TELECOMUNICATION AND LOCAL AREA NETWORK QUALITY

Advantages:

AUTO SEQUENCE® automatic LAN testing with extensive database of Autotests incorporated into the instrument's memory allows quick LAN cabling verification up to CAT6 (ClassE) in accordance with international standards EN50173, TIA/EIA 658B, ISO/IEC 11801 or similar. Troubleshooting Tool with Single tests functionality enabled indepandently from Remote unit could show the connector / socket problems and faults on fast and easy way. Report Creator with powerful communication PC SW Tool LANlink PRO.

- Connectivity with UTP, STP, ScTP, FTP cables is further enhanced with a complete selection of adapters for Channel Link and Permanent Link measurements.
- Complete selection of test functions combined with easy to understand user interface makes Multi LAN 350 a good choice for LAN cabling companies and subcontractors as well as for IT administrators for troubleshooting purposes.
- Pinpoint distance to the fault determination with integrated proffessional TDR and TDNEXT functionality.
- Tabular or graphic presentation of test results.
- Set MI 2016 PS comprises of two Multi LAN 350 instruments that enable fast execution of measurements and double memory space for storing test results.
- Instruments:
- MI 2016 MultiLAN 350

Alternative:

• MI 2014 Cablescanner



INDOOR ENVIRONMENT QUALITY, NOISE ANALYSING LIGHT CONDITIONS AND EMERGENCY LIGHTS

Advantages:

Environment Conditions in buildings, on working places and public places Logging, Analysing and Testing. IAQ inspectors, HVAC engineers, safety officers, building managers, industrial hygienists and lab managers could now find complete solution in measuring and analysing of temperature (air, black globe and contact), air velocity, relative humidity, illuminance, luminance, including a sound level meter and noise frequency analyser. All in one single unique and universal professional testing set. Powerful logging PC SW Tool SensorLink PRO is used for data downloads to a computer and simplifies the creation of test reports.

- Complies with all major international standards such as EN ISO 7726, ISO 7730, ISO 7243 for IAQ, DIN 5032 (Part 1 - Part 7) for Luminance and illuminance, EN 12599 for HVAC, IEC 61672 and IEC 61260 Class 1 and Class 2 for Sound.
- Provide a dew point, a mass flow, a PMV (predicted mean vote), a PPD (predicted percentage of dissatisfied), a WBGT (wet bulb globe temperature), the luminance contrast calculations as well as, the real-time octave and one third octave sound frequency analyses
- Provision of air temperature, air velocity, relative humidity measurement with only one microclimatic probe at the time.

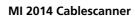
Instruments:

MI 6201 Multinorm

Alternative:

• MI 6401 Poly Lux & candela, Lux Probe B type







MI 2016 MultiLAN 350

MI 6401 Polv

MI 6201 Multinorm

METREL d.d.

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Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.

NAGEMEN

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APPLICATIONS AND SOLUTIONS FOR TESTING AND ANALYSIS OF:

- Ensure proper operation of all aspects of a building to create an optimal, safe and cost effective environment for the occupants to function
- The main purpose is to protect public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures



SAFETY, QUALITY TESTING AND REPORTING

Safety and Quality Testers covers the needs of any installer, constructor or inspector. Each instrument represents a strong tool for troubleshooting, testing, diagnostic of safety and reporting on different types of installations in buildings. Instruments are designed for testing all the main parameters on safety of electrical installations in buildings.





HEALTH







- Preventive and predictive maintenance Corrective maintenance/Reactive repairs Low voltage installations maintenance Building automation systems Working Light Conditions and Emergency lights Heating, Ventilating, Air conditioning and Refrigeration Lightning and Overvoltage protection Grounds maintenance
- Lightning conductors Lightning and Overvoltage protection Emergency lighting Fire protection systems Lifting equipment Work equipment Electrical portable appliances and fixed wiring

Safety Rules for Contractors Safety on working places **Risk Assessments** Indoor air quality Noise pollution Luminance and Illuminance conditions

- Overloaded electrical systems, hot wiring or connections, failed components Combustible storage areas with insufficient protection
- Combustibles near equipment that generates heat, flame, or sparks
- Equipment that generates heat and utilizes combustible materials
- Cooking appliances stoves, ovens
- Heating appliances wood burning stoves, furnaces, boilers, portable heater
- Electrical wiring in poor condition
- Electronic and electrical equipment
- Exterior cooking equipment BBQ

nvironmental Issues

- Voltage and Power Quality
- Telecommunication systems and LAN networks quality
- Daily inspection of escape routes and fire exits

LOW VOLTAGE INSTALLATION SAFETY, OPERATION CONDITION QUALITY, SWITCHBOARDS AND CIRCUIT PROTECTION PARTS

Advantages:

AUTO SEQUENCE ® automatic LIVE and DEAD tests, programmable, no lost or forgotten results or parameters, worst case evaluated, human error factor minimized Automatic evaluation of safety at test point, up to 50 parameters, Fuse and RCD characteristics, adjusted limits and tested results combined together and evaluated simply as PASS / FAIL Support of TN / TT / IT and other used earthing systems.

- Zloop impedances at the enter and at the end of circuits, comparison of both results and dU calculation in %, Ipsc and Ipfc calculation, Fuse protection evaluation,
- test of RCD protection at AC / A or B current shape on G or S type,
- PE Continuity evaluation,
- Insulation testing through Switchboard, at Circuits, Insulation of Walls and Flors, Antistatic Flors testing, Clamp-on Leakage Current testing,
- Overvoltage protection with 1 kV ramp,
- IMD and ISFL testing on IT systems, Medical site testing, Mobile Installations, etc
- Earth / Ground resistance testing.
- Other tools for three phase systems, locating fuses and cables, illumination
- measuring, hi resolution Z impedance for power lines, .

Instruments:

- MI 3105 EurotestXA
- MI 3101 EurotestAT.

Alternative:

• MI 3125B EurotestCOMBO

EARTH RESISTANCE, INSULATION ANALYSING, GROUND NETWORKS, LIGHTNING SYSTEMS AND OVERVOLTAGE PROTECTION

Advantages:

Earth / Ground Resistance in-line, triangle or mirror connection for close overlapped funels on big systems, urban environment, also for industrial and noisy environment, Soil Resistivity testing, evaluating distances to rods and depth to measured underground layers, Report Creator with powerful PC SW Tool Eurolink PRO.

- Four wire testing of PE Continuity with elimination of bad contacts on testing leads,
- Earth Bond testing with 200 mA DC, both polarities,
- Lightning systems and PE Conductive loops testing with Two Clamps method,
- TRMS Leakage / Noise Current tracing and testing,
- Insulation testing on separated systems of gas stations, pipes, ground metal
- PI and DAR factor Insulation testing on cables, transformers, motors,
- Plates and covers, oil tanks,
- Test of Surge arresters with 2.5 kV,
- Test of overvoltage varistors with 1 kV.

Instruments

- MI 3121H SMARTEC 2,5 kV Insulation / Continuity,
- MI 3123 SMARTEC Earth Clamp,

Alternative:

- MI 3201 TeraOhm 5 kV Plus,
- MI 3105 EurotestXA







MI 3125B Combo

MI 3105 Eurotest XA

MI 3201 TeraOhm 5kV Plus



MI 3123 SMARTEC Earth Clamp



PORTABLE APPLIANCES, MACHINES AND SWITCHBOARDS

Advantages:

AUTO SEQUENCE® automatic testing programmable or standardized shortcuts of any kind of Portable Appliances, Fixed Appliances, IT equipment, IEC cords, portable RCD devices and extension leads. Automatic evaluation of safety with simple PASS / FAIL information but supported with all subresults for detailed report. Report Creator with powerful two way communication PC SW Tool PATlink PRO.

- Earth bond / continuity resistance test with test currents 200 mA and powerful 10 A.
- Insulation resistance, Touch leakage current and Substitute leakage current on inner and exposed isolated accessible conductive parts for class I / class II appliances.
- Differential leakage current test, Functional test, Leakage and TRMS load currents testing.
- Innovative Active Polarity function for testing RCD protected cords while voltage is applied to tested item.
- Trend function shoving comparison of old and new test results on large
- graphic LCD display.
- Instrument can be powered from both mains supply and internal battery.
- Results could be read / write / send via USB, Bloetooth, External Printer,
- Barcoding and RFID system

Instruments

MI 3321 MultiServiceXA

Alternative:

MI 3310A SigmaGT

POWER QUALITY AND CONSUMPTION AND DISTURBANCES

Advantages:

Automatic Voltage and Power Quality Analysis acording to EN 50160 with PASS / FAIL limit evaluation, including flickers and harmonics. Compliance with power quality standard IEC 61000-4-30 Class S/A. Predefined recorder profile for EN 50160 survey. Troubleshooting and Maintaining Tool to Discover voltage sags and swells, resonant states, high neutral conductor currents in 3-phase systems, asymmetry, transients. Designing Tool of filtering systems, power correction equipment, over voltage protection and UPS systems. Power Quality Nagotiating background Tool. Download, view and analyze with PowerView PC SW platform that contains a package of functionalities needed for profund evaluation of power quality phenomena and creation of complex reports.

- Voltage TRMS, peak, crest factor (4-channel), 0 ... 1000 Vrms
- Current TRMS, peak, crest factor (4-channel), automatic clamp recognition
- Power (active, reactive, apparent), Power factor, cos φ, Unbalance,
- Energy (active, reactive, generated, consumed)
- Harmonic analysis up to 50th harmonic, THD measurement and flicker measurement
- Waveform displaying and Transient snapshoting
- · Faster troubleshooting due to on-screen displaying of trends and captured events
- Voltage events and user defined alarms capture.
- Internal memory allows recording up to 4 weeks.
- Instrument or a group of them can be remotely controlled and programmed via GPRS modem

Instruments:

MI 2792 PowerQ4 Plus

Alternative:

MI 2392 PowerQ Plus



MI 3310A SigmaGT





MI 2392 PowerQ Plus



MI 2792 PowerQ4 Plus

