OP-735

Bluetooth Optical Probe

Overview

The OP-735 Optical Probe is an interface that communicates via infrared waves with a peripheral device such as an electricity meter, water meter, heat meter, gas meter or any other device that has an optical port on it. It incorporates a small housing design that makes it even lighter in weight but still rugged with its ABS and Polycarbonate filter material. All devices that support the European standard IEC62056-21 (IEC 1107) Mode E & C and IEC62056-31 will work with this product. In addition, it has the capability to send settings for data transmission with all types of IEC meters in transparent mode.

OP-735 has a Bluetooth connection interface, which is suitable for tablets and mobile phones and all devices with a Bluetooth connection availability. It is compatible with various operating systems such as Mac, Windows, Linux, IOS and Android. It derives power from the internal rechargeable battery, so there is no need for external battery pack or AC adapter. OP-735 benefits from a very strong magnet that firmly attaches the optical probe to the meter and also has resistance to external light influences other than the infrared wavelength. Installation and configuration instructions are included with the probe.

Advantages

- Ergonomic & User-friendly Housing Design

- Supports Mac, Windows, Linux, IOS, and Android

- Powerful Magnet

- Resistant to ambient light

- IEC 62056-21 (1107) Mode E & C Standard Compliant

- IEC62056-31 Standard Compliant

- Smart baudrate change in mode E and C

- Transparent mode with selective frame and baudrate

- High-capacity built-in rechargeable battery

- Utilizing latest technology USB type C port for charging

- LED indicator lights

Ergonomic & User-friendly Housing Design

The housing is designed to be fit in the hand of the user easily and the material used makes it strong and also light weight. It is resistant against surface wear off in long term usages that is caused by using the optical head on the meters and devices with optical port installed on them.

Good material not always brings good hardness. The housing shape can have tremendous effect on the hardness of the probe. We have designed the optical probes to withstand falling from one meter height, in case it slips from user's hand.

Powerful Magnet

The head contains a powerful magnet on under the surface in which the probe is attached to the optical port, that causes the probe to stick to the optical port and not easily removed, in order to secure connection to the device and let the user work without needing to hold the probe in position with one hand.

⚠ *Warning: due to strong magnetic force of the magnet used in the probe, please do not store it beside electronic equipment, because it can damage these devices in long time storage. It also causes malfunction in any storage device like hard drives, solid-state memories (flash memories, SSD drives and etc.), RAM storages and etc.*

Optical Filter

In order to be able to communicate between the two devices through optical port, certain wavelength must be used. The wavelength used must be in the range of 880 nm infrared light that is not visible to the human eye. The light filter used in this optical probe filters all ambient light, preventing any disruption to probe communication, thus providing stable and efficient communication between two devices.

Mechanical specifications

- Dimensions: Diameter 32mm, Height 43mm
- Connector: USB standard "C" plug for charging
- Infrared filter: Against external light influences
- ON/OFF switch
- Weight: Complete assembly weighs a maximum of 50gr
- Casing material: ABS, Infrared filter Polycarbonate

Environmental Specifications

- Operating Temperature: -10°C to +65°C
- Best Storage Temperature: +10°C to +20°C
- Rugged: Meets the requirements of a numbers of tests including those for Thermal Shock, Humidity, RF Susceptibility, ESD, Drop, Random Vibration, Solar Radiation, Salt, Fog and Low Pressure.

Electrical Specifications

- Compatibility: IEC 62056-21 (1107) Mode C & E standard
- Compatibility: IEC62056-31 standard
- DLMS/Cosem Auto Detection
- Data Rate: from 300 to 19200 bit/s
- Communication: Half duplex
- Optical: 880nm bi-directional IR interface
- Echo filter: Yes

Features

- Supported operating systems: Mac, Windows, Linux, IOS, and Android
- Ability to update Firmware via Bluetooth
- LED display for:
  - Send and Receive Data
  - Bluetooth Pair Status
  - Battery Charge Level
- Optical Filter:
  - Sunlight Rejection
  - High Speed Echo Rejection
  - ECO filter

Bluetooth Specifications

- Bluetooth 4.1 and Classic
- Bluetooth Maximum range: 10 m

Battery and Power Supply

- Built-in battery: Li-ion 3.7 V, 470 mAh
- Charging: 5 VDC, via USB port
- Continues working time: 15 Hours

Accessories

- Wristband