SENECA R-32DIDO 3-Phase Energy Power Meter with Universal Input Instruction Manual

INSTALLATION MANUAL
R-32DIDO
R-32DIDO-P

Contents

PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol ⚠ indicates conditions or actions that put the user's safety at risk.

The word **ATTENTION** preceded by the symbol ⚠ indicates conditions or actions that might damage the

instrument or the connected equipment. The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

	**WARNING:** The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available via QR-CODE shown on page 1.
	The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.
	Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection center authorized to recycle electrical and electronic waste.

http://www.seneca.it/products/r-32dido
DOCUMENTATION R-32DIDO

SENECA

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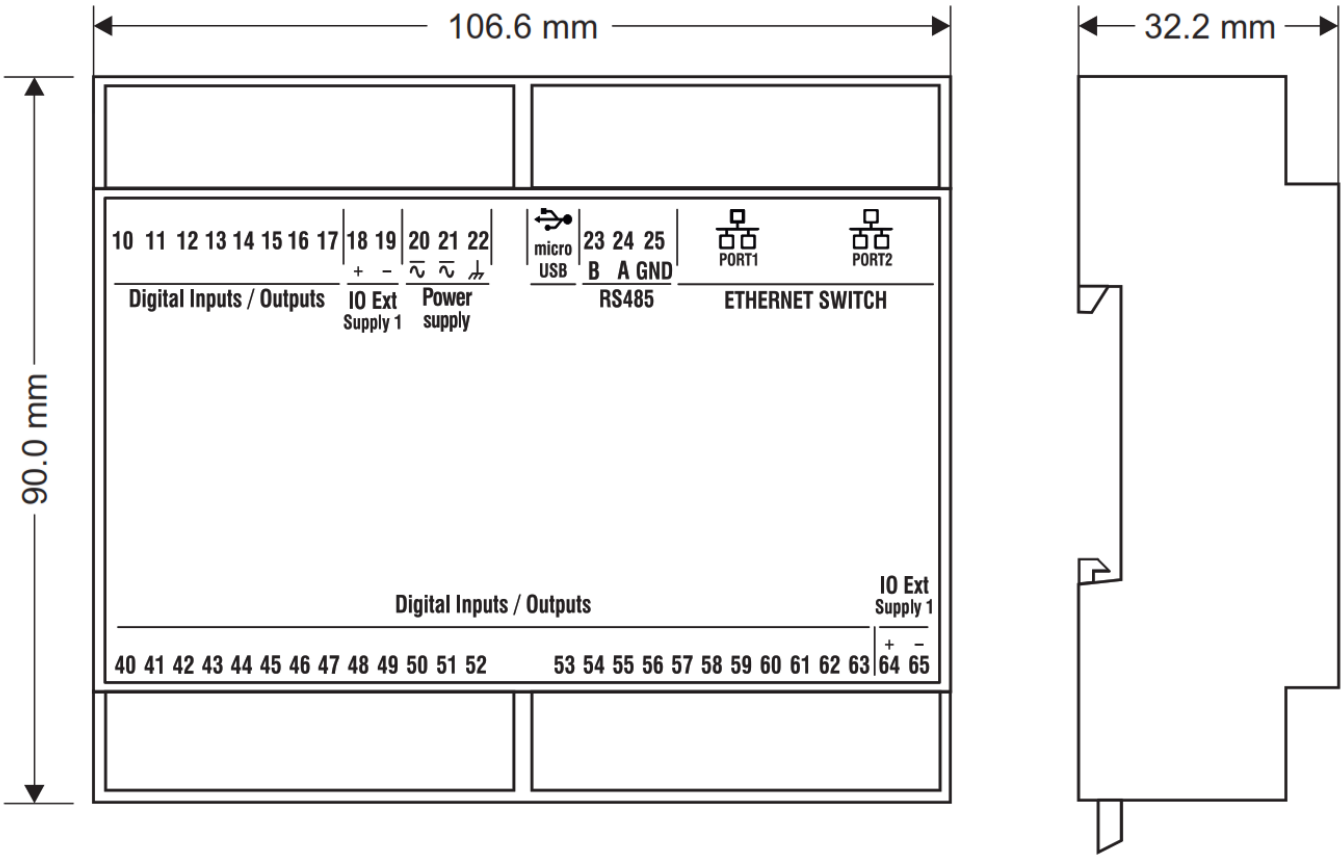
CONTACT INFORMATION

Technical support	support@seneca.it	Product information

INSTALLATION MANUAL

MODULE LAYOUT



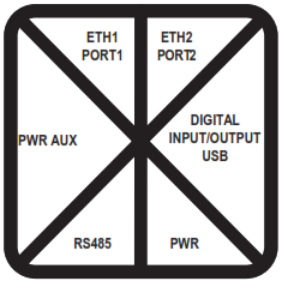
Weight: 170 g; Enclosure: UL94-V0 self-extinguishing PC/ABS material, black.

SIGNALS VIA LED ON FRONT PANEL

LED	STATUS	LED meaning
PWR	On	Device powered
	Off	Device not powered
101/1032	On	Digital input/output active
	Off	Digital input/output not active
OUT SUP	On	Digital inputs/outputs powered
	Off	Digital inputs/outputs not powered
STS (Status)	On	IP address set
	Flashing	Waiting for the IP address from the DHCP
COM (R-32DID0-P version only)	Off	No Profinet communication
	Flashing	Profinet communication present
FAIL	On	Digital output in FAIL
	Off	Digital output OK
RX (R-32DID0 version only)	On	RS485 port wiring error
	Flashing	Reception of data packet completed on RS485
TX (R-32DID0 version only)	**Flashing**	Reception of data packet completed on RS485
ETH TRF (Yellow)	**Flashing**	**Packet transit on Ethernet port**
ETH LNK (Green)	**Flashing**	**The Ethernet port is connected (LINK)**

TECHNICAL SPECIFICATIONS

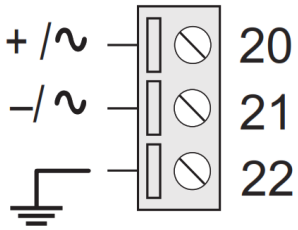
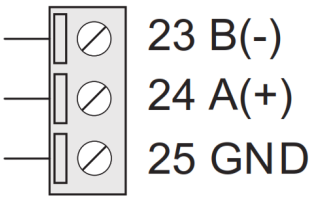
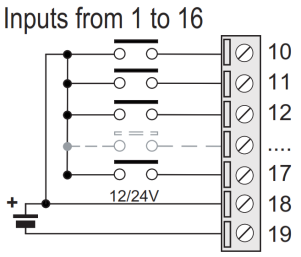
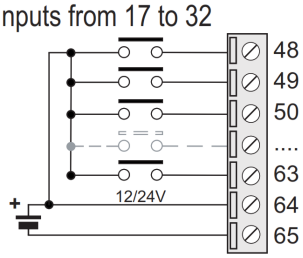
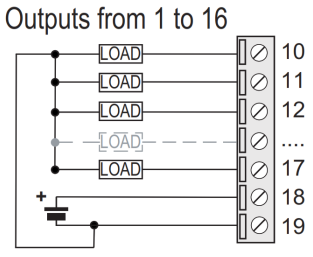
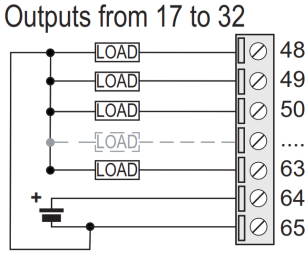
CERTIFICATIONS	CE	
		https://www.seneca.it/products/r-32dido/doc/CE_declaration

INSULATION	 **1500vas**
POWER SUPPLY	Voltage: 10÷40Vdc; 19÷28Vac; 50÷65Hz; Absorption: 3W max; Dissipation: 6.5W max
ENVIRONMENTAL CONDITIONS	Operating temperature: from -25°C to +65 °C Humidity: 10% ÷ 90% non condensing. Storage temperature: from -30°C to +85 °C Protection rating: IP20
CONFIGURATION	With integrated WEB server (only R-32DIDO) / Easy Setup 2
CONNECTIONS / COMMUNICATION PORTS	3.5 mm pitch terminal block, 1.5 mm² max cable section 1 micro USB port for programming (only R-32DIDO) 2 Ethernet (with LAN fault-bypass function) 100 base T on RJ45 1 RS485 port on terminals 23-24-25 (only R-32DIDO version)
DIGITAL INPUTS	Number of channels: 32; Voltage: Threshold ON: >9V; Threshold OFF: < 4V; Vmax: 24V; Impedance 9kΩ
DIGITAL OUTPUTS	Number of channels: 32, MOSFET, PNP; Max voltage/current: 0.2A / 24V

CAUTION

Switch the module off before connecting inputs and outputs. To meet the electromagnetic immunity requirements:

- use shielded signal cables;
- connect the shield to a preferential instrumentation earth system;
- separate shielded cables from other cables used for power installations (transformers, inverters, motors, etc…).

POWER SUPPLY 	RS485 SERIAL PORT		Connection to the RS485 port. Polarity is not standa rdized; in some devices of other brands, it may be in verted.
DIGITAL INPUTS (P NP)	DIGITAL INPUTS (PNP)	DIGITAL OUTPUTS (PNP)	DIGITAL OUTPUTS (PNP)
			

CAUTION

The power supply must be sized according to the expected load at the outputs. Terminals 18-64 and 19-65 can be connected together on the same power supply.

CAUTION

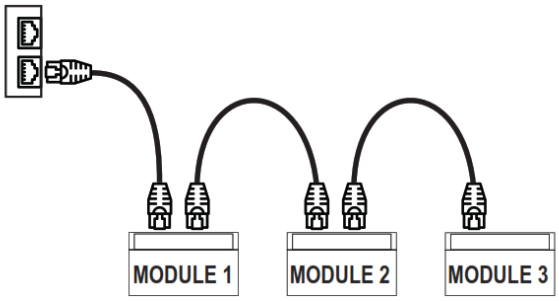
For correct operation of the instrument, terminals 18-64 and 19-65 must always be connected to the power supply.

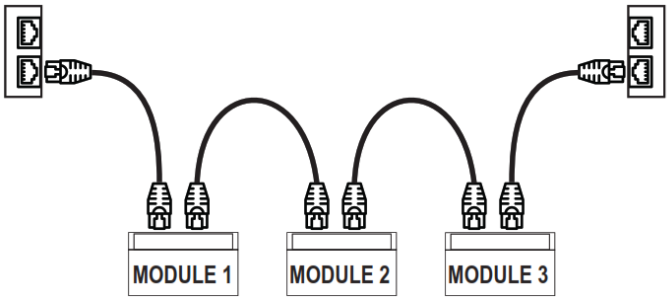
DAISY-CHAIN ETHERNET CONNECTION

CAUTION

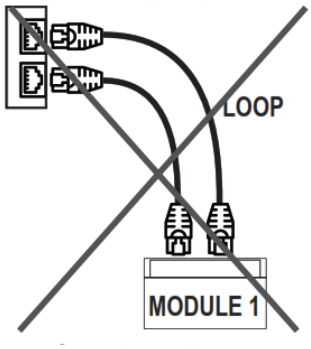
IT IS NOT ALLOWED TO CREATE LOOPS WITH ETHERNET CABLES

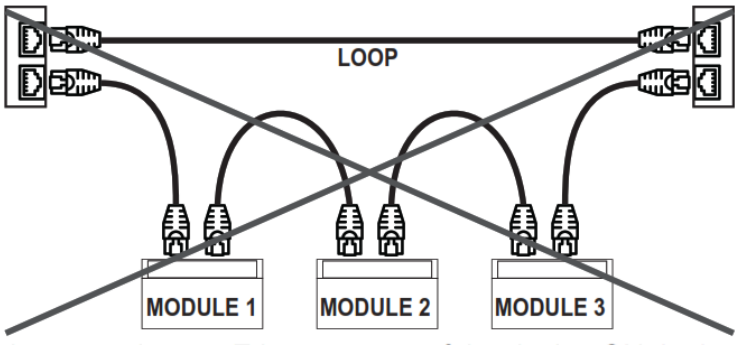
Using the daisy-chain connection it is not necessary to use switches to connect the devices. The following examples show the correct connections.





There must be no loops in the Ethernet cabling, otherwise, the communication will not work. The modules and switches must be connected eliminating any loops. The following examples show the incorrect connections.





The LAN fault-bypass function allows you to keep the connection between the two Ethernet ports of the device ON, in the event of a power failure. If a device turns off, the chain is not interrupted and the devices downstream of the switched-off one will still be accessible. This function has a limited duration: the connection remains active for a few days, typically 4. The fault-bypass function requires that the sum of the lengths of the two cables connected to the switched-off module is less than 100m.

ETHERNET CONNECTION RULES

For the Ethernet cabling between the devices, the use of the unshielded CAT5 or CAT5e cable is required. CAT6 for industrial environments.

FACTORY IP ADDRESS

The default module IP address is static: 192. 168. 90. 101

WEB SERVER

To access the maintenance Web Server with the factory IP address above, use the following credentials: **Account User:** admin; **Password:** admin

CAUTION

DO NOT USE DEVICES WITH THE SAME IP ADDRESS IN THE SAME ETHERNET NETWORK.

SETTING THE DIP-SWITCHES

The DIP-SWITCH on the back of the device has the following function:
SW1 DIP-SWITCH: DEFAULT SETTINGS

SW1		
DIP1	**ON**	**DEFAULT SETTINGS**
DIP2	**ON**	

To access the DIP-SWITCH it is necessary to remove the bottom of the instrument.

MI00575-0-EN

Documents / Resources

	SENECA R-32DIDO 3-Phase Energy Power Meter with Universal Input [pdf] Instruction Manual R-32DIDO, R-32DIDO-P, 3-Phase Energy Power Meter with Universal Input