



## 1. ELECTRICAL SPECIFICATIONS

Accuracy calculated as  $\pm[\% \text{readings} + (\text{dgt} \times \text{resolution})]$  referred to  $18^\circ\text{C} \div 28^\circ\text{C}$ ,  $<75\% \text{RH}$ 

### DC Voltage

Range	Resolution	Accuracy	Input impedance	Overload protection
600.0mV	0.1mV	$\pm(0.8\% \text{rdg} + 8 \text{dgt})$	$>10 \text{M}\Omega$	1500VDC
6.000V	0.001V	$\pm(0.5\% \text{rdg} + 5 \text{dgt})$		
60.00V	0.01V			
600.0V	0.1V	$\pm(0.8\% \text{rdg} + 5 \text{dgt})$		
1500V	1V			

### AC TRMS Voltage

Range	Resolution	Accuracy (*)	Input impedance	Bandwidth	Overload protection
6.000V	0.001V	$\pm(1.2\% \text{rdg} + 5 \text{dgt})$ (50 $\div$ 60Hz)	$>9 \text{M}\Omega$	50Hz $\div$ 1kHz	1000VDC/ACrms
60.00V	0.01V				
600.0V	0.1V	$\pm(2.5\% \text{rdg} + 5 \text{dgt})$ (61 $\div$ 1kHz)			
1000V	1V				

(\*) Accuracy specified from 10% to 100% of the measuring range, sinusoidal waveform

Accuracy of PEAK function:  $\pm(10\% \text{reading})$ , Response time of PEAK function: 1msFor a non-sinusoidal waveform, accuracy is:  $\pm(10.0\% \text{rdg} + 20 \text{digits})$ 

Integrated NCV sensor for AC voltage detection: LED on for phase-earth voltage in range 100V - 1000V, 50/60Hz

### AC+DC TRMS Voltage

Range	Resolution	Accuracy (*) (50Hz $\div$ 1kHz)	Input impedance	Bandwidth	Overload protection
6.000V	0.001V	$\pm(2.5\% \text{rdg} + 20 \text{dgt})$	$>10 \text{M}\Omega$	50Hz $\div$ 1kHz	1000VDC/ACrms
60.00V	0.01V				
600.0V	0.1V				
1000V	1V				

### AC TRMS Voltage with low impedance (LoZ)

Range	Resolution	Accuracy (*) (50Hz $\div$ 1kHz)	Input impedance	Bandwidth	Overload protection
6.000V	0.001V	$\pm(3.0\% \text{rdg} + 20 \text{dgt})$	300k $\Omega$	50Hz $\div$ 1kHz	1000VDC/ACrms
60.00V	0.01V				
600.0V	0.1V				
1000V	1V				

(\*) Accuracy specified from 10% to 100% of the measuring range sinusoidal waveform

For non-sinusoidal waveform, accuracy is:  $\pm(10.0\% \text{rdg} + 20 \text{digits})$ 

### AC+DC TRMS Voltage with low impedance (LoZ)

Range	Resolution	Accuracy (*) (50Hz $\div$ 1kHz)	Input impedance	Bandwidth	Overload protection
6.000V	0.001V	$\pm(3.5\% \text{rdg} + 40 \text{dgt})$	$<300 \text{k}\Omega$	50Hz $\div$ 1kHz	1000VDC/ACrms
60.00V	0.01V				
600.0V	0.1V				
1000V	1V				



## DC Current

Range	Resolution	Accuracy	Overload protection
60.00A	0.01A	±(2.0%rdg + 8dgt)	1000ADC/ACrms
600.0A	0.1A		
1000	1A		

## AC TRMS Current / INRUSH Current

Range	Resolution	Accuracy (50Hz ÷ 60Hz)	Overload protection
60.00A	0.01A	±(2.5%rdg + 5dgt)	1000ADC/ACrms
600.0A	0.1A		
1000	1A		

(\*) Accuracy specified from 10% to 100% of the measuring range, Input impedance: > 9MΩ, sinusoidal waveform  
Response time INRUSH function: 100ms

## DC Current by means of standard clamp transducers

Range	Output ratio	Resolution	Accuracy (*)	Overload protection
1000mA	1000mV/1000mA	1mA	±(0.8%rdg + 5dgt)	1000VDC/ACrms
10A	100mV/1A	0.01A		
40A (**)	10mV/1A	0.01A		
100A	10mV/1A	0.1A		
400A (**)	1mV/1A	0.1A		
1000A	1mV/1A	1A		

(\*) Accuracy referred to the sole instrument without transducer; (\*\*) with clamp transducer HT4006

## AC, AC+DC Current by means of standard clamp transducers

Range	Output ratio	Resolution	Accuracy (*)		Overload protection
			(50Hz ÷ 60Hz)	(61Hz ÷ 1kHz)	
1000mA	1V/1mA	1mA	±(0.8%rdg.+5dgt)	±(2.4%rdg+5dgt)	1000VDC/ACrms
10A	100mV/1A	0.01A			
40A (**)	10mV/1A	0.01A			
100A	10mV/1A	0.1A			
400A (**)	1mV/1A	0.1A			
1000A	1mV/1A	1A			

(\*) Accuracy referred to the sole instrument without transducer; (\*\*) with clamp transducer HT4006

## AC TRMS Current by means of flexible clamp transducer (F3000U)

Range	Output ratio	Resolution	Accuracy (*) (50Hz ÷ 400Hz)	Overload protection
30A	100mV/1A	0.01A	±(3.0%rdg.+5dgt)	1000VDC/ACrms
300A	10mV/1A	0.1A		
3000A	1mV/1A	1A		

(\*) Accuracy referred to the sole instrument without transducer ; Accuracy specified from 5% to 100% of the measuring range  
Accuracy of PEAK function: ±(10%reading+20dgt), Response time of PEAK function: 1ms

## Diode test

Function	Test current	Open voltage
	<1.5mA typical	3.3VDC

## Frequenza (electrical circuits)

Range	Resolution	Accuracy	Sensitivity	Overload protection
40.00Hz÷10kHz	0.01Hz ÷ 0.001kHz	±(0.5%rdg)	±2Vrms	1000VDC/ACrms



## Frequency (electronic circuits)

Range	Resolution	Accuracy	Overload protection
60.00Hz	0.01Hz	±(0.2%rdg+5dgt)	1000VDC/ACrms
600.0Hz	0.1Hz		
6.000kHz	0.001kHz		
60.00kHz	0.01kHz		
600.0kHz	0.1kHz		
6.000MHz	0.001MHz		
10.00MHz	0.01MHz		

Sensitivity: >2Vrms (@ 20% ÷ 80% duty cycle) and f<100kHz; >5Vrms (@ 20% ÷ 80% duty cycle) and f>100kHz

## Resistance and Continuity test

Range	Resolution	Accuracy	Buzzer	Overload protection
600.0Ω	0.1Ω	±(1.0%rdg + 10dgt)	≤50Ω	1000VDC/ACrms
6.000kΩ	0.001kΩ	±(0.8%rdg + 5dgt)		
60.00kΩ	0.01kΩ			
600.0kΩ	0.1kΩ			
6.000MΩ	0.001MΩ	±(2.5%rdg + 10dgt)		
60.00MΩ	0.01MΩ			

## Duty Cycle

Range	Resolution	Accuracy
10.0% ÷ 90.0%	0.1%	±(1.2%rdg + 8dgt)

Pulse frequency range: 40Hz ÷ 10kHz, Pulse amplitude: ±5V (100μs ÷ 100ms)

## Capacitance

Range	Resolution	Accuracy	Overload protection
60.00nF	0.01nF	±(3.0%rdg + 20dgt)	1000VDC/ACrms
600.0nF	0.1nF	±(3.0%rdg + 8dgt)	
6.000μF	0.001μF		
60.00μF	0.01μF		
600.0μF	0.1μF		
6000μF	1μF	±(3.5%rdg + 20dgt)	
60.00mF	0.01mF	±(5.0%rdg + 40dgt)	
100.0mF	0.1mF		

## Temperature with K-type probe

Range	Resolution	Accuracy (*)	Overload protection
-40.0÷600.0°C	0.1°C	±(1.5%rdg + 3°C)	1000VDC/ACrms
601 ÷ 1000°C	1°C		
-40.0°F ÷ 600.0°F	0.1°F	±(1.5%rdg + 5.4°F)	
601°F ÷ 1800°F	1°F		
245.0K ÷ 600.0K	0.1°F	±(1.5%rdg + 3K)	
601K ÷ 1273K	1°F		

(\*) Instrument accuracy without probe ; Specified accuracy with stable environmental temperature at ±1°C



## Infrared temperature (only ECLIPSE)

Type of IR sensor	UFPA (80x80pxl, 34 $\mu$ m)
Spectrum response	8 ÷ 14 $\mu$ m
Visual range (FOV) / Lens	21°x 21° / 7.5mm
IFOV (@1m)	4.53mrad
Thermal sensitivity / NETD	<0.1°C (@30°C /86°F) / 100mK
Focusing	automatic
Minimum focus distance	0.5m
Image frequency	50Hz
Temperature readings	°C, °F, K
Available color palettes	5 (Iron, Rainbow, Grey, Reverse grey, Feather)
Laser pointer	class 2 according to IEC 60825-1
Built-in illuminator	white-light LED
Emissivity correction	0.01 ÷ 1.00 in steps of 0.01
Measuring cursors	3 (Fixed, Max Temp., Min Temp.)
Measuring range	-20°C ÷ 260°C (-4°F ÷ 500°F)
Accuracy	±3%reading or ±3°C (±5.4°F) (environmental temperature 10°C ÷ 35°C, object temperature >0°C)




## 2. GENERAL SPECIFICATIONS

### Mechanical characteristics

Dimensions (L x La x H):	280 x 100 x 50mm
Weight (battery included):	505g
Mechanical protection:	IP40
Max conductor size:	40mm

### Power supply

Battery type:	1x7.4V rechargeable Li-ION battery, 1200mAh
Battery charger power supply:	100/240VAC, 50/60Hz, 12VDC, 2A
Low battery indication:	symbol "  " on the display
Recharging time:	approx. 2 hours
Battery duration:	approx. 8 hours (Bluetooth deactivated) approx. 7 hours (active Bluetooth)
Auto power OFF:	after 15 ÷ 60min minutes' idling (may be disabled)

### Display

Characteristics:	color TFT, 6000 dots with bargraph
Sampling frequency:	3times/s
Conversion:	TRMS

### Functions:

- Data HOLD
- MAX/MIN/PEAK(1ms)
- RANGE
- REL
- Laser pointer (only ECLIPSE)
- White LED illuminator:
- Bluetooth connection (BLE 4.0) for connection to mobile devices by using **HTMercury APP**

### Internal memory

Characteristics:	max 128 snapshots (BMP format) max 16 recordings or 34 hours (SI=1s) sampling interval: 1s ÷ 15min duration single recording: max 10 hours
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### Environmental conditions for use

Reference temperature:	18°C ÷ 28°C
Operating temperature:	5°C ÷ 40°C
Allowable relative humidity:	<80%RH
Storage temperature:	-20°C ÷ 60°C
Storage humidity:	<80%RH

### Reference guidelines

Safety:	IEC/EN 61010-1
EMC:	IEC/EN61326-1
Insulation:	double insulation
Pollution degree:	2
Max height of use:	2000m
Measurement category:	CAT IV 600V, CAT III 1000V to ground

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

# Diensten van EURO-INDEX

EURO-INDEX is fabrikant, importeur en distributeur van diverse A-merken op het gebied van test- en meetinstrumenten. Daarnaast leveren wij een groot aantal diensten om het gebruik van deze instrumenten in uw bedrijfsvoering te optimaliseren. Dit omvat uiteraard onderhoud, reparatie en kalibratie van de instrumenten, maar ook kennisdeling via de EURO-INDEX Academy en verhuur van instrumenten.

## Geautoriseerd Service Centrum

EURO-INDEX b.v. is van alle vertegenwoordigde merken een Geautoriseerd Service Centrum. Dit betekent dat uw instrumenten worden behandeld door technici die zijn opgeleid door de fabrikant en beschikken over de juiste gereedschappen en software. Er worden uitsluitend originele onderdelen toegepast en de garantie van uw instrument, evenals de certificering (ATEX, EN50379, etc.) blijven intact.

## Kalibratielaboratorium

Ons moderne service- en kalibratielaboratorium beschikt over een RvA accreditatie naar NEN-EN-ISO/IEC 17025. Deze accreditatie geldt voor grootheden, zoals gespecificeerd in de scope bij accreditatienummer K105.



Kijk voor een overzicht van al onze diensten op [euro-index.nl/diensten](http://euro-index.nl/diensten)



## Mobiele Service

Naast de vaste kalibratielaboratoria in Capelle aan den IJssel en Zaventem beschikken wij ook over een laboratorium op wielen met de naam "Mobiele Service". Dit biedt vertrouwde service en kwaliteit, bij u voor de deur!

## KWS®

KWS® is een uniek servicesysteem voor uw meetinstrumenten met periodiek onderhoud en kalibratie tegen vaste, lage kosten. Via een gratis webportal ([mijnkws.nl](http://mijnkws.nl)) heeft u altijd en overal beschikking over uw kalibratiecertificaten.

## Verhuur van meetinstrumenten

- Uitgebreid assortiment
- Nauwkeurigheid aantoonbaar door actueel kalibratiecertificaat
- Deskundig advies
- Complete levering inclusief accessoires

## EURO-INDEX Academy

- Trainingen (individueel en klassikaal)
- Cursussen en workshops
- Demonstratie- en instructievideo's
- Whitepapers



Servicebalie



Onderhoud, reparatie en kalibratie



Cursussen en workshops



Mobiele Service

Wijzigingen voorbehouden EURO-INDEX® NL 21004



NETHERLAND  
Rivium 2e straat 12  
2909 LG Capelle a/d IJssel  
T: 010 - 2 888 000  
F: 010 - 2 888 010  
[verkoop@euro-index.nl](mailto:verkoop@euro-index.nl)  
[www.euro-index.nl](http://www.euro-index.nl)



BELGIË  
Leuvensesteenweg 607  
1930 Zaventem  
T: +32 - (0)2 - 757 92 44  
F: +32 - (0)2 - 757 92 64  
[info@euro-index.be](mailto:info@euro-index.be)  
[www.euro-index.be](http://www.euro-index.be)