





Installation Manual

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Led status message

DIP-switch setting

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General description

The Z107FO is a RS232 and RS485 signal repeater through optical fiber. The device can be used to increase a number of nodes connection into the same logical bus, and its lenght can be extended up to 2 Km.

General features

- ✓ Optical fiber communication up to 2 Km.
- √ 500 VAC isolation between input and power supply.
- ✓ Simplified assembly trough DIN rail socket.
- ✓ Power supply 12–40 Vdc or 12–28 Vac. ✓ Operating temperature -30℃/60℃.
- ✓ Operating status shows by frontal LED.
- ✓ Possibility of conversion between RS232 and RS485
- ✓ Possibility of communication between different Baud Rate

SW

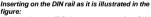
- ✓ Communication configuration settings from DIP SWITCH. ✓ Maximum Baud rate: 115200 bps.
- ✓ RS232, RS485 communications.
- ✓ Possibility of conversion between RS232 end RS485.
- ✓ Possibility of communication between different Baud Rate.

Technical Specification				
POWER SUPPLY				
Voltage	12–40 Vdc or 12–28 Vac (50–60 Hz)			
Consumption	1,2 Watt max.			
TYPE OF COMMUNICATIONS				
Туре	RS232			
Plug-in	DB9 on the side of module			

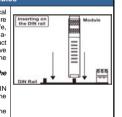
RS485 Type Removable 3-way screw terminals, 5,08 mm pitch Plug-in (4,5,6) / bus connector IDC10 PARAMETERS OPTICAL FIBER Multimodal optical-fiber (62.5/125 o 50/125 micron) Type Plug-in Frontal connector ST-ST. ENVIRONMENTAL CONDITION Operating temperature -30.. +60 ℃ Storage temperature -30.. +85 ℃ 30., 90 % non-condensing Humidity Up to 2000m asl Altitude CONNECTIONS Terminal block Removable 3-way screw terminals, 5.08 mm pitch Rear connector IDC10 for Din Rail for RS485 & power supply DB9-F Plug-in for RS232 connections DIMENSION/BOX 100 x 112 x 17,5 mm; 140 g Size and weight PBT, black Case ISOLATIONS/STANDARDS Standards

EN61000-6-4/2007 (electromagnetic emission, industrial environment) EN61000-6-2/2005 (electromagnetic immunity, industrial environment) EN61010-1/2001 (safety). All circuits must be insulated from the other circuits under dangerous voltage with double insulation. The power supply transformer must comply with EN60742: "Insulated transformers and safety transformers" **SENECA** MI001542-I-E ENGLISH - 3/8 Installation Rules

The module is designed to be installed in vertical position on a DIN 46277 rail. In order to ensure optimum performance and the longest working life, the module(s) must be supplied adequate ventilation and no raceways or other objects that obstruct the ventilation slots. Never install modules above sources of heat; we recommend installation in the lower part of the control panel.



- Insert the rear IDC10 connector on a free DIN rail socket slot (the inserting is univocal since the connectors are polarized).
- 2) Tighten the two locks placed at the sides of the rear connector to fix the module.

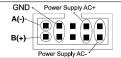


Electrical connections

POWER SUPPLY

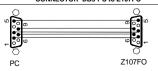
Power Supply is available also by using the Seneca DIN rail, by the rear IDC10 connector or by Z-PC-DINAL-A/B accessory

REAR CONNECTOR (IDC10)



In the figure the meaning of the IDC10 connector pins is showed, in the case the user decides to provide the signals directly through it.

CONNECTOR DB9 PC to Z107FO

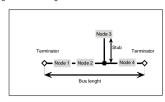


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RS485 connections standard

Connection between a remote modules must be made with cables of proper length, the figure below illustrates the meanig of bus lenght and stub.

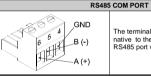
- Bus length: maximum length of the network. In particular is the length of wire that connect the modules at the ends of cable.
- Stub lenght; maximum length of the stub.



For the best performances, the use of special shielded cables is recommended (BELDEN 9841 cable for example)

RS232 COM PORT

The RS232 connection can be made only trough DB9 connector on the side of module. The connection cable, for the standard RS232, can be made as shown in figure or can be bought as an accessory (see Accessories). For the best performances, the use of shielded cables is recommended.



The terminal block (4.5.6) may be the alternative to the rear connector (IDC10) for RS485 port wiring

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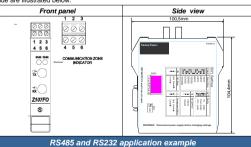
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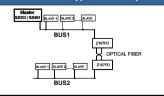
POWER SUPPLY PORT



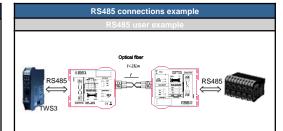
Main components position TERMINAL BLOCKS/ LEDS / DIP-SWITCH

The terminals numbering, the leds position on the frontal panel, the DIP-switch on the side are illustrated below





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Led status message

LED SP-Rx end FO-Rx: status communication

In the tabel below there is a description of SP-Rx and FO-Rx.

Meaning of Led SP-Rx (Red)					
N°	Led SP-Rx	STATUS	DESCRIPTION		
1	OFF	No	a)The parameters of communication are wror (see the DIP SWITCH settings). b)The connections of communication are wror (see connection standards)		
2	Blinking	Communica-	The communication work properly		

2	Blinking	tion	The communication work properly.		
	Meaning of Led FO-Rx (Red)				
N°	Led FO-Rx	STATUS	DESCRIPTION		
1	OFF	No communication	The device can't be connected properly		
2	blinking	Communica- tion	The communication package was received correctly from optical-fiber.		
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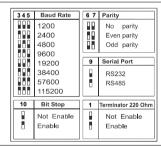
The Z107FO internally has a green led that blink when the power supply and communication functioning properly

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Dip-Switch setting

The position of dip switch defines the parameters of communication. In the table below are presents the position of dip switch and the function that represented:



N.B. I DIP-SWITCH 2 and 8 are not used

Accessories				
SUPPORTS FOR MOUNTING ON DIN RAIL GUIDE/ SERIAL CABLE				
Code	Description			
Z-PC-DINAL-A	Bus Support: Terminal blocks + 2 slots to connect Z-PC line modules.			
Z-PC-DINAL-B	Bus Support: Terminal blocks + 1 slot to connect Z-PC line modules.			
Z-PC-DIN2-A	Bus Support: 2 slots to connect Z-PC line modules.			
Z-PC-DIN2-B	Bus Support: 1 slots to connect Z-PC line modules.			
Z-PC-DIN8-A	Bus Support: 8 slots to connect Z-PC line modules.			
Z-PC-DIN8-B	Bus Support: 4 slots to connect Z-PC line modules.			
Z-PC-FO	F.O. cable with ST/ST connection, L=2m			
symbol, found on your pro	lectronic Equipment (Applicable throughout the European Union and other European countries with separate collection programs). This duct or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, as anoticitable, calcider, one of its of the anoticing of administration and information of administration of administrati			

