



BRIEF USER MANUAL

POWER QUALITY ANALYZER PQM-750











**SONEL S.A.
Wokulskiego 11
58-100 Świdnica
Poland**

Version 1.02 16.10.2024

1 General information

1.1 Safety symbols

The following international symbols are used on the analyzer and in this manual:

	Refer to the user manual for additional information and explanations		Recycling information		Declaration of Conformity with EU directives (<i>Conformité Européenne</i>)
	DC current/voltage		Do not dispose of with other household waste		Conforms to relevant Australian standards
	AC current/voltage		Protective earth terminal		

1.2 Safety

To avoid electric shock or fire, you must observe the following guidelines:

- Before you proceed to operate the analyzer, acquaint yourself thoroughly with the present manual and observe the safety regulations and specifications provided by the producer.
- Any application that differs from those specified in the present manual may result in damage to the device and constitute a source of danger for the user.
- Analyzers must be operated only by appropriately qualified personnel with relevant certificates authorizing the personnel to perform works on electric systems. Operating the analyzer by unauthorized personnel may result in damage to the device and constitute a source of danger for the user.
- The device must not be used for networks and devices in areas with special conditions, e.g. fire-risk and explosive-risk areas.
- Before starting the work, check the analyzer, wires, and other accessories for any sign of mechanical damage. Pay special attention to the connectors.
- It is unacceptable to operate the device when:
 - ⇒ it is damaged and completely or partially out of order,
 - ⇒ its cords and cables have damaged insulation,
 - ⇒ of the device and accessories mechanically damaged.
- Always connect the Protective Earth Terminal to local ground. Use an eyelet or spade terminal and tighten the screw. Do not leave this terminal floating! Class I protection device.
- A switch or circuit-breaker must be included in the installation. It must be suitably located and easily reached. The switch or circuit-breaker must be marked as the disconnecting device for the analyzer.
- Do not power the analyzer from sources other than those listed in this manual.
- Do not connect inputs of the analyzer to voltages higher than the rated values.
- Use accessories and probes with a suitable rating and measuring category for the tested circuit.
- Do not exceed the rated parameters of the lowest measurement category (CAT) of the used measurement set consisting of the analyzer, probes and accessories. When the product is used with other devices or accessories, the lowest measurement category of the connected devices applies.
- If possible, connect the analyzer to the de-energized circuits.
- Use the ground (earth) terminal only for connecting the local ground, do not connect it to any voltage.
- Do not handle or move the device while holding it only by its cables.
- Repairs may be performed only by an authorized service point.

The analyzer is equipped with an internal Li-Ion battery, which has been tested by an independent laboratory and is quality-certified for compliance with the standard *UN Manual of Tests and Criteria Part III Subsection 38.3 (ST/SG/AC.10/11/Rev.5)*. Therefore, the analyzer is approved for air, maritime and road transport.

1.3 Related documents

In addition to this user manual, the following documents have been separated, which contain a supplementary description of the meter's functionality:

- PQM-750 user manual.
- PQM-750 network interface (webserver) user manual.
- IEC 61850 protocol user manual for PQM-750.
- Modbus protocol user manual for PQM-750.
- Power quality – a guide

The aforementioned materials can be found on the manufacturer's website. Go to www.sonel.com > **EN** > **Download** > **User manuals** or visit the PQM-750 product page (**Files** section).

2 Quick start

1



Install the meter at the intended system location.

2

WR • DO1 • DO2
I1 • I2 • I3 • I4 • I5
U1 • U2 • U3 • N
DQ • GND • DI1 • DI2
LAN1 • LAN2
GND • POWER

Connect the wires to the power inputs (**POWER**) and, depending on your needs: voltage (**VOLTAGE**), current (**CURRENT**), control.

3



Turn the meter on. To do this, supply power:

- for AC version on **L** and **N** terminals,
- for DC version on **+** and **-** terminals,
- for any other version on the **LAN1** socket via PoE.

4



Set the interface language and measurement configuration.

- Accept using this icon: ✓.
- Reject using this icon: ✗.
- Go to the previous/next step using these icons: <>.

5



After entering the settings, recording starts automatically.

6



Recording ends when:

- the device memory is full (for the active linear recording option),
- you enter a new measurement configuration into the device (the previous memory contents will be deleted).

7



If it is necessary to turn off the meter, **disconnect the power supply** (from the power terminals and/or from the **LAN1** socket). Then confirm your selection in **Settings** ► ► ► **Power off**.



- For detailed descriptions of meter settings, please refer to the full user manual. You will find the manual on the included USB stick or on the manufacturer's website.
- After powering a welcome screen is displayed, showing the name of the meter, the internal software version (firmware) and hardware version. Then, the analyzer performs a self-test and in case of detecting errors, the display shows an error message, accompanied by a long beep.
- When an error occurs during memory card launching or the file system on the card is damaged (e.g. when the user manually formatted the card) the analyzer will suggest formatting the memory (message **Format SD card?**). Pressing OK button on the touch panel will trigger the process of formatting. After the formatting is completed, the analyzer will repeat initialization of the card.

3 Manufacturer

The manufacturer of the device and provider of guarantee and post-guarantee service:

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Poland
tel. +48 74 884 10 53 (Customer Service)
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NOTE!

Service repairs must be performed only by the manufacturer.