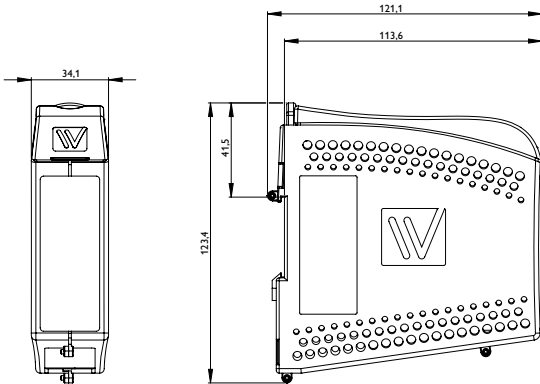
The link fault forward function helps to transfer indication of media failure onto connected ports to ensure that the MCW-211-F1G-T1G can be used in resilient network structures. Data rate and flow control can be locked by DIP switch which can eliminate problems with old legacy Ethernet equipment that is unable to support auto negotiation.

### Ordering Information

Art.no	Description
3645-2001	MCW-211-F1G-T1G
3125-0001	PS-30, Power supply, DIN mounted (Accessories)

# Specifications MCW-211-F1G-T1G

## Dimensional drawing



Dimension W x H x D 34 x 123 x 121 mm (1.33 x 4.84 x 4.76 in)  
 Weight 0.25 kg  
 Degree of protection IP21

Power	
Operating voltage	9.6 – 57.6 VDC
Rated current	12 – 48 VDC; 140 – 39 mA

Interfaces	
Ethernet TX	1 x RJ-45, 10 Mbit/s, 100 Mbit/s or 1 Gbit/s
Ethernet FX	SFP (LC connector), 100 Mbit/s or 1 Gbit/s, transceivers supported

Temperature	
Operating	-40 to +74 °C (-40 to +165 °F)
Storage & Transport	-50 to +85 °C (-58 to +185 °F)

Agency approvals and standards compliance	
EMC	EN 50121-4, Railway applications – Electromagnetic compatibility – Emission and immunity of the signalling and telecommunications apparatus
	EN 61000-6-1, Immunity residential environments
	EN 61000-6-2, Immunity industrial environments
	EN 61000-6-4, Emission industrial environments
Safety	EN/IEC/UL 60950-1, IT-equipment
Environmental	NEMA TS 2, Traffic Controller Assemblies with NTCIP Requirements