RS36B-75

Ground Bond Tester

75 A AC, 500 mOhm

Product Information Sheet

PRÜFTECHNIK

Short summary - overview

Item number	202476
Test current	10 – 75 A AC
Test resistance, limit	1 - 500 mΩ
Open circuit voltage	< 12 V
Testing time	1 s - 99 min, continous
Type of measurement	4-wire measurement
Operation	Testprobe including start button and result LED

Functions and range of application

- 4-wire measurement
- Key panel interlock
- Minimum current monitoring
- Remote-controllable (DLL, ASCII, LabVIEW, C#, DataView, Digital-IO)
- 15 programmable sets of parameters
- Signalling: Acoustic, optical and via interface

Universal usage

- Individual test device
- In semi-automatic test stations
- In all-automatic test stations
- 19" rack version available

Remote-controllable

- Control interface (RS232) for remote control by PC (DLL, ASCII, LabVIEW, C# or GUI software Dataview)
- Digital interface for remote control by PLC (Start, Stopp, In Operation, Failed, Passed)

Usage

- Testing with fixed cables
- Semi- or fully- automatic testing on a production line.

Device views

Front side

- LED – display elements
- Display of preset and actual values: Current, resistance, test time
- Pushbuttons for setting-up test parameters
- Function selection buttons
- Signalling: danger, test running, test fail, type of fault

Rear view

Interfaces and connections

- Control interface / Digital IO
- RS232 Interface
- ETL CAN bus for controlling peripheral equipment (Relay matrix, etc...)
- Fuses, Main voltage

Detailed functional description

4-wire measurement technology with separate source (current) and sense path (measurement)
The resistance of the test leads to the device under test is not measured.

Test current monitorin
Drops the test current value under the lower limit current value the device immediately puts out an error due to the constant current monitoring.

Key panel interlock
The key panel interlock prevents incorrect setting of parameters. It can be set up individually. For example all pushbuttons may be locked. Also desired functions can be left unlocked.

Test device for operating "Stand-Alone" or remotely controlled via interface
The test device can be controlled by a Windows software (user interface software DataView), by a self created custom software application (LabView, DLL, C#), simple command parameters (ASCII) or digitally with a PLC (Digital-IO).

Freely programmable sets of parameters
15 freely programmable sets of parameters are available for recalling test parameters.

Signalling: Acoustic, optical and communication interface
Faulty test objects can be reliably identified. Indication lights will also flash additionally.

Individual setup
Start options, language, behaviour of digital IO interface, voltage ramp options, options for connection and cable break monitoring, etc.

Update via interface
For customer specific adaptions and updates.

Interfaces

Control interface / Digital-IO
Digital interface for connection to a PLC, footswitch or a remote panel including signalling of start, stop, good result, bad result, faulty test object and in operation.

RS232 / PC-interface
For Computer connection. All parameters are selectable in a major control program. The defined test values will be automatically adjusted by the test device. The RS232 interface also allows permanent data logging and controlling of status information.
PC-software options are: The data management software DataView or drivers (DLL, ASCII, LabVIEW, C#) for your own application.

RS232 / ASCII printout
Direct connection for a terminal program or to a protocol printer. Results are sent by the device in ASCII format and can be read from the interface alternatively to the other software options. The output language is adjustable.

CAN-Interface
Expansion of the test system by add-on features and by further extensions. Any number of ETL test devices and CAN-components may be attached to this interface in a row and can be remotely controlled.

Specifications, device characteristics

Test current

Setup range	10 - 75 A AC
Resolution, Digit	0,1 A
Measurement inaccuracy, precision	1 % of measurement value +/- 2 Digits
Waveform	Sinusoidal, depending on the supply net
Display for actual value	LED-Display 13 mm, red
Display for desired value	LED-Display 10 mm, red

Resistance

Setting range, threshold value	1 - 500 mΩ (0 - 20 A), 1 - 200 mΩ (> 20 A - 75 A)
Resolution / Digit	1 mΩ
Measurement inaccuracy, precision	1 % of measurement value +/- 2 Digits
Display for actual value	LED-Display 13 mm, red
Display for desired value	LED-Display 10 mm, red

Testing time

Setting range, testing time	1 s - 99 min, continous
Setting range, ramp time	0,5 s - 99 s
Resolution up to 10 s	0,1 s (Digit)
Reolution display > 10 s	1 s
Measurement inaccuracy, precision	+/- 1 Digit
Start testing time	The test time does not start before the set test current has been reached.
Minimum testing time	1 s
Display for actual value	LED-Display 13 mm, red
Display for desired value	LED-Display 10 mm, red

General data

Mains supply	230 V, 50 Hz / 60 Hz
Mains connection	Schuko-plug
Tolerance mains voltage	+/- 10%
Current consumption	max. 8 A
Fuse	8 A, T, 5 x 20 mm, 250 V
Displays	LED, permanently shown actual and desired values
Setting of test parameters	manually or all-automatic via interface (ASCII, DLL, LabVIEW, C#, DataView)
Programming	15 sets of parameters, freely programmable
Signalling	acoustic, optical and over interface
Ausgänge an der Gerätefront	2 x sockets for DUT contacting, optional on back side
Dimensions (W x H x D)	585 x 212 x 325 mm
Weight	appr. 25 kg
Casing	synthetic material, RAL 7035
Basic equipment	manual, mains cable, safety circuit plug
Calibration	incl. certificate of factory-calibration traceable to national standards, DAkkS-calibration according to DIN EN ISO/IEC 17025 optional available

Environmental conditions

Casing	IP20
Humidity	max. 80 %, non condensing
Allowed range of temerature	+ 5 to + 40 °C
Max. hight above sea level	2 000 m
Cooling	passive, active cooling optional available

Interfaces

Control- / Digital-IO	start, stop, GOOD / BAD result, test running
RS232 for remote control	computer connection for terminal programming and controlling by customer specific software applications, optional usage of a protocol printer
CAN Interface	for expanding the test system by additional devices

Expanded device-Setup

Locking of pushbuttons	individual setup
Signal-configurator	individual setup for digital result outputs
Buzzer-options	individual setup of acoustic signals
LED-display	individual LED brightness
Start options	individual setup of start modes
Language and mode selection for external printer	printout at pass, fail, continous or switch off Formats: List or CSV

Options for test start

Start through test probe signal	Test starts by pressing the start button included in the test probe
Automatic start via safety circuit	The test can be started with the closing of the testing cage.
Start button on the device	front panel button for test-start
Start by serial interface	triggered by a PLC or a PC
Start by digital interface	Digital I/O for example by a footswitch, PLC or a push button
Start options	individual setup of start modes

Outputs – DUT, secutity components

Socket for DUT housing contact	7-pole socket: For contacting the DUT with a test probe with built in start button and result LED. Optional contacting with a clamp possible.
Socket for DUT mains	4-pole socket: For contacting the DUT with a suitable adapter with schuko-plug or clamps. Optional use of a second test probe possible.

Electrical safety and norms

EN 61010-1	safety regulations for electrical measurement, control- and lab- equipment
EN 61326-1	electrical measurement, control- and lab- equipment – EMC-requirements
EN 61000-3-3/EN 61000-3-2	Electromagnetic compatibility (EMC)
EN 50191	erection and operation of electrical test equipment
EN 60598-1	luminaire / Part 1: General requirements and tests
Contamination level	2

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