



## 1. ELECTRICAL SPECIFICATIONS

Accuracy calculated as  $\pm[\% \text{reading} + (\text{num dgt} * \text{resolution})]$  ta 18°C ÷ 28°C, <75%RH

### DC VOLTAGE

Range	Resolution	Accuracy	Input impedance	Overload protection
600.0mV	0.1mV	$\pm(0.09\% \text{rdg} + 5 \text{dgt})$	>10M $\Omega$	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V			
600.0V	0.1V	$\pm(0.2\% \text{rdg} + 5 \text{dgt})$		
1000V	1V			

### AC TRMS VOLTAGE

Range	Resolution	Accuracy (*)		Overload protection
		50Hz ÷ 60Hz	61Hz ÷ 1kHz	
6.000V	0.001V	$\pm(0.8\% \text{rdg} + 5 \text{dgt})$	$\pm(2.4\% \text{rdg} + 5 \text{dgt})$	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

(\*) Accuracy specified from 5% to 100% of measurement range and sinusoidal waveform ; Input impedance: >9M $\Omega$ Accuracy PEAK function:  $\pm 10\% \text{rdg}$ , PEAK response time: 1msFor not sinusoidal waveforms the accuracy is:  $\pm(10\% \text{rdg} + 10 \text{dgt})$ 

NCV sensor for AC voltage detection: LEN on for phase-PE voltage within 100V and 1000V, 50/60Hz

### AC+DC TRMS VOLTAGE

Range	Resolution	Accuracy (*) 50Hz ÷ 1kHz	Input impedance	Overload protection
6.000V	0.001V	$\pm(2.4\% \text{rdg} + 20 \text{dgt})$	>10M $\Omega$	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

### DC CURRENT

Range	Resolution	Accuracy	Overload protection
600.0 $\mu$ A	0.1 $\mu$ A	$\pm(0.9\% \text{rdg} + 5 \text{dgt})$	Fast Fuse 800mA/1kV (inputs mA, $\mu$ A)
6000 $\mu$ A	1 $\mu$ A		
60.00mA	0.01mA		
600.0mA	0.1mA	$\pm(0.9\% \text{rdg} + 8 \text{dgt})$	Fast Fuse 10A/1kV (input 10A)
10.00A	0.01A	$\pm(1.5\% \text{rdg} + 8 \text{dgt})$	

### AC TRMS CURRENT

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Overload protection
600.0 $\mu$ A	0.1 $\mu$ A	$\pm(1.2\% \text{rdg} + 5 \text{dgt})$	Fast Fuse 800mA/1kV (inputs mA, $\mu$ A)
6000 $\mu$ A	1 $\mu$ A		
60.00mA	0.01mA		
600.0mA	0.1mA		
10.00A	0.01A	$\pm(1.5\% \text{rdg} + 5 \text{dgt})$	Fast Fuse 10A/1kV (input 10A)

(\*) Accuracy specified from 5% to 100% of measurement range and sinusoidal waveform

Accuracy PEAK function:  $\pm 10\% \text{rdg}$ , PEAK response time: 1ms;For not sinusoidal waveforms the accuracy is:  $\pm(10\% \text{rdg} + 10 \text{dgt})$ AC+DC TRMS Current: accuracy (50Hz÷1kHz):  $\pm(3.0\% \text{reading} + 20 \text{dgt})$



### DC CURRENT WITH STANDARD TRANSDUCERS CLAMPS

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 of the only instrument without clamp; (\*\*) With transducer clamp HT4006

### AC, AC+DC TRMS CURRENT WITH STANDARD TRANSDUCERS CLAMPS

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 of the only instrument without clamp; (\*\*) With transducer clamp HT4006

### AC TRMS CURRENT WITH FLEXIBLE CLAMP (F3000U)

Range	Output ratio	Resolution	Accuracy (*)		Overload protection
			(50Hz ÷ 60Hz)	(61Hz ÷ 1kHz)	
30A	100mV/1A	0.01A	±(0.8%rdg+5dgt)	±(2.4%rdg+5dgt)	1000VDC/ACrms
300A	10mV/1A	0.1A			
3000A	1mV/1A	1A			

(\*) Accuracy of the only instrument without clamp; Accuracy specified from 5% to 100% of measurement range

### DIODE TEST

Range	Test current	Open voltage
	<1.5mA	3.3VDC

### FREQUENCY (Electrical circuits)

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

Sensitivity: 2Vrms

### FREQUENCY (Electronic circuits)

Range	Resolution	Accuracy	Overload protection
60.00Hz	0.01Hz	±(0.09%rdg+5dgt)	1000VDC/ACrms
600.0Hz	0.1Hz		
6.000kHz	0.001kHz		
60.00kHz	0.01kHz		
600.0kHz	0.1kHz		
1.000MHz	0.001MHz		
10.00MHz	0.01MHz		

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

**DUTY CYCLE**

Range	Resolution	Accuracy	Overload protection
5.0% ÷ 95.0%	0.1%	$\pm(1.2\%rdg+2dgt)$	1000VDC/ACrms

Pulse frequency range: 40Hz ÷ 10kHz, Impulse amplitude:  $\pm 5V$  (100 $\mu$ s ÷ 100ms)**RESISTANCE AND CONTINUITY TEST**

Range	Resolution	Accuracy	Buzzer	Overload protection
600.0 $\Omega$	0.1 $\Omega$	$\pm(0.5\%rdg+10dgt)$	<50 $\Omega$	1000VDC/ACrms
6.000k $\Omega$	0.001k $\Omega$	$\pm(0.5\%rdg+5dgt)$		
60.00k $\Omega$	0.01k $\Omega$			
600.0k $\Omega$	0.1k $\Omega$			
6.000M $\Omega$	0.001M $\Omega$			
60.00M $\Omega$	0.01M $\Omega$	$\pm(2.5\%rdg+10dgt)$		

**CAPACITANCE**

Range	Resolution	Accuracy	Overload protection
60.00nF	0.01nF	$\pm(1.5\%rdg + 20dgt)$	1000VDC/ACrms
600.0nF	0.1nF	$\pm(1.2\%rdg + 8dgt)$	
6.000 $\mu$ F	0.001 $\mu$ F	$\pm(1.5\%rdg + 8dgt)$	
60.00 $\mu$ F	0.01 $\mu$ F	$\pm(1.2\%rdg + 8dgt)$	
600.0 $\mu$ F	0.1 $\mu$ F	$\pm(1.5\%rdg + 8dgt)$	
6000uF	1uF	$\pm(2.5\%rdg + 20dgt)$	

**TEMPERATURE WITH TYPE K PROBE**

Range	Resolution	Accuracy (*)	Overload protection
-40°C ÷ 600°C	0.1°C	$\pm(1.5\%rdg+3^{\circ}C)$	1000VDC/ACrms
600°C ÷ 1000°C	1°C		
-40°F ÷ 600°F	0.1°F	$\pm(1.5\%rdg+5.4^{\circ}F)$	
600°F ÷ 1800°F	1°F		

(\*) Accuracy referred to instrument without probe

Specified accuracy with stable environmental temperature at  $\pm 1^{\circ}C$ , For long-lasting measurements, reading increases by 2°C**INFRARED TEMPERATURE**

Detector type	UFPA (80x80pxl, 34 $\mu$ m)
Spectral range	8 ÷ 14 $\mu$ m
Field of View (FOV) / Lens	21° x 21° / 7.5mm
IFOV (@1m)	4.53mrad
Thermal sensitivity	<0.1 °C @ 30°C (86°F) / 100mK
Focusing	Automatic
Minimum focal distance	0.5m
Image frequency	50Hz
Temperature unit	°C, °F, K
Colour palettes	4 (Iron, Rainbow, Grey, Grey Inverted)
Laser beam	Class 2 according with IEC 60825-1
Integrated illuminator	White LED light
Emissivity correction	0.01 ÷ 1.00
Measurement cursors	3 (Fixed, Max, Min)
Temperature range	-20°C ÷ 260°C (-4°F ÷ 500°F)
Accuracy	$\pm 3^{\circ}C(5.4^{\circ}F)$ or $\pm 3\%rdg$ (@ env temp:10°C÷35°C,object temp >0°C)



### 3. GENERAL SPECIFICATIONS

**Display:**

- Colour TFT, 6000 counts, sign, decimal point and bargraph
- Automatic polarity indication
- "OL" over range indication
- Response time: 3/s
- Conversion: TRMS

**Features:**

- Data HOLD
- MAX/MIN/PEAK (1ms)
- RANGE
- REL
- DATA LOGGER (internal memory): max 16 recordings, sample interval: 1s ÷ 15min, recording duration max 10 hours
- Fuse protection: F10A/1000V, 10 x 38mm (input **10A**), F800mA/1000V, 6 x 32mm (input **mA $\mu$ A**)
- Laser beam
- White LED illuminator
- MEMORY: saved screenshots/pics in a micro SD card, BMP format, ca 23kscreenshots (@ 8GB card)
- Bluetooth connection (BLE 4.0) for connection to mobile devices (by means **HTMercury APP**)
- Auto Power OFF after 15, 30, 60min of idleness (disable)

**Environmental conditions:**

- Operating Temperature/Humidity: 5°C ÷ 40°C (41°F ÷ 104°F), <80%RH
- Storage Temperature/Humidity: -20°C ÷ 60°C (-4°F ÷ 140°F), <80%RH

**General informations:**

- Altitude max of use: 2000m
- Pollution degree: 2
- Insulation: double insulation

**Mains supply:**

- 1x7.4V rechargeable Li-ION battery, 1500mAh
- Battery rechargeable adapter: 100/240VAC, 50/60Hz, 12VDC, 3A
- Recharging time: ca 2 hours
- Battery life: ca 8hours (Bluetooth inactive), ca 7hours (Bluetooth active)

**Mechanical specifications**

- Dimensions ((L x W x H): 190 x 75 x 55mm
- Weight (included battery) : 555g
- Mechanical protection : IP65

**Reference guidelines:**

- Safety : IEC/EN61010-1
- EMC : IEC/EN61326-1
- Measurement category : CAT IV 600V – CAT III 1000V

**This product conforms to the prescriptions of the European directive on low voltage 2014/35/EU and to EMC directive 2014/30/EU**

**This product conforms to the prescriptions of the European directive 2011/65/EU (RoHS) and the European directive 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

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