P5i

Portable all-in-one fault locating system 5kV

The **P5i** provides an easy to use all-in-one solution for troubleshooting, pre-locating and pinpointing of cable faults in complex LV, lighting and control cable networks. Menu guided computerised operation allows to detect and precisely locate most possible faults for even unexperienced users. Featuring a large coloured screen the P5i can display measurement curves, settings and message codes simultaneously. The extensive system includes a precise DC HV test facility that measures and displays leakage current over time. Integrated full scale TDR capability including the high voltage ARTi mode will isolate and pre-locate low and high resistance faults with outmost precision. Consequently, precise pinpointing will take much less time. Fast HV surge pulse cycles of 4 sec. with up to 1000 Joule energy provide for even the most demanding locating jobs. The multi-dimensional safety system PROSAFE 3D ensures maximum safety for the instrument, the operator and DUT. The optional pinpointer Kamphone and Locator S are used for flash-over faults or cable sheath faults respectively. As an economic alternative, the version P5e is offered without integrated TDR and ARTi.

+ Integrated & Automatic System
+ Portable With Powerful 1000 Joule
+ Most Advanced Safety Features

APPLICATIONS & FEATURES

- Comprehensive cable fault locating in LV power, lighting, control and communication cable networks;
- Suitable also for industrial plants, railway or other transport networks and oil & gas infrastructures;
- Comprehensive covering full cycle from troubleshooting to isolating and precise pinpointing of fault;
- Menu guided operation based on Windows™;
- Multilayer PROSAFE 3D or 5D safety system;
- Test van upgrade option.

SPECIFICATIONS

Analysis & test of faults:	
IRM mode (opt.)	10kΩ to 200MΩ @ 5kV
HV DC mode	0 to 5kV
Sheath test mode	0 to 5kV; 0 to 70mA
Isolation of faults:	
TDR range	60km
TDR impulse / widths	160V / 50ns to 10µs
TDR resolution	0,2m
TDR impedance matching	25 to 1600Ω
pre-location TDR-LV mode	1-phase over HV cable
Optional	3-phase over LV cable
Optional	Intermittent Fault Scanning
pre-location TDR-HV mode	ARTi: 4kV (Arc Reflection)
Optional	SCC: 4kV (Surge Current)
fault conditioning	70mA
Optional	1A
Mapping of faults:	
Surge mode	0 to 4kV; 1000J
Surge mode pulse range	4s to 10s; single shot
Sheath pinpointing (opt.)	0 to 5kV
GENERAL DATA	
safety	PROSAFE 3D or 5D system
dimensions	297 x 516 x 620mm
IP rating	IP54
weight	57kg
mains supply	230V, 50Hz
operating temperature	-10°C to +55°C

SCOPE OF SUPPLY

P5i (Basic)
Set of connection cables (5m) incl. cable bag
FU/EP sensor kit
User manual on CD

OPTIONS

Rugged version with trolley
Pinpointer: Kamphone & Locator S
Trolley
Connection Kits: 25m or 50m (HV+LV)
P5e without TDR and ARTi

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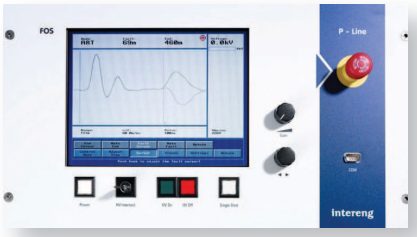
ISO 9001 Certified

P5i Highlights



SMART USER INTERFACE

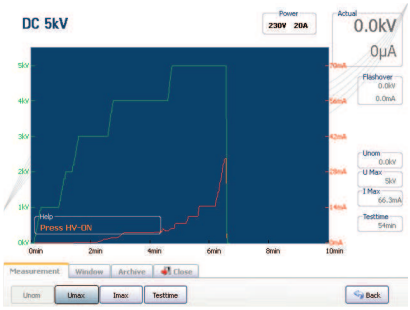
All measurement modes and system settings are controlled by one control unit. The intuitive app-style organised software interface will guide inexperienced as well as experienced users alike. Operation is simple with a menu following the standard algorithm of fault locating. A rotary encoder helps to set precise measurement values. The clear and concise 10.4” display shows extensive information at all time with plain fault messages indicating operating mistakes or internal device failures.

PROSAFE 3D SAFETY

The advanced multi-layer safety system coveres the following dimensions:

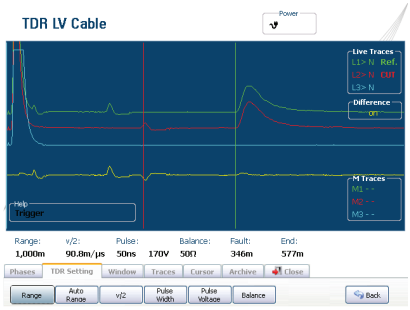
PROSAFE 3D (STANDARD)
- **1D** Integrated emergency switch off & safety key lock
- **2D** Guarded Discharge Technology
- **3D** Faulty ground conditions monitor (FU/EP)

PROSAFE 5D (OPTIONAL)
- **4D** Separation transformer
- **5D** Extra residual voltage monitor



TOOLS FOR ANALYSIS & TESTING

Accurate troubleshooting of cable faults will increase the efficiency of subsequent fault locating procedures. Moreover, it helps to avoid stress on the cable resulting from employing less suitable locating technologies.
The following analytical modes are available:
- Insulation resistance measurement (opt.)
- HV test with leakage current measurement and recording
- Sheath fault test mode with current recording



TOOLS FOR ISOLATION & PRE-LOCATION

The integrated precision TDR can pre-locate high resistance faults within a narrow range by employing inductive Arc Reflection Technology (ARTi). A major advantage is the no-loss HV impulse voltage & energy conversion and thus full application to the cable fault.
The following additional options are available:
- TDR-3phase mode for simultaneous multiphase analytics
- TDR-IFS mode for intermittent fault scanning
- High current (1A) fault conditioning for “wet” faults

TOOLS FOR MAPPING & PINPOINTING

Effective fault isolation is mandatory for complex cable faults. After that precise pinpointing using the acoustic discharge method will be an easy procedure. Simple computerized setting of parameters and high surge energies of up to 1000 Joule will allow to find faults fast. The following additional options are available:
- Kamphone pinpointer for flash-over faults
- Dedicated sheath fault pinpointing mode (SFP) and pinpointer Locator S for cable sheath faults

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