



Metro.ISO it is a next generation Insulation Measuring instrument designed and manufactured in Europe with the last technology available in 2014. It can test Insulation-Resistance, Capacitance, AC / DC Voltage, Cable test, Selectable measuring lead pairs.

Datasheet

ALBEDO Metro.ISO

Metro.ISO is a modern and well prepared instrument for engineers working in electrical and telecom installations, at factory, the central office or the field.

[Metro.ISO is compliant with IEC61010 CATIII 600V]

1. CONFIGURATION

1.1 Insulation-Resistance (analog)

- *Display-Range:* logarithm scaled
- *Measuring rate:* > 10/s
- Same technical data as Insulation-Resistance (digital)

1.2 Insulation-Resistance (digital)

- *Range:* 0...9.99 MΩ / 10...99.9 MΩ
- *Display-Range:* 0...19.99 MΩ / 0...199.9 MΩ
- *Resolution:* 10 kΩ / 100 kΩ
- *Limits of error:* 0...9.99MΩ : ±2.5 %
Limits of error: 10MΩ...49.99MΩ : ±5 %
Limits of error: 50MΩ...99.99MΩ : ±10 %
- Automatically discharging in hold position
- *Measuring voltage:* 100V DC (+0% ... 10%)
(Polarity-change possible)
- *Short circuit current:* ≤1 mA
- *Input resistance:* approx. 100 kΩ
- *Max. overload:* $U_{eff} = 600$ V
- *Max. interference voltage:* $U_{eff} \leq 10$ V

1.3 DC-Voltage measurement

- *Range:* 0...500 V
- *Display-Range:* 0...1000V
- *Resolution:* 1V
- *Limits of error:* ± (1% of m.v.+1 dig.)
- *Input resistance:* 1 MΩ
- *Max. overload:* $U_{eff} = 600$ V

1.4 AC-Voltage measurement

- *Range:* 0...500 V
- *Display-Range:* 0...1000V
- *Resolution:* 1V
- *Frequency range:* 40-400 Hz
- *Limits of error:* ± (1% of m.v.+1 dig.)
- *Input resistance:* 1 MΩ
- *Max. overload:* $U_{eff} = 600$ V

1.5 Capacitance measurement

- *Range:* 0...10.000 nF / 0...1000.0 nF
- *Display-Range:* 0...19.999 nF / 0...1999.9 nF
- *Resolution:* 1 pF / 100 pF
- *Limits of error:* ± (1 % of m.v. +10 dig.)
± (0.5% + 30 dig.) 18...28° C
- *Additional error at parallel resistance:*
10 000 nF / 100 kΩ resp.
1000.0 nF / 33 kΩ ≤1 % of range

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- Measuring voltage: $U_{PP} = 2 \text{ V}$, Square-wave
- Max. overload: $U_{eff} = 250 \text{ V}$

1.6 Fault-Location (for cable-break)

- Range: 1...20,000 m
- Display-Range: 0...19,999 m
- Resolution: 1 m
- Limits of error: $\pm (1 \% \text{ of m.v.} + 1 \text{ dig.})$
- Principle Measurement: Measurement of capacitance
- All data are the same as Capacitance measurement

1.7 Resistance measurement

- Range: 100...10000 Ω
- Display-Range: 0...19999 Ω
- Resolution: 1 Ω
- Limits of error: 100 Ω ...999 Ω : $\pm 10 \%$
Limits of error: 1k Ω ...9.99k Ω : $\pm 5 \%$
Limits of error: 10k Ω ...99.99k Ω : $\pm 2.5 \%$
- Open circuit voltage: 5 V / DC
- Measuring current: 100 μA / DC
- Max. overload: $U_{eff} = 250 \text{ V}$

2. GENERAL

2.1 Ergonomics

- Display: OLED 2.5 inches, 64x128 pixels
- LED: 9 on/off
- Fan-less case
- Perimetral rubber-boot protection
- Dimension: 210 x 100 x 40 mm
- Weight: 0.540 kg with batteries

2.2 Operation

- 3-pole lead connection
- Working temperature range: -10° C to 50° C
- Nominal temperature range: 0° C to 50° C
- Storage temperature range: -30° C to 55° C
- Climatic class: JWG as per DIN 40040 (3/73)
- Protective type: IP 30 as per DIN 40050 (7/80)

2.3 Power Supply

- External Power: 12V, AC/DC converter
- Batteries: Ni-Mh, 7.2V, 2k2 mAh
- Fast recharge cycle
- Automatic power on/off when no activity
- Operation time: up to 7 days on normal operation
- Continuous normal operation: 7h

2.4 Other

- Protective procedure to avoid accidents caused by a wrong selection (i.e. isolation instead of insulation)
- Self-calibration
- Rearmable Fusible based on PTC

