INSTALLATION MANUAL

Z107

RS232 - RS485/422 serial converter for DIN rail installation

EN

CE

SENECA

ISO 9001:2008

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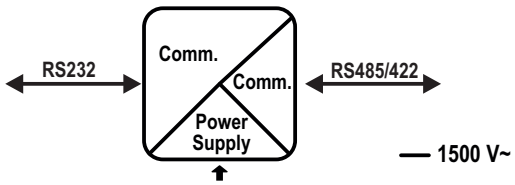
For manuals and configuration software, visit www.seneca.com/products/z107

TECHNICAL SPECIFICATIONS

POWER SUPPLY *Voltage* *Absorption*	 10 – 40 V⎓, 19 – 28 V~ 2.5 W Max.
1500 Vac 3-WAY INSULATION	
OPERATION *Communication speed* *Direction change*	2 Half Duplex wires, 4 Full Duplex wires, point-point or multidrop 9600, 19200, 38400, 57600, 115200 baud automatic timed or via RTS line
LED	Power on, Rx line, Tx line, RTS line
COVERAGE	Up to 1200 m
CONNECTIONS	RS232: via terminal block or Rj10 connector RS485: via terminal block or SENECA bus connector
ASSEMBLY	DIN IEC En60715 rail (omega bar)
ENVIRONMENTAL CONDITIONS *Temperature* *Humidity* *Storage temperature* *Protection rating*	 Recommended range with power supply: -20° - +60°C. 30% - 90%, non condensing. from -20°C to 80°C IP20
STANDARDS	**EN61000-6-4** (electromagnetic emission, industrial environment). **EN61000-6-2** (electromagnetic immunity, industrial environment). **EN61010-1** (safety)

PRELIMINARY WARNINGS

	Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows that the product must be disposed of at a collection centre authorised to recycle **electrical and electronic waste**.
	**The full content of this manual must be read before operation.** The device is to be exclusively used by qualified electricians.
	Damaged parts must be replaced by the manufacturer, who is also responsible for repairing the device. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.
	The warranty shall become null and void in the event of improper use or tampering with the device or accessories supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

DIP SWITCH SETTINGS

On the side of the module there are DIP switches that can be used to select the desired functions.
To select these functions, set the DIP switches as shown in the tables:

Communication speed selection:

SW1- Baud Rate

1	2	3	DESCRIPTION
			9600 BAUD
↑			19200 BAUD
↑	↑		38400 BAUD
↑		↑	57600 BAUD
↑	↑	↑	115200 BAUD

Selection of connection type and line switching:

SW1- Mode

4	5	6	DESCRIPTION
↑			HALF DUP. RTS
↑		↑	HALF DUP. AUTO
			FULL DUP. RTS
		↑	FULL DUP. AUTO
	↑		FULL DUP. POINT TO POINT

KEY

↑	**ON**
	OFF

NOTE: set the communication speed when the automatic line switching is set.

INSTALLATION REGULATIONS

For optimal operation and long life, adequate ventilation must be provided for the module(s), avoiding positioning channels that obstruct the ventilation louvers.
Avoid fitting modules above equipment that generates heat; you are advised to fit them at the bottom of the panel.

NOTE: Use of the DIN guide connectors ensures practical fitting and correct ventilation of the modules.
To ensure correct operation of the converter, the following precautions should also be taken in the installation phase:

- Use shielded cable for connections longer than three metres or in noisy environments (see section SERIAL INTERFACE).
- Make the “serial” connections and set the dip-switches BEFORE powering the instrument.
- If using the converter with speeds below 9600 baud, the direction change must be set exclusively via RTS line.

INSTALLATION ON AND REMOVAL FROM THE DIN IEC EN60715 RAIL

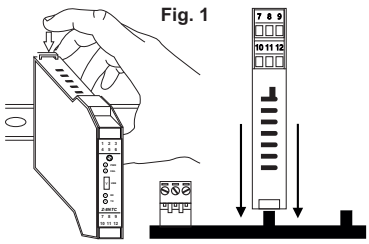


Fig. 1

Insertion on the OMEGA IEC EN 60715 rail:
1) Move the two hooks on the back of the module outwards as illustrated in **Fig.2**.
2) Insert the rear IDC10 connector of the module on a free slot of the OMEGA rail accessory as shown in **Fig. 1** . (insertion is univocal as connectors are polarised).
3) To secure the module to the OMEGA rail, tighten the four hooks on the side of the IDC10 rear connector as shown in **Fig. 1.**

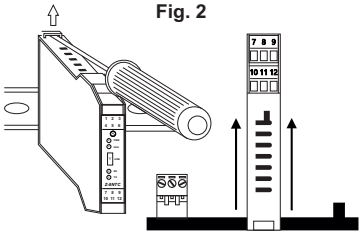
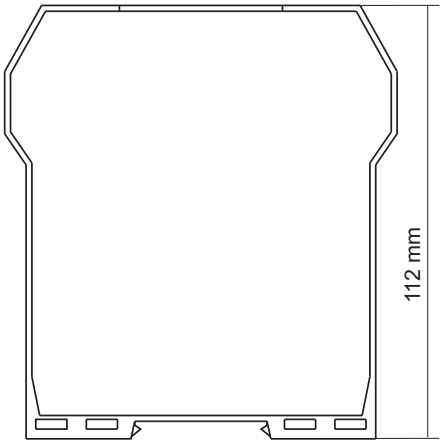


Fig. 2

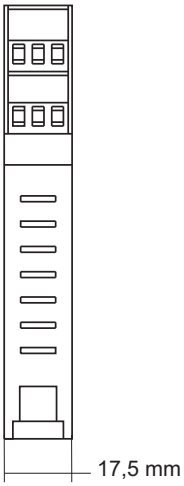
Removal from the OMEGA IEC EN 60715 rail:
As illustrated in **Fig.2**:
1) With the help of a screwdriver, pull the two hooks on the side of the module outwards.
2) Extract the module from the rail.

DIMENSIONS AND OVERALL DIMENSIONS

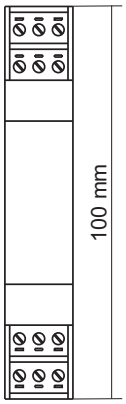
DEPTH



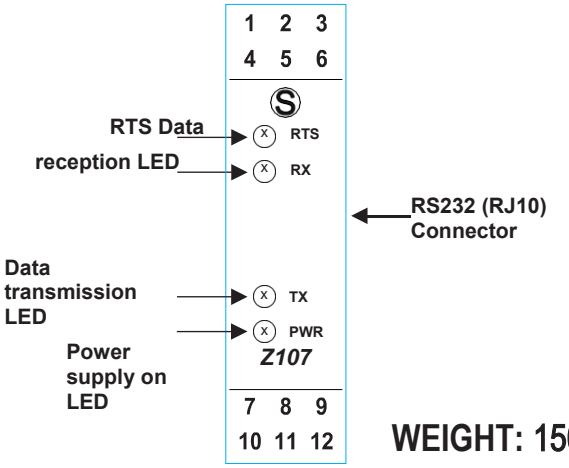
WIDTH



HEIGHT



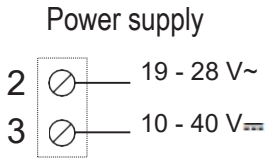
FRONT PANEL DESCRIPTION



WEIGHT: 150 g

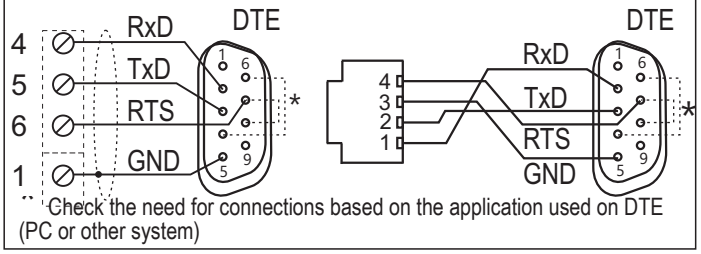
ELECTRICAL CONNECTIONS

POWER SUPPLY

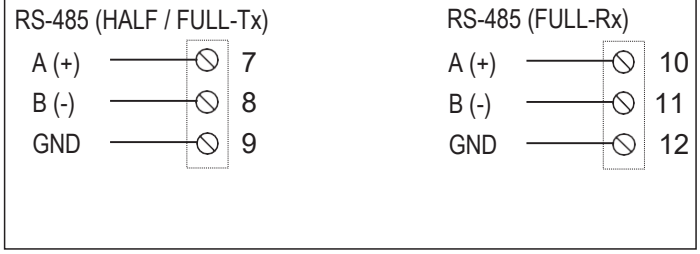


Terminal	Function
7	A(+) RS485 (HALF or Tx in FULL D.)
8	B(-) RS485 (HALF or Tx in FULL D.)
9	GROUND
10	A(+) RS485 (Rx in FULL D.)
11	B(-) RS485 (Rx in FULL D.)
12	GROUND

RS232



RS485



TROUBLESHOOTING

Problem	Check
The green “POWER” LED does not come on.	Check the presence and value of the power supply.
The red “Tx” LED remains on continuously.	Check that the A and B cables have not been swapped..
The data received are not correct.	Check the communication speed set; switch to mode RTS or vice versa if necessary.

CONTACT INFORMATION:

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