

# **CATALOGO PROFESSIONAL**







#### **PROFESSIONAL CATALOG**

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#### Code 50096017 Mod. KMD-5A

#### **5 in 1 DIGITAL MULTIMETER**

It allows to make not only normal electrical measurements, but also a wide range of environmental measurements, such as lighting level, sound level, relative humidity and temperature. Suitable for the analysis of the illumination level in working or civil environments, of the level of acoustic pollution or level in large sound diffusion systems.



The detection of RH relative humidity and the ambient temperature are essential for those who are involved in the installation and maintenance of civil and industrial air conditioning or refrigeration systems.

#### General features:

- LCD display
- Continuity/Diode test (acoustic signal)
- Protection against overload in some ranges
- · Power supply: 1 9V battery
- Dimensions: mms 121.5 x 60.6 x 40
- Supplied with 9V battery, pair of test leads, K type temperature probe

#### TECHNICAL SPECIFICA-TIONS

Sound meter	35 -100 dB
Hygrometer	25 - 95 RH%
Luxmeter	200 - 20.000 lux
Thermometer	-20 - 1300°C
DC voltage	200mV - 600V
AC voltage	200mV - 600V
Resistance	200Ω - 2.000ΜΩ
Hfe transistor	0-1000 - Corrente base 10μA DC
Diodes	1,4mA test current
Continuity check	Beeper - 100Ω
Continuity check	Beeper - 100Ω
Overload protection	Max 15 secs. 250V



#### Code 50102400 Mod. KMD-6A

#### 6 in 1 DIGITAL MULTIMETER FOR ENVIRONMENTAL MEASUREMENTS

The new KMD-6A digital multimeter is the perfect companion for both professional and amateur environmental surveys. It includes the functions of Sound Level Meter, Luxmeter, Hygrometer, Thermometer, contactless AC voltage detector and professional digital multimeter.

#### General features:

- Automatical range selection
- Key for data retention
- Auto Off
- 4000-count LCD screen
- Backlit Display
- Dimensions/Weight mms 121x60.6x40/280gms
- Supplied with a pair of test leads and temperature probe

#### **TECHNICAL SPECIFICATIONS**

Function	Max Gamma	Resolution	Accuracy
Luxmeter	4.000 Lux 40.000 Lux	0.1 Lux	±5% ±10dgtt
Sound meter	35~100dB	0.1dB	±5dB
Hygrometer	30%~99%RH	0.1% RH	5% RH
Thermometer (K type probe)	-20° ~1300°C	1°C	±3°C
Thermometer (internal)	0°~+50°C	0.1°C	±2°C
Contactless voltage detector	50 - 1000V		
DC voltage	600V	0.1mV	±1.5% ±4dgt
AC voltage	600V	0.1mV	±2.0% ±4dgt
DC current	10A	0.1μΑ	±2.0% ±5dgt
AC current	10A	0.1μΑ	±2.0% ±5dgt
Resistance	40ΜΩ	0.1Ω	±2.5% ±2dgt
Capacity	100μF	0.01nF	±5.0% ±7dgt
Frequency	10MHz	0.001Hz	±1.5% ±4dgt
Duty Cycle	99.9%	0.1%	±1.2%
Diodes test	2.8Vdc open voltage; 1mA current		
Continuity test	Treshold 30Ω		









#### Code 50100930 Mod. KM-LAN

#### LAN NETWORK TESTER AND MULTIMETER WITH AUTOMATIC RANGE

The 2 in 1 LAN Tester and Multimeter is an innovative tester that allows you to easily measure DC/AC Voltage/Current, Resistances, Continuity, diodes and to check the continuity of the cable, the opening or the short circuit and the cross connections. The tool includes a remote terminal that allows you to check the installed cable both from the side of the wall socket and from the one of the temporary panel, thus adding value and comfort. Proper use and care of this instrument will allow it to be used for many years. Viewing with LEDs of the actual pin configuration of 10BASE-T and 10BASE-2. Thin Ethernet, modular RJ45/RJ11, 58A, tia-568a/568b and Token Ring cables (ring network)



#### **General features:**

- Power supply: 9V battery and two 1.5V "AAA" type batteries
- Dimensions/Weight: 162 x 74.5 x 44 mms/ 308g
- Complete with: test leads, test-lan cable, 2 female cables, BNC-RJ45 adapter, double male BNC and u

#### TECHNICAL SPECIFICA-TIONS

Function	Range	Accuracy
DC voltage	200mV ~ 600V	±0.5%
AC voltage	2V ~ 600V	±1.2%
DC current	200.0μA ~ 200mA	±1.5%
AC current	200mA	±2.0%
Resistance	200Ω ~ 20ΜΩ	±0.8%
Diode test	corrent: 1mA / voltage: 1.5V	
Continuity test	Acoustic signal under 150Ω	





#### Code 50100925 Mod. KM-IP67

#### **IP67 PROFESSIONAL DIGITAL MULTIMETER**

Ideal for use in extreme conditions with double die-cast casing allowing high resistance to dust and water. With a large 3 1/2-digit, 4000-digit high contrast LCD display.

#### **General features:**

- LCD screen: 4000 count, with function indicators.
- Automatic polarity, negative polarity indication with (-)
- Out of range: it is indicated with "OL"
- Indicating battery discharged, when the battery drops below the level of use, the word "BAT" appears on the screen
- Measurement rate: 2 times per second, nominal
- Power supply: 1x 9V battery, NEDA 1604, IEC 6F22
- Standard: EN61010-1 CAT III 1000 V, CAT IV 600 V
- Insulation: Class 2, double insulation.
- · Continuity test: Acoustic signal
- Diode test: yes
- Dimensions/Weight: 182 x 82 x 55 mms/about 375 gms

#### TECHNICAL SPECIFICA-TIONS

Function	Range	Resolution
AC/DC voltage	400mV ~ 1000V	0,1mV ~ 1V
AC/DC current	40μA ~ 10A	0,1μA ~ 10mA
Resistance	400Ω ~ 40ΜΩ	0,1Ω ~ 10kΩ
Duty Cicle	0.1% ~99.9%	0.1%
Capacity	4.000nF ~ 300μF	1pF ~ 0.1μF
Frequency	9.999Hz ~ 9.999MHz	0,001hz ~1kHz
Diode test	current: 0.3mA - 1mV	







#### Code 50100500 Mod. DMM-THERMAL CAMERA

#### THERMAL CAMERA WITH MULTIMETER FUNCTIONS WITH TRUE RMS VALUE

Thermal camera with professional multimeter functions - True RMS, true effective value.

- Convenient menu for range setting
- 2.4 TFT display, 4000 count with bargraph
- Internal memory
- Torch
- USB recharge
- Equipped with a convenient carrying case





DE IR+ DMM MODE

#### **TECHNICAL SPECIFICATIONS**

#### THERMAL CAMERA

Field of view (FOV) / minimum focus distance	21°x21° / 0,5mt
Space resolution (IFOV)	4,53mrad
IR resolution	80 x 80 pixels
Thermal sensitivity / NETD	<0,1°C @ +30°C (+86°F) / 100 mk
Image frequency	50Hz
Focus mode	Free focus
Focal length	7,5mms
Focal Plane Array (FPA) / Spectral range	Cooled microbolometer / 8-14 µm
Object temperature range	-20°C at +260°C (-4°F at + 500°F)
Accuracy	±3°C (±5,4°F) or ±3% reading (ambient temperature 10°C – 35°C, object temperature >0°C

Accuracy calculated as [% reading + (number of digits \* resolution)] at 18°C + 28°C <75% HR

#### DC VOLTAGE

Range	Resolution	Accuracy	Input impedance	Overload protection
400.0mV	0.1mV	± (0,8% reading + 8 digits)		
4.000V	0.001V	± (0,5% reading	>10ΜΩ	600VDC/ACrms
40.00V	0.01V	+ 5 digits)		
400.0V	0.1V	± (0,8% reading		
600V	1V	+ 5 digits)		

#### AC VOLTAGE TRMS

	7.0 7.0 1.1.1.1.0			
Range	Resolution	Accuracy (*)		Overload
		(50Hz+60Hz)	(61Hz+1 kH)	protection
4.000V	0.001V			
40.00V	0.01V	± (1% reading + 5 digits)	± (2,5% rea- ding + 5 digits)	600VDC/ACrms
400.0V	0.1V			
600V	1V			

(\*) Specified accuracy 10% up to 100% of measuring field, sinusoidal wave. Input impedance:> 9M $\Omega$ ; PEAK function accuracy:  $\pm 10\%$  rdg, PEAK response time: 1 ms

#### AC VOLTAGE + DC TRMS

Range	Resolution	Accuracy (50Hz+1 kHz)	Input impedance	Overload protection
4.000V	0.001V	± (2,5% reading + 20 dgt)	>10MΩ	600VDC/ACrms
40.00V	0.01V			
400.0V	0.1V			
600V	1V			

Range	Resolution	Accuracy (*)	Overload protection
400.0μA	0.1μΑ		
4000µA	1μA	±(1,5% reading + 5 digits)	500 A / 000 /
40.00mA	0.01mA		Fuse 500mA / 600V
400.0mA	0.1mA	±(1,5% reading + 5 digits)	
10.00A	0.01A	±(2,0% reading + 5 digits)	Fuse 10A / 600V

#### AC CURRENT TRMS

Range	Resolution	Accuracy (50Hz+1 kH)	Overload protection
400.0μΑ	0.1μΑ		
4000μΑ	1µA	±(2,0% reading + 5 digits)	Fuse 500mA / 600V
40.00mA	0.01mA		
400.0mA	0.1mA		
10.00A	0.01A	±(2,5% reading + 5 digits)	Fuse 10A / 600V

#### DIODE TEST

DC CURRENT

Function	Current test	Max voltage with open circuit
<b>→</b>	< 1.5mA	3.3VDC

<sup>(\*)</sup> Specified accuracy 5% up to 100% of measuring field, sinusoidal wave.

PEAK function accuracy:  $\pm$  10% rdg, AC DC current TRMS : accuracy (50Hz + 1kHz):  $\pm$  (3,0% reading + 20 dgt)



Reference standard Safety: IEC / EN61010-1 EMC: IEC / EN 61326-1 Insulation: Double insulation

Pollution level: 2

Overvoltage category: CAT 600V, CAT II 300V Max operating altitude: 2000mts (6562ft)

General features, mechanical features

Dimensions (LxWxH): 175 x 85 x 55 mms (7 x 3 x 2

inches)

Weight (including batteries): 540grs

**Power supply** 

Battery type: 1 x 3.7V Li-ION rechargeable 1400mAh

Charger power supply: 5VDC, 1  $^{\circ}$ 

Low battery indication: symbol on display

Auto power off: after 15÷60 minutes at minimum

(it could be disabled)

**Display** 

**Conversion: TRMS** 

Features: color TFT, 4000 pixels

with bar graph

Sampling frequency: 3 times / sec.







RESISTAN	ICE AND CON	TINUITY TEST		
Range	Resolution	Accuracy	Buzzer	Overload protection
		±(1% reading + 10 dgt)		
4.000ΚΩ	0.001ΚΩ	ΚΩ		
40.00ΚΩ	0.01ΚΩ	$\pm (1.0\% \text{ reading} + 5 \text{ dgt})$	D dgt) 5 dgt) >50Ω 60	600VDC/ACrms
400.0ΚΩ	0.1ΚΩ	, , , , , , , , , , , , , , , , , , , ,		
4.000ΜΩ	0.001ΜΩ			
40.00ΜΩ	0.01ΜΩ	±(2.5% reading + 10 dgt)		

#### DUTY CYCLE

Range	Resolution	Accuracy
10,0% + 90,0%	0.1%	±(1.2% reading + 2 digits)

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

FREQUENCY	(ELECTRONIC CIRCU	ITS)
	1	1

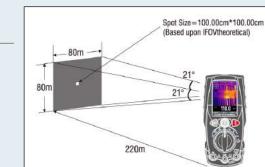
Range	Resolution		Overload protection
40.00Hz ÷ 10kHz	0.01Hz ÷ 0.001kHz	±(0.5% rea- ding)	600VDC/ACrms

SENSITIVITY 2VRMS

#### FREQUENCY (ELECTRONIC CIRCUITS)

	. (	· · · · · · · · · · · · · · · · · · ·	
Range	Resolution	Accuracy	Overload protection
40.00Hz	0.01Hz		
400.0Hz	Hz 0.1Hz		
4.000kHz	0.001kHz	Z	600VDC/ACrms
40.00kHz	0.01kHz	±(0.20% Reading + 5	
400.0kHz	0.1kHz	digits)	
4.000MHz	0.001MHz	z	
10.00MHz	0.01MHz		

SENSITIVITY: > 2VRMS (@ 20%  $\div$  80% duty cycle) e f <100 kHz; > 5VRMS (@ 20%  $\div$  80% duty cycle) e f >100kHz



#### CAPACITY

OALAOITI			
Range	Resolution	Accuracy	Overload protection
40.00nF	0.01nF	±(3.0% reading + 20 dgt)	
400.0nF	0.1nF	±(3.0% reading + 8 digits)	
4.000µF	0.001µF	±(3.0% reading + 8 digits)	600VDC/ACrms
40.00μF	0.01µF	±(3.0% reading + 8 digits)	000VDO/AOIIIIS
400.0μF	0.1μF	±(3.0% reading + 8 digits)	
4000μF	1μF	±(3.5% reading + 20 dgt)	



#### Cod. 50100980 Mod. BRAIN

#### DIGITAL PROFESSIONAL MULTIMETER - TRUE RMS (TRUE EFFECTIVE VALUE) & OSCILLOSCOPE

It is a True RMS digital professional multimeter with oscilloscope function and TFT color LCD display, it provides fast sampling times, high accuracy, integrated data logging, Trend Capture sequences and Bluetooth technology.

The oscilloscope offers extraordinary and powerful performance. The real-time sampling frequency is up to 50 MSa/sec. and it can meet the market needs of high acquisition speed, it supports internal storage and Bluetooth data transmission. This instrument measures AC / DC Voltage, AC / DC Current, Resistance, Capacity, Frequency (electric and electronic), Duty Cycle, Diode test, insulation and continuity test, Temperature with thermocouple. Data can be stored and recorded. It has got a robust design for heavy duty use and it is water resistant with IP67 protection degree.





#### TECHNICAL SPECIFICATIONS OF THE MULTIMETER

Function	Range	Resolution	Accuracy
DC voltage	50mV [1]	0.001 mV	(0.05% + 20)
	500mV [1]	0.01mV	(0.025% + 5digits)
	5V	0.0001V	(0.025% + 5digits)
	50V	0.001V	(0.025% + 5digits)
	500V	0.01V	(0.05% + 5digits)
	1000V	0.1V	(0.1% + 5)

[1] When using relative mode (REL Q) to compensate for offsets.

Function	Range	Resolution	Accuracy 0 to 10000Hz
(AC+DC)	50mV	0.001mV	<1KHZ (1% + 25) < 10KHZ (3.5% + 25)
	500mV	0.01mV	
	5V	0.0001V [1]	
	50V	0.001V	
	500V	0.01V	
	1000V	0.1V	

[1] Add 1% over 5k

Function	Range	Resolution	Accuracy 50 to 10000Hz
AC current	500μΑ	0.01μΑ	50/60Hz(0.6% + 25) < 1KHz(1.5% + :25) < 10KHz(3% + L5)
	5000µA	0.1μΑ	
	50mA	0.001mA	
	500mA	0.01mA	
	10A	0.001A	
	(20A: 30 secs max with reduced accuracy)		

All AC current ranges are specified from 5% of the range to 100% of the range

Function	Range	Resolution	Accuracy 50 to 5000Hz
AC voltage	50mV	0.001 mV	50/60Hz (0 .3% + 25)
	500mV [	0.01mV	< 1KHz (0.5% + 25) < 5KHz (3% + 2>)
	5V	0.0001V	C SIN 12 (570 + 27)
	50V	0.001V	
	500V	0.01V	
	1000V	0.1V	
	1		

All AC voltage ranges are specified from 5% of the range to 100% of the range

Range	Resolution	Accuracy
500µA	0.01μΑ	0.1% +20
5000μA	0.1μΑ	
50mA	0.001mA	
500mA	0.01mA	0.15%+20
10A	0.001A	0.3%+20
(20A: 30 secs max with reduced accuracy)		
	500μA 5000μA 50mA 500mA 10A	500μA 0.01μA 5000μA 0.1μA 50mA 0.001mA 500mA 0.01mA 10A 0.001A

Function	Range	Resolution	Accuracy 0 to 1000Hz
(AC+DC)	500µA	0.01µA	(1.0% + 25)
	5000µA	0.1μΑ	
	50mA	0.001mA	
	500mA	0.01mA	
	10A	0.001A	(1.5% + 40)

Probe accuracy not included





#### TECHNICAL SPECIFICATIONS OF THE OSCILLOSCOPE

Function	Main features	Format or note	
LCD display	3.5" color TFT-LCD; 320 X 240 pixels		
Update frequency	15-50 V/S	Fast / Slow	
Bandwidth	10MHz	0 - 10 MHz	
Input	Coupling, AC, DC	AC, DC	
Input impedance	1000C/CA:1MQ +/-2% II 15pf		
Max input voltage	1000V/600V (DC+AC peak value, 1MQ input impedance)	CAT I, CAT II , CAT III	
Probe attenuation	1X		
Sampling mode	Real time sampling, sampling	Single channel 3K	
Real time sample rate	50MSa/s- 500pts		
Sampling resolution	8 bits		
Recording	3K 10 pages	SRAM	
Memory	10 graphs	EEPROM	
Time error	± 5 s 24hours		
FFT	4-256 points	4-256 points	
Bluetooth transmission	9600 baud rate		
Li-ion battery	7.4V 2400mAH		

Function	Range	Resolution	Accuracy 5K-100K
AC voltage	50mV	0.001mV	(5.0% + 40)
(5000 + Count)	500mV	0.01mv	
	5V	0.0001V	
	50V	0.001V	(6.0% + 40)

NOTE: the accuracy is indicated from 18 to 28°C (65 to 83°F) and less than 75% relative humidity. AC switch based on the sinusoidal wave calibration. Generally they increase  $\pm$  (2% reading + 2% full scale) if the non-sinusoidal wave in the crest of the wave is less than 3.0.

Function	Range	Resolution	Accuracy
Capacity	5nF [1]	0.001nF	+(2% + 40)
	50nF [1]	0.01nF	
	500nF	0.1nF	+(2% + 40 digits)
	SµF	0.001µF	
	50μF	0.01µF	
	500μF	0.1µF	+(5% +40 digits)
	10mF	0.01mF	

 $\left[1\right]$  with a film capacitor or better, using the relative mode (REL  $\,$  ) with zero residuals

Function	Range	Resolution	Accuracy	
Resistance	500Ω [1]	0.0010Ω	0.5%+20	
	5000Ω [1]	0.010Ω	0.05%+10	
	5kΩ	0.0001kΩ	0.05%+10	
	50kΩ	0.001kΩ		
	500kΩ	0.01kΩ	0.1%+10	
	5ΜΩ	0.0001ΜΩ	0.2%+20	
	50ΜΩ	0.001ΜΩ	2%+20	
[1] When using relative made (DELO) to company to fax offsets				

Resolution

0.001 Hz

0.01Hz 0.0001kHz 0.001kHz 0.01kHz 0.0001MHz 0.001MHz

Accuracy

±(0.01% + 10)

 $<sup>\</sup>left[1\right]$  When using relative mode (REL Q) to compensate for offsets.

Function	Range	Resolution	Accuracy	Function	Range
Capacity	5nF [1]	0.001nF	+(2% + 40)	Frequency	50Hz
	50nF [1]	0.01nF		(Electronic)	500Hz
	500nF	0.1nF	+(2% + 40 digits)		5kHz
	SµF	0.001µF			50kHz
	50μF	0.01µF			500kHz
	500µF	0.1μF	+(5% +40 digits)		5MHz
	10mF	0.01mF			10MHz
[1] with a film car	agaitar ar battar	using the relative n	nada		Sensitivity: 2

Sensitivity: 2V RMS min. @ 20% to 80% duty cycle and <100kHz; 5V RMS min @ 20% to 80% duty cycle and >100kHz. Frequency (electric) 40.00-10kHz 0.01-0.001kHz ±(0.5% reading) Sensitivity: 2V RMS

Function	Range	Resolution	Accuracy
Duty Cycle	0.1 to 99.90%	0.01%	+(1.2% reading + 2digits)
	Pulse width: 100µs - 100ms, Frequency: 5Hz to 150kHz		

Function	Range	Resolution	Accuracy
Temperature	-50 to 1000°C	0.1°C	+(1.0% reading +.5°C)
(K type)	-58 to 1832°F	0.1°F	+(1.0% reading + 4.5°F)



#### Code 50096015 Mod. KMD-15

#### **MINIATURIZED DIGITAL MULTIMETER**

Digital multimeter with extremely small dimensions, but with professional performance. It complies with EMC & LVD, EN.50081-1,EN.50082-1, EN.61010-1, EN.61010-2-031 standards

#### **General features:**

- 3"1/2 LCD display
- Safety device in compliance with IEC 1010-1
- CATII over voltage
- 7 functions, 16 selector positions
- AC/DC voltage measurement, DC current and resistance
- Battery test, diode and continuity
- Dimensions and weight: 100x48x26mm / 45grs
- Supplied with tips, 12V battery and protective ca



#### TECHNICAL SPECIFICA-TIONS

DC voltage	200 mV, 2000 mV, 20 V, 200 V, 500 V ± 0.5% + 2 digits
AC voltage	200 V, 500 V ± 1.8% + 10 digits
DC current measure- ments	2 mA, 200 mA ± 0.8% + 2 digits
Resistance measure- ments	200Ω /2000Ω /20kΩ / 200kΩ/ 200kΩ/ 2000kΩ± 0.8% + 2 digits
Diode test	test current max. 1.6 mA
	test voltage max 3.0 V
Battery test	9 V (test current 6 mA)
Continuity	< 50Ω

#### Code 50096008 Mod. KM-8A

#### **DIGITAL MULTIMETER**

#### **General features:**

- 3 1/2-digit 12.5mm LCD display
- Automatic negative polarity indication (-) of low battery and out of scale.
- Rotating positioning switch.
- Equipped with tips
- Dimensions: 126 x 70 x 27 mms
- Weight: 120grs
- Complying with EN61010-1: 2001 CAT II 250V nc



#### TECHNICAL SPECIFICA-TIONS

DC voltage	200mV / 2V / 20V / 200V (±0,8%), 250V (±1,0%)	
AC voltage	200V / 250V (±1,5%)	
DC current	2mA / 20mA (±1,2%), 200mA (±1,5%), 10A (±2,5%)	
Resistance	200° / 2k° / 20k° / 200k° (±0,8%), 2M° (±1,2%)	
hFE transistor test - Diode test		
Power supply	2x 1,5V AAA batteries (not supplied)	
Continuity	< 50Ω	

#### Code 50100950 Mod. VOLT

#### **COMPACT DIGITAL MULTIMETER**

Multimeter characterized by small dimensions, reliable and stable performance and shockproof case. It can be used to measure DC and AC voltage, DC current, resistance, positive diode voltage drop and continuity.

#### **General features:**

- Maximum voltage between the input terminal and grounding: CAT II 600 V
- Over-range indication
- · Automatic display of negative polarity
- Low battery indication
- 1999 LCD display (3-1/2 digits)
- F-200mA/250V fuse protection (Ø5x20mms)
- Power supply: 1x 9V, 6F22 or NEDA 1604 battery
- Dimensions: 115x65x30mms (with case)
- Weight: 170grs



#### TECHNICAL SPECIFICA-TIONS

DC voltage	200mV, 2000mV, 20V, 200V, 500V
AC voltage	200V, 500V
DC current measure- ments	200μA , 2000μA , 20mA , 200mA , 10A
Resistance i. Lugure- ments	$200\Omega$ , $2000\Omega$ , $20$ Κ $\Omega$ , $20$ 0Κ $\Omega$ , $200$ 0Κ $\Omega$
Diode test:	ЛЛ
Continuity	acoustic signal
Square wave output:	

#### Code 50096565

#### UNIVERSAL CASE FOR INSTRUMENTS

Dimensions 200 x 90 x 50mms



#### Code 50096014

#### **UNIVERSAL SPARE TIPS FOR MULTIMETERS**





#### Code 50100960 mod. POCKET

#### COMPACT DIGITAL MULTIMETER WITH TORCH

The Pocket digital multimeter is equipped with a double-molded plastic case and a large 4000-count high contrast LCD display. It is designed for CAT IV 600V safety, it can detect voltage contactless and it has got torch function.

#### TECHNICAL SPECIFICA-TIONS

Function	Max range	Basic accuracy	
DC voltage	600V	±0.5%	
AC voltage	600V	±1.0%	
DC current	100A	±2.5%	
AC current	100A	±3.0%	
	40 ΜΩ	±0.8%	
Capacity	4000μF	±3.0%	
Frequency	10kHz	±(0.8%±5d)	
NCV(VAC: 100~600V)			
Torch function			
Diode test			
Continuity test			
Power supply: 2x AAA batteries			
Dimensions: 105 x 60 x 38mms			
Weight: 145grs			



#### Code 50100940 Mod. KM-10

#### **CONTACTLESS VOLTAGE TESTER WITH TORCH**

The contactless AC voltage tester is easy to use: just touch the tip on a terminal block, an outlet or a power cord. When the tip lights up red and the unit beeps, it means that voltage is present.

#### Technical features:

- ACV contactless detection
- Operating range (50Hz/60Hz)
   12V up to 1000V
   100V up to 1000V
- IP67 Water proof & 2m drop-proof
- Dual voltage sensitivity detector
- Red/Yellow/Green LED indicator
- Torch function

Auto test system

- Auto off
- Switchable audible and silent mode
- Sturdy double-molded case
- CATIV-1000V
- Power supply 2x AAA batteries
- Dimensions 160 x 23 x 25mms
- Weight 55grs



#### Code 50100935 Mod. KM-9A

#### AC VOLTAGE DETECTOR WITH BUILT-IN MINI-TORCH

The KM-9A voltage detector allows to verify the presence of AC voltage and to signal it to the user with the ignition of a LED. Useful for the identification of phase and neutral conductors to detect the interruption of a wire and to reveal the presence of AC voltage on terminals, switches, circuit breakers, fuses, wires and cables.

#### **General features:**

- 110V/230VAC 50/60 Hz contactless voltage detection
- Sturdy double case
- The LED lights up when the VAC voltage is present
- It has got a light with ON/OFF switch
- Compact with pocket clip
- Voltage range: 200~1000 VAC (50/60Hz)
- Power supply: 2x 1.5V AAA batteries







#### Code 50056800 Mod. ICE 680R

#### **680R ANALOG TESTER**

The 680R multimeter represents the history of the electronic measurement equipment. The absence of moving mechanical parts makes it particularly sturdy and durable in the years. The possibility of positioning it at 45° makes it a perfect bench-top instrument.

Large width of the dial with 100° mirror scale

- Sensitivity  $20k\Omega/Vcc$   $4k\Omega$  / Vca
- DC voltage 100mV-2V-10V-50V-200V-500V-1000V (± 2% f.s.)
- AC voltage 10V-50V-250V-750V (± 2% f.s.)
- DC current 50μA-500μA-5mA-50mA-500mA-5A (± 2% f.s.)
- AC current 250µA-2.5mA-25mA-250mA-2.5A (± 2% f.s.)
- Resistance  $\Omega x1$ - $\Omega x10$ - $\Omega x100$ - $\Omega x1000$  (± 2% f.s.), measuring range from 0 to 10M $\Omega$
- Capacity 22µf-220µf-2200µf-22000µf, ballistic method measurement
- Diode test, transistor test, continuity test, LED test, 1,5-9V battery test functions
- ullet Galvanometer protections with silicon diodes, measurements in  $\Omega$  with fuse and varistors
- Tips, spare fuse, shockproof case and manual included
- Power supply: 9V 6F22 type battery



#### Code 50095000 Mod. BOX

#### **ANALOG MULTIMETER**

#### General features:

- Overvoltage category: CAT II 1.000 V, CAT III 500 V at ground potential.
- Standard environment: 23°C±3°C, less than 75% relative humidity.
- Temperature ranges: from 0°C to 40°C (from 32°F to 104°F) for operating conditions. From -10°C to 50°C (14°F to 122°F) for storage conditions.
- Humidity: operating conditions below 90% relative humidity.
- Operating altitude: max. 2000 mts
- Dimensions: 160 (L) x 105 (D) x 40 (H) mms with case
- Weight: 460 grs approx. (including batteries and case)



#### **TECHNICAL SPECIFICATIONS**

Function	Range	Accuracy	Notes
DC voltage	0-0.1-2.5-10-50-250V-500V	± 3% di FSD.	Input impedance: 20KΩ / V Overload protection: max. 500 V AC / DC MA Interval 0,1 V: max. 250V
DCV Null Center	±5V/25V	± 3% di FSD.	Input impedance: 40KΩ / V Overload protection: max. 500 V AC / DC
AC voltage	0-10-50-250V-500V	± 4% di FSD. Bandwidth: 40 ~ 20K Hz Note #1	Input impedance: 9 KΩ / V Overload protection: max. 500 Vrms AC / DC. MA
DC current	0-0.05-2.5-25-250mA,10A	± 3% di FSD. ± 4% di FSD. for 10A range Note #2	Drop voltage: 50 mV Overload protected by two 0,5A fuses at mA and 10A intervals on 10A interval.
Resistance	X 1: $0.2 \sim 2K\Omega$ medium scale at $20\Omega$ X 10: $2 \sim 20K\Omega$ medium scale at $200\Omega$ X 100: $20 \sim 200K\Omega$ medium scale at $2000\Omega$ X1K: $200 \sim 2M\Omega$ medium scale at $20K\Omega$ X10K: $2K \sim 20M\Omega$ medium scale at $200\Omega$	± 3% di ARC (scale length)	Overload protected by the varistor and the fuse. Input voltage limit: Min.50V, max. 250 Vrms AC/DC.
Battery test	0 ~ 1.5V: ok - ? – low 0 ~ 9V: ok - ? – low	± 5% ARC of scale length	Current load: 270mA for 1.5V 25mA for 9V
Transistor test	hFE: 0-1000 through plugs and test cables	Not specified	A Ω X 10 range
Diode test	IF, IR, LI, LV	Not specified Note#3	A Ω X 10 range
Continuity test	Buzzer sound	< 200 Ohm	Overload protected by the varistor. Input voltage limit: min. 50 V, Max. 250 V CA/CC (5 s).
Power supply	Internal batteries: R03, AAA, 1.5V 2pcs / 6F2	22, NEDA1604, 9V 1pc	

Note # 1: the extra indication error will occur according to the measured ACV/ACA waveforms other than the sinusoidal wave. Its RMS value readings can be lower or higher than the actual mean square value.

Note # 2: for the 10A interval, the large current charged max. 1 minute. with a 5-minute break for the next test.

Note # 3: for the diode test, max. 15 µA in the x10k interval, max. 0.15mA in the x1k range, max. 15mA in the x10 range and max. 150mA in the x1 range.



#### Code 50095027 Mod. KMA-75

#### **ANALOG MULTIMETER**

Analog multimeter with 6 functions, 16 flow rates, decibel measurement

#### **General features:**

- AC (VAC) voltage without DC components.
- DC (VDC) voltage without AC components.
- DC (IDC) current without AC components.
- Resistance
- · Continuity test buzzer
- LED diode test
- Decibels (dB)
- Power supply: 2x 1.5V AA batteries + 1x 9V battery
- Dimensions: 80 x 100 x 40mms
- Weight: 320grs
- Supplied with shockproof case, tips, batteries and user manual.



	I	I			
TECHNICAL SPECIFICATIONS:					
DC voltage	Flow rate	0,1/0,5/2	2,5/10/50/	(250/1000)	V
	Accuracy	± (3% f.s	s.)		
	Sensitivity	20ΚΩ/V			
AC voltage	Flow rate	10/50/25	50/1000V		
	Accuracy	±(4% ful	l range)		
	Sensitivity	9ΚΩ/V			
DC current	Flow rate	rate 50µA, 5mA, 50mA, 500mA		10mA	
	Accuracy	± (3% f.s	s.)		± (3% f.s.)
	Voltage drop	≤ 0.6V			0.13V
Decibel (dB)	Range	-10÷22	4÷36	18÷50	30÷62
measurement	AC (V) flow rate	10	50	250	1000
Resistance	Flow rate	Rx1, Rx10, Rx100, Rx1k, Rx10k			(10k
Resistance	Accuracy	± (3% of Arc length	arc) th 75.3mr	ns	

#### Code 50095010 Mod. KMA-7

#### **ANALOG MULTIMETER**

Analog multimeter with 6 functions, 16 flow rates, battery test and decibel measurement

#### **General features:**

- · Manual flow switching
- AC/DC voltage, DC current, Resistance, decibel and battery test
- Operating temperature and humidity: 5°C 40°C. 75% RH max.
- Power supply: 1x 1.5V AA battery
- Fuse: 5×20mms 250V/500mA rapid
- Dimensions: 88×155×49mms
- Weight: 288grs
- Supplied with shockproof case, tips, battery and user manual.



ELECTRIC SPECIFICATIONS:		
DC voltage	Flow rate	2.5/10/50/250/500V
	Accuracy	±(5% full scale)
	Sensitivity	2ΚΩ/V
AC voltage	Flow rate	10/50/500V
	Accuracy	±(5% full scale)
	Sensitivity	2ΚΩ/V
Resistance	Flow rate	R×10, R×1K
	Accuracy	±(5% full arc)
Decibel	Flow rate	-10 to 56 (0dB 1mW 600Ω)
Battery test	1.5V	125mA
	Accuracy	±(10% full scale)
	9.0V	10mA
	Accuracy	±(10% full scale)

Sensitivity of the instrument:  $2K\Omega/V$ 

#### Code 50095005 Mod. KMA-3

#### **ANALOG MULTIMETER**

Analog multimeter with 5 functions, 16 flow rates and battery test.

#### General features:

- AC/DC Voltage, DC Current, Resistance, Battery Test
- Dimensions: 100 x 64 x 35mms
- Weight: 125grs
- Power supply: 1x 1.5V AA battery
- Supplied with tips and user manual.

#### TECHNICAL SPECIFICA-TIONS:

DC voltage (2Kohm x V)	2,5V - 10V - 50V - 250V - 500V
AC voltage (2Kohm x V)	10V – 50V – 250V – 500V
DC current	500μA – 10mA – 250mA
Resistance	2kohm – 200kohm
Accuracy	± 5% value read on DC scale
	± 5% value read on AC scale
	± 5% value read on ohm scale
Sensitivity	AC/DC voltage 2kohm x V





#### Code 50100970 KMP-400

#### AC/DC AMPEROMETRIC CLAMP

#### **General features:**

 Clamp Opening approx 30mms (1.2") • Diode test Current test 0.3mA typical; open voltage circuit 1.5V DC typical.

Treshold < 1500: current test < 0.5Ma

 Continuity check Sampling time 2 per second, nominal • Input impedance 10MΩ (VDC and VAC) 4000 counts LCD Display • AC current 50-60Hz (AAC) • AC voltage bandwidth 50-400Hz (VAC) Overvoltage Category III 600V • Dimensions 200 x 66 x 37mms • Weight 205grs Batteries

• Auto OFF Supplied with tips, K-type wire temperature probe,

case, batteries and user manual.



#### **TECHNICAL SPECIFICATIONS**

Functions	Values	Accuracy (% reading)
AC current (50/60Hz)	40.00 AAC	± (2.5 % + 8 digits)
	400 .0AAC	± (2.8 % + 5 digits)
DC current	40.00 ADC	± (2.5 % + 5 digits)
	400 .0ADC	± (2.8 % + 5 digits)
DC voltage	400.0 mVDC	± (0.8% + 2 digits)
	4.000 VDC	± (1.5% + 2digits)
	40.00 VDC	
	400 .0 VDC	
	600.0 VDC	(2 %+ 2 digits)
AC voltage (50-400Hz)	4.000 VAC	± (1.5% + 2 digits)
	40.00 VAC	
	400.0 VAC	
	600.0 VAC	± (2.0% + 5 digits)
Resistance	400.0 Ω	± (1.0% + 4 digits)
	4.000ΚΩ	± (1.5% + 2 digits)
	40.00ΚΩ	
	400 .0ΚΩ	
	4.000ΜΩ	± (2.5% + 3 digits)
	40.00ΜΩ	± (3.5% + 5 digits)
Functions	Range	Accuracy (% reading)
		37
Capacity	40.00 nF	, , , , , , , , , , , , , , , , , , ,
Capacity	40.00 nF 400.0 nF	, , , , , , , , , , , , , , , , , , ,
Capacity		± (4.0% reading + 20 digits
Capacity	400.0 nF	± (4.0% reading + 20 digits
Capacity	400.0 nF 4.000μF	± (4.0% reading + 20 digits) ± (3% reading + 5 digits)
Capacity  Frequency Sensitivity:15Vrms	400.0 nF 4.000μF 40.00 μF	± (4.0% reading + 20 digits) ± (3% reading + 5 digits)
Frequency	400.0 nF 4.000μF 40.00 μF 100.0 μF	± (4.0% reading + 20 digits)  ± (3% reading + 5 digits)  ± (4.0% reading + 10 digits)
Frequency Sensitivity:15Vrms	400.0 nF 4.000μF 40.00 μF 100.0 μF 10-10 kHz	± (4.0% reading + 20 digits)  ± (3% reading + 5 digits)  ± (4.0% reading + 10 digits)  ± (1.5% reading + 2 digits)  ± (1.2% + 2digits)  µs at 100ms,
Frequency Sensitivity:15Vrms	400.0 nF 4.000μF 40.00 μF 100.0 μF 10-10 kHz 0.5% to 99.0% (Pulse width: 100	± (4.0% reading + 20 digits)  ± (3% reading + 5 digits)  ± (4.0% reading + 10 digits)  ± (1.5% reading + 2 digits)  ± (1.2% + 2digits)  µs at 100ms,

#### Code 50096065 Mod. KMP 250

#### AMPEROMETRIC CLAMP WITH 200MV TO 1000V DC VOLTAGE

Digital amperometric clamp complying with IEC 1010 standards, economic and precise, ideal for all types of electrical measurements. This amperometric clamp gives the possibility to measure AC/DC voltages, AC currents, resistances and continuity test. The KMP-250 clamp is equipped with low battery and out of range indication.

# **TECHNICAL SPECIFICA-**

HONS		
Functions	Values	
AC voltages	1V to 1000V	
DC voltages	200 V/750 V ± 1.0%	
AC currents	20 A ± 5.0%	KZM CLAMIT METER
	200 A/1000 A ± 2.0%	A STATE OF S
Resistance	200 Ohm up to 2M Ohm ± 1.0%	
Continuity check with b	uzzer and data retention	
Power supply	9V 6F22 battery or equivalent	priming shift of A
Accessories	Tip set and user manual	-000
Dimensions	235 x 96 x 46mms	¥2 A (500 mg)
Weight	330grs (battery supplied)	0.0

#### Code 50100252 Mod. KMP-LOW

#### AC/DC AMPEROMETRIC CLAMP - LOW TRMS (TRUE EFFECTIVE VALUE)

The KMP-LOW clamp has been designed to check the presence of load current, voltage, resistance, etc. It checks the mA field of the conductor with 1mA high resolution for HVAC and process control applications. Designed according to IEC 61010-2-032: CAT III 600V safety, standards and pollution degree 2.



#### **TECHNICAL** SPECIFICA-**TIONS**

Function	Max range	Max resol.	Basic accuracy
AC current	80A	1mA	±(2.5%+5d)
DC current	80A	1mA	±(2.5%+4d)
AC voltage	400mV~600V	0.1mV	±(2.0%+4d)
DC voltage	400mV~600V	0.1mV	±(1.5%+3d)
Resistance	400Ω~40ΜΩ	0.1Ω	±(1.5%+2d)
Frequency	5Hz~10MHz	0.001Hz	±(3.5%+10d)
Capacity	40mF	0.001nF	±(3.5%+10d)
Temperature	-20°C~+760°C	0.1°C	±(2.0%+3°C) ±(2.0%+3°F)
	-4°F~+1400°F	0.1°F	±(2.070+3 C) ±(2.070+3 F)
Diode test	Current test 0.3mA, Open voltage circuit 3.0V (338)		
Continuity test	50Ω treshold		
Power supply	1x 9V battery		
Dimensions	210 x 70 x 37mms		
Weight	200grs		



#### Code 50100975 Mod. KMP-1000 PRO

AC AMPEROMETRIC PROFESSIONAL CLAMP, AC/DC, TRUE RMS (TRUE EFFECTIVE VALUE), AUTO-RANGE

#### **General features:**

- Clamp size: Opening approx. 40mms
- Diode Test: typical test current 0.3ma; open circuit voltage 1.5Vdc typical
- Continuity check: Threshold <40; Current test <0.5mA
- Sampling time 2 per second, nominal
- Input impedance: 10M (VDC and VAC)
- Display: 6000 LCD counts
- AC current: 50-400Hz (AAC)
- Bandwidth voltage: AC 50-400Hz (VAC)
- Overvoltage: Category III 600V
- Power supply: 1x 9V battery
- Dimensions/Weight: 232 x 77 x 39mm / 271grs
- Supplied with tips, K-type wire temperature probe, case, battery and user manual.



Function	Range	Accuracy (% reading)
AC current (50/60Hz)	600.0 AAC	± (2.8 % + 8 digits)
	1000 AAC	± (3.0 % + 8 digits)
AC current (400Hz)	600.0 AAC	± (5.0 % + 10 digits)
	1000 AAC	± (5.0 % + 10 digits)
DC current	600.0 ADC	± (2.8 % + 5 digits)
	1000 ADC	± (3.0 % + 5 digits)
DC voltage	600.0 mVDC	± (0.8% + 2 digits)
	6.000 VDC	± (1.5% + 2 digits)
	60.00 VDC	
	600.0 VDC	
AC voltage (50-400Hz)	6.000 VAC	± (1.8% + 8 digits)
AC voltage (50-400Hz)	6.000 VAC	± (1.8% + 8 digits)
	60.00 VAC	
	60.00 VAC	
Resistance	600.0Ω	± (1.0% + 4 digits)
	6.000ΚΩ	± (1.5% + 2 digits)
	60.00ΚΩ	
	600.0ΚΩ	
	6.000ΜΩ	± (2.5% + 3 digits)
	60.00ΜΩ	± (3.5% + 5 digits)
Capacity	40.00nF	(4.0% reading + 20 digits)
	400.0nF	(3% reading + 5 digits)
	4.000μF	
	40.00μF	
	400.0μF	(4.0% reading + 10 digits)
	4000μF	(5.0% reading + 10 digits)
Frequency sensitivity:15Vrms	10-10kHz	(1.5% reading + 2 digits)
Temperature (K-type) probe accuracy not included	-20.0 a 760.0 C	(3% reading + 5C)
	-4 a 1400.0F	(3% reading + 9F)
		•

#### Code 50100250 Mod. KMP-10

# 1000A DIGITAL AMPEROMETRIC CLAMP, AC/DC, TRUE RMS (TRUE EFFECTIVE VALUE)

#### **General features:**

- Measurement of AC RMS voltages and currents.
- 4000-count LC type display with graphic bar and backlight.
- Wide measurement range 0.01A AC/DC up to 1000A AC/DC.
- Measurement of AC and DC voltages up to 600V.
- Measurement of capacity values up to 40mF.
- Temperature measurement -40°C up to +1000°C.
- Designed in full compliance with IEC 61010 CAT III 600V/CAT II1000V safety standards. Pollution degree 2.
- Auto-off function after about 20 minutes of inactivity.







Continuity buzzer and diode check

#### **TECHNICAL SPECIFICATIONS**

Function	Range	Resolution
AC current	40A-400A-1000A	0.01A - 0.1A - 1A
DC current	40A-400A-1000A	0.01A - 0.1A - 1A
AC voltage	400mV - 4 - 40 - 400 - 600V	0.1 mV - 0.001 - 0.01 - 0.1-1V
DC voltage	400mV - 4 - 40 - 400 - 600V	0.1 mV - 0.001 - 0.01- 0.1 - 1V
Resistance	$400\Omega$ up to $40M\Omega$	$0.1\Omega$ to $10k\Omega$ / $0.1\Omega$ to $10k\Omega$
Capacity	4nF up to 40mF	0.001nF up to 0.01mF
Frequency	4.000kHz	0.001kHz
Temperature	-40°C up to 1000°C	1°C

#### Code 50100270 Mod. KMP-9

1000A DIGITAL AMPEROMETRIC CLAMP, AC/DC, (NO TRUE RMS)



#### Code 50100290 KMP-LEAK

#### **AC LEAKAGE CURRENT CLAMP**

#### **General features:**

The KMP-LEAK leakage current clamp is a multi-function meter with a resolution of 10  $\mu$ A. It is very useful for checking and installing the power supply system. With a measuring range up to 100A, this tester is ideal for installing equipments or for car applications.

- 10µA high resolution
- Large 3 3/4 LCD display (4000 counts)
- Automatic shutdown
- Max/Min, data hold, low battery indication
- Overload protection
- Dimensions 209x43x30mms
- Weight 200grs
- Accessories: tips, holster, box with case, 9V battery

#### TECHNICAL SPECIFICA-TIONS

110110			
Function	Range	Resolution	Accuracy
AC current	40mA~100A	10uA~100mA	±(2.0%+3d)
AC voltage	400V	0.1V	±(1.5%+10d)
Resistance	40~400Ω	0.1Ω	±(1.0%+2d)
Continuity test	40Ω treshold, 2.5KHz continuity buzzer		
Clamp opening: 30mms (1.2")			



#### DIGITAL SPEEDOMETERS

Fast and precise RPM and surface speed measurements. The KM-TACH 2 digital tachometer measures RPM without any contact and speed of rotating objects. It uses reflective tape on the object to be measured and aims at the integrated laser light beam. The KM-TACH 1 digital tachometer combines both of them (contact and

contactless) for the use in all applications. The built-in memory recalls the last stored Max/Min value

Code 50103015 Mod. KM-TACH 2
Code 50103010 Mod. KM-TACH 1

FEATURES		
Model	KM-TACH 2	KM-TACH 1
5-digit LCD large display	✓	✓
Autoranging with 0.05% accuracy	✓	✓
Contactless measurement	✓	✓
Contact measurement		✓

#### **TECHNICAL SPECIFICATIONS**

Model	KM-TACH 2	KM-TACH 1
Display Counts	LCD 99,999 counts	LCD 99,999 counts
RPM range	2.5 to 99,999	5 to 99,999
M/min		0.05 to 1999,9
Basic Accuracy	±0.05%±1d	±0.05%±1d
Max RPM Resolution	0.1RPM	0.1RPM



KM-TACH 2



Code 50103035 OPTIONAL

20-CM REFLECTIVE TAPE FOR SPEEDOMETERS



#### Code 50100275 KMP-15

#### AC 600A NCV AMPEROMETRIC CLAMP WITH TORCH

#### Code 50100280 KMP-20

#### AC/DC 1000A TRMS NCV AMPEROMETRIC CLAMP WITH TORCH

TECHNICAL SPECIFICA- TIONS		
Function	KMP-15	KMP-20
Max. Display	2000	6000
Accuracy	0.5%	0.5%
DC Voltage	200mV-600V	600mV-1000V
AC Voltage	200mV-600V	600mV-750V
LPF (ACV)	200mV-600V	-
AC Current	2A-600A	60A-1000A
LPF (ACA)	2A-600A	-
DC Current	-	60A-1000A
Resistance (Ω)	200Ω-20ΜΩ	600Ω-60ΜΩ
Capacity (CAP)	-	10nF-100mF
Frequency (Hz)	-	10Hz-10MHz
Temperature (°C-°F)	-	-20°C-1000°C 0°F-1800°F
Inrush current	-	Yes
True RMS	-	Yes
Diode test	Yes	Yes
Continuity	Yes	Yes
Torch	Yes	Yes
NCV detection	Yes	Yes
LINE test	Yes	Yes
Auto/Manual (RAN)	Yes	Yes
Function (SEL)	Yes	Yes
Data Hold (HOLD)	Yes	Yes
Max. value (MAXH)	Yes	-
Relative value (REL)	-	Yes
Backlighting	Yes	Yes
Auto power off	Yes	Yes



#### Code 50096808 KMP-33

#### AC/DC 4000-COUNT DIGITAL AMPEROMETRIC CLAMP

#### General features:

- Data retention
- Clamp opening aprox. 25mms
- "OL" out of range indication
- Large backlit 4000-count LCD display
- Electronic overload protection
- Continuity buzzer and diode control
- Zero function
- Auto-Off
- Low battery indication
- AC/DC current

- Power supply: 2x 1.5V AAA batteries
- Dimensions: 205 x 70 x 37 mms
- Weight: 200 grs.
- Supplied with battery, pair of tips, K-type probe, case and user manual.



Function	Range	Resolution
AC current	400A	±(3.0%+4d)
DC current	400A	±(2.5%+5d)
AC voltage	600V	±(1.5%+2d)
DC voltage	600V	± (0.5%+1d)
Resistance	20ΜΩ	±(3.0%+5d)
Capacity	100 μF	±(2.5%+5d)
Frequency	150MHz	±(1.2%+2d)
Temperature	1000°C/1832°F	±(3.0%+5d)







#### Code 50106160 Mod. KM TRI

#### PHASE ROTATION INDICATOR

- Indication of the direction of rotation
- Indication of the direction of rotation without any contact
- Determines the motor connections
- Indicates the magnetic direction
- Cable length: 120cms



Operating temperature	0°C up to 40°C
Operating altitude	2000 mts
Pollution Degree	2
Protection type	IP40



Electric safety	Complying with DIN VDE 0411, IEC 61010 DIN, VDE 0413-7, IEC 61557/EN 61557-7 standards
Max. operating voltage (Ume)	400VAC for all ranges
Protection levels	CAT III, 300V
	-



Dimensions	130x69x32 mms
Weight	130grs

#### ELECTRIC SPECIFICA-TIONS

Battery	9V, IEC 6LR61 alkaline
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#### DETERMINATION OF THE DIRECTION OF ROTATION RANGE

Nominal voltage of direction of rotation 1 up to 400V AC Frequency range (fn): 2 up to 400 Hz
Test currents (In/phase): lower than 3,5 mA

#### INDICATION OF ROTATION RANGE WITHOUT ANY CONTACT

Frequency range (fn): 2 up to 400 H

#### Code 50101335 Mod. KM EARTH

#### **DIGITAL GROUND RESISTANCE METER**

It uses the latest electronic technology for its operation,

thanks to which it is possible to obtain high accuracy measurements both in the civil and industrial sectors. It is supplied with case, cables, pegs and 6x AA batteries.

#### General features:

- Large backlit double-line LCD display
- Automatic 0 adjustment
- Sampling: 2.5 times per sec.
- Out of range indication
- Low battery indication

# TECHNICAL SPECIFICATIONS

Range	Resolution	Accuracy
20Ω	0.01Ω	±2%rdg±0.1Ω
200Ω	0.1Ω	±2%rdg±3dgts
2000Ω	1Ω	±2%rdg±3dgts
750V	1V	±1.2%rdg±10dgts
1000V	1V	±0.8%rdg±3dgts
200kΩ	0.1kΩ	±1.0%rdg±2dgts
Sound activation: <40Ω, Current <200mA		
6x 1.5V AA batteries		
200 x 92 x 50mms		
700grs, batteries supplied		
	20Ω 200Ω 2000Ω 750V 1000V 200kΩ Sound act 6x 1.5V AA 200 x 92 x	20Ω       0.01Ω         200Ω       0.1Ω         2000Ω       1Ω         750V       1V         1000V       1V         200kΩ       0.1kΩ         Sound activation: <40Ω, C





#### Code 50100255 Mod. KM-ISO

#### **DIGITAL INSULATION METER**

Particularly useful when developing power systems,

KM-ISO can supply test voltage at 250V, 500V, 1000V.

With the autorange function it can measure up to 2000M $\Omega$  with the resolution of 1k $\Omega$ .

#### **General features:**

- Double backlit display
- Test Hold function
- Out of scale indication
- Power supply: 6x 1.5V AAA batteries
- Supplied with case, 6 batteries and tips
- Dimensions/Weight: 200 x 92 x 50 mms / 700grs.

#### TECHNICAL SPECIFICA-TIONS

Functions	Range	Resolution	Accuracy
AC Voltage	750V	1V	±1.2% rdg ±10 dgt
DC Voltage	1000V	1V	±0.8% rdg ±3 dgt
Resistance	200ΜΩ	0.1-1 Ω	±1% rdg ±2 dgt
Insulation resistance	200M-2000MΩ	100ΚΩ - 1ΜΩ	±3.5%rdg ±5 dgt
Test voltage	250V-200 MΩ 500V – 200 MΩ / 1000V-2000 MΩ		
Continuity test	Sound level enabled: <40Ω/ Test current: <200mA		
Operating temperature	0 - 40°C - (<70%RH)		



#### Code 50102435 Mod. KM-ISO PRO

#### TRUE RMS DIGITAL MULTIMETER AND INSULATION MEASUREMENT - WIRELESS

This device measures AC/DC voltages, AC/DC current, resistance, capacity, frequency (electric & electronic), Duty Cycle, it performs diode tests, insulation tests, continuity and temperature with thermocouple. It can store measured data, it is water resistant and its non-slip structure makes it suitable for intensive use. A correct use and a good maintenance will guarantee this instrument a long life.

#### TECHNICAL SPECIFICA-TIONS

Function	Range	Resolution	Accuracy
DC Voltage	400mV ~ 1000V	0.01mV~0.1V	±(0.01% +5dgt)
AC Voltage (50-1000HZ)	400mV ~ 1000V	0.01mV~1V	±(1% +7dgt)
AC+DC Voltage	400mV ~ 1000V	0.1mV~1V	±(1% +7dgt)
DC Current	400μA ~ 10A	0.01µA~0.001A	±(1% +3dgt)
AC Current (50-1000HZ)	400μA ~ 10A	0.01µA~0.001A	±(1.5% +7dgt)
Resistance	400Ω ~ 40ΜΩ	0.01Ω~0.001ΜΩ	±(2% +10dgt)
Capacity	40nF ~ 40mF	0.001nF~0.001mF	±(5% +10dgt)
Frequency	40Hz ~ 100MHz	0.001Hz~0.01MHz	±(0.1% +1dgt)
Duty Cycle	0.1 ~ 99.90%	0.01%	±(1.2% +2dgt)
Insulation resistance	4ΜΩ ~ 4000ΜΩ	0.001ΜΩ~1ΜΩ	±(5% +5dgt)
Test voltage	125V, 250V, 500V, 1000V		





#### Code G1004000 Mod. KM MULTIFUNCTION

#### **MULTIFUNCTION FOR LAN NETWORK CABLES**

The tester can perform tests on twisted pair cables 1,2,3,4,5,6,7,8 and G types at the same time, the tester can detect incorrect connections, short circuits or interruptions on LAN cables.

It can check the correct configuration of the 10 Base-T10 Base-2 pin, on an Ethernet thin cable, RJ45/RJ11 modu-

lar cables, 356A, TIA-568/568B, Token Ring etc.



Types of cables to be tested	Twisted pair RJ45 & RJ11 1,2,3,4,5,6,7,8 and G types
Detection capacity	Wrong connections, short circuits and interruptions (Led indication)
Test configuration	"Master" and "Remote" devices
Power supply	9VDC battery (low battery warning light)
Auto power off of device	YES



CONTROL

LED

#### Code G1004005 Mod. KM TESTERLAN

#### **TESTER FOR LAN NETWORKS**

It can be used manually or automatically.

It can check the correct configuration of 10 Base-T10 Base-2 pins on a thin Ethernet cable,

modular cables such as RJ45/RJ11, 356A, TIA-568/568B, Token Ring etc.

It allows to check the continuity and earthing as well as the identification of connected or disconnected cables.

It is supplied with a battery saving switch.

It consists of two units (master box and remote box), case and user manual.



#### Code G1004010 Mod. KM USBLAN

#### **TESTER FOR LAN/USB MULTI-MODULAR CABLES**

Designed to verify the correct correspondence of the connector pins on LAN or USB network cables.

The following types of cables can be checked with this instrument: USB (A/A), USB (A/B), BNC 10Base-T, 100Base-

Tx,1000Base-Tx, TokenRing, AT&T258A, coaxial cables, EIA/TIA568A/568B and modular RJ11/RJ12.

This instrument can also test RJ11/RJ12 cables using the appropriate adapter.

To check the cable simply connect the BNC, coaxial or RCA connector to the instrument (not supplied). Moreover, to check the installed cables it is necessary to use the appropriate remote terminator.







#### Code 50107050 Mod. KM-LAS20

#### LASER DISTANCE METER

- It can detect 0,05 up to 20mt measurements • IP54
- Class 2

#### **TECHNICAL SPECIFICATIONS**

	0.05 to 20 mts*(0.2 in to 66 ft*)
Measurement accuracy up to 10mts (2σ, standard deviation)	Typically: ±1.5 mms**(± 1/16 in**)
Unit of measure	m, ft'in"
Laser class	Class II
Type of laser	650nm, <1mW
The smallest displayed unit	1mm
Power supply	2x 1,5V AAA
Dimension	100 x 36 x 23 mms
Weight	80 grs



<sup>\*</sup> Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties. 10mts (33 feet). In unfavorable variations, the deviation in favorable conditions (good target surface properties, room temperature) up to 1 condition, such as intense sun, poorly reflective target surface or high temperature over distances greater than 10mts (33 feet) may increase by ± 0, 15 mm/mt (± 0.0018 inch/feet).

#### Code 50107060 Mod. KM-LAS60

#### LASER DISTANCE METER

- It can detect 0.05 up to 60mt measurements

- It stores data
- · Measurements of area and volume

#### **TECHNICAL SPECIFICATIONS**

Range	0,05 up to 60 mts * (0,16 up to 197 feet *)
Measurement accuracy up to 10mts (2σ, standard deviation)	Generally: ± 1,5 mms **(± 0.06in **)
Unit of measure	mt, in, ft
Laser class	Class II
Type of laser	635 nm, <1 mW
Power supply	2x 1,5V AAA
Dimension	110 x 46 x 28 mms
Weight	135 grs





#### Code 50107150 Mod. KM-LAS70

#### 70MT DISTANCE METER WITH LASER POINTER

Distance meter with laser pointer, connection to all Apple devices through specific app.

- It can detect 0,05 up to 70mt measurements
- Laser class 2 · Measurements of area and volume



#### **TECHNICAL SPECIFICATIONS**

Range (use a target plate of 50mts or so)	0,05 up to 70 mts* (0,2 inch up to 229 feet*)
Measurement accuracy up to 10mts (2δ, standard deviation)	Typically: +/- 1,5 mms** (+/- 1/16 inch**)
Unit of measure	mt, in, ft
Laser class	Class II
Type of laser	635nm, <1mW
Minimum measured value	1mm
Power supply	2x 1,5V AA
Dimension	135 x 53 x 30 mms
Weight	160 grs

• IP54

<sup>\*</sup> Use a target plate to increase the measurement range during daylight or if the target has poor reflection properties.

<sup>\*</sup>Use an target plate to increase the measurement range during daylight hours or in case the reflective properties of the lens are inadequate. Up to 10mts (33 feet) in favorable conditions (good properties of the lens surface, room temperature). The deviation can increase by +/- 0.15 mm/mt (+/- 0.0018 inch/feet) over distances greater than 10mts (33 conditions such as intense solar radiation, poorly reflective lens surface, high temperature variations.



#### Code G1003500 Mod. DS05072P

#### **OSCILLOSCOPE**

- 2-channel digital oscilloscope
- Bandwidth 70 MHz
- 1GSa/s Real Time sample rate
- Wide 7.0-inch color display, WVGA (800x480)
- · Recording records length up to 40k
- Trigger mode: edge, video, pulse width, slop, overtime, etc.
- Standard USB connection
- Multiple automatic measurements
- 4 mathematical functions including FFT standard
- Software for real time analysis







#### Code G1003505 Mod. DS05102P

#### OSCILLOSCOPE

- 2-channel digital oscilloscope
- Bandwidth 100 MHz
- 1GSa/s Real Time sample rate
- Wide 7.0-inch color display, WVGA (800x480)
- · Recording records length up to 40k
- Trigger mode: edge, video, pulse width, slop, overtime, etc.
- Standard USB connection
- Multiple automatic measurements
- 4 mathematical functions including FFT standard
- Software for real time analysis





# Hantek®

**Hantek®** 



#### Code G1003510 Mod. DS05202P

#### OSCILLOSCOPE

- 2-channel digital oscilloscope
- Bandwidth 200 MHz
- 1GSa/s Real Time sample rate
- Wide 7.0-inch color display, WVGA (800x480)
- Recording records length up to 40k
- Trigger mode: edge, video, pulse width, slop, overtime, etc.
- Standard USB connection
- Multiple automatic measurements
- 4 mathematical functions including FFT standard
- Software for real time analysis











#### ADJUSTABLE BENCH POWER SUPPLIES

Code G1002000 Mod. KMV 30-3
Code G1002005 Mod. KMV 30-5
Code G1002010 Mod. KMV 30-10
Code G1002015 Mod. KMV 60-3
Code G1002020 Mod. KMV 60-5





#### COMPACT

## IT CAN WORK 24 HOURS UNDER LOAD

#### HEAT DISSIPATION METHOD: SMART TEMPERATURE CONTROL

#### **TECHNICAL SPECIFICATIONS**

Model	KMV 30-3	KMV 30-5	KMV 30-10	KMV 60-3	KMV 60-5		
Input voltage	110/220V switchable, 50/60Hz						
DC output voltage	0~30V	0~30V 0~30V 0~30V 0~60V 0~60V					
DC output current	0~3A	0~5A	0~10A	0~3A	0~5A		
Voltage adjustment							
Load adjustment		C	V≤0.3% +1mV				
Line adjustment		C/	/≤0.05% +1mV				
Ripple & Noise		CV≤1	mVrms (5~10MHz)				
Current adjustment							
Load adjustment	LCV≤0.2% +10mA						
Line adjustment	LCV≤0.1% +10mA						
Ripple & Noise	CV≤3mArms (5~10MHz)I						
Efficiency at maximum power	≥81%						
Accuracy and display		0.01A/0.1	V ± 2digit LED dis	play			
Operating condition	0~40°C, relative humidity: ≤80%						
Preservation condition	-10~50°C, relative humidity: ≤80%						
Dimensions	226x82x138cms						
Weight			1.5kgs				



#### INEPRO / DZT ELECTRONIC COUNTERS - MID SERIES

#### Code G1003000 Mod. DZT-6002

#### Code G1003025 Mod. DZT-6284

#### Code G1003020 Mod. DZT-6280













#### Code G1003015 Mod. DZT-6252







The European Directive 2004/22/EC, better known as MID directive (Measuring Instruments Directive), is a community directive applying to measuring instruments and it regulates their production, marketing and commissioning, ensuring the reliability of the measures used to determine the consumption costs.

MODEL	MID	PHASE	MODULE	AMPERAGE	MOUNTING	REGISTER	CLASS	SO OUTPUT	BACKLIGHT	F/R	DIGIT	TARIF
DZT 6002	YES	1	1	45A	DIN	LCD	В	1000 Imp	NO	F+R	5+2	1
<b>DZT</b> 6284	YES	1	1	50A	DIN	MECH	В	2000 Imp	NO	F	5+1	1
<b>DZT</b> 6280	YES	1	1	50A	DIN	LCD	В	2000 Imp	BLUE	F	5+2	1
<b>DZT</b> 6252	YES	3	4	80A	DIN	LCD	В	800 Imp	BLUE	F	6+2	1



#### Code 50106180 Mod. KMT-8A

#### **INFRARED RAYS MINI THERMOMETER**

- Range: -30° ~ 260°C
- Precise contactless measurements
- Integrated laser pointer
- Unit of measurement in °C or °F selectable by the operation
- Min and max temperature display
- Measurement trigger lock
- Automatic withholding of measured data and auto power off function.
- Automatic selection of range and of display resolution 0.1°C (0.1°F)



#### Code 50101765 Mod. KM-TERMO 2

#### **DOUBLE LASER INFRARED THERMOMETER**

Infrared thermometer with double laser and backlit LCD display.

- Temperature range: -50 ~ 650°C
- Accuracy: -50 ~ 20°C ± 2 .5°C
- Response time: 150 ms
- Spectral reaction: 8 ~ 14 µm
- Distance/detection point ratio = 12: 1
- Polarity: automatic



#### Code 50106115 Mod. KMF-A

#### **MINI SOUND METER**

- Range: 40 ~ 130 dB
- Frequency range 31.5 Hz ~ 8 kHz
- Accuracy: +3.5 dB (ref 94 dB at 1kHz)



#### Code 50102415 KM DATALOG 2

#### DATALOGGER DATA RECORDER

- Measurement range: 0 ~ 100% RH, -40 ~ 70°C
- Accuracy: ± 2% RH, ± 1°C
- Resolution: 0.1% RH, 0.1°C
- PC connection through USB
- Max, min + alarm signal
- Memory (32,700 readings)
- It shows the information status through 2 LEDs
- Data downloadable through USB interface
- Analysis software



Code 37190021 SPARE BATTERIES Optional

#### Code 50097683 Mod. KM-LUX

#### **LIGHT INTENSITY METER**

- Measurement range: 0.01 lux up to 50.000 lux
- at 2000 lux: reading x 10
- at 50.000 lux: reading x 100





#### Code 50106175 Mod. KMT-3

# TEMPERATURE AND HUMIDITY MINI DETECTOR

- Temperature -20° ~ 60°C
- Humidity 0 ~ 100%RH
- Dual LCD display
- Power supply: 9V battery

# 319

#### Code 50106170 Mod. KMA-1

#### MINI ANEMOMETER

- m/s (Meters/second) 1.10 ~ 30.00
- ft/min (feet/minute) 80 ~ 5900
- km/h (Kms/hour) 0.8 ~ 108.0
- MPH (miles/hour) 0.9 ~ 67.0
- KNT (nautical miles/h) 0.8 ~ 58.0



#### Code 50106165 Mod. KML-1

#### MINI LUXMETER

- Measurement range: 200, 2000, 20000,40000 Lux/Fc (1Fc=10.76 Lux)
- Accuracy: ± 5% rdg ± 10dgts (<10000 Lux/Fc)
- Accuracy: ± 10% rdg ± 10dgts (> 10000 Lux/Fc)
   (reading range 20000 x10, reading range 40000 x100)
- Indication of overexposure
- Light sensor: silicon photo diode with filter





#### Code 50106190 Mod. KMPC-BT

# MINI PARTICLE COUNTER WITH BLUETOOTH

Particle counter

Channel 2.5,10um

Mass concentration PM2.5:0~500ug/m3; PM10:0~500ug/m3

Resolution 1ug/m3

Air temperature measurement

Temperature range 0 to 50°C/32 to 122°F

Basic accuracy  $\pm 1^{\circ}\text{C/2}^{\circ}\text{F}$ Humidity range 0 to 100%RH

Basic accuracy ±5%RH @0 to 20%RH and 80

to 100%RH

±3.5%RH @20 to 80%RH

Indicator analog bar

Bluetooth interface for an easy data transfer

Power supply 1x 9V battery , 1x 3,7V lithium battery

Dimensions 185 x 55 x 38mms

Weight 139grs

#### Code 50106185 Mod. KMHT-BT

# HCHO/TVOC 2 IN 1 FORMALDEHYDE METER WITH BLUETOOTH

Function	Range	Resolution	Accuracy
НСНО	0.00 to 5.00mg/m3	0.01mg/m <sup>3</sup>	±2%
TVOC	0.00 to 9.99mg/m3	0.01mg/m <sup>3</sup>	±2%

Bluetooth interface for an easy data transfer



#### Code 50106176 Mod. KMTH-BT

# TEMPERATURE/HUMIDITY MINI METER WITH BLUETOOTH

Function	Range	Resolution	Accuracy
Temperature	-20 to 60°C/-4 to 140°F	0.1°C/°F	±0.5°C/0.9°F
Humidity	0 to 100%RH	0.1%RH	±3%RH

Bluetooth interface for an easy data transfer



#### Code 50106116 Mod. KMF-BT

#### MINI SOUND METER WITH BLUETOOTH

Function	Range	Accuracy
Sound level	35 ~ 130dB	±3.0dB(ref 94dB@1kHz)
Frequency	31.5 ~8kHz	
Frequency weighing	A,C	

Bluetooth interface for an easy

data transfer



#### Code 50106166 Mod. KML-BT

#### MINI LUXMETER WITH BLUETOOTH

Function	Range	Resolution	Accuracy
Light	40,000Lux /Fc	0.1Lux/0.01Fc	±5% ±10d(<10,000Lux)
Sampling time	1.5 times/second		

Bluetooth interface for an easy data transfer



#### Code 50106171 Mod. KMA-BT

#### MINI ANEMOMETER WITH BLUETOOTH

Function	Range	Accuracy
m/s (meters per second)	0.40~25.00	±3.5% ±0.20m/s
ft/min (feet per minute)	80~2980	±3.5% ±40ft/min
km/h (kilometers per hour)	1.4~54.0	±3.5% ±0.8km/h
MPH (miles per hour)	0.9~33.0	±3.5% ±0.4MPH
Knots (nautical miles per hour)	0.8~29.0	±3.5% ±0.4knots
Air temperature	-10 to 60°C(14 to 140°F)	± 2.0°C(4.0°F)

Bluetooth interface for an easy data transfer





#### Code 50100245 Mod. KMF-1

#### PROFESSIONAL SOUND METER WITH USB PORT

It is suitable to multiple applications in industrial and civil environments for professional use to detect the noise level of various machines or engines, at entertainment and show places and wherever there is a need to carefully know the sound pollution level of the environment. Equipped with a large backlit high contrast LCD display for an immediate reading of the acoustic value in dB; it is also equipped with a USB port for a simple connection to your PC, a satin aluminum tripod, a rigid carrying case, a network power supply, software, a USB cable and a user manual.

# TECHNICAL SPECIFICA-

HONS			
	LOW: 30dB up to 80dB		
Lavalana	MEDIUM: 50dB up to 100dB		
Level ranges	HIGH: 80dB up to 130dB		
	AUTO: 30dB up to 130dB		
Accuracy	±1,4dB		
Frequency range	31,5HZ up to 8KHZ		
Frequency weighing	A/C		
Temporal weighing	FAST ( 125ms ), SLOW ( 1s )		
	4-digit LCD display with a resolution of 0,1dB		
Dianley	Display refresh: 2 times/sec		
Display	MAX. Hold: Max reading retention		
	MIN. Hold: Min reading retention		
HOLD	Reading values retention		
Data Output	USB data traffic		
Power supply	1x 9V battery, 006P or NEDA1604 or IEC 6F22		
Dimensions	278 x 76 x 50mms		
Weight	350grs		



#### Connections



#### Code 50100246 Mod. KMF-2

#### PROFESSIONALE SOUND METER WITH USB PORT CLASS 2 WITH DATALOGGER

- Class 2
- Range level: Low: 30dB ~ 80dB / Med: 50dB ~ 100dB / Hi: 80dB ~ 130dB / Auto: 30dB ~ 130dB







#### Code 50102445 Mod. KM-RADIOACT

#### **NUCLEAR RADIATION MULTIFUNCTION DIGITAL METER**

Product designed with a completely new standard that uses a high accuracy Geiger counting sensor and the latest CMOS integrated circuit technology. It acts as a data logger and data transmission with Bluetooth communication as well as data analysis using a rich software. It can conduct tests of and rays and it can also measure the number of radiation pulses. The device can be widely used in the pharmaceutical industries, in laboratories, power plants, quarries, rescue stations, foundries and metal processing, oil wells and pipelines, environmental protection, police stations.

- Pollution of groundwater from radio ore.
- Radioactivity in drilling rigs and wells.
- Pollution of the cesium-radon radiation environment.
- Radioactivity of stones and building materials.
- Porcelain radioactivity, crockery and glass.
- Dangerous radiation from jewelery and other precious items.
- X-ray intensity in the medical or industrial environment





#### **TECHNICAL SPECIFICATIONS**

Range (automatic range selection)	Intensity of the radiation dose: 0.01µSv/h ~ 1000µSv/h Pulses detected: 0-4000cpm / 0-4000cps Total accumulated dose: 0.001µSv ~ 9999Sv Total accumulated pulses: 0 ~ 9999
Sensitivity	When in the environment the energy is 1 Sv/h Cobalt - 60 rays and also of 108 pulses or 1000 CPM/mR/hr $\alpha$ - from 4,0 millions volt MV $\beta$ - from 0,2 millions volt MV $\gamma$ - from 0,02 millions volt MV x - from 0,02 millions volt MV
Basic accuracy	<10% (less than 500μSv/h) <20% (less than 600μSv/h)
Ray selector	$\alpha$ $\beta$ $\gamma$ and x combined selection.
Sensor	Halogen filler detector (Geiger G.M. counting tube)
Output port	Bluetooth data transmission, wireless, at a distance of 10mts
Power supply	4x 1.5V AA-type alkaline batteries
Software	Visualization, recording analysis and remote data transfer in real time
Dimensions	200 x 70 x 45mms
Weight	206grs





#### Code 50103000 Mod. KM-HOT

#### **HOT WIRE ANEMOMETER**

- Thermal anemometer, suitable for very low air speed measurements.
- Thin probe, ideal for grills and diffusers.
- Combination of hot wire and standard thermistor, it provides fast and accurate measurements even at low air speed.
- It can record maximum and minimum readings with recall.
- The microprocessor circuit ensures maximum accuracy and offers special features and functions.
- Super large LCD display with dual function indicator, it can read air speed and temperature at the same time.
- Data Hold.
- Powered by a 3.7V rechargeable battery.
- The portable anemometer provides quick and accurate readings with digital readability and the convenience of a separate probe.
- Multi-functions for measuring air speed: m/s, km/h, ft/min, MPH, knots. It has got 2 selectable flow measurement units: CFM, CMM.
- Temperature measurement °C / °F.
- Thermistor sensor for temperature, fast response times.
- Built with durable components, including a durable and lightweight ABS plastic case.
- Luxury hard case.
- Applications: environmental tests, air conveyors, flow hoods, clean rooms, air speed, air balance, fans / motors / blowers, oven speed, refrigerated box, painting booths.
- USB interface, USB to UART Bridge controller.
- Length of the probe 0.32mt up to 1.15mt for longer lengthening. The probe cable length is 1.75mt.

GENERAL FEATURES	
LCD display	40,8mms x 60mms
	Dual function display
Measurements	m/s (meters per second) Km/h (kilometers per hour) ft/m (feet per minute) MPH (miles per hour) Nodi (nautical miles per hour) Temperature °C / °F
Memory	Maximum and minimum reading with recall
Sampling	About 0,8 sec.
Operating temperature	0°C to 50°C (32°F to 122°F)
Operating humidity	Less than 80% RH
Power supply	3,7V rechargeable battery
Power supplying current	About 80-250mA DC
Weight	320grs
Dimensions	160mms x 58mms x 27mms
Accessories included	Hot wire probe, 3,7V rechargeable battery

#### TECHNICAL SPECIFICA-TIONS

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Measurements	Range	Resolution	Accuracy
m/s	0.1-25.0m/s	0,01m/s	±(5%+1d) reading
km/h	0.3-90.0km/h	0,1 km/h	or ±(1%+1d)
ft/min	20-4925/min	1 ft/min	large-scale
MPH	0.2-55.8 MPH	0,1 MPH	
Knots	0.2-48,5 knots	0,1 knot	

Range measurement	0° to 50°C (32°F to 122°F)
Resolution	0,1°C (0,1°F)
Accuracy	±1°C (1.8°F)

#### Air flow range

Measurements	Range	Resolution
CFM	0-9999ft3/min	0.001 to 100
CMM	0-9999m3/min	0.001 to 100

CFM (ft3/min)=Air speed(ft/min) x Area(ft2) CMM(m3/min)=Air speed(rn/s) x Area(m2) x 60 CFM: cubic feet per minute CMM: cubic meters per minute





#### Code 50103005 Mod. KM-DWP

#### **DIGITAL PSYCHOMETER**

This device is a complete digital psychrometer and an HVAC diagnostic tool. As a psychrometer, it measures wet bulb (WB), dry bulb (DB), percentage of relative humidity (RH%) and dew point (DP). As an HVAC tool it can diagnose problems with air flow through the evaporator. It can also calculate the superheat target of an air conditioning system. Use the NORM mode (normal psychrometer) to view the wet bulb (WB), the dry bulb (DB), the relative humidity percentage (RH%) or the dew point (DP).

Use TSH (superheat target) to set the right refrigerant charge for an air conditioning system. Use the thermocouple to easily measure the real overheating without the need for additional graphs.

Use TEET (target evaporator outlet temperature) to ensure the correct evaporator air flow.

- NTC measurement selectable by user or K-type measurement
- Measurement of dew point temperature
- WET BULB temperature measurement
- DRY BULB temperature measurement
- Calculates the Superheat target
- Calculates the target temperature of the evaporator output
- °C or °F selectable by user
- MAX, MIN, HOLD mode
- LCD display with backlight
- Automatic shutdown
- · Low battery display

TECHNICAL SPECIFICA- TIONS	
K-type range	-50°C to 1372°C (-58°F to 2501°F)
K-type accuracy	±[0.5% rdg +1°C ( 1.8°F)]
K-type resolution	0.1°(<1000) or 1°(>1000)
NTC range	0°C to 60°C (32°F to 140°F)
NTC accuracy	±1°C (2°F)
NTC resolution	0.1°
Relative humidity	0% to 100% RH range
Accuracy	±2.5% RH (10% to 90%RH) ±5% RH (0 to 10%RH or 90 to 100%RH)
Operating temperature	0°C to 50°C
Storage temperature	-10°C to 60°C







#### Code G1002520 Lutron EMF-828

#### **ELECTROMAGNETIC FIELD METER ON THREE AXIS**



This meter has been specifically designed for the measurement and monitoring of magnetic and electro-magnetic fields generated by: power lines, TVs, monitors, computers and many other similar products.

#### Features:

- Electromagnetic measuring range on 3 axis (x, y, z).
- Wide measurement range: 20/200/2000 micro tesla. 200/2000/2000 milli-Gauss.
- Designed to be held in the hand
- Tested and calibrated to measure the radiated electromagnetic field with a bandwidth from 30Hz to 300Hz
- Large LCD display
- Data retention
- Separate probe for simpler and faster measurement operations
- · Hard case included
- Powered by a 9V battery

# TECHNICAL SPECIFICATIONS

110110					
Range/resolution  micro Tesla: 20 micro tesla / 0,01 micro tesla 200 micro tesla / 0,1 micro tesla 2000 micro tesla / 1 micro tesla					
	milli-Gauss: 200 milli-Gauss / 0,1 milli-Gauss 2,000 milli-Gauss / 1 milli-Gauss 20,000 milli-Gauss / 10 milli-Gauss				
Number of axis	3 axis (X, Y, Z direction) selectable with a button				
Band accuracy	30Hz up to 300Hz (±4% +3d): @20 micro tesla / 200 milli-Gauss (±5% +3d): @200 micro tesla / 2,000 milli-Gauss (±10% +5d): @2000 micro tesla / 20,000 milli-Gauss				
	*Accuracy tested under 50Hz or 60Hz *Accuracy tested with an environmental resistance less than 3V/M and a frequency lower than 30MHz				
Display	LCD, 3 1/2 digits - dimensions: 55mms x 47mms				
Out of range	display shows "1"				
Sampling time	about 0.4 sec				
Operating humidity	less than 85% RH				
Weight	460 grs (batteries included)				
Dimensions	195 x 68 x 30mms				
Dimensions of probe	70 x 58 x 220mms				
Supplied accessories	Hard case and user manual				





#### Code 50100300 Mod. KM-VT

#### VIDEOSCOPE/CAMERA FOR INSPECTION - 2,4" TFT WITH 1MT 17MM PROBE

This instrument is equipped with a 2.4" high definition TFT LCD display with a 480W x 234H resolution. Applying the H.264 video codec technology it displays clear and sharp images and it is equipped with a curved waterproof swan-neck probe. It will be easy to control objects that cannot be reached and that are not visible. The AV output signal can be displayed on NTSC/PAL TVs through the automatic signal switching

#### Camera

Sensor size: 1/4 inch CMOS
Pixel sensor: 300,000
Max resolution: 640x 480

• Max frame rate: (FPS): 30 FPS/S

 $\bullet$  Depth of field (DOF): 10mm  $\sim \infty$  (infinite)

Swan-neck length: 1mt (39")Camera diameter: 17mms (0.66")

#### **Power supply**

• Batteries: 4x 1,5V AA

Operating current: MAX 300mA
Low battery indication: 4.8V ± 0.2V

#### **Temperature**

Operating temperature: 0°C up to 45°C
Storage temperature: -20°C up to 60°C
Relative hunidity: 5% up to 85%

#### **LCD TFT**

• Dimensions of color LCD TFT: 2,4"

• Screen resolution: 480 (W) x 234 (H)

• Active area 48mms x 35,6mms

#### Light source

• 4x high brightness Leds

#### Video format

NTSC / PAL

• Standard automatic conversion



#### Code 67500400 Mod. PSRL66

#### FIELD METER FOR ELECTRONIC REMEDIATION

Field and frequency meter for wide-range electronic remediation (30MHz - 2.8GHz). It identifies both analog (microtransmitters, VHF, UHF, ...) and digital (GSM, UMTS ...etc) radio sources.

- 7-digit LCD display and graphic bar
- Pocket-size
- Adjustable sensitivity
- In anodized aluminum
- Dimensions 80 x 68 x 31 mms
- Weight 210grs
- Internal rechargeable batteries



#### Code 67500405 Mod. PSRL74

#### FIELD METER FOR ELECTRONIC REMEDIATION

Field meter for wide-range electronic remediation (1MHz - 6GHz). It identifies both analog (microtransmitters, VHF, UHF, ...) and digital (GSM, UMTS ...etc) radio sources.

- 5-LED graphic bar
- Pocket-size
- Adjustable sensitivity
- Light, sound or vibration alerts
- Listening in headphones (supplied)
- In anodized aluminum
- Dimensions 80 x 68 x 31 mms
- Weight 210grs
- Internal rechargeable batteries









#### TENKO RECHARGEABLE LEAD BATTERIES

Tenko lead batteries for Stand-By use TK series are batteries for buffer use.

This construction technology allows the battery to have an excellent performance over time and they do not require any topping up of acid. APPLICATIONS: emergency lamps, general electronics



















Code	Model	Voltage (V)	Capacity (Ah)	LxPxH (mms)	Terminals	Weight (Kgs)
38620400	TK6 - 4	6	4	70 x 48 x 101	Faston 4,8 mm	0,7
38621000	TK6 - 12	6	12	151 x 50 x 95	Faston 4,8 mm	1,8
38640120	TK6 - 1,2	6	1,2	98 x 24 x 52	Faston 4,8 mm	0,3
38640200	TK12 - 2	12	2	178 x 34 x 60	Faston 4,8 mm	0,8
38640700	TK12 - 7	12	7	151 x 65 x 95	Faston 4,8 mm	2,0

#### SKB RECHARGEABLE LEAD BATTERIES

SKB lead batteries for Stand-By use SK series are batteries for buffer use.

This construction technology allows the battery to have an excellent performance over time and they do not require any toppi up of acid. APPLICATIONS: emergency lamps, general electronics, UPS, Campers























Code	Model	Voltage (V)	Capacity (Ah)	LxPxH (mms)	Terminals	Weight (Kgs)
38620125	SK6 - 1,3	6	1,3	98 x 24 x 52	Faston 4,8 mm	0,3
38620305	SK6 - 3,2	6	3,2	134 x 34 x 60	Faston 4,8 mm	0,6
38620405	SK6 - 4,5	6	4,5	70 x 48 x 101	Faston 4,8 mm	0,7
38620406	SK6 - 4,5	6	4,5	70 x 47 x 98	Contact	0,7
38620407	SK6 - 4,5	6	4,5	70 x 47 x 98	Faston 4,8 mm	0,7
38620408	SK6 - 4,0 Connector	6	4	195 x 25 x 62	22 cm cable + connector	0,6
38620605	SK6 - 7,2	6	7,2	151 x 34 x 95	Faston 4,8 mm	1,1
38621005	SK6 - 12	6	12	151 x 50 x 95	Faston 4,8 mm	1,8
38640085	SK12 - 0,8 Connector	12	0,8	96 x 25 x 62	15 cm cable + connector	0,3
38640125	SK12 - 1,3	12	1,3	98 x 45 x 50	Faston 4,8 mm	0,6
38640205	SK12 - 2,3	12	2,3	178 x 34 x 60	Faston 4,8 mm	0,8
38640304	SK12 - 2,9	12	2,9	80 x 56 x 99	Faston 4,8 mm	1,0
38640305	SK12 - 3,2	12	3,2	134 x 67 x 61	Faston 4,8 mm	1,2
38640505	SK12 - 5,2	12	5,2	90 x 70 x 101	Faston 6,3 mm	1,5
38640704	SK12 - 7,2	12	7,2	151 x 65 x 95	Faston 4,8 mm	2,0
38640705	SK12 - 7,2S	12	7,2	151 x 65 x 95	Faston 4,8 mm	2,2
38640706	SK12 - 7,2HR	12	7,2	151 x 65 x 95	Faston 6,3 mm	2,2
38640906	SK12 - 9,0	12	9	151 x 65 x 95	Faston 6,3 mm	2,6
38641205	SK12 - 12	12	12	151 x 98 x 95	Faston 6,3 mm	3,5
38641406	SK12 - 14	12	14	151 x 98 x 95	Faston 6,3 mm	4,1
38641705	SK12 - 18	12	18	181 x 77 x 167	M4 screw	5,3
38641706	SK12 - 18	12	18	181 x 77 x 167	M4 screw	5,3
38642405	SK12 - 26	12	26	166 x 175 x 125	M4 screw	7,8



#### **CSB RECHARGEABLE LEAD BATTERIES**



CSB lead batteries are AGM technology lead batteries. All series of CSB batteries are used by the main UPS manufacturers and they comply with the European IEC61056-1/2 standards and directive. APPLICATIONS: UPS, general electronics













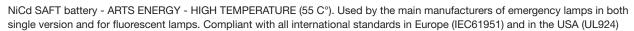


Code	Model	Voltage (V)	Capacity (Ah)	LxPxH (mms)	Terminals	Weight (Kgs)
39640715	GP1272F2	12	8,0	151 x 63 x 100	Faston 6,3 mm	2,4
39641210	GP12120F2	12	12	151 x 98 x 100	Faston 6,3 mm	3,6
39641710	GP12170 M3	12	17	181 x 73 x 170	M3 screw	5,5
39642410	GP12260 M4	12	26	166 x 175 x 125	M4 screw	8,4
39643810	GP12400 M5	12	40	196 x 166 x 170	M5 screw	12,8

#### **CSB RECHARGEABLE LEAD BATTERIES (FOR UPS)**

Code	Model	Voltage (V)	Capacity (Ah)	LxPxH (mms)	Terminals	Weight (Kgs)
39640615	UPS123606F1/F2	12	360W/battery - 5 min	151 x 51 x 100	Faston 4,8 / 6,3 mm	2,0
39640718	UPS123607F2	12	360W/battery - 5 min.	151 x 63 x 100	Faston 6,3 mm	2,0
39640910	UPS12460F2	12	460W/battery - 5 min	151 x 65 x 94	Faston 6,3 mm	2,5

#### NI-CD SAFT ARTS ENERGY RECHARGEABLE BATTERY FOR HIGH TEMPERATURE EMERGENCY LAMPS









Code	Model	Size	Voltage (V)	Capacity (mAh)	H x D (mms)	Terminals	Battery weight (grs)
38290008	3VNTCS U	3 x SC	3,6	1600	131 x 26	Cable (330mm) + Molex conn.	141
38290012	4VNTCS U	4 x SC	4,8	1600	174 x 26	Cable (210mm) + Molex conn.	188
38290018	5VNTCS U	5 x SC	6,0	1600	216 x 26	Cable (210mm) + Molex conn.	235
38290022	6VNTCS U	6 x SC	7,2	1600	260 x 26	Cable (210mm) + Molex conn.	282
38290028	3VNTC U	3 X C (1/2 TORCH)	3,6	2500	150 x 26	Cable (300mm) + Molex conn.	225
38290032	4VNTC U	4 x C (1/2 TORCH)	4,8	2500	200 x 26	Cable (300mm) + Molex conn.	300
38290048	3VNTD U	3 x D (TORCH)	3,6	4000	180 x 36.5	Cable (300mm) + Molex conn.	372
38290052	4VNTD U	4 x D (TORCH)	4,8	4000	247 x 36.5	Cable (300mm) + Molex conn.	496
38290058	5VNTD U	5 x D (TORCH)	6,0	4000	308 x 36.5	Cable (300mm) + Molex conn.	620

#### Code 38026501

#### **BATTERY CHARGER FOR LEAD BATTERIES - 2-6-12V 600MA**

Battery charger for 2-6-12V lead batteries, with manual voltage selector. 600mA charging current. Crocodile connectors. Equipped with charge and end-of-charge indicating LEDs. Reverse polarity signaling LED. Max battery capacity: 12Ah.

Dimensions 91x45x51mms.

Battery type:Pb (max. 12Ah)Power:7,2 WInput:100 - 240 VcaBattery capacity:12 AhVoltage:2 - 6 - 12Vcc (variable)Dimensions:91x45x51 mmsCurrent:0,6 AConnectors:crocodile







#### SKB VOLTAGE STABILIZERS

Ideal for protecting electronic equipment in homes, small offices and shops.

- Electronic circuit based on CPU and relay
- Toroidal transformer
- Single-phase input 140-260V~50/60Hz
- Single-phase output 220V~50Hz +/- 8%
- Double LED display for displaying input and output voltage
- Electronic overload/overtemperature/short circuit protection



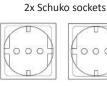
Code 59631610 Mod. AVR-3000



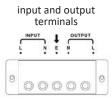












AVR-1000 AVR-2000 AVR-3000

#### TECHNICAL SPECIFICA-TIONS

Model	AVR-1000	AVR-2000	AVR-3000
Power	1000VA / 600W	2000VA / 1200W	3000VA / 1800W
Input	Schuko cable/plug	Schuko cable/plug	Terminal
Outputs	1x Schuko socket	2x Schuko sockets	Terminal
Dimensions (LxDxH)	125x230x171 mms	140x236x175 mms	220x330x240 mms
Weight	3,65 Kgs	5,33 Kgs	9,00 Kgs

#### SKB PROFESSIONAL VOLTAGE STABILIZERS

Accurate adjustment of output voltage through servo motor.

Oversized toroidal transformer.

Ideal for feeding equipments that are sensitive to the slightest voltage fluctuations.

- CPU-based electronic circuitry
- Toroidal transformer with servo motor
- Single-phase input 140-260V~50/60Hz
- Single-phase output 220V~50Hz +/- 3%
- Double LED display for displaying input and output voltage
- Electronic overload/overtemperature/short circuit protection

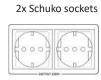


Code 59631650 Mod. AVR-1500 PRO
Code 59631660 Mod. AVR-3000 PRO

Code 59631670 Mod. AVR-5000 PRO

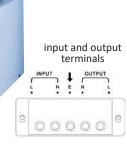












**AVR-1500 PRO** 

**AVR-3000 PRO** 

AVR-5000 PRO

#### TECHNICAL SPECIFICA-TIONS

110110			
Model	AVR-1500 PRO	AVR-3000 PRO	AVR-5000 PRO
Power	1500VA / 900W	3000VA / 1800W	5000VA / 3000W
Input	Schuko cable/plug	Terminal	Terminal
Outputs	2x Schuko sockets	Terminal	Terminal
Dimensions (LxDxH)	190x265x165 mms	220x325x215 mms	220x325x215 mms
Weight	7,50 Kgs	12,35 Kgs	13,96 Kgs



#### Code 48401010 Mod. DUE-CI L-15

#### ISOPROPYL ALCOHOL

Net content: 200 mls

Package: Aerosol

Effective detergent for all plastic casings of computers, printers, monitors and keyboards. Recommended for cleaning anti-glare screens, plotter rollers and printers, optical CD and DVD players, optical glasses for telescopes, optical fibers. It completely evaporates. It eliminates dirt and static charges. Ideal for washing screen printing frames. IT DOES NOT DAMAGE THE OZONE LAYER



#### Code 48202500

#### **REMOLABEL**

Net content: 200 mls

Package: Spray

It allows the easy removal of labels, glue residues, mastics, pen writings and felt-tip pens. It does not contain toxic compounds.



#### Code 48300000

#### **DEOXID DRY DEOXIDIZER**

Net content: 200 mls

Package: Spray

It dry cleans any type of contact eliminating the oxide and sulphide layers. It eliminates hums and too high transition resistances. Do not use on live devices. It is neither toxic nor corrosive. It does not damage the components on which it is used.



#### Code 48200000

#### **GAS REFIL**

Net content: 200 mls

Package: Spray

Very pure gas for welders refill, free from impurities that cause the clogging of the nozzles of the catalytic tips.



#### Code 48320000

#### **GENERAL CONTACT CLEANER**

Net content: 200 mls

Package: Spray

It cleans any type of contact by removing the oxide and sulfide layers. It immediately eliminates hums and too high transition resistances. It does not damage the plastic materials usually used and the components. It leaves a permanent protective layer for potentiometers and switches.



#### Code 48304000

#### **PLASTIFER**

Net content: 200 mls

Package: Spray

Protective lacquer, it leaves a glossy and transparent film that adheres and isolates the components in the electronic circuits. It protects against short circuits, it waterproofs the antenna descents against the passage of moisture. It protects against water and atmospheric agents; it also resists acids, mineral oils and alkalis.



#### Code 48307000

#### LUBRIOIL LUBRICANT

Net content: 200 mls

PACKAGE: Spray

It increases smoothness, reduces frictions and protects against corrosion. Suitable for sliding metal and plastic couplings of VCR-camcorder-switches.



#### Code 48344020

#### **CLEAN AIR COMPRESSED AIR**

Net content: 400 mls

Package: Spray

Properties: non-flammable

Compressed air in spray can. Product suitable for cleaning inaccessible parts. Pressurized to 6 atmospheres. Due to its high pressurization it is indicated for cleaning operations of any dust or carbon residual. Recommended for use in micro maintenance, photography, etc.





## Code 49400130 Mod. KMS-35

## WELDING STATION WITH TEMPERATURE CONTROL AND MINI STYLUS

Thanks to the mini stylus it is possible to weld items that are difficult to reach by a normal welder. Welding at the correct temperature is very important to ensure a perfect weld. If the temperature is too low, the solder does not flow properly and it generates "cold" welds. If the temperature is too high, the flux will be burned and will not allow the welding alloy to flow. High temperatures can also damage printed circuit boards and sensitive components.

Input voltage: 220-240 VAC
Welder voltage: 12Vac
Power consumption: 8W
Temperature: 100° - 450°C

• Weight: 600grs

• Dimensions: 95D x 60L x 50H mms

Optional accessories	Code
Spare tip	49400135
Spare mini welder	49400140
	·



## Code 49093075 Mod. KMS-200

## **CONTROLLED TEMPERATURE WELDING STATION**

Antistatic mass outlet

• Equipped with long-life tip

ON/OFF Led indication50W resistive element

Power supply: 220V - 240V 50Hz
Operating temperature: 117°C - 482°C

Operating temperature: 1	117°C - 482°C	
Optional accessories	Code	
B2-16 tip	49400505	
B2-26 flat blade tip	49400510	
B2-36 45° cut tip	49400515	
Spare welder	49400500	



## Code 49093077 Mod. KMS-100

## **WELDING STATION**

Welding station with adjustable temperature.

- Temperature control, adjustable 38°C up to 426°C
- Power: 48W
- High quality in a compact design
- Luminous power indicator switch
- Welder holder



## Code 49093073 Mod. KMS-D

## **DIGITAL WELDING STATION**

Welding station with advanced features, ideal for welding sensitive components such as integrated circuits, Fet and transistors. Complete with LCD display for direct temperature display.

- Welder power voltage: 24V
- Power: 48W
- Adjustable temperature 160° up to 480°C
- Weight: 2.1 kgs

Optional accessories	Code
1mm spare tip	49093086
0,8mm spare tip	49093087
3mm oblique cut spare tip	49093088
2mm flat blade spare tip	49093089
24V 48W spare welder	49093103





## Code 49400070 Mod. KMS-31

## **DIGITAL WELDING STATION**

Welding station with a large display for an immediate temperature control.

Operating voltage: 230VACWelder voltage: 24VPower supply: 220V

• Temperature: 150°C up to 450°C

Power: 48WWeight: 2 kgs

• Dimensions: 195 x 87 x 165mms

Optional accessories	Code
N1-16, 0,8mm spare tip	49400081
N1-26, fine 0,5mm spare tip	49400082
N1-36, taglio 45° spare tip	49400083
N1-46, flat blade spare tip	49400084
N1-56, 1mm spare tip	49400085
Spare resistance	49400086
Spare sponge	49400087
Spare welder	49400080



## Code 49400205 Mod. KMS-06

## **CONTROLLED TEMPERATURE WELDING STATION**

Drawer incorporated in the base to store spare tips.

30W temperature-controlled welding station with adjustment in the range from 160°C up to 550°C

High quality heating ceramic resistance which can provide a rapid heating

and a long service life.

LCD display for displaying the temperature with blue backlighting.

Welder holder

Special compartment to house the sponge, essential for cleaning the tip of the welder

Optional accessories	Code	
0,2mm spare tip	49400365	
2mm 45° spare tip	49400370	
3mm 45° spare tip	49400375	
4mm 45° spare tip	49400380	
5mm 45° N9-5 cut spare tip	49400385	



## Code 49400100 Mod. KMS-15

## **DIGITAL UNWELDING STATION**

This unwelding station has been specifically designed for lead-free applications. Rapid heating and high power are particularly suitable for DIP welding/unwelding processes of any component. It is used in the field of the electronic research, teaching, production, especially for the repair and unwelding of electronic devices and equipment for communication networks.

## Supplied with N5-1 tip, N5-2 tip, N5-3 tip

Power supply: 220-240 VACAbsorbed power: 80W

• Main fuse: 3A

Vacuum pressure: 600mms HgTemperature: 160°C-480°C

## **UNWELDING PISTOL**

• Voltage 24V

• Power 80W

Optional accessories	Code
N5-1 Ø 1,2mm tip	49400115
N5-2 Ø 1mm tip	49400116
N5-3 Ø 1,5mm tip	49400117
Filter Ø 20,8 mm	49400101
Filter Ø 16,8 mm	49400102
3,2 cm narrow spiral conical tip spring	49410116
4,8 cm wide spiral conical tip spring	49410117
7-pole spare unwelding pistol	49410120
Spare resistance	49410278







## Code 49400110 Mod. KMS-97

## **DIGITAL WELDING/UNWELDING STATION**

High performance multi-purpose station, used for research and teaching, for production processes and reworking operations in the electronics sector. In particular, this tool is used for repairing and reworking electronic devices and equipment for communication networks.

Power supply: 220-240 VACAbsorbed power: 60W + 80W

• Main fuse: 3A

Vacuum pressure: 600mms HgTemperature: 160°C-480°C

## **WELDER**

• Voltage 24V

• Power 60W thermal power 130W

• Ceramic heater

Optional accessories of the welder	Code
N4-1 tip Ø 0,5mm	49400111
N4-2 tip Ø 0,2mm	49400112
N4-3 45° cut tip	49400113
N4-4 2mm flat tip	49400114
6-pole spare welder	49410110
Resistance for the welder	49410272

## **UNWELDERING PISTOL**

- Voltage 24V
- Power 80W

Optional accessories of the unweldering pistol	Code
N5-1 tip Ø 1,2mm	49400115
N5-2 tip Ø 1mm	49400116
N5-3 tip Ø 1,5mm	49400117
Filter Ø 20,8 mm	49400101
Filter Ø 16,8 mm	49400102
3,2 cm narrow spiral conical tip spring	49410116
4,8 cm wide spiral conical tip spring	49410117
7-pole spare unwelding pistol	49410120
Spare resistance	49410278





## Code 49410265 Mod. KMS-98

## **DIGITAL WELDING/UNWELDING STATION**

High performance multi-purpose station, used for research and teaching, for production processes and rework operations in the electronics sector.

Power supply: 220-240 VACAbsorbed power: 60W + 80W

• Main fuse: 3A

Vacuum pressure: 600mms Hg
Temperature: 160°C-480°C

## **WELDER**

• Voltage 24V

• Power 60W thermal power 130W

• Ceramic heater

Optional accessories of the welder	Code
N4-1 tip Ø 0,5mm	49400111
N4-2 tip Ø 0,2mm	49400112
N4-3 45° cut tip	49400113
N4-4 2mm flat tip	49400114
6-pole spare welder	49410110
Resistance for the welder	49410272

## **UNWELDERING PISTOL**

- Voltage 24V
- Power 80W

Optional accessories of the unweldering pistol	Codice
N5-1 tip Ø 1,2mm	49400115
N5-2 tip Ø 1mm	49400116
N5-3 tip Ø 1,5mm	49400117
Filter Ø 20,8 mm	49400101
Filter Ø 16,8 mm	49400102
Narrow spiral conical tip spring - Length 3,2 cms	49410116
Wide spiral conical tip spring - Length 4,8 cms	49410117
7-pole spare unwelding pistol	49410120
Resistance for the pistol	49410278
Glass cylinder + filter + spring for the pistol	49410266







## Code 49410260 Mod. KMS-92

## SMD DIGITAL WELDING/UNWELDING STATION

The KMS-92 welding/unwelding station is suitable for the welding and unwelding of all surfaces, for the assembly of integrated circuits, preventing damage to printed circuit boards and components. It is used in the field of electronic research, teaching, production, especially for the repair and rework of electronic devices and equipment for communication networks.

• Absorbed power 60W + 320W

• Main fuse: 3A

• Membrane air pump

• Temperature 160°C - 480°C

## Supplied accessories:

79-3901 / 79-3902 / 79-3903 / 79-3907

## **WELDER**

- Voltage 24V
- Power 60W thermal power 130W
- Ceramic heater

Optional accessories of the welder	Code
N4-1 tip Ø 0,5mm	49400111
N4-2 tip Ø 0,2mm	49400112
N4-3 45° cut tip	49400113
N4-4 2mm flat tip	49400114
6-pole spare welder	49410110
Resistance for the welder	49410272

Supplied accessories:	
N4-1 tip Ø 0,5mm	49400111
N4-2 tip Ø 0,2mm	49400112
N4-3 45° cut tip	49400113
N4-4 2mm flat tip	49400114
6-pole spare welder	49410110
Resistance for the welder	49410272

## **SMD HOT AIR STYLUS**

- Capacity 24lt/min (max)
- Power 320W

Optional accessories of SMD hot air stylus	Code
79-3901 2,5mm	49410283
79-3902 QFP 10 x 10	49410284
79-3903 QFP 14 x 14	49410285
79-3904 QFP 17,5 x 17,5	49410286
79-3905 QFP 14 x 20	49410287
79-3906 QFP 28 x 28	49410288
79-3907 4,4mm	49410289
79-3908 SOP 4,4 x 10	49410290
79-3909 SOP 5,6 x 13	49410291
79-3910 SOP 7,5 x 15	49410292
79-3921 SOP 7,5 x 18	49410293
79-3940 PICK-UP 32 x 8 x 33mm 150°	49410302
79-3941 PICK-UP CABLE	49410303
79-3942 PICK-UP 16 x 8 x 27mm 150°	49410304
SMD spare stylus	49410106





## Code 49410270 Mod. KMS-93

## HOT AIR DIGITAL WELDING STATION FOR SMD

Station designed and built for professional use in the field of SMD surface mounting components. It is aimed primarily at electronic production industries, assistance laboratories, etc.

Closed-cycle temperature control sensor, high power during start-up, rapid temperature rise, accuracy and temperature stability, no effect caused by air outlet.

- Power supply 220-240 VAC
- Absorbed power 320W
- Membrane air pump
- Temperature 150°C 500°C
- K thermocouple sensor

## Supplied accessories:

79-3901 / 79-3902 / 79-3903 / 79-3907

## **SMD HOT AIR STYLUS**

- Capacity 24lt/min (max)
- Power 320W

Optional accessories of SMD hot air stylus	Code
79-3901 2,5mm	49410283
79-3902 QFP 10 x 10	49410284
79-3903 QFP 14 x 14	49410285
79-3904 QFP 17,5 x 17,5	49410286
79-3905 QFP 14 x 20	49410287
79-3906 QFP 28 x 28	49410288
79-3907 4,4mm	49410289
79-3908 SOP 4,4 x 10	49410290
79-3909 SOP 5,6 x 13	49410291
79-3910 SOP 7,5 x 15	49410292
79-3921 SOP 7,5 x 18	49410293
79-3940 PICK-UP 32 x 8 x 33mm 150°	49410302
79-3941 PICK-UP CABLE	49410303
79-3942 PICK-UP 16 x 8 x 27mm 150°	49410304
SMD spare stylus	49410106







qoot !

qoot

## Code 49352050 Mod. GOOT RX-711AS

## WELDING STATION WITH PREHEATING AND TEMPERATURE CONTROL

65W "made in JAPAN" high efficiency welding station with ceramic resistance. Digital display. Equipped with preheating and temperature control

The upper part of the welder handle is covered with a layer of rubber to allow a better grip and avoid overheating in case of continuous use.

- Power: 65 W
- Power supply: 230 VAC
- Output voltage: 24V
- Temperature control range: 200-480°C
- Insulation resistance >100Mohm 500V DC
- Welder length: 195mms.
- Welder weight: 41 grs.
- Unit dimensions (LxHxD): 146 x 98 x 115 mms.
- Unit weight: 1.5 Kg.

40250054
49352051
49352052
49352053
49352054
49352055



## Code 49352060 Mod. GOOT RX-802AS

## WELDING STATION WITH BUILT-IN RESISTANCE

72W "made in JAPAN" high efficiency welding station with built-in resistance. Digital display. High sensitivity sensor for eliminating temperare

fluctuations. Automatic temperature reduction in case of inactivity. The upper part of the handle of the welder is covered with a rubber layer to allow a better grip and avoid overheating in case of continuous use.

- Power: 72W
- Power supply: 230 VAC
- Output voltage: 24 VAC
- Temperature control range: 50-450°C
- Earth resistance: <1 ohm
- Welder length: 158mms.
- Welder weight: 28 grs.
- Unit dimensions (LxHxD): 146 x 98 x 115 mms.
- Unit weight: 1.8 Kg.



SPARE WELDER	49352061
0,5mm TIP + RESISTAN	NCE 49352062
1,6mm TIP + RESISTAN	ICE 49352063
3,0mm TIP + RESISTAN	NCE 49352064



## Code 49352090 Mod. GOOT SVS-500AS

## **CONTROLLED TEMPERATURE ANTISTATIC WELDING / UNWELDING STATION**

 $80\mbox{W}$  "made in JAPAN" high efficiency professional antistatic welding / unwelding station.

High power built-in compact double pump. Temperature control sensor. Ceramic resistance with integrated sensor. The upper part of the handle

of the welder is covered with a rubber layer to allow a better grip and avoid overheating in case of continuous use.



• Power supply: 230 VAC

• Unwelding unit temperature range: 250-450°C

• Welding unit temperature range: 200-480°C

• Insulation resistance: >100Mohm 500V DC

• Temperature control system: Sensor feedback (ON/OFF)

• Suction system: diaphragm (double pump)

• Suction level: about 600mmHg

• Ground resistance: <0.3 ohm

• Unit dimensions (LxHxD): 160 x 170 x 205 mms.

Unit weight: 3.6 Kgs.
Wolder length: 190 mm

• Welder length: 190 mms.

• Unwelding pistol length: 220 mms.







SPARE WELDER	49352	091
RESISTANCE FOR THE WELDER 49352092		49352092
0,5mm WELDING TIP	49350	002
1mm WELDING TIP	49350	003
3mm WELDING TIP	49350	004
SPARE UNWELDING PI	STOL	49352081
RESISTANCE FOR THE PISTOL		49352071
1mm UNWELDING TIP 49352072		
1,5mm UNWELDING T	IP	49352073
2,5mm UNWELDING T	TP .	49352074



## Code 49400165 Mod. KM-PW80

## **80W WELDER**

• Power supply: 220V 50Hz

SPARE TIP

49400166





150W

## Code 49400170 Mod. KM-PW150

## 150W WELDER

• Power supply: 220V 50Hz

SPARE TIP

49400171



## Code 49400245 Mod. LED WELDER

## 40W WELDER WITH 4 LEDs

- 40W welder with high performance LEDs
- Four long-life LEDs for maximum welding accuracy and application lighting











## Code 49400250 Mod. KMS-30

## **30W WELDER**

SPARE TIP

• Power supply: 240Vca - 30W



## Code 49400255 Mod. KMS-40

49400251

## **40W WELDER**

Power supply: 240Vca - 40W



SPARE TIP 49400256



## **WELDING PISTOL**

Welding pistol ideal for DIY, school, car electronics, maintenance and lab works.

• Power: 25W ~ 130W (MAX)

• Voltage: 220 - 240 Vac





 1mm FINE TIP
 49093086

 0,8mm FINE TIP
 49093087

 3mm OBLIQUE CUT
 49093088

 2mm FLAT BLADE TIP
 49093089





## Code 49400180 Mod. KMS-IND 120

## **HIGH POWER WELDER**

• Power: 120 W

• Power supply: 220V 50Hz





## Code 49400185 Mod. KMS-IND 180

## **HIGH POWER WELDER**

• Power: 180 W







## Code 49400190 Mod. KMS-IND 250

## **HIGH POWER WELDER**

• Power: 250 W

• Power supply: 220V 50Hz





## Code 49400195 Mod. KMS-IND 320

## **HIGH POWER WELDER**

• Power: 320 W

• Power supply: 220V 50Hz





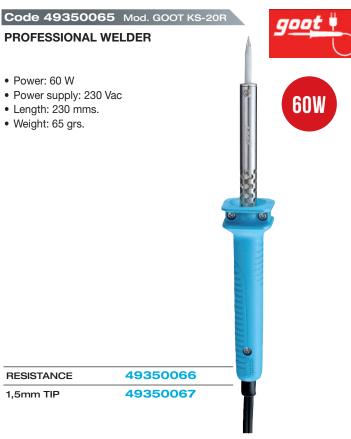


"Made in JAPAN" professional welders. Ideal for accuracy welding of printed circuits and hobby works, for production, processing and repair of electronic products and telecommunication equipments. Light, easy to handle even for long periods of work.











## Code 49350010 Mod. GOOT TQ-95-CE

## DOUBLE POWER WELDER WITH CERAMIC

## **RESISTANCE**

"Made in JAPAN" high quality welder with double power (200W/20W) and ceramic resistance. Rapid heating of the tip for welding on large surfaces (HIGH TEMPERATURE) and accuracy welding for printed circuits (LOW TEMPERATURE). Ergonomic handle for a secure and comfortable grip. New design allowing a perfect view of the tip.

Power: 20 / 200 WPower supply: 230 VacLength: 210 mmsWeight: 65 grs





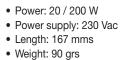
RESISTANCE	49350011
0,5mm TIP	49350012
1,6mm TIP	49350013
3.0mm TIP	49350014

## Code 49350080 Mod. GOOT TQ-77

## DOUBLE POWER WELDING PISTOL WITH CER

## **RESISTANCE**

"Made in JAPAN" high quality welding pistol with double power (200W/20W) and ceramic resistance. Rapid heating of the tip for welding on large surfaces (HIGH TEMPERATURE) and accuracy welding for printed circuits (LOW TEMPERATURE). Ergonomic handle for a secure and comfortable grip.







RESISTANCE	49350081
0,5mm TIP	49350012
1,6mm TIP	49350013
3,0mm TIP	49350014

## Code 49350040 Mod. GOOT CXR-41

# ACCURACY WELDER WITH CERAMIC RESISTANCE

30W "made in JAPAN" high efficiency welder with ceramic resistance. Ideal for performing accuracy welding thanks to the very fine tip. The upper part of the handle is covered with a rubber layer to allow a better grip and avoid overheating in case of continuous use.

• Power: 30 W

Power supply: 230 VacMax temperature: 520°C

• Insulation resistance: 100Mohm 500V DC

Length: 205 mmsWeight: 60 grs





RESISTANCE	49350041
0.2mm TIP	49350042

## Code 49350075 Mod. GOOT CXR-100

## **WELDER WITH CERAMIC RESISTANCE**



"Made in JAPAN". Ideal for the production, processing and repair of electronic products and telecommunication equipments. The upper part of the handle is covered with a rubber layer to allow a better grip and avoid overheating in case of continuous use.

Power: 38 WLength: 90 grsPower supply: 230 VacLength: 235 mm





RESISTANCE	49350076
0,6mm TIP	49350037
3mm TIP	49350038
7mm TIP	49350039



## Code 49350000 Mod. GOOT PX-201

# WELDER WITH CERAMIC RESISTANCE AND TEMPERATURE CONTROL



"Made in JAPAN" high quality welder with ceramic resistance and temperature control. Ergonomic handle for a secure and comfortable grip. New design allowing a perfect view of the tip.

- Power: 70 W
- Power supply: 230 Vac
- Temperature range: 250 450°C
- Insulation resistance: 100Mohm 500V DC
- Length: 210 mmsWeight: 86 grs





RESISTANCE	49350001
0,5mm TIP	49350002
1mm TIP	49350003
3,0mm TIP	49350004

## Code 49350030 Mod. GOOT TQ-77

# WELDER WITH CERAMIC RESISTANCE AND 380° FIXED TEMPERATURE



"Made in JAPAN" high quality welder with ceramic resistance and 380° fixed temperature. Ergonomic handle for a secure and comfortable grip. New design allowing a perfect view of the tip. Indicatore di accensione. Power indicator.

- Power: 80 W
- Power supply: 230 VacTemperature: 380°C (fixed)
- Insulation resistance: >100Mohm 500V DC
- Length: 220 mmsWeight: 70 grs

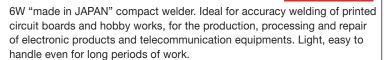




RESISTANCE	49350001
0,5mm TIP	49350002
1mm TIP	49350003
3.0mm TIP	49350004

## Code 49350070 Mod. GOOT MI-6-12V

## 12V COMPACT WELDER



- Power: 6 W
- Power supply: 12 Vac/ccLength: 150 mms
- Weight: 9 grs





RESISTANCE	49350071
CONICAL TIP ø 0,25mms	49350072
TIP ø 2.4mms	49350073

## Code 49352000 Mod. GOOT GP-510

## GAS WELDER



"Made in JAPAN" gas welder. It does not require mains or battery power, in fact it uses butane gas in the canister. It recharges in few seconds like a normal lighter. Ideal for the hobby sector.

- Gas type: Butane
- Ignition system: Piezo electric
- Max temperature: 580°C
- Length: 175 mms.
- Weight: 65 grs.





1mm TIP	49352001	
2,4mm TIP	49352002	
4,8mm TIP	49352003	





## Code 49031600

## RECHARGEABLE GAS MULTIFUNCTION WELDING PISTOL

Multifunction gas welding pistol with piezo electric ignition. Functions: open flame, welder, hot air. It does not require mains or battery power since it uses butane gas in a canister. It recharges in few seconds like a normal lighter. Ideal for the kitchen, electronics, DIY. Adjustable welding temperature between 210 and 410°C. Hot air temperature about 450°C. Free flame temperature about 1300°C. Supplied with table support.

- · Gas type: butane
- Open flame function
- Welder function
- Hot air function
- Ignition system: piezo electric Tank capacity 40mls Autonomy: max 75 min.



## Code 49031700

## RECHARGEABLE GAS MULTIFUNCTION WELDING STYLUS

Gas multifunction welding stylus with piezo electric ignition. Functions: open flame, welder, hot air. It does not require mains or battery power since it uses butane gas in a canister. It recharges in few seconds like a normal lighter. Ideal for the kitchen, electronics, DIY. Adjustable welding temperature between 210 and 410°C. Hot air temperature about 450°C. Free flame temperature about 1300°C.

- · Gas type: butane
- Open flame function
- Welder function
- Hot air function
- Ignition system: piezo electric Tank capacity 20mls Autonomy max 60 min.



## Code 49031800

## RECHARGEABLE GAS MULTIFUNCTION WELDING STYLUS

Gas multifunction welding stylus with piezo electric ignition. Functions: open flame, welder, hot air. It does not require mains or battery power since it uses butane gas in a canister. It recharges in few seconds like a normal lighter. Ideal for the kitchen, electronics, DIY. Adjustable welding temperature between 210 and 400°C. Hot air temperature about 450°C. Free flame temperature about 1300°C.

- Gas type: butane
- Open flame function
- Welder function
- Hot air function
- Ignition system: piezo electric
- Tank capacity 17mls
- Autonomy max 60 min.





## Code 49352070 Mod. GOOT TP-100

## **UNWELDING PISTOL WITH CERAMIC RESISTAN**

70W "made in JAPAN" high efficiency unwelding pistol with ceramic resistance. Equipped with temperature control, suitable for unwelding all types of components and easily removing the alloy residues

- Power: 70W
- Power supply: 230 VAC
- Temperature control range: 250-450°C
- Insulation resistance: 100Mohm 500V DC
- Temperature control system: Sensor feedback
- Suction system: diaphragm
- Max suction pressure: -0.08MPa (-600mmHg)
- Dimensions (LxHxD): 225 x 170 x 41 mms.
- Weight: 480 grs.



RESISTANCE	49352071
1mm TIP	49352072
1.5mm TIP	49352073

## Code 49400435 Mod. KMS-DESO

## **UNWELDING PUMP**

High suction capacity, ideal for detaching the printed components

- 40W-220 Vac/50Hz
- · Weight: 86 grs



## Code 49052625 Mod. KMS-P

## **UNWELDING PUMP**

High suction capacity, ideal for detaching the printed components. Structure with the lower part in metal, upper part in plastic.

· Weight: 65grs



## Code 49400220 Mod. KMS-11

## **CARD HOLDER FOR PRINTED CIRCUIT BOARDS**

Support system for electronic boards, very compact and adjustable in width so that it can be used with any size of printed circuit, up to max 170mms. Angle adjustable to 360°. The printed circuit can therefore be freely rotated to facilitate the component insertion and welding operations. Light alloy structure, easy to transport. It can be used for both professional and hobbistic applications, schools, laboratories, etc. Equipped with various knobs for adjusting the width and inclination. The support can therefore be used with various printed circuit measures without any problem.



## Code 49410900

## **WELDER HOLDER**

Metal welder holder with sponge for cleaning the tips



## Code 49006000

## ARTICULATED PRINTED CIRCUIT BOARD HOLDER

Complete with magnifying glass, pedestal and two adjustable arms in nickel-plated steel, with crocodile clips. Suitable for hobbyists and for laboratories, it allows the choice of the optimal working position for the welding and analysis of printed circuits.







## HARD TOOL CASE IN ALUMINUM

Rigid case in anodized aluminum, extremely robust and light.

Ideal for the protection and transport of delicate parts. Complete with two sturdy locks, corner protection and internal dividers to make the best use of the internal space and to increase protection furtherly.

Dimensions: 455 x 330 x 155 mms Max supportable weight: 15 kgs

## **AVAILABLE IN THE FOLLOWING COLORS**









Code H1001000 SILVER/METALLIZED

Code H1001015 BLUE Code H1001010 YELLOW Code H1001015 BLACK

Dimensions: 455 x 330 x 155 mms



## METAL TOOL CASE

Dimensions: 320 x 230 x 150 mms Max supportable weight: 7 kgs

## **AVAILABLE IN THE FOLLOWING COLORS**









Code H1001035 SILVER/METALLIZED

Code H1001025 BLUE Code H1001030 YELLOW Code H1001020 BLACK

Dimensions: 320 x 230 x 150 mms





## Code 49610910 Mod. KML-60

## **60-LED LABORATORY LAMP**

- 3 + 12 diopter lens
- lens diameter: 100mms
- 60 ultra-bright LEDs 4W
- 360 lumens
- White color
- Power supply: 230 Vac



360LM

Lamps particularly suitable for accuracy work, in the office, at home, in the laboratory or shops where small parts must be observed or assembly or repair work must be carried out.



## Code 49610975 Mod. KML-57B

## LABORATORY LAMP WITH MAGNIFYING GLASS



## Code 49610995 Mod. KML-2LM

## **DIMMABLE LED LABORATORY LAMP**

- 5 diopter lens
- lens diameter: 127mms
- 60 ultra bright SMD leds
- 850 lumens
- double light (warm and cold white)
- consumption 9W
- color temperature 3,500°K and 6,500°K
- high quality electronic circuit
- adjustable arm
- white color
- power supply 220/240Vac
- clamp connection







850LM

## Code 49610965 Mod. KML-95M

## LABORATORY LAMP WITH MAGNIFYING GLASS



## Code 49610985 Mod. KML-56M

OPTIONAL FLOOR STAND AVAILABLE

Code 49406227

## LABORATORY LAMP WITH MAGNIFYING GLASS





## Code 49210215 Mod. KMC-31A

## **CHRONOTHERMOSTAT**

Thermostat that can replace most household thermostats. To be used for heating and air conditioning systems. Clock and room temperature display. Each daily program is divided into 24 hours. "Holiday" mode programming. Large backlit LCD

- 7 programmable days
- Resistive load 8A at 250Vac
- Selectable temperature range: 5/30°C
- Power supply 2x AA batteries (not supplied)
- Dimensions (LxHxD): 128 x 95 x 28 mms.
- Weight 212 grs





















PROGRAMMABLE "TOUCH SCREEN"

LISTERE

## Code 49210020 Mod. KMC-8A

## **CHRONOTHERMOSTAT**

Thermostat that can replace most household thermostats. To be used for heating and air conditioning systems. Clock and room temperature display. Each daily program is divided into 24 hours. Reclosable control cover.

- 7 programmable days
- Resistive load 8A at 250Vac
- Selectable temperature range: 5/30°C
- Power supply 2x AA batteries (not supplied)
- Dimensions (LxHxD): 153 x 80 x 28 mms.
- Weight 156 grs



















DIGITAL - PROGRAMMABLE

## Code 49210165 Mod. KMC-433

## **CHRONOTHERMOSTAT**

Thermostat that can replace most household thermostats. To be used for heating and air conditioning systems. Radio frequency transmitter which can be installed on the wall or on a table with a support base in the desired room. Clock and room temperature display. Each day program is divided into 24 hours. Easy "One Touch Roller" programming.



- 7 programmable days
- Contacts max 250V 10A
- Selectable temperature 5/30°C
- Power supply of the transmitter 2x AA batteries (not supplie
- Transmission frequency 433,92 MHz
- Power supply of the receiver 230Vac
- Transmitter dimensions (LxHxD) 114 x 80 x 33.5 mms.
- Receiver dimensions (LxHxD) 110 x 77.5 x 31 mms.
- Kit weight 390grs



















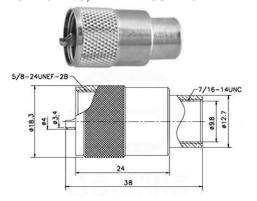


**DIGITAL - PROGRAMMABLE - WIRELESS** 



# UHF connectors and adapters

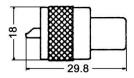
SCREW UHF MALE CONNECTOR, FOR RG-213U, DELRIN INSULATION



## Code I1002015

SCREW UHF MALE CONNECTOR, FOR RG-58U, TEFLON INSULATION

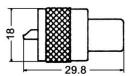




## Code I1002010

SCREW UHF MALE CONNECTOR, FOR RG-58U, BACHELITE INSULATION

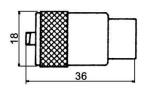




## Code I1002005

SCREW UHF MALE CONNECTOR, FOR RG-213U, BACHELITE INSULATION

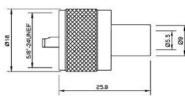




## Code I1002035

SCREW UHF MALE CONNECTOR, FOR RG-59U, BACHELITE INSULATION

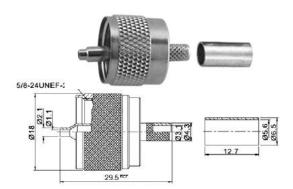




## Code I1002040

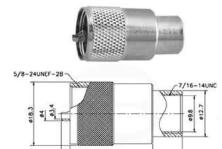
CRIMP-TYPE UHF MALE CONNECTOR FOR RG-58U, DELRIN INSULATION





## Code I1002045

SCREW UHF MALE CONNECTOR, FOR RG-213U, TEFLON INSULATION



24

## Code I1002050

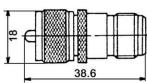
SCREW UHF MALE CONNECTOR, FOR RG-58U, DELRIN INSULATION



## Code I1002000

UHF MALE TO N FEMALE ADAPTER





## Code I1002025

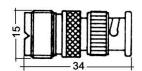
UHF MALE TO UHF FEMALE 90° ADAPTER



## Code I1003010

UHF FEMALE TO BNC MALE **ADAPTER** 

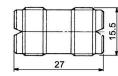




## Code I1003000

DOUBLE UHF FEMALE ADAPTER

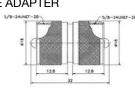




## Code I1002030

DOUBLE UHF MALE ADAPTER





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# SMA connectors and adapters

## Code |1001000

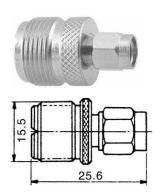
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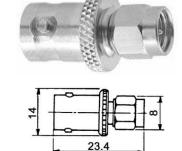
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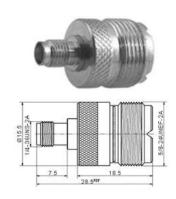
SMA MALE TO UHF FEMALE ADAPTER

SMA MALE TO BNC FEMALE ADAPTER

SMA FEMALE TO UHF FEMALE ADAPTER



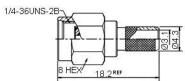




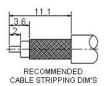
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CRIMP-TYPE SMA MALE CONNECTOR FOR RG-58U DELRIN INSULATION











## Code I1001020

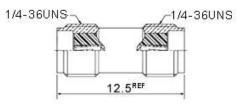
## SMA FEMALE TO BNC FEMALE ADAPTER

# 9.60

## Code I1001100

DOUBLE SMA FEMALE ADAPTER





# TNC connectors and adapters

22.3<sup>REF</sup>

## Code I1001500

TNC MALE TO UHF FEMALE ADAPTER



## Code | 11001505

TNC MALE TO BNC FEMALE ADAPTER



## Code I1001510

CRIMP-TYPE TNC MALE CONNECTOR FOR RG-213U DELRIN INSULATION

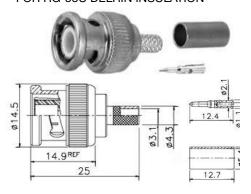




# BNC connectors and adapters

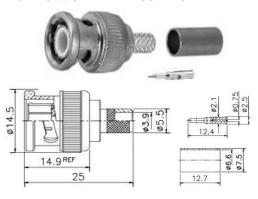
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CRIMP-TYPE BNC MALE CONNECTOR FOR RG-58U DELRIN INSULATION



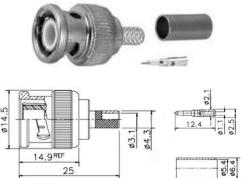
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CRIMP-TYPE BNC MALE CONNECTOR FOR RG-59U DELRIN INSULATION



## Code I1003610

CRIMP-TYPE BNC MALE CONNECTOR FOR RG-59U TEFLON INSULATION

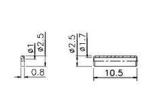


12.7

## Code I1003615

CRIMP-TYPE BNC MALE CONNECTOR FOR RG-174U DELRIN INSULATION

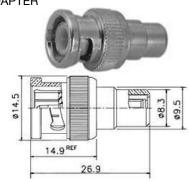






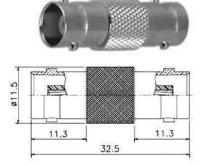
## Code I1003620

BNC MALE TO RCA FEMALE ADAPTER



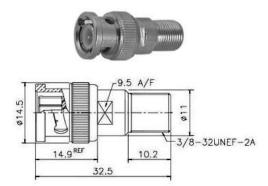
## Code I1003625

DOUBLE BNC FEMALE ADAPTER



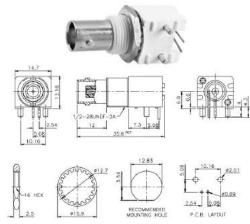
## Code I1003630

BNC MALE TO F FEMALE ADAPTER



## Code I1003635

90° BNC FEMALE CONNECTOR FOR C.S.

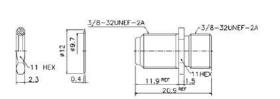


## F adapters

## Code I1003700

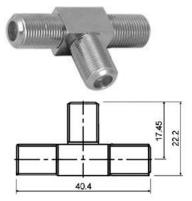
DOUBLE F FEMALE ADAPTER





## Code I1003705

TRIPLE F FEMALE ADAPTER





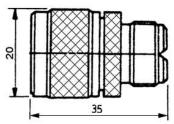


# N connectors and adapters

## Code I1002500

N MALE TO UHF FEMALE ADAPTEP

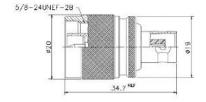




## Code | 11002515

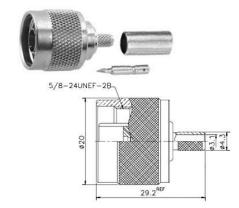
N MALE TO BNC FEMALE ADAPTER





## Code I1002505

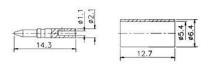
CRIMP-TYPE N MALE CONNECTOR FOR RG-58U DELRIN INSULATION



## Code I1002510

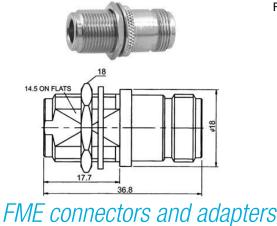
CRIMP-TYPE N MALE CONNECTOR FOR RG-58U TEFLON INSULATION





## Code I1002520

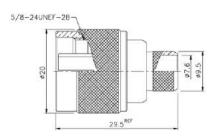
DOUBLE N FFMALE ADAPTER



## Code I1002525

CRIMP-TYPE N MALE CONNECTOR FOR RG-213U DELRIN INSULATION

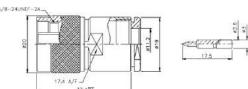




## Code I1002530

SCREW N MALE CONNECTOR FOR RG-213U TEFLON INSULATION





## Code <u>I1003500</u>

CRIMP-TYPE FME FEMALE CONNECTOR FOR RG-58U DFI RIN INSUI ATION



## Code I1003505

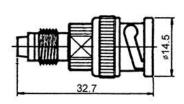
FME FEMALE TO TNC MALE ADAPTER



## Code I1003510

FME FEMALE TO BNC MALE ADAPTER

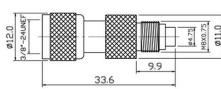




## Code I1003515

FME FEMALE TO MINI UHF MALE ADAPTER





## Code I1003520

FME FEMALE TO N MALE ADAPTER







## Code F1001100 Mod. JMS-3

## AM/FM/160 WATT/USB/BLUETOOTH

- 160 Watts (40W x 4 channels)
- Bluetooth audio streaming and control
- IPX6 waterproof
- Inputs: USB/AUX (RCA) in/out
- LCD display with adjustable lighting
- Integrated equalizer
- Salt and UV exposure resistant





## Code F1001105 MOD. MS-3A

## AM/FM/160 WATT/USB/APP READY/BLUETOOTH

- 160 Watts (40W x 4 channels)
- Bluetooth audio streaming and control
- IPX6 waterproof
- App ready for remote control from any iOS or Android device
- Inputs: USB/AUX (RCA) in/out
- LED display
- Integrated equalizer
- Salt and UV exposure resistant





## Code F1001110 MOD. MS-2A

## AM/FM/160 WATT/USB/APP READY/IPOD/IPHONE **READY/BLUETOOTH**

- 160 Watts (40W x 4 channels)
- Bluetooth audio streaming and control
- IPX5 waterproof
- App ready for remote control from any iOS or Android device
- Inputs: USB/AUX (RCA) in/out
- LCD display
- Integrated equalizer
- DIN standard format





## Code F1001120 MOD. POWER-760

#### **760W POWER AMPLIFIER**

- 75W x 4 channels 4 Ohm / 190W x 2 channels 4 Ohm
- · Mosfet power supply
- Short-circuit and overload protection circuit



## Code F1001150 MOD. MS-5006W

## WATERPROOF DUAL CONE-TYPE 5.25" WHITE SPEAKER

- 30 Watt max
- 4 Ohm
- Supplied individually
- MS-5006B version with black grille is also available upon request



## Code F1001160 MOD. MS-6007W

## WATERPROOF COAXIAL-TYPE 6.5" WHITE SPEAKER

- 60 Watt max
- 4 Ohm
- Supplied individually
- MS-6007B version with black grille is also available upon request







## 2-WAY MARINE SPEAKERS

- Pair of watertight and corrosion resistant loudspeakers
- Mylar dome-tweeter ø 50mms
- Easy to install
- Reduced magnetic emission
- Cone material: polypropylene
- White grilles (supplied)

Code F1001015 Mod. V-6002MA Code F1001000 Mod. V-5002MA





Diameter	Impedance	Power	Sensitivity	Magnet weight	Frequency response	Code
6,5"	4 Ohm	30W nominal - 60W max - 90W peak	87dB	433grs	80Hz ~ 20.000Hz	F1001015
5"	4 Ohm	20W nominal - 40W max - 60W peak	85dB	283grs	90Hz ~ 20.000Hz	F1001000

## WATERTIGHT CASES - SURVIVAL BOX SERIES

Watertight and floating cases, impact resistant, suitable for the transportation and storage of two-way radio devices, cameras, electronic equipment, etc.

FALKOS COMMUNICATIONS

- Internal padding, customizable with shaped foam rubber panels
- ABS closure, lockable, safe and airtight.
- Internal pressure control valve, useful for preventing any problems caused

by changes in external pressure or in altitude, therefore also ideal for aeronautical uses.







Туре	Color	External dimensions	Internal dimensions	Weight	Code
SMALL	BLACK	210 x 167 x 90 mm	186 x 123 x 75 mm	0,57 kg	F1002010
MEDIUM	ORANGE	330 x 280 x 120 mm	300 x 220 x 101 mm	1,6 kg	F1002006
MEDIUM	BLACK	330 x 280 x 120 mm	300 x 220 x 101 mm	1,6 kg	F1002005
LARGE	ORANGE	430 x 380 x 154 mm	395 x 320 x 143 mm	2,8 kg	F1002001
LARGE	BLACK	430 x 380 x 154 mm	395 x 320 x 143 mm	2,8 kg	F1002000
TROLLEY UP	BLACK	530 x 355 x 225 mm	510 x 292 x 175 mm	4,8 kg	F1002020



## **BINOCULARS FOR BOATING**

7X50MM OPTICS

 Code F1003000
 Mod. FC-750FF - FIXED FOCUS

 Code F1003003
 Mod. FC-750FC - CENTRAL FOCUS

Code F1003005 Mod. FC-750FW - INDIVIDUAL FOCUS





Focus	Porro prisms	Field of view	Lens treatment	Floating and waterproof	Rubber coating	Code
fixed	Bak-7	1000m: 119m	Fully coated		✓	F1003000
central	Bak-7	1000m: 114m	Fully coated		✓	F1003003
individual	Bak-4	1000m: 132m	Fully multi-coated	✓	✓	F1003005

Code B1001000 Mod. RG-58CK

100MT COIL

Code B1001500 Mod. RG-213TY

100MT COIL

Code B1002000 Mod. RF-8 MINI

100MT COIL

Code B1001502 Mod. RG-213TY

**50MT COIL** 





	RG-58 CK	RG-213 TY	RF-8 MINI
Conductor	Tinned copper	Red copper	Red copper
Conductor diameter	19 x 0.18 mm	7 x 0.75 mm	19 x 0.28 mm
Insulation diameter	2.95 mm	7.25 mm	3.9 mm
Shielding	Tinned copper. 100 x 0.10mm, 76%	Red copper. 240 x 0.13mm, 93%	Tinned copper, 95%
Sheath	PVC2, ø 5.00 mm	PVC2, Ø 10.30 mm	PVC2, ø 6.10 mm
Impedance	50 Ohm	50 Ohm	50 Ohm
Spreading speed	66%	66%	80%
Capacity (pF/m)	100	100	80
Attenuation dB/100m (25°C)	9.7 (50MHz) ~ 14 (100MHz) 20.5 (200MHz) ~ 30.2 (400MHz) 34.5 (500MHz) ~ 38.3 (600MHz) 47.4 (860MHz) ~ 52.3 (1000MHz)	4.5 (50MHz) ~ 6.6 (100MHz) 9.8 (200MHz) ~ 14.1 (400MHz) 15.8 (500Mhz) ~ 17.5 (600Mhz) 21.0 (800MHz) ~ 23.9 (1000MHz)	10.5 (100MHz) ~ 22.2 (400MHz) 27.6 (600MHz) ~ 37.0 (1000MHz) 51.6 (1750MHz) ~ 64.5 (2400MHz)
Shielding efficiency	> 50 dB	>57 dB	> 55 dB
Total weight	34 kg/km	150 kg/km	51.5 kg/km





## Code A1001100 Mod. FAV-105

## **VHF NAUTICAL ANTENNA**

Omnidirectional VHF (156-163MHz) fiberglass antenna

- Length: 1mt .; supplied with 4,5mt white RG-58U cable and PL-259 disconnected (not supplied)
- Sections: 1
- Gain: 3.5dBi
- R.O.S .: lower than 1.5
- Maximum power: 50W
- Polarization: vertical
- Material: fiberglass, copper, stainless steel
- Weight: 48grs
- Mounting: 1"-14 female
- Type: DC-Grounded





## Code A1001102 Mod. FAV-240

## **VHF NAUTICAL ANTENNA**

Omnidirectional VHF (156-163MHz) fiberglass antenna

- Length: 2,4mts.; supplied with 4,5mt white RG-58U cable and PL-259 disconnected (not supplied)
- Sections: 1
- Gain: **6,5dBi**
- R.O.S .: lower than 1.5
- Maximum power: 50W
- Polarization: vertical
- Material: fiberglass, ABS
- Weight: 1Kg
- Mounting: 1"-14 female
- Type: DC-Grounded
- \*Base not supplied



## ALKOS COMMUNICATIONS

## Code A1001000 Mod. SA-320

## **GPS ANTENNA**

- Antenna with built-in GPS
- 12-parallel channel receiver
- Low consumption rapid TTFF coupling
- Filter for interferences generated by VHF channels and marine radars
- WAAS compatible with EGNOS support
- Sensitivity: -143 dBm
- Refresh rate: 1 Hz
- Weight: 240 grs
- Protocols: EverMore at 4800/9600 baud, 8N1, NMEA 0183 v.2.20 at 4800 baud, NMEA GGA, GLL, GSA, GSV, RMC and VTG messages
- Power supply: 9VDC 34VDC
- Supplied with 5mt antenna cable, threaded adapter, a pair of screws, drilling template and user manual

EATHER:

BANTEN

## Code A1001110 Mod. FMB-401

## 2-WAY NYLON UNIVERSAL COLLAPSIBLE BASE WITH LOCKING LEVER

- Type: mount
- · Color: white
- Mounting: 1" 14 male thread
- Hole for cable passage

## Code A1001332 Mod. 154

## SINGLE JOINT NYLON COLLAPSIBLE BASE, STAINLESS STEEL SCREWS 18/8 (A2)

- · Type: mount
- · Color: white
- Mounting: 1" 14 male thread
- Hole for cable passage

## Code A1001331 Mod. 54

## DOUBLE JOINT NYLON COLLAPSIBLE BASE, STAINLESS STEEL SCREWS 18/8 (A2)

- Type: mount
- · Color: white
- Mounting: 1" 14 male thread
- Hole for cable passage



## Code A1001330 Mod. 9054

## SINGLE JOINT NYLON COLLAPSIBLE BASE

- Type: mount
- Color: white
- Weight: 0,51
- Mounting: FAST FIT System



## Code A1001335

## **NAVY BRACKET Ø 26 MMS**

- Type: mounting
- Type: stainless steel
- Weight: 0,7
- Weight: 0,70
- 2 pcs









## **BANTEN ANTENNAS**

## Code A1001320 Mod. Navy-500

## NAVY-500 SSB-HF 5M 2PCS

- Frequency: 1.6 30Mhz
- Antenna: Whip monopole
- Length: 5.00mts.
- Type: whip fiberglass
- Finish: polyurethane paint
- Color: White RAL 9001
- Weight: 3 kgs
- Ext diameter: 40 mms
- Sections: 2
- Cable or connector: Fast connection monopole
- Electric length: 5.00mts
- Polarization: Vertical
- Maximum power: 500 W
- Working temperature: -35°C+80°C
- Maximum resistance to wind: 150 Km/h
- Torsion at the base: 75 N
- Lightning protection: NOShorted to ground: NO

## Column

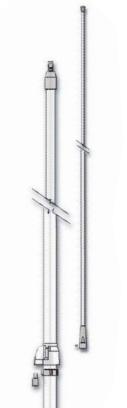


CETTERS

## Code A1001321 Mod. 700ML COIN

## 700ML COIL SSB-HF 7M 2PCS

- Type: antenna
- Band: HF / SSB
- Frequency: 1.6 30Mhz
- Antenna: Whip monopole
- Length: 7.00mts
- Type: whip fiberglass
- Finish: polyurethane paint
- Color: White RAL 9001
- Weight: 3.50kgs
- Ext diameter: 40mms
- Sections: 2
- Mounting: on deck flange
- Cable or connector: Fast connection monopole
- Electric length: 6.80 mts
- Polarization: Vertical
- Maximum power: 800W
- Working temperature: -35°C+80°C
- Maximum resistance to wind: 150 Km/h
- Torsion at the base: 150 N
- Lightning protection: NO
- Shorted to ground: NO

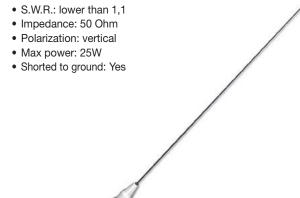


Carras

## Code A1001315 Mod. BUDGET INOX

## **BUDGET INOX VHF 1M 3DB C/RG58 5M**

- Type: antenna
- Band: VHF
- Frequency: 156-162 Mhz
- Length: 1mt
- Material: stainless steel
- Type: stainless whip
- Sections: 1
- Mounting: 1"-14 female
- Cable: 5,00 mts RG58
- Gain: 3dBi



## Code A1001313 Mod. BUDGET MAST INOX

## BANYET

## **BUDGET MAST INOX VHF 1M 3DB WITH ALUMINUM BRACKET**

- Type: antenna
- Band: VHF
- Frequency: 156-162 Mhz
- Length: 1mt
- Material: stainless steel
- Type: stainless whip
- Sections: 1
- Mounting: aluminum L bracket
- Cable or connector: PL connector
- Gain: 3dBi
- S.W.R.: lower than 1,1
- Impedance: 50 Ohm
- Polarization: vertical
- Max power: 25W
- Shorted to ground: Yes







CETTER

## BANTEN ANTENNAS

## Code A1001300 Mod. DB/6/N

## BANYEN SPARK DB/6/N VHF 1,5M 3DB C/RG58 5M

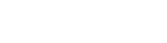
#### • Type: antenna

- Band: VHF
- Frequency: 156-162 Mhz
- Length: 1.50mt
- Material: Nylon
- Type: fiberglass whip
- Finish: polyurethane paint
- · Color: white
- Weight: 0.40
- Sections: 1
- Mounting: 1"-14 female
- Cable 5.00mts RG 58
- Gain: 3 dBi
- S.W.R .: lower than 1.5
- Impedance: 50 Ohm
- Polarization: Vertical
- Maximum power: 25 W
- Lightning protection: YES • Shorted to ground: YES



## **FASTFIT VHF 1,5M 3DB**

- Type: antenna
- Band: VHF
- Frequency: 156-162 Mhz
- Length: 1.50mt
- Material: Nylon
- Type: fiberglass whip
- Finish: polyurethane paint
- · Color: white
- Weight: 0.30
- Sections: 1
- Mounting: Fast Fit System
- Connector: fastfit connector
- Gain: 3 dBi
- S.W.R .: lower than 1.5
- Impedance: 50 Ohm
- Polarization: Vertical
- Maximum power: 25 W • Lightning protection: Yes
- Shorted to ground: Yes



## Code A1001301 Mod. SPARK DB/12/C

## **SPARK DB/12/C VHF 2,5M 6DB C/RG58 5M**

- Type: antenna
- Band: VHF
- Frequency: 156-162 Mhz
- Length: 2.50mts
- Material: chrome-plated brass
- Type: fiberglass whip
- Finish: polyurethane paint
- Color: white
- Weight: 0.60
- Sections: 1
- Mounting: 1"-14 female
- Cable 5.00mts RG 58
- Gain: 6 dBi
- S.W.R .: lower than 1.5
- Impedance: 50 Ohm
- Polarization: Vertical
- Maximum power: 25 W
- Lightning protection: YES
- Shorted to ground: YES

## Code A1001311 SPARK BUDGET GRP VHF FIBER

## BANYEN

## SPARK BUDGET GRP VHF FIBER 1M 3DB C/RG58 5M

- Type: antenna
- Band: VHF
- Frequency: 156-162 Mhz
- Length: 1.20mt
- Material: Nylon
- Type: fiberglass whip
- Finish: polyurethane paint
- Color: white
- Weight: 0.29
- Sections: 1
- Mounting: 1"-14 female
- Cable 5.00mts RG 58
- Gain: 3 dBi
- S.W.R .: lower than 1.5
- Impedance: 50 Ohm
- · Polarization: Vertical
- Maximum power: 25 W
- Lightning protection: Yes
- Shorted to ground: Yes

## Code A1001310 SPARK BUDGET MAST

## SPARK BUDGET MAST VHF FIBER 1M

## 3DB

## WITH ALUMINUM BRACKET

- Type: antenna
- Band: VHF
- Frequency: 156-162 Mhz
- Length: 1.20mt
- Material: Nylon
- Type: fiberglass whip
- Finish: polyurethane paint
- Color: white
- Weight: 0.25
- Sections: 1

- Mounting: aluminum L bracket
- Cable or connector: PL connector
- Gain: 3 dBi
- S.W.R.: lower than 1,3
- Impedance: 50 Ohm
- Polarization: Vertical
- Maximum power: 25 W
- Lightning protection: Yes • Shorted to ground: Yes







## COMET BASE ANTENNAS

## **BASE HF/50MHz**

## Code CABSA0070 Mod. H-422

## TRAPPED DIPOLE 7/14/21/28MHz BASE

- Length: 10.3mts (with horizontal dipole)
- Length: 7.4 mts (with vertical dipole)
- Weight: 5.4kgs
- Broadband: no adjustment for 21/28 MHz band
- Frequency: 7/14/21/28MHz
- Max power: 1KW SSB
- Surface exposed to the wind: 0.28 m<sup>2</sup>
- Installation shaft diameter: 38~62mms
- Connector: SO-239

## COMET

## Code CABSA0060 Mod. CA-52HB2



## YAGI BASE ANTENNA 50~53MHz 6.3dBi 2 ELEMENTS HB9CV

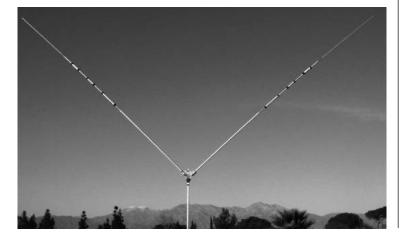
- Arm length: 75cmsRotation radius: 154cms
- Elements max length: 297cms
- Weight: 910grs
- Frequency: 50~53MHz
- Max power: 400W SSB
- Installation support diameter: 25~65mms
- Wind resistance: 35mts/sec
- Surface exposed to the wind: 0.054m<sup>2</sup>
- Connector: SO-239

## Code CABSA0061 Mod. CA-52HB4

## YAGI BASE ANTENNA 50~53MHz 10.4dBi 4 ELEMENTS HB9CV

- Arm length: 320cms
- Rotation radius: 222cms
- Elements max length: 297cms
- Weight: 2.1Kgs
- Frequency: 50~53.5MHz
- Max power: 400W SSB
- Installation support diameter: 25~65mms
- Wind resistance: 35mts/sec
- Surface exposed to the wind: 0.19m²
- Connector: SO-239



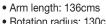


## **MONOBAND BASE**

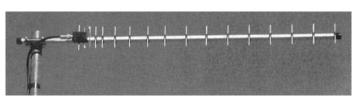
## Code CABSA0050 Mod. CYA-1216E

## YAGI BASE ANTENNA 16 ELEMENTS 1200MHz





- Rotation radius: 130cmsWeight: 640grs
- Frequency: 1260~1300MHz
- Gain: 16.6dBi
- Max power: 100W FM 200W SSB
- Installation support diameter: 25~65mms
- Wind resistance: 45mts/sec
- Surface exposed to the wind: 0.04m²
- D-STAR compatible
- Connector: N female



## Code CABSA0007 Mod. GP-21

## BASE ANTENNA 1200MHz: 14.9dBi

- Length: 242cms
- Radius length: 7,5cms
- Weight: 1,2Kgs
- Frequency: 1200MHz: 21 step Air-core Type: collinear
- Max power: 100W FM
- Wind resistance: 50mts/sec
- D-STAR compatible
- Connector: N female









## **DUAL BAND BASE**

## Code CABSA0001 Mod. GP-1N

## V/UHF BASE ANTENNA 144MHz: 3dBi / 430MHz : 6dBi

· Length: 125cms • Radius length: 3x17cms

• Weight: 0,89Kgs

• Frequency: 144MHz: 1/2λ

430MHz: 5/8λ 3 steps

• Max power: 200W SSB

• Wide reception: 100~170.350~470MHz

• Wind resistance: 60mts/sec D-STAR compatible · Connector: N female

## Code CABSA0002 Mod. GP-3N

## V/UHF BASE ANTENNA 144MHz: 4.5dBi / 430MHz: 7.2dBi

• Length: 178cms

• Radius length: 3x17cms

• Weight: 1,16Kg

• Frequency: 144MHz: 6/8λ 2 steps 430MHz: 5/8λ 3 steps

• Max power: 200W SSB

• Wide reception: 100~170.350~470MHz

• Wind resistance: 60mts/sec

• D-STAR compatible

· Connector: N female

## Code CABSA0003 Mod. GP-5N

## V/UHF BASE ANTENNA 144MHz: 6.0dBi / 430MHz: 8.6dBi

• Length: 242cms • Radius length: 49cms • Weight: 1,27Kgs

• Frequency: 144MHz: 5/8λ 2 steps 430MHz: 5/8λ 4 steps

• Max power: 200W SSB

• Wide reception: 100~170.350~470MHz

• Wind resistance: 50mts/sec • D-STAR compatible

· Connector: N female

## Code CABSA0004 Mod. GP-6N

## V/UHF BASE ANTENNA 144MHz: 6.5dBi / 430MHz: 9.0dBi

• Length: 307cms • Radius length: 49cms • Weight: 1,6Kg

• Frequency: 144MHz: 5/8λ 2 steps C phase

430MHz: 5/8λ 5 steps

• Max power: 200W SSB

Wide reception: 100~170.350~470MHz

• Wind resistance: 40mts/sec D-STAR compatible · Connector: N female

## Code CABSA0005 Mod. GP-9N

## V/UHF BASE ANTENNA 144MHz: 8.5dBi / 430MHz: 11.9dBi

• Length: 515cms · Radius length: 49cms

• Weight: 2,2Kgs

• Frequency: 144MHz: 5/8λ 3 steps C phase 430MHz: 5/8λ 8 steps

• Max power: 200W SSB

Wide reception: 100~170.350~470MHz

• Wind resistance: 30mts/sec • D-STAR compatible

· Connector: N female



## **TRIBAND BASE**

## Code CABSA0006 Mod. GP-15N

## 50V/UHF BASE ANTENNA 50MHz: 3dBi / 144MHz: 6.2dBi / 430MHz: 8.6dBi

• Length: 242cms

• Radius length for 50MHz: 5,77cms

• Radius length: 49cms x2

• Weight: 1,2Kg

• Frequency: 50MHz: 5/8λ 144MHz: 5/8v 2 steps

430MHz: 5/8λ 4 steps

• Max power: 300W SSB

• Wide reception: 100~170.350~470MHz

• Wind resistance: 50mts/sec

• The adjustment element is a standard function for the 50MHz band (adjustment range

1,2MHz between 50-53MHz)

• D-STAR compatible · Connector: N female

Code CABSA0009 Mod. GP-95N

## V/UHF/1200 BASE ANTENNA 144MHz: 6.0dBi / 430MHz: 8.6dBi / 1200MHz: 12.8dBi

• Length: 242cms • Radius length: 49cms

• Weight: 1,28Kg

• Frequency: 144MHz: 5/8λ 2 steps 430MHz: 5/8λ 4 steps

1200MHz: 5/8λ 9 steps

• Max power: 300W SSB (144MHz)

200W SSB (430/1200MHz)

• Wide reception: 100~170.350~470.840~1400MHz

• Wind resistance: 50mts/sec

 D-STAR compatible · Connector: N female

## Code CABSA0008 Mod. GP-93N

## V/UHF/1200 BASE ANTENNA 144MHz: 4.5dBi/ 430MHz: 7.2dBi / 1200MHz: 10.0dBi

 Length: 178cms Radius length: 17cms • Weight: 1,15Kg

• Frequency: 144MHz: 5/8λ C phase 430MHz: 5/8λ 3 steps 1200MHz: 5/8λ 6 steps Max power: 300W SSB (144MHz) 200W SSB (430/1200MHz) • Wide reception: 100~170.350~470.840~140MHz Wind resistance: 60mts/sec D-STAR compatible







## COMET ANTENNAS FOR MOBILE DEVICES

## **FOR MOBILE DEVICES**

## Code CAHHA0001 Mod. SMA-3

## V/UHF/900 FLEXIBLE PORTABLE ANTENNA 144/430/900MHz

- Length: 25cmsWeight: 30grs
- Frequency: 144/430/900MHz
- (reception: 118~160/250~290/360~390/420~

470/820~900MHz)

• Max power: 10W (FM)

• D-STAR compatible

• Connector: SMA male



## Code CAHHA0002 Mod. SMA-209

## V/UHF FLEXIBLE PORTABLE ANTENNA 144/430MHz

- Length: 7cmsWeight: 20grs
- Frequency: 144/430MHz 300MHz reception
- Max power: 5W (FM)Connector: SMA male





## COMET BASE/VEHICULAR ANTENNAS

## **RECEPTION BASE**

## Code CABSA0100 Mod. AB-380

## **RX BASE AERONAUTICAL ANTENNA**

- Length: 117cmsWeight: 520grsImpedance: 50Ω
- Reception frequency: VHF 108~140MHz UHF 220~400MHz
- Gain: VHF 3.0dBi UHF 4.5 dBi
  Wave: VHF 1/2λ UHF 5/8λ 2 steps
- Max power: 50W
- Frequency range TX: VHF 128+-1.5MHz UHF 350~390MHz
- Installation support diameter: 10~50mms
- 10mt RG-58A/U cableConnector: PL-259





## COLLAPSIBLE HR SERIES HF MONOBAND VEHICULAR ANTENNAS

## Code CAMOA0050 Mod. HR-7

## **HF VEHICULAR ANTENNA**

- Length: 213cmsWeight: 490grs
- Frequency range: 7 MHz 1/4λ
- Max power: 120W SSBImpedance: 50 ohmConnector: PL 259

## Code CAMOA0052 Mod. HR-50

## HF VEHICULAR ANTENNA

- Length: 213cmsWeight: 490grs
- Frequency range: 50 MHz 1/2λ
- Gain: 2.15dBi
- Max power: 200W SSBImpedance: 50 ohmConnector: PL 259

## Code CAMOA0051 Mod. HR-14

## HF VEHICULAR ANTENNA

- Length: 213cmsWeight: 500grs
- Frequency range: 14 MHz 1/4λ
- Max power: 200W SSBImpedance: 50 ohm
- Connector: PL 259
- COMET





## **DUAL BAND VEHICULAR ANTENNAS**

## Code CAMOA0001 Mod. CHL-19

## V/UHF COLLAPSIBLE VEHICULAR ANTENNA 144MHz: 2.15dBi NON-RADIAL / 430MHZ: 4.15dBi NON-RADIAL

- Length: 68cmsWeight: 150grs
- Frequency: 144MHz: 1/2λ 430MHz: 5/8λ
   Wide reception: 100~170.350~470MHz
- Max power: 144/120W 430/100W
- D-STAR compatiblePL-259 connector

## COMET

## Code CAMOA0003 Mod. CHL-250H

## V/UHF COLLAPSIBLE VEHICULAR ANTENNA 144MHz: 3.00dBi NON-RADIAL / 430MHZ: 5.55dBi NON-RADIAL

- Length: 95cmsWeight: 330grs
- Frequency: 144MHz: 1/2λ 430MHz: 5/8λ 2-step
- Wide reception: 100~170.350~470MHz
- Max power: 144/200W 430/200W
- D-STAR compatible
- PL-259 connector

## COMET

## Code CAMOA0011 Mod. SB-1

## V/UHF FLEXIBLE VEHICULAR ANTENNA 144MHz: 1.5dBi NON-RADIAL / 430MHZ: 2.15dBi NON-RADIAL

- Length: 41cms
- Weight: 100grs
- Frequency: 144MHz: 1/4λ 430MHz: 1/2λ
- Wide reception: 100~170.350~470MHz
- Max power: 60W (FM)
- D-STAR compatible
- PL-259 connector



## Code CAMOA0002 Mod. CHL-25S

## V/UHF COLLAPSIBLE VEHICULAR ANTENNA 144MHz: 2.15dBi NON-RADIAL / 430MHz: 5.5dBi NON-RADIAL

- Length: 98cms
- Weight: 210grs
- Frequency: 144MHz: 1/2λ 430MHz: 5/8λ 2-step
- Wide reception: 100~170.350~470MHz
- Max power: 200W
- D-STAR compatible
- PL-259 connector

## COMET

## Code CAMOA0010 Mod. SB-0

## V/UHF VEHICULAR ANTENNA 144MHz: 2.15dBi NON-RADIAL / 430MHZ: 2.15dBi NON-RADIAL

- Length: 31cms
- · Weight: 80grs
- Frequency: 144MHz: 1/4 $\lambda$  430MHz: 1/2 $\lambda$
- Wide reception: 100~170.350~470MHz
- Max power: 60W (FM)
- D-STAR compatible
- PL-259 connector



## Code CAMOA0012 Mod. SB-2

## V/UHF VEHICULAR ANTENNA

144MHz: 1.5dBi NON-RADIAL / 430MHZ: 2.15dBi NON-RADIAL

- Length: 46cms
- Weight: 105grs
- Frequency: 144MHz: 1/4λ 430MHz: 5/8λ C phase
- Wide reception: 100~170.350~470MHz
- Max power: 60W (FM)
- D-STAR compatible
- PL-259 connector







## Code CAMOA0013 Mod. SB-3

## V/UHF COLLAPSIBLE VEHICULAR ANTENNA 144MHz: 2.15dBi NON-RADIAL / 430MHz: 5.0dBi NON-RADIAL

· Length: 66cms • Weight: 140grs

• Frequency: 144MHz: 1/4λ 430MHz: 5/8λ 2-step

• Wide reception: 100~170.350~470MHz

• Max power: 60W (FM) D-STAR compatible • PL-259 connector

## Code CAMOA0015 Mod. SB-5

## V/UHF COLLAPSIBLE VEHICULAR ANTENNA 144MHz: 3.0dBi NON-RADIAL / 430MHz: 5.5dBi NON-RADIAL

• Length: 95cms • Weight: 170grs

• Frequency: 144MHz: 1/2λ 430MHz: 5/8λ 2-step

Wide reception: 100~170.350~470MHz

• Max power: 120W (FM) D-STAR compatible PL-259 connector

## Code CAMOA0014 Mod. SB-4

## V/UHF COLLAPSIBLE VEHICULAR ANTENNA 144MHz: 3.0dBi NON-RADIAL / 430MHz: 5.5dBi NON-RADIAL

• Length: 92cms • Weight: 135grs

• Frequency: 144MHz: 1/2λ 430MHz: 5/8λ 2-step • Wide reception: 100~170.350~470MHz

 Max power: 60W (FM) • D-STAR compatible

• PL-259 connector

## ⊂ØM€T

## Code CAMOA0030 Mod. M-24M

## V/UHF VEHICULAR ANTENNA WITH MAGNETIC BASE 144MHZ: 1.7dBi / 430MHz 4.15dBi NON-RADIAL

· Length: 48cms • Weight: 500grs

• Frequency: 144MHz: 3/8λ 430Mhz: 1/4λ+5/8λ 2-step

• Max power: 80W (FM) • Cable: RG-58U 4mts • Connector: PL-259



## TRIBAND VEHICULAR ANTENNAS

## Code CAMOA0016 Mod. SB-15

## 50/V/UHF COLLAPSIBLE VEHICULAR ANTENNA

50MHz: 2.15dBi / 144MHz: 4.5dBi

/ 430MHz: 7.2dBi

• Length: 153cms

• Weight: 410grs

• Frequency: 50MHz: 1/4λ 144MHz: 6/8λ C phase 430MHz: 5/8λ 3-step

Max power: 120W (FM)

• D-STAR compatible • PL-259 connector

COMET

## **COAXIAL SWITCHES**





	Code CAACC0010 Mod. CSW-201G	Code CAACC0011 Mod. CSW-201GN	
Frequency	0 ~ 600 MHz	0 ~ 1800 MHz	
Max applicable power (PEP)	0 ~ 30 MHz: 1.5kW 30 ~ 150 MHz: 1kW 150 ~ 600 MHz: 500W	0 ~ 30 MHz: 1500kW 30 ~ 600MHz: 500W 600 ~ 1800 MHz: 150W	
Insertion loss	< 0.12dBi	< 0.12dBi	
Insulation	> 60dBi	CC ~ 600MHz: > 60dBi 600 ~ 1800 MHz > 45dBi	
Connectors	SO-239 (gold-plated)	N (gold-plated)	

## SUPPRESSORS ON A COAXIAL LINE





The state of the s		
8	CAACC0001 Mod. CS-290R	CAACC0002 Mod. CS-290P
Frequency	CC ~ 1500MHz	CC ~ 1500MHz
Max power (PEP)	300W	300W
Insertion loss	<0.1dB	<0.1dB
ROS	<1.1	<1.1
Dimensions	76 x 41 x 20mms	86 x 41 x 20mms
Connector	N female /N female	N female /N male

## **MOUNTING BRACKETS**

## CAMBK0001 Mod. RS-580

Trunk/tailgate foldable/tilt bracket



CAMBK0002 Mod. RS-660U Luggage rack

foldable/tilt bracket

CAMBK0003 Mod. RS-6 Pole foldable/tilt bracket





## PRO EQUIP MICROPHONES WITH EARPHONE

## Code ICMIC0500 Mod. PRO-P180LA

## AIR MICROPHONE/EARPHONE

FOR ICOM SERIES

- IC-F29SR/DR
- IC-F1000/F2000/D
- IC-F3002/F4002
- IC-F3032/F4032





# Code ICMICO503 Mod. PRO-P232LA

FOR ICOM SERIES

- IC-F29SR/DR
- IC-F1000/F2000/D
- IC-F3002/F4002
- IC-F3032/F4032





## Code ICMICO501 Mod. PRO-P180SC

## AIR MICROPHONE/EARPHONE

FOR ICOM SERIES

- IC-M87
- IC-F51/61V
- IC-F3162/F4162





## Code ICMICO505 Mod. PRO-P280SA

## AIR MICROPHONE/EARPHONE

FOR ICOM SERIES

- IC-F52D/62D
- IC-F3262/F4262





## Code ICMICO510 Mod. PRO-P220LP

## AIR MICROPHONE/EARPHONE

FOR ICOM SERIES

- IP100
- ID-51E





## CORDURA CASE FOR SHOULDER-MOUNTED PORTABLE DEVICES, 3 HOOKS OR ON BELT

C1007000 - Universal case SMALL - 60mms (L) x 40mms (D) x 60mms (H) - 110mms (AS)

C1007005 - Universal case LARGE - 60mms (L) x 40mms (D) x 85mms (H) - 140mms (AS)









## IP100H/IP1000C

Communication system

on wireless LAN networks and on IP networks

Code ICNET0001 IP100H#13

Code ICNET0005 IP100C#12 100 users











The system provides the possibility to contact any person of your staff at any time and anywhere with an immediate, effective and secure communication system. You can choose whether to make a voice call to one person only or to several people at the same time, whether to send a message or to contact only the personnel located at a certain point of your structure with the immediacy of a device that can be used even by hand free. Everything without any call costs.

The system is especially suitable for:

- hotels and tourist villages
- · shopping centers and department stores
- restaurants/catering
- factories
- hospitals
- tunnels and underground buildings
- private communications on boats

## No license fees

No payment of annual fees is required for installation and use. It uses IEEE 802.11 a/b/g/n standard.

## Communicate safely

Your conversation remains private thanks to the encryption ensured by wireless security protocols (WPA-PSK/WPA-PSK2).

## Simultaneous use

Multiple simultaneous communications in the system are possible. Through the use of special optional headphones/microphones, the IP100H transceiver can receive and transmit simultaneously as in a normal telephone conversation (full duplex).

## **Terminal position information**

The optional IP100FS software can receive information on the position of each transceiver based on the access point to which it is registered and graphically display it on the screen.

## Simple management

The IP1000C controller can configure most of the operating parameters of the remote transceiver.

It is therefore not necessary to connect each individual terminal to the PC, except at the time of its first entry into the system. Information such as preprogrammed text messages, address book, ID list, etc., can be changed remotely and the IP100H synchronizes with the new information when it is turned on.

Two different controllers are available: up to 20 users and up to 100 users.

## Different types of calls

IP100H terminals and IP100FS remote communicator software can make individual, group, general and area calls. This last exclusive general call feature allows you to call any user who accesses a specific access point.

pag. 74

## Mixing function

This function allows you to receive entries from multiple users simultaneously. In this way, point-to-multipoint communication is possible, thus increasing the efficiency of information sharing.

#### Roaming

In a network consisting of two or more access points connected via IP, a transceiver can roam from one access point to the other without losing the communication.

## Short text messages and status

IP100H terminals and IP100FS\* remote communicator software allow sending short text and status messages\*\* to the other users of the system. When a message is received, it can be decided that the IP100H vibrates decisively or emits an acoustic signal (pager function).

- \* For IP100FS it is possible to send free text messages
- \*\* For IP100H it is only possible to send pre-programmed messages.

## Remote Monitor, Kill, Revive and Stun\* functions

If you are in a state of emergency, the IP100FS can require a specific IP100H to transmit the audio picked up by the microphone to monitor what is happening.

The "Stun" command allows you to remotely disable a radio in transmission, with the "Revive" command you can - always remotely - restore its functionality. In the most extreme cases, as in case of theft, it is possible to make it completely unusable with the "Kill" command; in this case the device can only be restored in the laboratory.

\* Commands that can only be sent by IP100FS.

IP100H is supplied with a double antenna: one external and one contained within

It is possible to choose which antenna to use.

## IPX7 waterproof rating (IP100H only)

IP100H can withstand submerged in the water up to a depth of 1 meter fo r 30 minutes.

## Interconnection between IP telephone and transceiver

Through the VE-PG3 RoIP gateway the advanced IP radio system can connect with an IP phone, a PABX switchboard, an IDAS™ NXDN™ analog or digital radio network.

Supplied with: BP-271 lithium ion battery, antenna, belt clip and user manual

IP100H terminals require a radio server (IP1000C#12 for a max. management of 100 terminals) to communicate.

## You can add to the system:

- IP100FS optional software, which acts as a virtual radio on PC and dispatcher (simple operations center)
- Icom AP-90M access point; the system works even with a third party\* access point (IEEE 802.11 a/b/g/n standard)
- \* Icom does not guarantee its compatibility with all the brands on the mar-
- RS-AP3 access point management software







ICOM announces the debut of the new IC-R6 portable receiver. This new model has got the main features of its popular predecessor to which new features are added in a newly designed case.

- Wide operating range from 100 kHz to 1309.955 MHz in AM, FM FMW
- High scanning speed up to 100 ch/sec

IC-R6

- Operating autonomy up to 15 hours of reception (with supplied rechargeable batteries), 50 mW audio output and 8 ohm external speaker.
- 1300 total memory channels that can be divided into 22 banks, 50 memories for scanning limits and 200 memories with automatic recording function
- 150 mW audio output
- VSC squelch audio control function
- Earphone with antenna for aeronautical range reception, AM and FM broadcast
- Control from PC through an optional CI-V interface
- Optional desktop battery charger (BC-194)

## Wide reception range, from 0.100 to 1309.995 MHz

IC-R6 extends the receiving frequency down starting from 100 kHz. You can listen to amateur radio broadcasts, AM (medium waves), FM, broadcast short-wave stations, audio of analog television broadcasts (listening to digital TV broadcast audio is not possible) and a variety of utility stations.

## Fast scan, up to 100 channels per second.

In VFO mode it is possible to obtain a scan rate of 100 channels per second. That increases its potentiality and efficiency when searching across the spectrum up to 1300 MHz. Various scanning modes: full scan - scan by band - programmed scan - scan with automatic recording in memory - scan between memories - priority scan - scan among memory banks - scan on selected channels - scan on sub-audio tones - link scan.

## Up to 15 hours of autonomy

IC-R6 has been designed to achieve maximum operating efficiency

## Code ICREC0101

and the lowest possible power consumption. With its Ni-MH rechargeable batteries (supplied), it can provide up to 15 hours of continuous reception (50 mW audio output on an external 80hm loudspeaker).

1300 memory channels, 22 banks with alphanumeric characters.

IC-R6 can offer 1300 memories, 50 scan limits and 200 memories with automatic recording. The standard 1300 memory channels can be grouped into 22 banks (max 100 channels per bank) and the bank scan allows you to choose the banks you desire for the research. Each memory, bank or scan limit can be identified with a text up to 6 alphanumeric characters.

## 150 mW audio output

The low frequency circuit with BTL technology allows to double the audio output level. The 36mm diameter speaker can handle 150 mW\* output even in particularly noisy environments such as the passenger compartment of a moving vehicle.

\* Using the internal speaker.

#### Optional desktop charger.

BC-194 optional desktop bowl-shaped battery charger charges the Ni-MH batteries in a simple way and eliminates the need to connect and disconnect the device to the mains adapter.

## VSC squelch audio control

VSC function allows you to unlock the audio only when you receive a modulated signal and it ignores the unmodulated carriers.

#### Other characteristics:

- · Earphone with antenna for AM aeronautical range and FM broadcasting
- High frequency stability ± 1.0ppm
- Low pass audio filter for noise reduction at high audio frequency.
- Optional CI-V level converter (CT-17) for PC control
- Optional air headset (SP-27)

## DC power socket:

DC power socket for operations using the BC-153 AC power adapter or the CP-18E cable with cigarette lighter plug. Ni-MH batteries are recharged during the operations. The supply voltage to be applied to this socket is 4.5 Vdc (4.5~6.3 Vdc).

Compact, moisture resistant construction.

IC-R6 has an ultra-compact container of small dimensions (58 x 86 x 29.8 mms) and it weighs only 200 grs. It easily stands in the palm of your hand or in a shirt pocket and its moisture-resistant structure is ideal for outdoor  $\frac{1}{2}$ 

## Ferrite antenna for AM

The ferrite antenna within contained allows an optimal reception with a good sensitivity of the AM wave stations. This allows you to listen to those stations without the need to connect an external antenna.

## CTCSS and DTCS

CTCSS and DTCS tones allow a silent stand-by reception in order that a signal with the right tone is decoded. That simplifies the monitoring, for example, of a particular repeater or a particular station, etc. The tone scan function reveals the frequency of the tone used on a channel. The pocket beep function alerts you with an acoustic signal when a signal with the right tone is received.

## **PC** programming

With the optional CS-R6 cloning software the contents of the memories (frequency, name, category, group name, settings etc.) can be easily set up.

## Other functions

- Priority watch with acoustic warning
- Automatic shutdown with timer (30 minutes up to 2 hours)
- Automatic squelch and monitor squelch functions
- 10 dB (approx.) attenuator
- Power save: automatic LCD display lighting for night operations
- Quick tuning

Supplied with: Ni-MH rechargeable batteries, BC-196SD slow wall battery charger, FA-S270C antenna, belt attachment, wrist strap.



## IC-V80E VHF FM Transceiver







## 750mW of audio power

IC-V80E uses the BTL (Bridge-Tied Load) amplifier which can double the output audio power.

The internal loudspeaker, with its 36mm diameter, can reproduce audio signals of remarkable intensity and quality, a very important feature when using the radio in noisy environments.

## 5.5W of RF power

IC-V80E can transmit a power of 5.5W with very small radio dimensions.

With BP-265 lithium ion battery the operating time is about 19 hours\*, or about 13 hours\* using BP-264 battery

\*with a duty cycle of 5:5:90 and power save in operation

## Complying with IP54 and MIL-STD-810 standards

IC-V80 has been designed according to IP54 standards (protection against dust and water resistance) and is therefore suitable for the use in an external environment.

It also passed the checks of 11 categories of MIL-STD-910 environmental standards.

## 207 memories available

A total of 207 memories are available: 200 channel memories, 6 memories for the scanning band limits and 1 call memory.

For a better memory recognition, you can enter 5 alphanumeric characters for each channel.

## CTCSS/DTCS sub audio tones

CTCSS and DTCS sub audio tones can be used for communications without any interference that can be transmitted by other users. They are also used to access repeater bridges requiring this function.

## Internal VOX function

IC-V80E has got inside the circuit for the VOX (Voice Operated Transmit) function allowing the use of the device with free hands.

The use of this feature requires the use of dedicated optional accessories (earphone/microphone and adapter cable).

For this function it is possible to adjust the microphone gain and the switching delay in reception.

## Other features:

- . Different types of scans: with programmed limits, memories, Skip, priority and tones;
- Type of emission W/N settable from menu;
- Power Save (battery consumption saving during the stand-by period);
- BNC type antenna connector;
- 1750Hz tone to enable repeater bridges that require this tone;
- Programmable from computer with CS-V80 software (optional);
- Automatic shutdown;
- Transmission of preset DTMF memories;
- Frequency setting directly from the keyboard.

## Supplied with:

BP-264 Ni-MH battery pack 7,2V-1,4Ah, BC-192 slow desktop battery charger with BC-147SE, FA-B2E antenna, belt bracket, strap and user manual.







# IC-F29SR - Analog PMR446 transceiver IC-F29DR - Analog/digital PMR446 transceiver

Code IC4460005 IC-F29SR#65 Code IC4460002 IC-F29DR#21

Designed for professional use, the IC-F29SR and IC-F29DR are handy, easy to use and extremely reliable. Thin and ergonomic, they conform to MIL-STD810 standard and they are resistant to water and dust (IP-67).

#### **Common features**

• 800mW audio output (typical on internal speaker)

The B.F. circuit provides 800mW of power to the large 36.5mm speaker.

Smart Ring function

It allows to know if the correspondent is within the action radius of your radio.

Call Ring function

This function allows you to call your correspondents by alerting them with a call tone selectable from ten different ones.

• Three programmable function keys

The function keys can be programmed through the software.

The programmable functions are: Scan,

Monitor, Key lock, Surveillance, Siren, Smart ring/Call ring function and voice announcement of ON/OFF channels.

Three-color I FDs

The high brightness LED indicates the different operating statuses.

· Rotary channel selector

The 16-position rotary selector allows you to select the operating channel with maximum simplicity.

#### And also:

- Power save function.
- Low battery alarm.
- Monitor function.
- Microphone gain adjustment.
- The siren function can be used as a security alarm.
- · Key lock function.
- IP67 (immersion of the radio in the water at 1 meter depth for 30 minutes).
- Customizable through an optional software.

## IC-F29DR features:

• 4FSK/6.25KHz modulation complying with ETSI-TS102490 standards (digital only)

Digital Voice security function - Thanks to the digital modulation of the signal your communications cannot be received by normal scanners on the market, guaranteeing a high security level.

- Long operating autonomy. The supplied lithium ion battery allows up to 21 hours of operating autonomy (Tx cycle: Rx: Stand-by = 5: 5: 90).
- Supplied with BP-280 battery (Li-lon, 7.2V 2280mAh), BC-213 fast desktop battery charger with BC-123SE, belt bracket, antenna and user manual.
- Dimensions (L x H x D)/Weight: 52.2 x 186.1 x 30.3 mms / Weight 270grs (with BP-280 and without antenna)

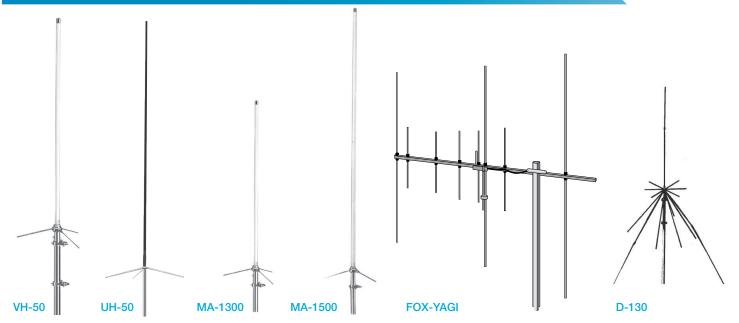
## **IC-F29SR** features:

- Supplied with BP-279 battery (Li-Ion, 7.2V 1485mAh), BC-213 fast desktop battery charger with BC-123SE, belt bracket, antenna and user manual.
- **Dimensions (L x H x D)/Weight:** 52.2 × 186.1 × 24.5 mms /Weight 240grs (with BP-279)





## ANTENNAS AND ACCESSORIES FOR AMATEUR RADIO USE



Code	A1.002.000	A1.002.005	A1.002.010	A1.002.012	A1.002.015	A1.002.030	A1.002.050
Model	VH-50	UH-50	MA-1300	MA-1500	MA-2000	FOX-Yagi	D-130
Туре			BASE			DIRECTIONAL	DISCONE
Frequency	136-174MHz	400-480MHz	144-430MHz	144-430MHz	144-430MHz	145-435MHz	25-1300MHz
Configuration	5/8λ	2 x 7/8λ				3 VHF EI./5 UHF EI.	
Max applicable power	150W	150W	150W	150W	150W	50W	150W
Gain	4.5dBi	7.5dBi	3.5/5.5dBi	5.5/7.5dBi	6.5/9.5dBi	9.5/11.15dBi	
Connector	SO-239	SO-239	SO-239	SO-239	SO-239	N	N
R.O.S.			≤1.5	≤1.5	≤1.5		
Length	170cms	170cms	140cms	185cms	240cms	113cms	170cms



Code	A1.002.500	A1.002.505		
Model	NR-770S	NR-770H		
Туре	VEHICULAR			
Frequency	144/430MHz	144/430MHz		
Configuration	1/4λ/1/2λ	1/2λ/2 x 5/8λ		
Max applicable power	100W	200W		
Gain	2.15/2.15dBi	2.15/5.5dBi		
Connector	PL-259	PL-259		
R.O.S.				
Length	43cms	102cms		



## Code A1.009.000 Mod. GL-300S

MAGNETIC BASE 3x90mm c/4mt RG-58A/U SO-239 connectors



## **MICROPHONES WITH EARPHONE**

## Code C1005030 Mod. MA-2042V/M

## MICROPHONE WITH RUBBER EARPHONE

- PTT/VOX Switch
- Midland connector

## Code C1005031 Mod. MA-2042V/K

## MICROPHONE WITH RUBBER EARPHONE

- PTT/VOX Switch
- Kenwood connector





## Code C1005040 Mod. MA-4042V/M

## MICROPHONE WITH PNEUMATIC AIR EARPHONE

- PTT/VOX Switch
- Midland connector

## Code C1005041 Mod. MA-4042V/K

## MICROPHONE WITH PNEUMATIC AIR EARPHONE

- PTT/VOX Switch
- Kenwood connector



## Code C1005060 Mod. MA-1026/M

## MICROPHONE WITH EARPHONE

• Midland connector

## Code C1005061 Mod. MA-1026/K

## **MICROPHONE WITH EARPHONE**

Kenwood connector







WWW.K2M.IT





**TIMBRO GROSSISTA**