

Operating manual

Power and Energy Consumption Measuring Kit

PM532



1. Foreword

Dear customer,

thank you for purchasing the Power and Energy Consumption Measuring Kit PM532. Please read the installation and operating instructions and follow our instructions carefully, before performing the installation and commissioning. Only if the described regulations and notices are precisely observed, can the flawless function of the PM532 and safe operation be guaranteed.



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2. Safety instructions



Please check to see if these instructions correspond to the device type. Observe all the instructions stated in this manual. It contains fundamental information which must be observed during installation, operation and maintenance. Therefore, this manual must absolutely be read carefully by the installer and the responsible operator/personnel before the installation, commissioning and maintenance. The operating instructions must always be accessible at the operation location of the PM 532.

In addition to these instructions, local and national regulations must be observed if necessary.

In case of doubt or questions about this manual or the device, you should contact CS Instruments GmbH.



Danger!

Mains voltage!

Through the contact with AC power and non-insulated parts, there is a risk of electric shock and serious injuries which may result in death.

Measures:

- Observe all applicable standards (e.g. VDE 0100) when performing electrical installations!
- **Only perform maintenance work in the de-energized state!**
- All electrical work may only be performed by qualified service personnel.



Danger!

Improper operating parameters!

Through a shortfall or exceeding of the threshold limits there is danger to people and material, which can also lead to functional and operational problems.

Measures:

- Make sure the PM 532 is only operated within the permissible operating limits shown on the nameplate.
- Exact compliance of the PM 532 performance data in connection with the application case.
- Do not exceed the permissible storage and transport temperatures.

Further safety instructions:

- During the installation and operation, the applicable national regulations and safety regulations must also be observed.
- Do not operate the PM 532 in explosion-prone areas.

Additional Information:

- Do not overheat the machine!



Caution!

Malfunctions of the PM 532

Incorrect installation due to faulty installation and poor maintenance can lead to

malfunctions of the PM532 that affect the display and can lead to misinterpretations.

3. General function description

The PM532 is a mobile power and energy measurement device for large consumers such as air compressors. All components are housed in a rugged, splash-proof plastic case. The PM532 measures currents and voltages of the connected consumer and calculates the performance as well as the energy consumption. The measuring case can be easily connected to the 32A supply line of consumers. For a 16A supply, optional adapters are available that allow you to connect to the built-in 32A CEE socket outlets.

The unit is designed for measurements in the 3-phase power range with up to 32A, wherein the current path will not be additionally secured with a fuse through the measuring kit. It is assumed that the existing installation has a corresponding fuse protection.

The PM532 has three 230V power outlets that are each assigned to one of the three phases. Thus it is possible to also determine the power consumption of external consumers.

The measured values can be read directly from the display. In addition, the most important measurement values can also be queried through the internal RS-485 interface via the Modbus **protocol**.

4. Controls

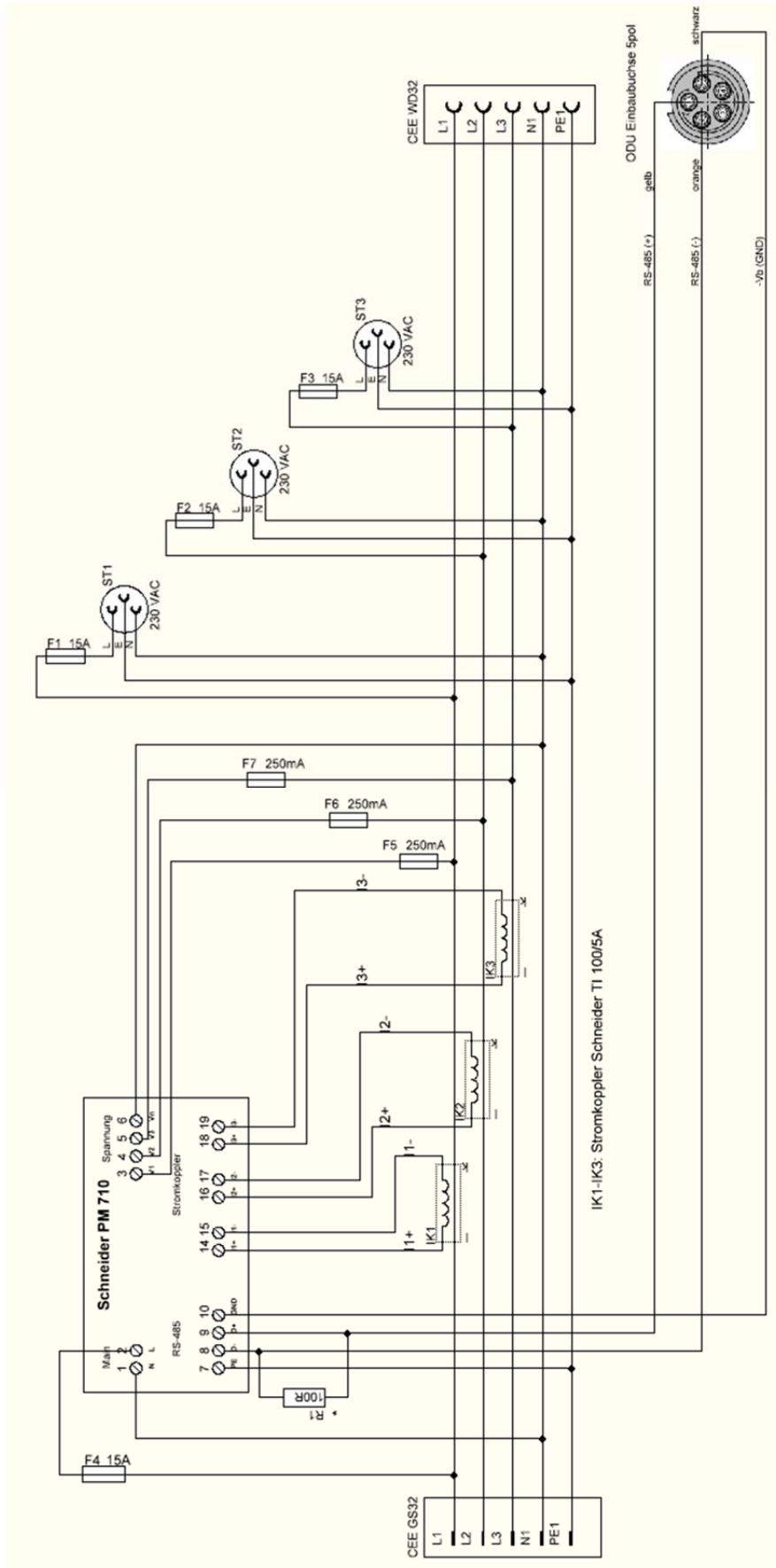


5. Current and power measurement

For the measurement operation, the measuring kit is simply interconnected to the power supply. The connected devices can be operated immediately. On the display of the built-in power meter the power supply, supply current, the currently extracted power and the consumed kilowatt hours can be read. The operating manual for the Schneider PM710 can be found under the following link:

[Operating manual PM710](#)

6. Wiring diagram



7. Technical Data PM532

CE	
Measuring kit dimensions	360x270x150 mm
Connections	CEE socket 32A CEE plug 32A 5 pin. ODU-connector to the RS-485 MODBUS interface
Weight	4.5 kg
Case Material	impact-resistant ABS plastic, polyester front foil
Interfaces	RS 485 Modbus RTU
Outputs	Three sockets, each protected by a 15A fuse for additional external consumers
Voltage and current range	380V three-phase network with max. 32A
Electricity meter	Schneider PM710
Operating temperature	0 – 50 °C
Storage temperature	-20 to +70°C