

## Insulating oil testing - Breakdown Voltage Sensor

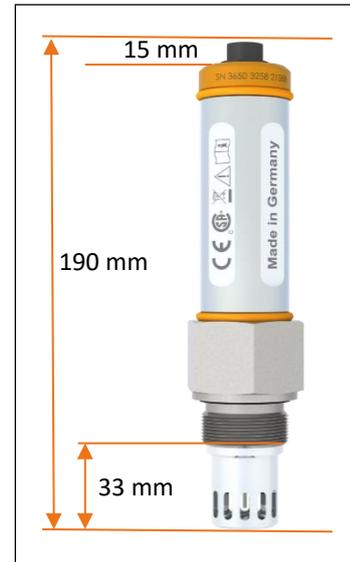
### BDVB Oil-Stick TS4x

#### 1. Application

The BDVB Oil-Stick TS4x sensor is developed especially for on-line use in the field and exclusively designed to repeatedly measure the breakdown voltage, water content and temperature in a mineral transformer oil.

#### 2. Description

The main measurement module is located in the robust metal housing. The measurement zone is made of anodized aluminium. The holes in the measuring zone allow filling the internal sensors with mineral transformer oil. The BDVB device is equipped with a Parker RI1EDX3/471 Connector which lets the device assemble at the target place. The sensor can be mounted in any position, but a free oil flow in the measuring zone must be guaranteed. The cable plug socket is placed on the top of the unit. The link between the device and the host is provided by the delivered cable with the WEiPU ST1210/S9 connector. The user should connect the device to a computer, router, modem or a similar device, via provided TCP-IP Cable.



#### 3. Maintenance Procedure

TS4x is designed as a **maintenance-free** analog/digital measurement system, with no consumables or wear parts to replace over its designed lifetime of over 40,000 working hours (5 years). However, the device is designed in such a way that it remains operational for significantly longer if the absolute maximum values are observed. If a connection cable has to be replaced, e.g. due to environmental or other influences, it can be replaced on site due to the modular design of the TS4x. This is usually the MODBUS connection cable or, in rare cases, the ground connection. Please find the parts in cable catalogue with the corresponding identification code.

As a power supply system, we recommend the Passerro 900.AKXX Active Modbus Cable with integrated 24V DC Power Converter or 787-1020 - Wago Kontakttechnik GmbH & Co. KG. to ensure compliance with EU directives. Alternatively, Mean Well Enterprises Co., Ltd. – DR-30-5 or HDR-15-5 are used. Refer to the TS4x Specification Sheet or the TS4x Operation Manual for absolute Maximum Stress ratings



*Stress above "Absolute maximum ratings" may cause permanent damage to the device.*

**Passerro GmbH**  
Melscher Strasse 1  
D-04299 Leipzig  
GERMANY

E-mail: [info@passerro.de](mailto:info@passerro.de)  
[www.passerro.de](http://www.passerro.de)