



PD LOC

Partial discharge pinpointing system for precise localisation of PD faults in medium voltage cables

Benefits:

- ▶ **Precise PD pinpointing in mixed cable net-works**
- ▶ **Localisation of faults in Joints of single core cables**
- ▶ **Easy handling in the field**



Function description

The PD LOC system solves the problem of pinpointing for mixed cables (XLPE / PILC) and for PD in joints of single core cables. The exact location of the joints in the field is generally not known, and these joints cannot be localised using audio frequency methods.

The system has an impulse transmitter that uses an inductive coupler to inject a signal into the cable. The receiving and evaluating unit consists of an input amplifier for processing the signal and a control unit in the Pelicase. The visualisation of the distance system's transmitter location is performed by using a TDR T30-E PD reflectometer in a separate menu, by means of an additional PD software function. The pulse transmitter software processes the user inputs, provides the operating status display, pulse generation, error and overload monitoring, and monitoring of the battery and charger.

The impulse transmitter and coupler transmit a sufficiently strong impulse signal into the exposed cable. Thus the signal is directly received at one of the cable ends as well as the reflection of the pulse from the other end. The time difference between the directly received pulse and the reflected pulse at the remote end is used, like in the OWTS, to calculate the distance to the injection point of the impulse, and this is then compared with the previously determined position and corrected if necessary.

A foil keyboard and LEDs for selecting the pulse width ensure easy operation and handling.

For cables with very dense copper wire shielding, and when using the system with cables with metal sheath (lead sheath / aluminium sheath), the functionality may be limited or even not possible depending on the quality of the shielding of the cable.

Users that have a normal Teleflex T 30-E can also upgrade it to the PD version. The other normal reflectometer functions are not affected by this upgrade.

Features

- ▶ Foil keyboard with LED's for selecting the pulse width
- ▶ Impulse couplers 42 and 64 mm
- ▶ Very easy to handle and operate
- ▶ 24 hours of operation with one battery charge
- ▶ Evaluation identical to the OWTS pre-location
- ▶ Cable identification option

Technical data

Supply	12 V ext. car cable, mains power supply
Operating time	Approx. 24 h with internal Li-Ion battery
Pulse repetition frequency	3.33 Hz
Pulse widths	50 ns, 200 ns, 500 ns, 1 µs
Pulse amplitude	250 V
Impulse current	200 A
Output protection	Short circuit proof
Protection class	IP 54
Operating temperature	-10 °C ... +50 °C
Weight	2 kg

Teleflex T 30-E PD

Additional mode	Transient recorder optimised for PD
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Coupler

Inner diameter	42 mm standard 64 mm optional
Plug connector	BNC

Scope of delivery

Standard set

- Consists of:
- ▶ Teleflex T 30-E PD
 - ▶ Cable set VL T 30-E
 - ▶ Charger LG 12
 - ▶ Impulse transmitter PD-TX in Pelicase
 - ▶ Coupler 42 mm
 - ▶ BNC cable 75 cm

Optional accessories

- ▶ Coupler 64 mm
- ▶ LK 12, 12 V car charging cable

Upgrade set T 30-E

- ▶ Impulse transmitter PD-TX in Pelicase
- ▶ Coupler 42 mm
- ▶ BNC cable 75 cm
- ▶ Upgrade T 30-E to T 30-E PD