

20 mA Current loop converter

MD-21

- ⌘ 20 mA Current loop (TTY) converter
 - Standard RS-232 interface
 - Serial speed up to 19 200 kbit/s
 - Distance up to 6 km (3.7 mi)
- ⌘ Easy to install and use
 - Transparent communication
 - Purpose built DIN rail casing with integral clip
 - D-sub or screw terminal
- ⌘ Designed for use in harsh industrial applications
 - AC or DC power options
 - Total galvanic isolation & transient protection
 - Industrial EMC, shock and vibration approval
- ⌘ Several configuration options
 - Receiver/Transmitter active or passive
 - Possibility to invert receiver and transmitter signals
 - Possible to use in multidrop applications



The MD-21 is a 20 mA current loop (TTY) converter allowing RS-232 systems to be connected to a 20 mA current loop interface over a distance up to 6 km (3.7 mi).

The serial interface is a standard RS-232 interface with five control signals. Since the communication is totally transparent there is no need for different settings except for if the current loop shall be active or passive.

The MD-21 is designed for use in heavy duty industrial applications. The different power options, galvanic isolation, transient protection guarantees communication in the worst environments. The MD-21 has been tested to meet many EMC, isolation, vibration and shock standards, all to the highest levels suitable for heavy industrial environments.

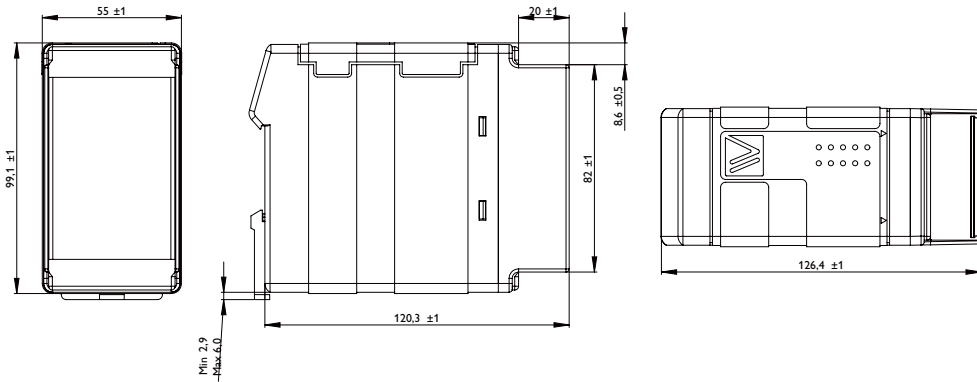
The design of the current loop converter makes the MD-21 suitable for a variety of applications with various speed and data bit options. The converter can be used as a standard RS-232 to 20 mA current loop converter or connected in ring creating a multi-drop network. Being able to act as the current source on both transmit and receive circuits if required ensures that the MD-21 is suitable for any TTY application.

Ordering Information

Art.no	Description
3151-2001	MD-21, RS-232, DIN model, 12–36 VDC.
3151-2005	MD-21, RS-232, DIN model, 12–36 VDC, –40 to +70°C (–40 to 158°F).
3151-3101	MD-21, RS-232, DIN model, 230 VAC.

Specifications MD-21

Dimensional drawing



Dimension W x H x D 55 x 100 x 132 mm (2.16 x 3.93 x 5.19 in)

Weight 0.3 kg

Degree of protection IP 20

Power

Operating voltage	MD-21 DC	MD-21 DC -40 to +70°C (-40 to 158°F)	MD-21 AC
		12 – 36 VDC	12 – 36 VDC
Rated current	140 mA @ 12 VDC	140 mA @ 12 VDC	22 mA @ 230 VAC

Interfaces

RS-232 male	1 x up to 19.2 kbit/s
RS-232 detachable screw terminal	1 x up to 19.2 kbit/s
20 mA current loop	1 x up to 19.2 kbit/s

Temperature

Operating	5 – 50°C (41 – 122°F)
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Agency approvals and standards compliance

EMC	SS-EN 50081-1/SS-EN 55022 (1992): Class B
	SS-EN 50082-2/SS-EN 61000-4-2 (1995): 4 kV CD, 8 kV AD
	SS-EN 50082-2/SS-EN 61000-4-4 (1995): 4 kV power; 2 kV signals
	SS-EN 50082-1/SS-IEC 801-3 (1984): 3 V/m
Safety	EN 60950 (1995)