

Power Supplies PS-02/03

Multichannel Power Supply & Probe Control Interface

Order-No. 889-09V-PS2, 889-09V-PS3,
889-09V-PS2-L, 889-09V-PS3-L;



As a developer and manufacturer of system independent measurement accessories PMK is proud to introduce its first line of Multichannel Power Supplies and Probe Control Interfaces.

The Power Supplies and Probe Control Interfaces PS-02 and PS-03 are made of high quality components to achieve great performance over their lifespan of more than 100,000 h in 25°C environments. In alignment to EN60601-1-2, the internal switch-mode Power Supplies are tested with 4 kV AC transient overvoltage by the manufacturer and fulfill EN 55011 Class B standard for conducted EMI.

This ensures highest product safety and keeps the Power Supplies free from interference even in rough environments, where conventional Power Supplies might fail.

Besides product safety, which is mainly achieved by internal components, PS-02 and PS-03 offer great user-friendliness through their case design. One example being the single Lemo Connector providing power to the probe as well as transmitting data via I2C.

PS Power Supplies are controllable via USB and optional ethernet interface (-LAN). However they are also used to control connected PMK probes, according to their supported features. As a mandatory interface for updating and storing software of PMK Probes, such as measurement data, firmware and user settings, PMK recommends PS-02 and PS-03 not only to power, but to globally control PMK Probes in your measuring environment. The Data received via USB or network interface is translated to PMK protocol and send to the according channels effortlessly. Active Offset correction for example, offered by PMK's BumbleBee® differential Probe, is achieved only by means of the power supply using PMK Probe Remote Control Software, provided free of charge by PMK.

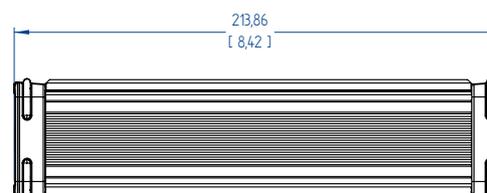
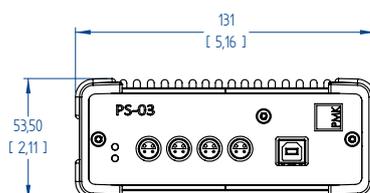
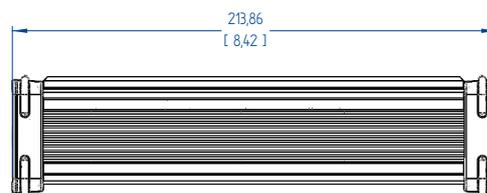
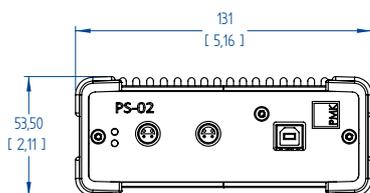
This datasheet supersedes all previously published material. Specifications that are not marked as guaranteed are published as general information to the user. The instrument should have warmed up for at least 20 minutes and the environmental conditions must not exceed the specified limits of the products. Note that specifications are subject to change without notice.

Characteristics

| | PS-02 (-LAN) | PS-03 (-LAN) |
|--|--|--------------|
| Number of Channels | 2 | 4 |
| Output Voltage | $\pm 9\text{ V}$ | |
| Output Current | 550 mA/ Channel | |
| Total Power Output | 20 W | 40 W |
| Signal Output via I2C-Bus | control signal for PMK's active Probes | |
| Input Voltage Range | 100-240 V AC, 47- 63 Hz, EN60950-1 | |
| Ripple and Noise ⁽¹⁾ (pk-pk) | 8 mV | 4 mV |
| Immunity | EN60601-1-2 | |
| Conducted EMI | EN55011 Class B | |
| Withstand Voltage (input - output) | 4 kV AC (Medical Safety Standards) | |
| External Fuse (slow blow type) | 2 A | 3.15 A |
| Cooling | convection, (passive) | |

Mechanical Characteristics

| | | |
|------------|-----------------------|--------|
| Weight | 1.1 kg | 1.3 kg |
| Dimensions | 213 x 127,5 x 50,5 mm | |

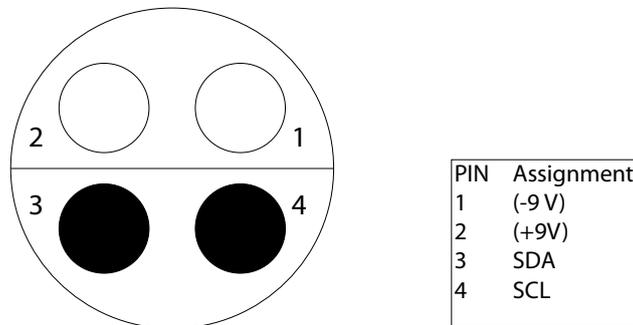


Interfaces

| Order No. | Model | Channels | USB | LAN |
|---------------|-----------|----------|-----|-----|
| 889-09V-PS2 | PS-02 | 2 | yes | no |
| 889-09V-PS2-L | PS-02-LAN | 2 | yes | yes |
| 889-09V-PS3 | PS-03 | 4 | yes | no |
| 889-09V-PS3-L | PS-03-LAN | 4 | yes | yes |

Lemosa Connector Layout

PMK's PS-02 and PS-03 Power Supplies use a Lemosa connector Type 304 for Power- as well as Dataline connection. Please find the Pin Assignment below:



Scope of Delivery PS-02/03 (-LAN)

- Power Supply
- Instruction Manual
- Mains Power Cord EU
- Mains Power Cord US

Environmental Specifications

| | | |
|----------------------------------|---------------|--|
| <i>Altitude</i> | operating | up to 2000 m |
| | non-operating | up to 15000 m |
| <i>Temperature range</i> | operating | -10 °C to +50 °C |
| | non-operating | -40 °C to +70 °C |
| <i>Maximum relative humidity</i> | operating | 80% relative humidity for temperatures up to +31 °C, decreasing linearly to 40 % at +50 °C |

Please note, that the housing of PMK's PS-02 and PS-03 Power Supplies will reach a temperature of 70 °C at the surface, if used in a 50 °C environment. Please arrange your workspace accordingly to avoid damage to you and your equipment.

Power Supplies PS-02/03

Datasheet

WEEE/ RoHS Directives

PMK electronic products are classified within the WEEE/ RoHS* category list as monitoring and control equipment (category 9). Category 9 products are exempt from the restrictions under the scope of the RoHS directive.

Your help and efforts are required to protect and keep clean our environment. Therefore return this electronic product at the end of its life either to the Service Department of PMK Mess- und Kommunikationstechnik GmbH or take care of separate WEEE collection and professional WEEE treatment yourself. Do not dispose as unsorted municipal waste.

* EC Directives:

- WEEE Directive 2002/96/EC – Waste Electrical and Electronic Equipment
- RoHS Directive 2002/95/EC – Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment

Safety Information

To avoid personal injury and to prevent fire or damage to this product or products connected to it, review and comply with the safety informations stated in the manual before using this product. Be aware that if you use this probe assembly in a manner not specified the protection this product provides may be impaired.

Only qualified personnel should use this probe assembly.