

## 1. TECHNICAL SPECIFICATIONS – DMM FUNCTIONS

Accuracy is indicated as  $\pm$  [% readings + (no. of digits\*resolution)] at 23°C  $\pm$  5°C, relative humidity <70%HR

### DC/AC TRMS VOLTAGE (Autorange)

| Range          | Resolution | DC Accuracy          | Accuracy (30 ÷ 70Hz) | Accuracy (70 ÷ 400Hz) | Input impedance |
|----------------|------------|----------------------|----------------------|-----------------------|-----------------|
| 1.0 ÷ 999.9mV  | 0.1mV      | $\pm(0.5\%rdg+2dgt)$ | $\pm(1.0\%rdg+2dgt)$ | $\pm(2.0\%rdg+2dgt)$  | 1M $\Omega$     |
| 1.000 ÷ 9.999V | 0.001V     |                      |                      |                       |                 |
| 10.00 ÷ 99.99V | 0.01V      |                      |                      |                       |                 |
| 100.0 ÷ 605.0V | 0.1V       |                      |                      |                       |                 |

### AC/DC VOLTAGE: MAX / MIN / AVG / PEAK

| Function      | Range            | Resolution | Accuracy                | Response time |
|---------------|------------------|------------|-------------------------|---------------|
| MAX, MIN, AVG | 1.0mV ÷ 999.9mV  | 0.1mV      | $\pm(5.0\%rdg + 10dgt)$ | 500ms         |
|               | 1.000V ÷ 9.999V  | 1mV        |                         |               |
|               | 10.00V ÷ 99.99V  | 10mV       |                         |               |
|               | 100.0V ÷ 605.0V  | 100mV      |                         |               |
| PEAK          | 10.0mV ÷ 999.9mV | 0.1mV      |                         | 1ms           |
|               | 1.000V ÷ 9.999V  | 1mV        |                         |               |
|               | 10.00V ÷ 99.99V  | 10mV       |                         |               |
|               | 100.0V ÷ 605.0V  | 100mV      |                         |               |

### DC/AC CURRENT TRMS (with external clamp)

| Range          | Resolution | DC Accuracy          | Accuracy (30 ÷ 70Hz) | Accuracy (70 ÷ 400Hz) | Crest factor | Overload protection |
|----------------|------------|----------------------|----------------------|-----------------------|--------------|---------------------|
| 1.0 ÷ 999.9mV  | 0.1mV      | $\pm(0.5\%rdg+2dgt)$ | $\pm(1.0\%rdg+2dgt)$ | $\pm(2.0\%rdg+2dgt)$  | 3            | 605Vrms max         |
| 1.000 ÷ 1.200V | 1mV        |                      |                      |                       | 1.5          |                     |

**Note:** accuracy indicated don't consider clamp accuracy. Please refer also to transducers clamp user's manual.

### AC/DC CURRENT: MAX / MIN / AVG / PEAK (with external clamp)

| Function      | Range            | Resolution | Accuracy              | Response time | Overload protection |
|---------------|------------------|------------|-----------------------|---------------|---------------------|
| MAX, MIN, AVG | 1.0mV ÷ 999.9mV  | 0.1mV      | $\pm(5.0\%rdg+10dgt)$ | 500 ms        | 605Vrms max         |
|               | 1.000V ÷ 1.200V  | 1mV        |                       |               |                     |
| PEAK          | 10.0mV ÷ 999.9mV | 0.1mV      |                       | 1ms           |                     |
|               | 1.000V ÷ 3.000V  | 1mV        |                       |               |                     |

### RESISTANCE AND CONTINUITY TEST

| Range                            | Resolution    | Accuracy             | Continuity test      | Overload protection      |
|----------------------------------|---------------|----------------------|----------------------|--------------------------|
| 0.00 $\Omega$ ÷ 39.99 $\Omega$   | 0.01 $\Omega$ | $\pm(1.0\%rdg+5dgt)$ | R $\leq$ 40 $\Omega$ | 605Vrms max for 1 minute |
| 40.0 $\Omega$ ÷ 399.9 $\Omega$   | 0.1 $\Omega$  |                      |                      |                          |
| 400 $\Omega$ ÷ 3999 $\Omega$     | 1 $\Omega$    |                      |                      |                          |
| 4.00k $\Omega$ ÷ 39.99k $\Omega$ | 10 $\Omega$   |                      |                      |                          |

### FREQUENCY (with test leads)

| Range          | Resolution | Accuracy             | Input voltage | Overload protection |
|----------------|------------|----------------------|---------------|---------------------|
| 30.0 ÷ 199.9Hz | 0.1Hz      | $\pm(0.5\%rdg+2dgt)$ | 1.0mV ÷ 605V  | 605Vrms max         |
| 200 ÷ 400Hz    | 1Hz        |                      |               |                     |

### FREQUENCY (with external clamp)

| Range          | Resolution | Accuracy             | Input voltage  | Overload protection |
|----------------|------------|----------------------|----------------|---------------------|
| 30.0 ÷ 199.9Hz | 0.1Hz      | $\pm(0.5\%rdg+2dgt)$ | 1.0mV ÷ 1.000V | 605Vrms max         |
| 200 ÷ 400Hz    | 1Hz        |                      |                |                     |



## 2. TECHNICAL SPECIFICATIONS – VERIFY TESTS & LAN TEST

### Continuity test on protective and equalizing conductors (M72E, M74E, M75E, M75L)

| Range ( $\Omega$ ) | Resolution ( $\Omega$ ) | Accuracy               | Overload protection |
|--------------------|-------------------------|------------------------|---------------------|
| 0.01 ÷ 19.99       | 0.01                    | $\pm(5.0\%rdg + 3dgt)$ | 605Vrms max         |
| 20.0 ÷ 99.9        | 0.1                     |                        |                     |

Test current: > 200mA DC for  $R \leq 5\Omega$  (included calibration); Resolution on current measurement: 1mA  
 Open-circuit voltage:  $4V \leq V_0 \leq 24V$

### Insulation Resistance (M72E, M74E, M75E, M75L)

| Range (M $\Omega$ ) | Resolution (M $\Omega$ ) | Accuracy                | Overload protection |
|---------------------|--------------------------|-------------------------|---------------------|
| 0.00 ÷ 19.99        | 0.01                     | $\pm(5.0\%rdg + 2dgt)$  | 605Vrms max         |
| 20.0 ÷ 199.9        | 0.1                      |                         |                     |
| 200 ÷ 999 (*)       | 1                        | $\pm(10.0\%rdg + 2dgt)$ |                     |

(\*) For 500VDC test voltage. For 250VDC test voltage the range is: 200 ÷ 499M $\Omega$

Test Voltage: 250V, 500VDC  
 Test voltage accuracy:  $-0\% \div +10\% rdg$   
 Short circuit current: < 3.0mA  
 Nominal test current: 1mA @ 1k $\Omega$  x Vnom ; 1mA @ 500 k $\Omega$

### Tripping time test for RCD type AC and A/F (M73E, M74E, M75E, M75L)

| Range (ms) | Resolution (ms) | Accuracy                | Overload protection |
|------------|-----------------|-------------------------|---------------------|
| 2 ÷ 300    | 1               | $\pm(2.0\% rdg + 2dgt)$ | 605Vrms max         |

Nominal trip-out currents: 30mA, 30x5mA, 100mA, 300mA (Type AC), 30mA (Type A/F)  
 RCD type: AC (⌚), A/F (⌚), General  
 Phase-Earth / Phase-Neutral voltage: 100V ÷ 265V  
 Frequency: 50Hz  $\pm$  0.5Hz / 60Hz  $\pm$  0.5Hz

### Tripping current test for RCD type AC and A/F (M73E, M74E, M75E, M75L)

| RCD Type          | $I_{\Delta N}$ | Range $I_{\Delta N}$ [mA] | Resolution | Accuracy                  |
|-------------------|----------------|---------------------------|------------|---------------------------|
| AC, A/F (General) | 30mA           | 6.0 ÷ 33.0                | 0.5mA      | - 0%, +10% $I_{\Delta N}$ |

Phase-Earth / Phase-Neutral voltage: 100V ÷ 265V  
 Frequency: 50Hz  $\pm$  0.5Hz / 60Hz  $\pm$  0.5Hz

### Global Earth Resistance (M73E, M74E, M75E, M75L)

| Test current | Range ( $\Omega$ ) | Resolution ( $\Omega$ ) | Accuracy                | Overload protection |
|--------------|--------------------|-------------------------|-------------------------|---------------------|
| 15mA         | 1 ÷ 1999           | 1                       | $\pm(5.0\% rdg + 2dgt)$ | 605Vrms max         |
| 100mA        | 0.1 ÷ 199.9        | 0.1                     | $\pm(5.0\% rdg + 3dgt)$ |                     |

Phase-Earth voltage: 110V ÷ 265V  
 Frequency: 50Hz  $\pm$  0.5Hz / 60Hz  $\pm$  0.5Hz  
 Limit contact voltage: 50V

### Phase sequence / conformity

| Type of measure | Voltage range (V)           | Frequency range (Hz) | System type   |
|-----------------|-----------------------------|----------------------|---|
| 1 Wire          | 90 ÷ 315 (Phase – Earth)    | 45 ÷ 65              | up to 315 (Phase – Earth)<br>up to 550V (Phase – Phase) |
| 2 Wire          | 110 ÷ 315 (Phase – Neutral) | 45 ÷ 65              | up to 315 (Phase – Earth)<br>up to 550V (Phase – Phase) |

Max crest factor :1.5

**NOTE:** the two-wire measurement can be performed also phase to phase in plants without neutral, even with one phase to earth, but always with phase to phase voltage up to 550V

### Wire mapping test on LAN networks with RJ45 (M75E)

Length of the cable: 1÷100m  
 Remote units recognized: max 8 units  
 Wire mapping detected conditions: OPEN Pairs, REVERSED pairs, SHORT pairs, SPLIT pairs, CROSSED pairs, MISWIRING  
 Reference standard: TIA568B (UTP/STP)



### 3. GENERAL SPECIFICATIONS

**DISPLAY:**

|                 |                           |
|-----------------|---------------------------|
| Features:       | Dual numeric, 9999 points |
| Display update: | 2 times/sec               |
| Visible area:   | 73x73 mm                  |

**POWER SUPPLY:**

|            |  |
|------------|--|
| Batteries: | 4 batteries 1.5V type LR6-AA-AM3-MN 1500 |
|------------|--|

**ELECTRICAL FEATURES:**

|                   |                  |
|-------------------|------------------|
| Conversion:       | AC 16 Bit, TRMS  |
| Sample frequency: | 64 sample/period |

**MECHANICAL FEATURES:**

|                              |                  |
|------------------------------|------------------|
| Dimensions (L x W x H):      | 240 x 100 x 45mm |
| Weight (included batteries): | approx 630 g     |

**ENVIRONMENTAL CONDITIONS:**

|                            |              |
|----------------------------|--------------|
| Reference temperature:     | 23°C ± 5°C   |
| Working temperature:       | 0°C ÷ 40°C   |
| Allowed relative humidity: | <70%RH       |
| Storage temperature:       | -10°C ÷ 60°C |
| Storage humidity:          | <70%RH       |

**TEST VERIFIES REFERENCE STANDARDS:**

|                             |               |
|-----------------------------|---------------|
| Continuity test with 200mA: | IEC/EN61557-4 |
| Insulation resistance:      | IEC/EN61557-2 |
| Global earth resistance:    | IEC/EN61557-3 |
| RCDs test:                  | IEC/EN61557-6 |

**REFERENCE STANDARDS:**

|                                  |   |
|----------------------------------|---|
| Safety of measuring instruments: | IEC/EN61010-1 + A2(1997)  |
| EMC:                             | IEC/EN61326-1   |
| Product type standard:           | IEC/EN61557-1, 2, 3, 4, 6                                       |
| Insulation:                      | double insulation   |
| Pollution degree:                | 2   |
| Overvoltage category:            | CAT III 550V AC Phase - Ground<br>CAT III 550V AC Phase - Phase |
| Max height of use:               | 2000m   |

**This instrument satisfies the requirements of Low Voltage Directive 2014/35/EU (LVD) and of Directive 2014/30/EU (EMC)**  
**This instrument satisfies the requirements of 2011/65/CE (RoHS) directive and the requirements of 2012/19/CE (WEEE) directive**



# Services d'EURO-INDEX

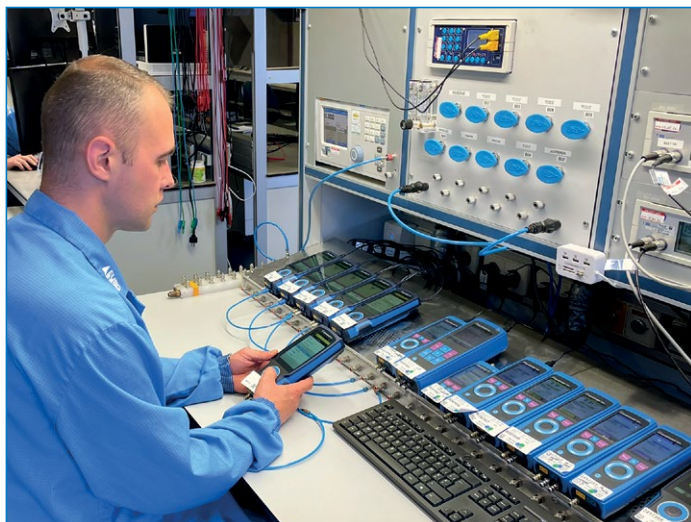
EURO-INDEX est le fabricant de la gamme LIGNE BLEUE et l'importateur/distributeur de diverses marques A d'instruments de test et de mesure. Nous proposons également un large éventail de services visant à optimiser l'utilisation de ces instruments dans le cadre de vos activités. Cela comprend la maintenance, la réparation et l'étalonnage des instruments, mais aussi le partage de connaissances via l'EURO-INDEX Academy et la location d'instruments.

## Centre de Service Agréé

EURO-INDEX est un Centre de Service Agréé pour la plupart des marques de sa gamme. Cela signifie que vos instruments sont pris en charge par des techniciens formés par le fabricant et disposant des outils et logiciels adéquats. Seules des pièces d'origine sont utilisées et la garantie de votre instrument, ainsi que les certifications (ATEX, EN50379, etc.) restent intactes.

## Laboratoire d'étalonnage

Notre laboratoire de service et d'étalonnage est accrédité BELAC conformément à la norme EN-ISO/IEC 17025. L'accréditation s'applique aux grandeurs et aux plages de mesure mentionnées dans l'annexe certifiée portant le numéro de certificat [760-CAL](#).



## MQS®

MQS® est une formule d'étalonnage pour vos instruments de test et de mesure, comprenant un entretien et un étalonnage périodiques à un coût fixe et avantageux. Vos certificats d'étalonnage sont disponibles au format numérique via Mon MQS (portail web et application gratuits) et en scannant le code QR sur l'autocollant d'étalonnage de l'instrument.

## Location d'instruments de mesure

Il existe plusieurs situations dans lesquelles la location est pratique :

- Vous avez temporairement besoin d'appareils supplémentaires.
- Votre propre instrument de mesure est en cours d'entretien et/ou d'étalonnage.
- Vous devez effectuer une mesure occasionnelle.

## EURO-INDEX Academy

- Formations, sessions d'informations et workshops
- Vidéos de démonstration et d'instruction
- Notes d'application



Comptoir de service



Entretien, réparation et calibrage



Formations et séminars



Laboratoire d'étalonnage

Sous réserve de modifications EURO-INDEX® FR 26001



**BELGIQUE**  
Chaussée de Louvain 607  
1930 Zaventem  
T: 02 - 757 92 44

[sales@euro-index.be](mailto:sales@euro-index.be)  
[www.euro-index.be](http://www.euro-index.be)

**PAYS-BAS**  
Rivium 2e straat 12  
2909 LG Capelle a/d IJssel  
T: +31 - (0)10 - 2 888 000

[verkoop@euro-index.nl](mailto:verkoop@euro-index.nl)  
[www.euro-index.nl](http://www.euro-index.nl)

