



RS-422/485 Converter

MDW-45

- Easy to install and use RS-232 to RS-422/485 converter
 - Purpose built DIN rail casing with integral clip
 - RS-232 LED indicators for data and RTS/CTS
 - DIP switch configuration
- Designed for use in harsh industrial applications
 - Low voltage and high voltage version for DC and AC powering
 - Total galvanic isolation & transient protection
 - RS-422/485 termination and fail safe
- Robust for long service life
 - 1,000,000 hours MTBF to MIL-HDBK-217K
 - Operational ambient temperature -40 to $+70^{\circ}\text{C}$ (-40 to $+158^{\circ}\text{F}$)
 - Industrial EMC, shock and vibration approval tests
- Flexible communication options
 - Two or four wire bus according to RS-422 or RS-485 standard
 - Data format selectable from 9 to 12 bit
 - Bus control selected by data or RTS



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

The MDW-45 is a simple serial converter allowing RS-232 and RS-422/RS-485 systems to be connected. DIP switches are used for all configuration options which makes the unit simple to install.

The MDW-45 is designed for use in heavy duty industrial applications. The wide power range, galvanic isolation, transient protection and the design of the termination and fail safe guarantees communication in the worst environments.

Only industrial grade components are used which gives the MDW-45 an MTBF of 1,000,000 hours and ensures a long service life. A wide operating temperature range of -40 to $+70^{\circ}\text{C}$ (-40 to $+158^{\circ}\text{F}$) is achieved using no moving parts. The MDW-45 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.

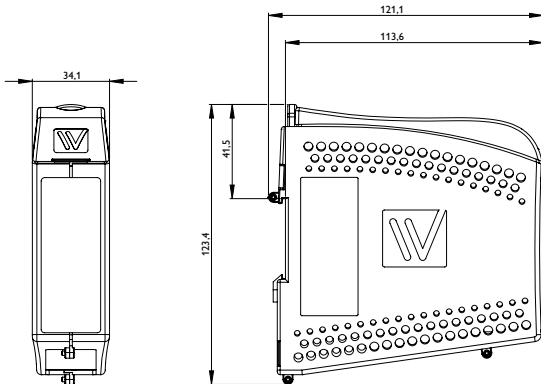
The configurable design of the converter makes the MDW-45 suitable for a variety of applications with various speed and data bit options. Normally RS-485 data direction is controlled by the RS-232 handshaking lines however the MDW-45 also features an automatic turning time function allowing the unit to operate in any application.

Ordering Information

Art.no	Description
3617-0001	MDW-45 LV, RS-232, DIN model, 9.6–57.6 VDC
3617-0101	MDW-45 HV, RS-232, DIN model, 85.5–264 VAC, 88–300 VDC

Specifications MDW-45

Dimensional drawing



Dimension W x H x D 34 x 123 x 121 mm (1.33 x 4.84 x 4.76)

Weight 0.19 kg

Degree of protection IP 21

Power

Operating voltage	LV: 9.6 to 57.6 VDC HV: 85.5 to 264 VAC or 88 to 300 VDC
Rated current	LV: 95 mA @ 12 VDC or 35 mA @ 48 VDC HV: 21 mA @ 95 VAC or 10 mA @ 110 VDC

Interfaces

RS-422/485	1 x 4-position detachable screw terminal, 300 bit/s to 115.2 kbit/s
RS-232	1 x 9-pin D-sub, 1200 bit/s to 115.2 kbit/s

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 61000-6-1, Electromagnetic compatibility – Immunity for residential, commercial and light-industrial environments
	EN 61000-6-2, Electromagnetic compatibility – Immunity for industrial environments
	EN 61000-6-3, Electromagnetic compatibility – Emission standards for residential, commercial and light industrial environments
	EN 61000-6-4, Electromagnetic compatibility – Emission standard for industrial environments
	FCC part 15 Class B
	EN 50121-4 Railway signalling and telecommunications apparatus
	IEC 62236-4 Railway signalling and telecommunications apparatus
Safety	EN/IEC 60950-1, IT equipment



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