

**SMOKE/GAS/HEAT DETECTORS**

	<b>Resetable type Multi Purpose Smoke Detector (Relay output)</b>	<b>Resetable type Multi Purpose Smoke and Heat Detector (Relay output)</b>	<b>Resetable type Fixed - Temp/Heat Detector 58° C</b>	<b>Photoelectric Type Smoke Detector (Independent type)</b>
<b>Code - 2 Wire</b>	<b>AH-0311-2</b>	<b>AH-0315-2</b>	<b>AH-0310-2</b>	<b>AHSS-871</b>
<b>Code - 4 Wire</b>	<b>AH-0311-4 (Relay output)</b>	<b>AH-0315-4 (Relay output)</b>	-	-
Rated Voltage	12-30VDC	12-30VDC	12-30VDC	100-240VAC with 9V Battery or 9V Battery only (included)
Alarm Current	30mA	30mA	30mA	Output Buzzer 85dB
Standby Current	40µA	70µA	45µA	-
Relay Current	1C/O: 0.8A @ 30VDC, 0.5A @ 250VAC	1C/O: 0.8A @ 30VDC, 0.5A @ 250VAC	-	-
Temp. of Detection	-	58° C	58° C	-
Building Height	4m 4-20m	4m 4-20m	4m 4-20m	4m 4-20m
Area Covered	150m <sup>2</sup> 75m <sup>2</sup>	150m <sup>2</sup> 75m <sup>2</sup>	30m <sup>2</sup> 75m <sup>2</sup>	150m <sup>2</sup> 75m <sup>2</sup>
Material	Fire-Proof Material			
	<b>Accessories</b>			
	Detector Test Device c/w Gas Canister	<b>AH-TEST</b>		
	Replacement Gas Canister	<b>AH-CAN</b>		
	<b>Features:</b> • Applicable to testing of heat and smoke detectors. • Extension pole is very flexible, it is extendable from 1.44m to 5m. • With the movable function of test vessel, user can easily overcome the difficulty in reaching the detector during testing. • The enclosed ignitor is generated by gas, its' temperature is adjustable and used for heat detectors. • The smoke tester can spray about 500 times to test smoke detectors			

**FIRE DETECTION SYSTEM**

Small fire detection system set for limited areas (small shops, houses, etc.) **IP20**

State of the art analogue address fire detection control panel, suitable for medium and large installations (hotels, malls, factories, etc.) **IP30**

**Kit Includes:** 2 x detectors, call point, siren with beacon + battery **SY1270**

<b>Code</b>	<b>BS-619 (kit)</b>	<b>BSR-1116</b>
Description	Fire detection 2-zone	Analogue addressable fire detection 1 loop, 16-zone
Operating Voltage	220-240VAC/ 50-60Hz	220-240VAC/ 50-60Hz
Battery	12V/ 7Ah sealed <b>SY1270</b>	12V/ 7Ah sealed <b>SY1270</b>
Charging Circuit	13.8V/ 400mA	13.8V/ 250mA
Loop Circuit	-	24V/ 250mA
Siren Circuits	-	2 circuits 24V/ 300mA
Outputs	2 alarm relay output	2 programmable relays (30V/1A)
Dimensions	325 x 240 x 80mm	325 x 240 x 80mm

**Fire Alarm Devices/Accessories for BSR-1116**

<b>Code</b>	<b>Description</b>	<b>Code</b>	<b>Description</b>
<b>BSR-5036/A</b>	Addressable fire detection call point	<b>BSR-5031/WP</b>	Waterproof fire alarm siren with beacon
<b>BSR-6055/A</b>	Addressable analogue optical smoke/ heat detector	<b>BSR-6558</b>	Thermal printer for <b>BSR-1116</b>
<b>BSR-8013/A</b>	Addressable conventional device driving unit	<b>BSR-8018</b>	Addressable input/ output unit with AUX relay
<b>BSR-8019/A</b>	Addressable unit input with relay	<b>A-1100</b>	Software for address programmable
<b>BSR-5031</b>	Addressable fire alarm with beacon	<b>A-632</b>	Mounting base, metallic recess
		<b>SY1270</b>	Battery for panels 12V/7AH

**olympia-electronics**

**BSR-5036/A** **BSR-6055/A** **BSR-8013/A** **BSR-8019/A** **BSR-6558** **BSR-5031** **BSR-5031/WP** **BSR-8018**

**VOICE SOUNDERS**

**Voice & Alarm & LED Beacons**

Code	Volts	IP	Colour	Specifications
<b>SYMPHONI-AV-R</b>	9-60VDC	<b>IP21</b>	Red	Current: 8mA Low, 12mA High Sound Output: 90dB(A) low, 100dB(A) high Tones: 7 user selectable + no tone option (voice only) Voice messages: 3 standard Light Output: >1Cd Flash Rate: 1Hz Volume Control: Switch - High/ Low, 10dB Monitoring: Reverse polarity
<b>SYMPHONI-AV-W</b>	9-60VDC	<b>IP21</b>	White	
<b>SYMPHONI-AV-WP-R</b>	9-60VDC	<b>IP66</b>	Red	

**Voice & Alarm**

Code	Volts	IP	Colour
<b>SYMPHONI-VOICE-R</b>	9-60VDC	<b>IP21</b>	Red
<b>SYMPHONI-VOICE-W</b>	9-60VDC	<b>IP21</b>	White
<b>SYMPHONI-VOICE-WP-R</b>	9-60VDC	<b>IP66</b>	Red

Alarm Pattern: *Tone, pause, message, pause, tone, pause, message...*  
Standard message:  
1) In the interest of safety, please evacuate the building now  
2) In the interest of safety, please evacuate the building now  
3) Fire, fire, please leave the building! Fire, fire, please leave the building!

**NEW VOICE SOUNDERS**

**SYMPHONI-VOICE-W**  
The Symphoni Voice is a very low current voice sounder, capable of storing up to 16 discreet voice messages.

**AUDIBLE & VISUAL ALARMS**

**Eagle LED Beacons IP33** 9-60VDC Size: Ø93 x 53(H)mm (83mm high with powered base)

Code	Description	Application
<b>SOLISTA MAXI-*</b>	• 3 Output Settings: 0.5/1/3cd (user selectable) • 3 Modes: Single / Double flash and continuous (user selectable) • Sequence or synchronised flashing • Low current (3-15mA)	
<b>MAINS-PB-*</b>	Powered base to convert beacon for use with 110/230VAC (Red/White)	

\*Add colour to code: ● R (Red), ● A (Amber), ● GN (Green), ○ W (White)

**Eagle Strobe Beacon 60 FPM IP65** Xenon Strobe  
Dimensions: 93mm ø x 91(H)mm (121mm H with deep base)

Code	Colour	Volts	Features
<b>FA260R</b>	Red ●	9-60VDC	Light output: 10cd
<b>FA260A</b>	Amber ●	9-60VDC	Flash frequency: 1Hz
<b>FA260G</b>	Green ●	9-60VDC	Current: 185-45mA (depending on voltage) 85mA @ 24VDC
<b>FA260C</b>	Clear ○	9-60VDC	

**MAINS-PB-\*** Powered base to convert beacon for use with 110/230VAC  
\*Add colour to code: ● R (Red), ○ W (White)

**Accessories for Assembly of Combinations IP65**

Code	Description
<b>MAINS-PB-*</b>	Powered base to convert beacon for use with 110/230VAC
<b>EAGLE-DB-*</b>	Deep base
<b>F107-20</b>	Nipple for connection of bases
<b>F505-20</b>	Locking rings for use with nipple (pack of 10)

\* Add colour to code: ● R (Red) or ○ W (White).  
Combinations of any EAGLE Sounders or Beacons can be assembled using Deep or Powered bases and these accessories. Please order one nipple and two locking rings for each connection.

**LED 22mm PANEL MOUNT INDICATORS & ALARMS IP65**

Size:	Codes		Supply Volts
	Beacon Steady/ Flashing	Buzzer & Beacon Combo Steady/Flashing	
30mm	<b>80050C405-*</b>	-	24VAC/DC
	<b>80050C313-*</b>	-	230VAC
45mm	<b>80150C405-*</b>	<b>81351C405-*</b>	24VAC/DC
	<b>80150C313-*</b>	<b>81351C313-*</b>	230VAC
65mm	<b>80250C405-*</b>	<b>81451C405-*</b>	24VAC/DC
	<b>80250C313-*</b>	<b>81451C313-*</b>	230VAC

\* Add colour to code: ● A (Amber), ● R (Red), ○ C (Clear), ● BL (Blue), ● GN (Green), ● Y (Yellow)

**80010C405-R** **80110C405-C** **80210C405-R**

ALARMS & SPEAKERS

ALARMS & SPEAKERS

## AUDIBLE & VISUAL ALARMS



MICRO RED



MICRO WHITE

### EAGLE ELECTRONIC SOUNDERS

- Adjustable volume
- 32 Tones selectable – 5 DIP switches (only 2 tones for SB1)
- 3-wire control to select 2-tones



AS262



EAGLE S1



EAGLE S1W



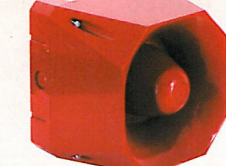
EAGLE SB2



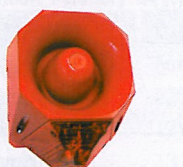
EAGLE SB1/SB4



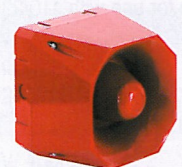
ASSERTA SB1/SB2



ASSERTA S1/S2



MIDI SB1/SB2



MIDI S1/S2/S3

- Adjustable volume
- 32 Tones selectable – 5 DIP switches
- 2-tone selection by internal link



SOLISTA



SYMPNONI-L/H



SYMPNONI-AV

Code	Operating Voltage Range	Rated Voltage	Max Current at Rated Voltage (mA)	Min Sound at Rated Voltage (dB@1mt)	IP Rating	Tone
MICRO RED	● 9-30VDC	12/24VDC	9mA	95	IP42	28 Tone
MICRO WHITE	○ 9-30VDC	12/24VDC	9mA	95	IP42	28 Tone

The MICRO has an ultra low current, ideal for use with the limited power available from loop driven systems Ø102mm

### Buzzers and Electronic Sounders

Panel Mounting 30mm Ø

AS262	● 9-28VDC	24VDC	18mA	102 max	IP65	2 Tone
-------	-----------	-------	------	---------	------	--------

- Adjustable volume
- 3-wire control to select sweeping or steady tone

Shallow Base 93mm Ø x 63mm H (mainly used for fire alarms)

EAGLE S1	● 9-28VDC	24VDC	18mA	116 max	IP65	32 Tone
----------	-----------	-------	------	---------	------	---------

EAGLE S1W	9-28VDC	24VDC	18mA	116 max	IP65	32 Tone (White)
-----------	---------	-------	------	---------	------	-----------------

Deep Base 93mm Ø x 105mm H (for surface conduit entry)

EAGLE S1-D	● 9-28VDC	24VDC	18mA	116 max	IP65	32 Tone
------------	-----------	-------	------	---------	------	---------

EAGLE S2	● 110 to 240VAC	240VAC	35mA	116 max	IP65	32 Tone
----------	-----------------	--------	------	---------	------	---------

EAGLE S3	● 110VDC	110VDC	30mA	116 max	IP65	32 Tone
----------	----------	--------	------	---------	------	---------

### Combination Electronic Sounder and Xenon Beacon (60FPM)

Deep Base 93mm Ø x 105mm H

EAGLE SB1	● 18-30VDC	24VDC	68mA	101 max	IP65	2 Tone
-----------	------------	-------	------	---------	------	--------

EAGLE SB2	● 110-250VAC	230VAC	60mA	116 max	IP65	32 Tone
-----------	--------------	--------	------	---------	------	---------

### Combination Electronic Sounder and Red LED Beacon (60FPM)

Size: 170mm x 170mm x 155mm

EAGLE SB4	● 18-30VDC	24VDC	68mA	101	IP54	2 Tone Beacon
-----------	------------	-------	------	-----	------	---------------

ASSERTA S1	● 18-30VDC	24VDC	450mA	120	IP66	42 Tone
------------	------------	-------	-------	-----	------	---------

ASSERTA S2	● 110 to 240VAC	240VAC	70mA	120	IP66	42 Tone
------------	-----------------	--------	------	-----	------	---------

### Combination Electronic Sounder and Red LED Beacon (60FPM)

Size (mm): 174 x 212 x 132

ASSERTA SB1	● 18-30VDC	24VDC	650mA	120	IP66	42 Tone Beacon
-------------	------------	-------	-------	-----	------	----------------

ASSERTA SB2	● 110 to 240VAC	240VAC	70mA	120	IP66	42 Tone Beacon
-------------	-----------------	--------	------	-----	------	----------------

Size: 136mm x 136mm x 132mm

MIDI S1	● 6-60VDC	24VDC	43mA	110	IP66	32 Tone
---------	-----------	-------	------	-----	------	---------

MIDI S2	● 115/230VAC	-	22mA	110	IP66	32 Tone
---------	--------------	---	------	-----	------	---------

MIDI S3	● 24VAC	24VAC	43mA	110	IP66	32 Tone
---------	---------	-------	------	-----	------	---------

### Combination Electronic Sounder and RED LED Beacon Size (mm): 136 x 174 x 132

MIDI SB1	● 115VAC	115VAC	40mA	110	IP66	32 Tone
----------	----------	--------	------	-----	------	---------

MIDI SB2	● 230VAC	230VAC	35mA	110	IP66	32 Tone
----------	----------	--------	------	-----	------	---------

### LED Beacons (60FPM) (Ø93mm x 53mm)

SOLISTA-R	● 9-28VDC	12/24 VDC	3/6mA	(Red)	IP54	Beacon
-----------	-----------	-----------	-------	-------	------	--------

### Symphoni (Ø 110mm x 95mm)

SYMPNONI-L	● 12-30VDC	24 VDC	5mA	110	IP42	3 Tone
------------	------------	--------	-----	-----	------	--------

SYMPNONI-H	● 9-28VDC	12/24 VDC	240mA	120	IP42	32 Tone
------------	-----------	-----------	-------	-----	------	---------

### Combination Sounder and RED LED Beacon Size (mm): Ø106 x 91

SYMPNONI-AV	● 18-30VDC	24 VDC	10mA	100	IP21	5 Tone Beacon
-------------	------------	--------	------	-----	------	---------------

## AUDIBLE & VISUAL ALARMS



Code	Operating Voltage Range	Frequency (Hz)	Max Current at Rated Voltage (mA)	Audible Range	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
------	-------------------------	----------------	-----------------------------------	---------------	------------------------------------	------------	-----------

### Hand Operated Sirens

H200	-	500	-	2000m	110	100%	IP44
------	---	-----	---	-------	-----	------	------

H200 Two Tone Siren selectable

### Motor Driven Sirens

50% duty cycle = 15 min on/15 min off of 30 min cycle

MS-6-95	12VDC	1300	3.35A	500 -1000m	112	50%	IP44
---------	-------	------	-------	------------	-----	-----	------

MS-6-95	24VAC/DC	1300	1.6A	500 -1000m	112	50%	IP44
---------	----------	------	------	------------	-----	-----	------

MS-6-95	110VAC/DC	1300	0.48A	500 -1000m	112	50%	IP44
---------	-----------	------	-------	------------	-----	-----	------

MS-6-95	220VAC/DC	1300	0.26A	500 -1000m	112	50%	IP44
---------	-----------	------	-------	------------	-----	-----	------

BAN-250	110VAC	1400	0.8A	250m	100	50%	IP44
---------	--------	------	------	------	-----	-----	------

BAN-250	220VAC	1400	0.4A	250m	100	50%	IP44
---------	--------	------	------	------	-----	-----	------

MINIWATT/S	12VAC/DC	1000	0.83A	300-500m	98	50%	IP44
------------	----------	------	-------	----------	----	-----	------

MINIWATT/S	24VAC/DC	1000	0.41A	300-500m	98	50%	IP44
------------	----------	------	-------	----------	----	-----	------

MINIWATT	115VAC/DC	1500	0.30A	300-500m	103	50%	IP44
----------	-----------	------	-------	----------	-----	-----	------

MINIWATT	230VAC/DC	1500	0.45A	300-500m	103	50%	IP44
----------	-----------	------	-------	----------	-----	-----	------

### ★ Duty Cycle 1min On, 8min Off

S-500	12VAC/DC	1400	9.0A	500m	107	★	IP44
-------	----------	------	------	------	-----	---	------

S-500	24VAC/DC	1400	3.0A	500m	107	★	IP44
-------	----------	------	------	------	-----	---	------

S-500	115VAC/DC	1400	1.0A	500m	107	★	IP44
-------	-----------	------	------	------	-----	---	------

S-500	230VAC/DC	1400	0.5A	500m	107	★	IP44
-------	-----------	------	------	------	-----	---	------

1000S*	12VAC/DC	950	9.0A	1000m	113	★	IP44
--------	----------	-----	------	-------	-----	---	------

1000S*	24VAC/DC	950	4.8A	1000m	113	★	IP44
--------	----------	-----	------	-------	-----	---	------

1000S*	110VAC/DC	950	0.8A	1000m	113	★	IP44
--------	-----------	-----	------	-------	-----	---	------

1000S*	230VAC/DC	950	0.5A	1000m	113	★	IP44
--------	-----------	-----	------	-------	-----	---	------

\*For combination unit with either Xenon tube or LED (LED not available in Blue & Green). Add /L for LED or /X for Xenon Tube. Only available in 1000 series. Available colours: Red, Green, Blue, Amber

### Duty Cycle 10 Hours On, 1 Hour Off

1000D	110VAC/DC	950	2A	1000m	113	95%	IP44
-------	-----------	-----	----	-------	-----	-----	------

1000D	230VAC/DC	950	1A	1000m	113	95%	IP44
-------	-----------	-----	----	-------	-----	-----	------

### Duty Cycle 30min On, 10min Off

1500S	110VAC/DC	1600	5.0A	1500m	122	60%	IP44
-------	-----------	------	------	-------	-----	-----	------

1500S	230VAC/DC	1600	3.5A	1500m	122	60%	IP44
-------	-----------	------	------	-------	-----	-----	------

2000D	110VAC/DC	370	4.0A	2000m	121	60%	IP44
-------	-----------	-----	------	-------	-----	-----	------

2000D	230VAC/DC	370	3.0A	2000m	121	60%	IP44
-------	-----------	-----	------	-------	-----	-----	------

3000S	230VAC	860	7.5A	3000m	130	100%	IP45
-------	--------	-----	------	-------	-----	------	------

3000S	400VAC	560	1.1kW	3000m	125	100%	IP45
-------	--------	-----	-------	-------	-----	------	------

3000S	525VAC	560	1.1kW	3000m	125	100%	IP45
-------	--------	-----	-------	-------	-----	------	------

5000S	230VAC	560	2.2kW	5000m	130	100%	IP45
-------	--------	-----	-------	-------	-----	------	------

5000S	400VAC	560	2.2kW	5000m	130	100%	IP45
-------	--------	-----	-------	-------	-----	------	------

5000S	525VAC	560	2.2kW	5000m	130	100%	IP45
-------	--------	-----	-------	-------	-----	------	------

10000D	400VAC	560	4kW	10km	134	100%	IP45
--------	--------	-----	-----	------	-----	------	------

10000D	525VAC	560	4kW	10km	134	100%	IP45
--------	--------	-----	-----	------	-----	------	------

15000D	400VAC	560	7.5kW	15km	138	100%	IP45
--------	--------	-----	-------	------	-----	------	------

15000D	525VAC	560	7.5kW	15km	138	100%	IP45
--------	--------	-----	-------	------	-----	------	------



MS-6-95



BAN



MINIWATT/S



MINIWATT



1000S/X/4



S-500



1000S



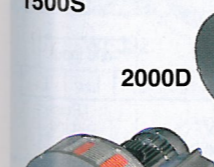
1000D



1500S



2000D



3000S



5000S



10000D



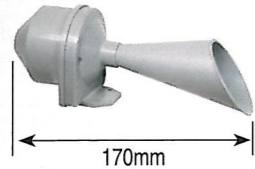
15000D

## AUDIBLE & VISUAL ALARMS

### Hooter (Thermoplastic ABS Trumpet) High Power



Code	Voltage Range	Power Consumption	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
HW36 12VAC	10-14VAC	5.3A	105dB	50%	IP45
HW36 24VAC	20-26VAC	2.7A	105dB	50%	IP45
HW36 48VAC	44-52VAC	1.7A	105dB	50%	IP45
HW36 110VAC	94-121VAC	0.5A	105dB	50%	IP45
HW36 230VAC	196-250VAC	0.3A	105dB	50%	IP45



### Mini Hooter - ABS Grey

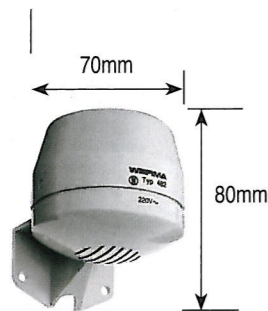
Code	Voltage Range	Power Consumption	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
KLH710 24VAC	24VAC	190mA	92dB	100%	IP43
KLH710 24VDC	24VDC	70mA	92dB	100%	IP43
KLH710 110VAC	110VAC	15mA	92dB	100%	IP43
KLH710 230VAC	230VAC	15mA	92dB	100%	IP43



### Marine Horn - very loud

Code	Voltage Range	Power Consumption	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
HW571 24VDC	24VDC	600mA	108dB	100%	IP65
HW571 230VAC	230VAC	110mA	108dB	100%	IP65

Membrane galvanised and epoxy powder coated, screws A4 with isolation, and rubber washers for mounting avoiding galvanic corrosion, additional membrane sealing, aluminium-die cast epoxy-powder coated RAL 7000/ 7015 housing.

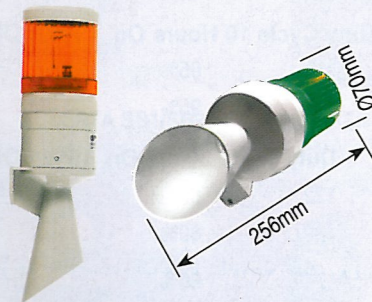


### Mini Horn

Code	Voltage Range	Power Consumption	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
KDH710 12VDC	12VDC	120mA	92dB	100%	IP43
KDH710 24VDC	24VDC	60mA	92dB	100%	IP43
KDH710 60VDC	60VDC	20mA	92dB	100%	IP43
KDH710 110VAC	110VAC	20mA	92dB	100%	IP43
KDH710 230VAC	230VAC	15mA	92dB	100%	IP43

### Mini Horn for Lifts

Code	Voltage Range	Power Consumption	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
KDH-L 6VDC	6VDC	65mA	83	100%	IP43



### Hooter and Xenon Strobe Combo - ABS Grey

Code	Voltage Range	Power Consumption	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
KLF710-* 110VAC	94-120VAC	0.04A	92	100%	IP43
KLF710-* 230VAC	196-250VAC	0.025A	92	100%	IP43
KLF710-* 12VDC	10-14VDC	0.3A	92	100%	IP43
KLF710-* 24VDC	20-28VDC	0.17A	92	100%	IP43

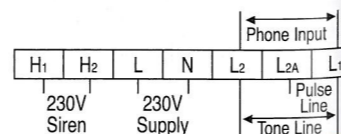
\*Add colour: ● R (Red), ● G (Green), ● A (Amber).



### Phone Ringer Module For Standard 2 Wire Analogue Phones Only

#### HW-SHTR001

Electronic module for external ringer using KLH710 230VAC hooter or any other electronic siren



### Telephone Electronic Sounder For Standard 2 Wire Analogue Phones Only

Code	Type	Supply Voltage	Consumption	Dimensions	Sound Output @ 1m	IP Rating
BS-500	Sounder	230VAC	6W	92Ø x 98mm	80-105dB	IP20
BS-505	Sounder + Beacon	6W	205 x 100 x 57mm	80-105dB (Adj)	IP20	

• Connected in parallel with the telephone

• Adjustable volume control  
• Supplied c/w mounting bracket



## AUDIBLE & VISUAL ALARMS

### Buzzers and Electronic Sounders

Code	Operating Voltage Range	Rated Voltage	Max Current at Rated Voltage (mA)	Min Sound at Rated Voltage (dB@30cm)	IP Rating	Tone
<i>Signal Devices Fitting 30mm hole</i>						
BSP-24VAC	21-26VAC	24VAC	22mA	80dB	IP55	Pulse
BSP-24VDC	4-29VDC	24VDC	22mA	80dB	IP55	Cont./Pulse
BSP-110AD	30-120VAC	110VAC	20mA	80dB	IP55	Pulse
BSP-220AD	60-250VAC	230VAC	10mA	80dB	IP55	Pulse
ABS-80	210-250VAC	230VAC	37mA	85dB	IP44	Buzzer
BF30 110VAC	100-120VAC	110VAC	37mA	85dB	IP44	Buzzer
BF30 230VAC	210-250VAC	230VAC	37mA	85dB	IP44	Buzzer
BANDIT-F1	10-30VDC	30VDC	25mA	105dB	IP55	Yodel
BANDIT-F2	110-220VAC	220VAC	20mA	105dB	IP55	Yodel
BANDIT-F3	24VAC	24VAC	40mA	105dB	IP55	Yodel

*Signal Devices Fitting 22.5mm hole Ø 50mm*

WE109 24V	24VAC/ DC	-	25mA	80dB	IP65	Cont/ Pulse
WE109 115V	115VAC/ DC	-	25mA	80dB	IP65	Cont/ Pulse
WE109 230V	24VAC	-	25mA	80dB	IP65	Cont/ Pulse

*Signal Devices Fitting 22.5mm hole*

CT-BZ 24V	24VAC/DC	-	15mA	70dB	IP30	Buzzer
CT-BZ 230VAC	230VAC	-	15mA	70dB	IP30	Buzzer
CT-BZ-N 24V	24VAC/DC	-	20mA	70dB	IP30	LED/Buzzer
CT-BZ-N 230VAC	230VAC	-	20mA	70dB	IP30	LED/Buzzer

*Signal Devices Fitting 28mm hole*

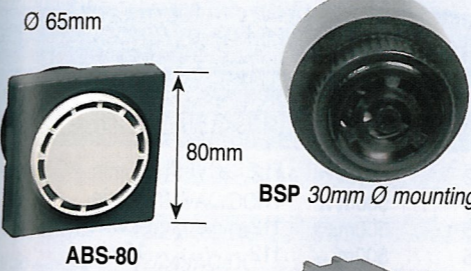
WE118 24V	24VAC/ DC	-	20mA	90dB	IP30	Cont
WE118 115V	115VAC/ DC	-	20mA	90dB	IP30	Cont
WE118 230VAC	230VAC	-	20mA	90dB	IP30	Cont
WE119 24V	24VAC/ DC	-	20mA	90dB	IP30	Cont/Pulse
WE119 115V	115VAC/ DC	-	20mA	90dB	IP30	Cont/Pulse
WE119 230VAC	230VAC	-	20mA	90dB	IP30	Cont/Pulse

CYBERTONE-*	12VDC	-	25mA	91dB	IP45	4 Tone
CYBERTONE-*	24VDC	-	13mA	91dB	IP45	4 Tone
CYBERTONE-*	32VAC/DC	-	13mA	91dB	IP45	4 Tone
CYBERTONE-*	48VAC/DC	-	13mA	91dB	IP45	4 Tone
CYBERTONE-*	110VAC/DC	-	13mA	91dB	IP45	4 Tone

\* Add voltage to code (eg. CYBERTONE-12VDC)

*All Purpose Installation Buzzer (fixing M3 thread) Ø 54.5 x 35.5mm depth*

WE382 12VDC	12VDC	-	150mA	90	IP30	Buzzer
WE382 230VAC	24VDC	-	70mA	90	IP30	Buzzer
WE382 115VAC	115VAC	-	15mA	90	IP30	Buzzer
WE382 230VAC	230VAC	-	15mA	90	IP30	Buzzer
B8S1120L	6-16VDC	12VDC	20mA	80	IP44	Buzzer
B3S3240L	1-28VDC	24VDC	20mA	100	IP44	Single
B3S120L	1-13VDC	12VDC	30mA	105	IP44	Single
B18R3120L	6-15VDC	12VDC	100mA	107	IP44	Siren
B18R3240L	16-28VDC	24VDC	100mA	107	IP44	Siren
B19R3120L	6-15VDC	12VDC	120mA	110	IP44	Siren
B19R3240L	16-28VDC	24VDC	120mA	110	IP44	Siren



ABS-80

BSP 30mm Ø mounting



BANDIT



BF30

30mm Ø mounting



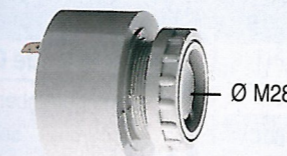
WE109



CT-BZ-N



CT-BZ



WE118/119



CYBERTONE  
27.7mm Ø mount



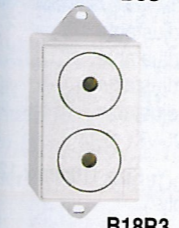
WE382



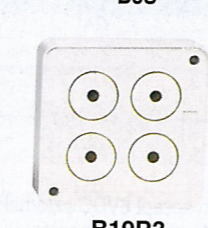
B8S



B3S

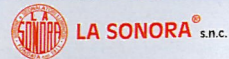


B18R3



B19R3

## AUDIBLE & VISUAL ALARMS



### Motor Driven Sirens (Die-cast Aluminium)

Code	Frequency (Hz)	Max Current at Rated Voltage (A)	Audible Range	Min Sound at Rated Voltage (dB@1m)	Duty Cycle	IP Rating
MS1-45 230V	230VAC/DC	1300	0.32	500m	112	15min IP44
MS1-45 110V	115VAC/DC	1300	0.56	500m	112	15min IP44
MS1-45 24V	24VAC/DC	1300	1.85	500m	112	15min IP44
MS1-45 12VDC	12VDC	1300	3.75	500m	112	15min IP44
MS2-114 230V	230VAC/DC	650	0.9	1000m	114	15min IP44
MS2-114 110V	115VAC/DC	650	1.6	1000m	114	15min IP44
MS2-114 24V	24VAC/DC	650	5.9	1000m	114	15min IP44
MS2-114 12V	12VAC/DC	650	11.7	1000m	114	15min IP44

### For Marine Use (Die-cast aluminium)

MS2-114C 24V	24VAC/DC	650	5.9	1000m	114	15min IP44
MS2-114C 12V	12VAC/DC	650	11.7	1000m	114	15min IP44

### With Cap for Outdoor Mounting (Die-cast aluminium with ABS base)

MS2-115 230V	230VAC/DC	650	0.9	1000m	114	15min IP44
MS2-115 110V	115VAC/DC	650	1.6	1000m	114	15min IP44
MS2-115 24V	24VAC/DC	650	5.9	1000m	114	15min IP44
MS2-115 12V	12VAC/DC	650	11.7	1000m	114	15min IP44



### Beacon Type 210.

Size 82mm x 57mmØ IP65

Colour	Beacon No Lamp
● Red	21010000
● Green	21020000
● Yellow	21030000
○ Clear	21040000
● Blue	21050000

### Accessories

Bulb BA15d	Voltage	Code
Total length max. 52mm	12V, 7W	ACL61 12V
	24V, 7W	ACL61 24V
	115V, 7W	ACL61 110/130V
	230V, 7W	ACL61 230/240V



LED Bulb BA15d (for Beacon 210) long life 100 000hrs. Size: Ø33mm (length with BA15d end 52mm)

Code	Code	Nominal Voltage	Colour Code for Lens
Continuous Light	Flashing Light		Add colour code C:
LM-LED*-12V	893 01C 12V	12V AC/DC	1 = ● Orange/Amber
LM-LED*-24V	893 01C 24V	24V AC/DC	2 = ● Red
LM-LED*-110V	893 01C 110VAC	110/120V AC	4 = ○ Clear
LM-LED*-230V	893 01C 230VAC	230/240VAC	5 = ● Blue
			6 = ● Green
			7 = ● Yellow

\*Add colour to code: R, GN, Y, W, BL

### Flashing Beacons IP65 • Size 130mm x 95Ø

Code	Description	Colour	FPM
KF-A*	Xenon Flasher	● Amber	110
KF-B*	Xenon Flasher	● Blue	110
KF-G*	Xenon Flasher	● Green	110
KF-R*	Xenon Flasher	● Red	110
*Add voltage 12VAC/DC, 24VAC/DC, 110VAC, 220VAC			
KFL-A*	LED Flasher	● Amber	110
KFL-R*	LED Flasher	● Red	110
*Add voltage 12/24 VAC/DC, 220VAC (110/220V)			

### Rotating Blinking LED Beacon (100 000 hours) 6VDC

Code - Battery Operated	IP Rating	Colour	FPM
LWC-001-SR	IP54	● Red	Adjustable
LWC-001-SA	IP54	● Amber	Adjustable
LWC-001-SB	IP54	● Blue	Adjustable
LWC-001-SG	IP54	● Green	Adjustable

### Battery Operated Models

- Accepts 4 x 1.5V AA batteries (not supplied)
- On/Off switch
- 2 x mounting magnets
- 3.5mm Barrel Plug Socket to accept 6VDC external supply.
- Size 110mm x 125Ø
- Code: MD1006VDC (to be ordered separately)

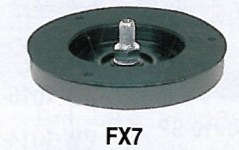


## AUDIBLE & VISUAL ALARMS

### Vehicle Strobe Flasher (Xenon tube) IP65

±3000 Hours operation (for airport and vehicle use). 115mm(H) x 110mmØ

Colour	Volts	Power	Flash FPM	Code
Amber	10-33VDC	15W	125	● RB2XDV/15-A
Amber	12/24VAC/DC	5W	75	● RB4XDV/5-A
Amber	10-100VDC	5W	75	● RB4XMV/5-A
Red	12/24VAC/DC	5W	75	● RB4XDV/5-R
Green	12/24VAC/DC	5W	75	● RB4XDV/5-G
Blue	12/24VAC/DC	5W	75	● RB4XDV/5-B
Amber	10-30VDC	2W	75	● RB4XDV/2-A
Red	10-30VDC	2W	75	● RB4XDV/2-R
Amber	10-100VDC	2W	75	● RB4XMV/2P-A
Red	10-100VDC	2W	75	● RB4XMV/2P-R
Spare Lens. * ● A (Amber), ● R (Red), ● G (Green), ● B (Blue)				RB4XDV-*LENS
Spare P.C. Board 12/24VAC/DC				RB4XDV-PCB
Magnetic kit for above				FX6
Single bolt kit M12				FX7
Protector guard 150 Ø x 130 H				FX9

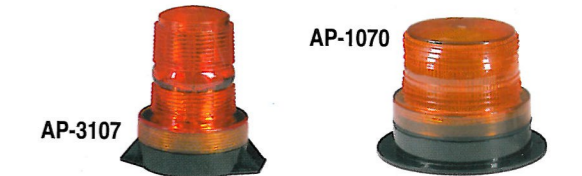


### Sentry Warning Lamp (complete with battery)

Amber	24VDC	2W	3H Bat. life	RB412/2
Amber	24VDC	1W (long life)	10H Bat. life	RB412/1L
230V Mains charger				RB4-CHR

### Strobe Flashers For Fork Lifts IP65

Amber	12-80VDC	Base 130Ø x 95(H)	75	● AP-1070A
Red	12-80VDC	Base 130Ø x 95(H)	75	● AP-1070R
Amber	12-80VDC	Base 105Ø x 120(H)	75	● AP-3107A
Red	12-80VDC	Base 105Ø x 120(H)	75	● AP-3107R



### Loud DC Sirens

Colour	Volts	IP	dB	Tone	Rated Current	Code
Black	6-13VDC	55	114	Warble	300mA ●	ESB-6
Black	7-13VDC	65	110	Warble	500mA ●	SIR-002
Black/Red	6-15VDC	65	105	Warble	300mA ●	KPS-1500
White	6-14VDC	55	107	6 Tone	550mA ○	KPS-112
Black	15-24VDC	55	108	Warble	90mA ●	KPS-124
White	6-14VDC	55	116	Warble	1100mA ○	KPS-100T
Black	6-15VDC	55	104	6 Tone	550mA ●	KPS-104
White	6-15VDC	65	105	Warble	550mA ○	KPS-6000



### Siren with Battery Back-up

Black	6-14VDC	55	112	Warble	1100mA ●	KPS-72
-------	---------	----	-----	--------	----------	--------

Wire colours R+, BL-, Blue-Trigger, White-Trigger



### Back-up Alert for Fork Lift IP65

Black	10-80VDC	-	400mA ●	AP-9805
Black	6-12VDC	126	650mA ●	TK-428



### Twin Piezo Siren

Red	6-12VDC	126	800mA ●	TK-438/R
Amber	6-12VDC	126	800mA ●	TK-438/A



## LED BEACONS

**NEW**



LED Strobe Lights **IP65** Size Ø100mm x (H)80mm

Code	Colour	Volts
SL-1301-R	● Red	6-14VDC
SL-1301-A	● Amber	9-14VDC
SL-1301-C	○ Clear	9-14VDC

### Features

- 6 Different flash patterns

### Specifications

- Current drain: 60~200mA@12VDC
- Adjustable flashing speed: 30~260 flashes/minute



Strobe (ON/OFF)  
Steady ON  
Rotating Strobe Clockwise  
Rotating Strobe Back and Forth  
Rotating with progressive ON  
Rotating with progressive ON and OFF

- Operating life: over 50 000Hrs
- Electrical protection: Reverse polarity protection
- Backup battery life: Steady ON Up to 2 hours  
Strobe/Flashing Up to 4 hours

## HIGH QUALITY DC WORK LIGHT

**NEW**



PW-115-SP



PW-1010-SP



PW-1117-SP



PW-1014-SP



PW-4LED-DT



C2-107/P

Incandescent Work Lamps **IP65**

Code	Bulb 12V (not supplied)	Bulb 24V (not supplied)	Bulb Required	Size (mm)	Spade Connectors
PW-115-SP	H3-12VDC 55W	H3-24VDC 70W	1	Ø115 x 62D	6.35mm (1/4")
PW-1010-SP	H3-12VDC 55W	H3-24VDC 70W	1	106 x 106 x 84D	6.35mm (1/4")
PW-1014-SP	H3-12VDC 55W	H3-24VDC 70W	1	140 x 100 x 92D	6.35mm (1/4")
PW-1117-SP	H3-12VDC 55W	H3-24VDC 70W	2	169 x 115 x 90D	6.35mm (1/4")

LED Work Lamps **IP65**

Code	Voltage	Led	Size (mm)
PW-4LED-DT	12/24VDC	4 x High power LED	106 x 106 x 82.5
C2-107/P	9-50VDC	4 x 3W (12W)	120Ø x 83(D)
C2-126P	9-50VDC	4 x 3W (12W)	110 x 137 x 84(D)
C2-139P	9-50VDC	6 x 3W (18W)	150 x 145 x 78(D)



C2-126P



C2-139P

SecuriLED **IP67** - Surface mount. Size: 143 x 110 x 46(D)mm.

Code Quad Flash 120/min	Code Steady On	Colour	Volts	Power	
				12VDC	24VDC
RB497032	RB497032-ST	● Amber	10-30VDC	400mA	200mA
RB497033	RB497033-ST	● Red	10-30VDC	400mA	200mA
RB497034	RB497034-ST	● Blue	10-30VDC	400mA	200mA
RB497031	RB497031-ST	White	10-30VDC	400mA	200mA

### Features

- Intensely bright 3rd generation LEDs
- Multiple beacons may be connected together to provide synchronous or alternate flash patterns
- CE - complies with EMC Directive 89/336/EEC
- Certified to ECE R65 (amber and blue)
- High voltage transient and polarity reversal protection fitted
- Polycarbonate lens, Aluminium base coated black

\* Peak 1.5A for 12VDC & 750mA for 24VDC

Signalled **IP67** - Surface mount. Size: 94 x 34 x 39(D)mm. Multiflash

Code	Colour	Volts	Power
DAD1001	● Amber	12-24VDC	0.2A
DAD1002	● Red	12-24VDC	0.2A
DAD1003	● Blue	12-24VDC	0.2A

### Features

- A compact lower consumption maintenance-free LED beacon providing wide-angle light dispersion
- 14 flash patterns, incl 3 integral alternating flash modes
- 3 wide angled LED optics
- 100 000hrs operation
- Die-cast aluminium housing
- SAE J845 Class II. Certified to EMC directive 2006/28/EC
- CE - complies with EMC Directive 89/336/EEC
- Operating temperature: -30°C to +50°C

**NEW**



**NEW**



## VISUAL ALARMS

LED Type flasher, long life Beacon Light. 125mm(H) x 75mmØ

Colour	Beacon Flasher <b>IP54</b>		Hilo Flasher <b>IP65</b>	
	12-24VAC/DC	110-230VAC	12-24VAC/DC	110-230VAC
Red ●	LIB011F	LIB001F	LIH021F	LIH011F
Green ●	LIB012F	LIB002F	LIH022F	LIH012F
Amber ●	LIB013F	LIB003F	LIH023F	LIH013F

• For E27 screw type add ES at end of code e.g. LIB011F-ES

LED Steady (Non flashing) Beacons, long life. 143(H) x 70mmØ

Colour	Code	Code	Code	Code
Red ●	LIB011	LIB001	LIH021	LIH011
Green ●	LIB012	LIB002	LIH022	LIH012
Amber ●	LIB013	LIB003	LIH023	LIH013

Combination LED Flasher or Rotating Beacon. 143(H) x 70mmØ

Rotating / Flasher Code - Selection by switch 230VAC

E27-FF120LED\* 120 High Bright LEDs  
\*Add colour to code, CW (Cool White), ● R (Red), ● GN (Green), ● BL (Blue), ● Y (Yellow)

E27-D150LED\* 150 High Bright LEDs

Strobe Beacon 80 FPM (15W, 800mA) **IP53**, 800 hours continuous operation

Description	Colour	Code
Xenon Strobe Beacon Dimensions 100mmØ x 80mm H	Red ●	JBS-100R*
	Green ●	JBS-100G*
	Yellow ●	JBS-100Y*
	Blue ●	JBS-100B*

\* Specify voltage: 12VDC (6-12VAC/DC), 24VAC/DC, 115VAC and 230VAC  
Spare Lens \*R, G, Y, B

JBS-100\*LENS

Strobe Beacon 90 FPM (3W, 150mA) **IP53**

Description	Colour	Code
Dimensions 77mm Ø x 50mm	Red ●	TK-30/R*
	Amber ●	TK-30/A*
	Clear ○	TK-30/C*
	Blue ●	TK-30/B*

\*Specify voltage: 12VDC (6-12VDC), 24VDC. Power consumption 150mA

Flashing Lights 110 FPM **IP53**

Description	Colour	Xenon Strobe	Incandescent Lamp Flasher
		Code	Code
Dimensions 112mmØ x 143mm H	Red ●	113/FHR*	113/NLR*
	Green ●	113/FHG*	113/NLG*
	Yellow ●	113/FHY*	113/NLY*
	Amber ●	113/FHA*	113/NLA*

\* Specify voltage: 24V (12-24VAC/DC), 115VAC or 230VAC

Spare Lens \*R, G, Y, A 113/FH\*LENS 113/NL\*LENS  
Spare Lamps, 40 Watts ACL24 230V, ACL24 110V, ACL24 24V, ACL24 12V  
Spare PC Boards 113/FH-PCB\*

\* Specify voltage: 24V (12-24VAC/DC), 115VAC or 230VAC

Rotating Beacon 110 FPM **IP53**

Description	Colour	Code
12VDC-45W Incandescent lamp	Red ●	150/NR*
24VDC-45W Incandescent lamp	Green ●	150/NG*
115VAC or 230VAC: 40W	Yellow ●	150/NY*
Incandescent lamp	Amber ●	150/NA*
Dimensions: 150mm Ø x 200mm H	Blue ●	150/NB*

\*Specify voltage: 12VDC, 24VAC/DC, 115VAC or 230VAC

Spare Belt 150/BELT  
Spare Lens: \*R, G, Y, A, B 150/N\*-LENS

Spare Lamps ACL24 230V, ACL24 24V, ACL24 12V, ACL5 110VAC

Magnetic Strobe Flasher. 105mm(H) x lensØ 100mm, Base Ø115mm

Colour	Power	Flash FPM	Code
Amber ●	15W	75	TK-88HP/A*
Red ●	15W	75	TK-88HP/R*
Clear ○	15W	75	TK-88HP/C*
Blue ●	15W	75	TK-88HP/B*

\*Specify voltage: 12VDC, 24VDC, 230VAC †Available to Police Services only



Beacon Type  
20mm conduit nipple

ES Type



Hilo Type

**NEW**



Combination LED  
Rotating/ Flasher



Switch



230V  
ACL24



12/24VDC

230V

## LED BEACONS

**NEW RANGE**

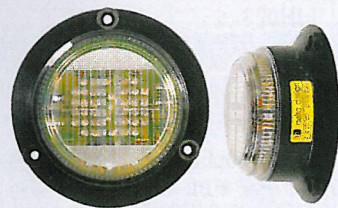
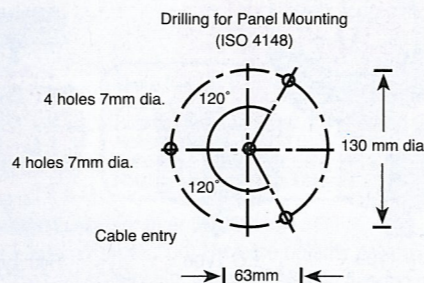


RB426002

### Rearguard Xenon IP65

Code	Colour	Volts
RB426001	○ Clear	10-30VDC
RB426002	● Amber	10-30VDC
RB426003	● Red	10-30VDC
RB426004	● Blue	10-30VDC
RB426005	● Green	10-30VDC

• Power 330mA@ 12VDC, 180mA@24VDC



RB497001

### Rearguard LED IP65

RB497001	● Amber	10-30VDC
----------	---------	----------

#### Features

- High intensity directional hazard warning
- Up to 8 beacons may be connected to flash synchronously or alternately
- Triple flash - 75 flashes/min
- Power 145mA @ 12VDC, 120mA @ 24VDC

#### Applications

Suitable for many vehicle applications including utility, refuse trucks, street cleaners, delivery, recovery and large vehicles.



### LP Series LED Beacons IP67

Size 44H x 76Ømm

Code	Colour	Volts	Power
RB447002	● Amber	85-265VAC	15mA@ 110VAC, 10mA@ 230VAC
RB447003	● Red	85-265VAC	15mA@ 110VAC, 10mA@ 230VAC
RB445002	● Amber	10-100VDC	110mA@ 12VDC, 55mA@ 24VDC
RB445003	● Red	10-100VDC	110mA@ 12VDC, 55mA@ 24VDC

- Clear lens with coloured LEDs
- 65 Flashes/Min, 6 Bursts/Flash



### LT Series LED Beacons IP67

Size 95H x 76Ømm

Code	Colour	Volts	Power
RB448002	● Amber	85-265VAC	15mA@ 110VAC, 10mA@ 230VAC
RB448003	● Red	85-265VAC	15mA@ 110VAC, 10mA@ 230VAC
RB446002	● Amber	10-100VDC	110mA@ 12VDC, 55mA@ 24VDC
RB446003	● Red	10-100VDC	110mA@ 12VDC, 55mA@ 24VDC

- Clear lens with coloured LEDs
- 65 Flashes/Min, 6 Bursts/Flash



### LT2 Series LED Beacons IP67

Size 95H x 76Ømm

Code	Colour	Volts	Power
RB448021	● Red (flashing) or ● Green (steady on)	85-265VAC	15mA@ 110VAC, 10mA@ 230VAC
RB446021	● Red (flashing) or ● Green (steady on)	10-100VDC	110mA@ 12VDC, 55mA@ 24VDC

#### Features

- A compact dual function LED beacon - green continuous and red flashing
- Ideal for indicating process/system status - green continuous light for normal operation, red flashing to indicate status change
- Clear lens with coloured LEDs

#### Accessories - for LP, LT & LT2 series beacon

Code	Description
FX39	Mounting pole only
FX40	Mounting bracket
FX2	Mounting base



**NEW**

Shown with beacons mounted

FX2

## SIGNAL TOWERS

### Signal Towers IP44

Description	Lamp Type	Code				
		1-way	2-way	3-way	4-way	5-way
Continuous	Filament	LM-1*	LM-2*	LM-3*	LM-4*	LM-5*
Flashing	Filament	LMF-1*	LMF-2*	LMF-3*	LMF-4*	LMF-5*
Continuous	LED	LMD-1*	LMD-2*	LMD-3*	LMD-4*	LMD-5*
Flashing	LED	LMFD-1*	LMFD-2*	LMFD-3*	LMFD-4*	LMFD-5*

\* Specify voltage: 12V AC/DC, 24V AC/DC, 110VAC & 230VAC  
Synchronised flashing rate: 70FPM. All units supplied with adjustable pole and angled bracket and Lamps/LED

#### Accessories and Spares

Description	Code
Vertical pole stand	LM-PS
Spare LED Lamp for Tower Light (BA15D)	LM-LED**
*Add colour: R, G, Y, B, W *Add voltage: 12V AC/DC, 24V AC/DC, 110VAC, 230VAC.	
Spare Filament lamp 7W BA 15d (*Add voltage to code 12V, 24V, 110V & 230V)	ACL61*
Spare lens (**specify colour: Red, Yellow, Green, Blue, White)	LM-**

### Signal Tower Kombi Sign 71 IP65

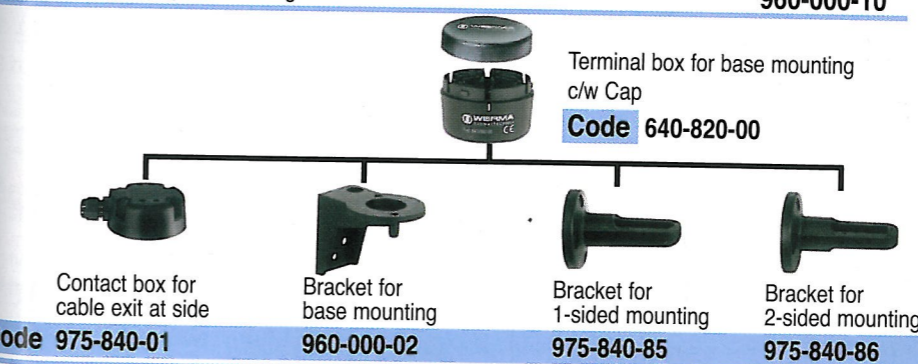
- High protection rating IP65 • Signal tower system 70mm Ø with modular construction
- Improved illumination • Flexible combination of optical and audible elements

Colour	Code Beacon only no lamp	Code LED on	Code LED flashing	Code LED rotating 24V AC/DC only
● Red	641-100	644-100*	644-110*	644-130-75
● Green	641-200	644-200*	644-210*	644-230-75
● Yellow	641-300	644-300*	644-310*	644-330-75
● White	641-400	644-400*	644-410*	644-430-75
● Blue	641-500	644-500*	644-510*	644-530-75

\*Add Voltage: 24V AC/DC, 110VAC, 230VAC

#### Accessories

Description	Code
Buzzer 85dB, 25mA continuous or pulse by internal jumper	645-800*
Siren, Multi function, 100dB, 8 different tones, adjustable sound output	645-820*
*Add Voltage: 24V AC/DC, 110VAC, 230VAC	
7 Watt BA15D Lamp for Beacon only with no lamp	ACL61*
*Add Voltage: 12, 24, 110, 230V	
LED Lamp for Beacon with no lamp (BA15D)	LM-LED**
*Add colour: R, G, Y, B, W *Add voltage: 12V AC/DC, 24V AC/DC, 110VAC, 230VAC	
Spare black end cap for tower light	960-000-10



**NEW LED BEACONS**



**WERMA**  
SIGNALTECHNIK



- High protection rating IP65
- Signal tower system 70 mm Ø with modular construction
- Improved illumination
- Flexible combination of optical and audible elements

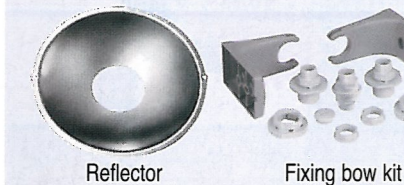
**VISUAL ALARMS**

LED:  
Clear signalling even  
in direct sunlight

**NEW MOUNTING SYSTEM**

Base Mounting

Shown with  
fixing bows



**Traffic Lights IP65**

- Underground car parks
- Car wash

- High Impact ABS
- Entrances
- Base or swivel bracket mounting

- LED 50000Hrs
- Size: Ø150 x 147H

Code	Lamp	Code	Lamp	Colour	Voltage	Application
890-120-55*	LED	-	LED	Red	12 or 24VDC	
890-220-55*	LED	-	LED	Green	12 or 24VDC	
*Add voltage to Code						
890-120-68	LED	890-121-68	LED	Red	230VAC	
890-220-68	LED	890-221-68	LED	Green	230VAC	
890-10	E27*	890-110	E14*	Red	12-240V	
890-20	E27*	890-210	E14*	Green	12-240V	
890-30	E27*	890-310	E14*	Yellow	12-240V	
890-40	E27*	-	-	Clear	12-240V	
890-50	E27*	-	-	Blue	12-240V	

(Excluding Lamps). \*15/25 Watt max, golf ball type incandescent lamp.  
1 Lamp Beacons supplied without reflector, to be ordered separately  
2 Lamp Beacons supplied with reflector

**Accessories**

Code	Description
975-890-02	Reflector for one Lamp
975-890-33	Fixing bow kit for one beacon
975-890-34	Fixing bow kit for two beacons
975-890-35	Fixing bow kit for three beacons

**E27 Lamps for 1 Lamp Beacon**

Code	Volts	Size 100mm
E27-25	230V	25W E27
E27-25	115V	25W E27
E27-25	24V	25W E27

**E14 Lamps for 2 Lamp Beacon**

Code	Stickers
975-890-52	→
975-890-53	Stop
975-890-54	Start

Code	Volts	Size 75mm
E14-15	230V	15W E14
E14-15	115V	15W E14

**SIGNAL TOWERS**

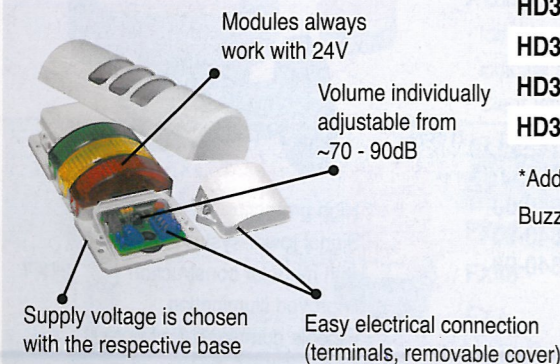
**Half Dome 90 Signal Tower - IP65**

Visual-Audible LED signal towers in half-dome design  
Slim design for optimal integration in many applications  
Suitable for indoor or outdoor use, mounted vertically or horizontally  
Lens optics and reflective coating allow optimal signalling and visibility (180° viewing angle)

**3-Light Signal Tower - Size: 194 x 90 x 45**

Code	Description
HD3-90A-*	Red, Yellow, Green Steady On
HD3-90B-*	Red, Yellow, Green Flashing
HD3-90C-*	Red, Yellow, Green Steady On, c/w buzzer module
HD3-90D-*	Red, Yellow, Green Flashing, c/w buzzer module

\*Add voltage to code: **24V (AC/DC), 110VAC, 230VAC**  
Buzzer module can produce continuous or pulsing tone, selectable by dipswitch.



**200mm LED TRAFFIC SIGNAL LAMPS IP65**

**NEW**



- Excludes housing
- 200mm dia.
- Lumen >400mcd
- Vertical or horizontal assembly
- Supply Volts: 230VAC
- Ultra long life 100 000hrs

Code	Colour	Type	Watts	Type of Lens
V8R-400CL	Red	Full Ball	15W	Cobweb
V8Y-400CL	Yellow	Full Ball	15W	Cobweb
V8G-400CL	Green	Full Ball	15W	Cobweb
DX200-01	Red	Full Ball	8W	Transparent
DX200-02	Yellow	Full Ball	8W	Transparent
DX200-03	Green	Full Ball	8W	Transparent
DX200-04	→ Red	Left or right arrow (4000 cd/m <sup>2</sup> )	7W	Transparent
DX200-06	→ Green	Left or right arrow (4000 cd/m <sup>2</sup> )	7W	Transparent
DX200-07	Red	1 x Static red man	7W	Transparent
DX200-08	Green	1 x Static green man	7W	Transparent
DX200-11	Red	Cross	7W	Transparent
DX200-09	Red / Green	2 Digit count down	7W	Transparent

**Accessories**

Code	Description
PHB-R	Round ABS Plastic Housing c/w metal visor
AB-PH	Mounting Bracket for PHB-R

**NEW**

Code	Traffic Light Set With Housing	Stop/ Go Traffic Light Set With Housing	Green Arrow/ Red Cross Traffic Light - with Housing	Warning Traffic Light - with housing and solar panel
XHD200-3Z-3-*	R (10W) + Y (10W) + G (10W)	XHD200-12-*	XHD200-3Z-1-*	RW-TL200-SL/FY
LED qty	R (96pcs) + Y (96pcs) + G (96pcs)	R (168pcs) + G (168pcs)	R (96pcs) + G (96pcs)	Lead Acid 12V/ 17Ah (incl.) 8W Solar panel (incl.)
Colour	Red + Yellow + Green	Green + Red	Red + Green	61pcs Yellow
Size (mm)	1210 x 430 x 270	530 x 410 x 310	870 x 430 x 270	430 x 340 x 450

\*Add voltage to code: **230VAC (86-265VAC)** or **DC (10-36VDC)**, eg. XHD200-3Z-3-230VAC

**NEW**

**300mm LED TRAFFIC SIGNAL LAMPS IP65**

- High-intensity LED
- UV-Stabilised polycarbonate
- Clear lens colour
- Metal protection cover for lens
- Waterproof housing

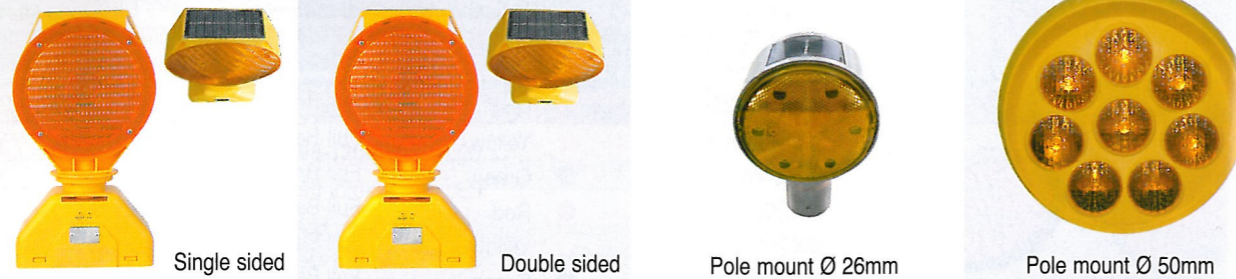
Code	Traffic Light Housing	Traffic Lights	Single Traffic Lights - with Housing	Solar Traffic Light Set - with Housing & Solar Panel
XHD-300-H	OPTICA300-01-1-*	RW-TL300-3/1-*	XHL-C6006-*	
Power	-	10W	12W	Lead Acid 12V/ 35Ah (incl.) 40W Solar Panel (incl.)
LED qty	-	168pcs	R(168pcs) + Y(168pcs) + G(168pcs)	R (96pcs) + Y (96pcs) + G (96pcs)
Colour	Black	+Add colour to code: <b>R(Red), Y(Yellow), GN(Green)</b>	Red + Yellow + Green	Red + Yellow + Green
Size (mm)	430 x 340 x 450	300 x 50	870 x 430 x 270	1210 x 430 x 270

\*Add voltage to code: **230VAC (86-265VAC)** or **DC (10-36VDC)**, eg. XHD-300-019-230VAC

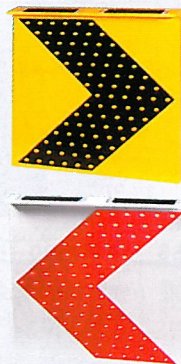
## LED ROAD LIGHTING

**NEW**

### Solar Powered Road-Side Warning Lights



Code	RH-4803-Y	RH-4804-Y	RH-4603-Y	H-931-Y
Battery	1.5V/1200mAh (Ni-Cd)	1.5V/1200mAh (Ni-Cd)	1.2V/1800mAh (Ni-Cd)	2V/2.5Ah (Lead-Acid)
LED qty	2 pc (8mm)	2 pc (8mm) x 2	6 (10mm)	8 x 1 (5mm)
Flash Rate	65 Flashes/min	65 Flashes/min	150 Flashes/min	120 Flashes/min
Size (mm)	326 x 163 x 29	326 x 163 x 29	Ø115 x 65 x 166	Ø386 x 100
Colour	Yellow (other colours on request)			



### Solar Warning Light IP67 - Size: Ø166 x 155H



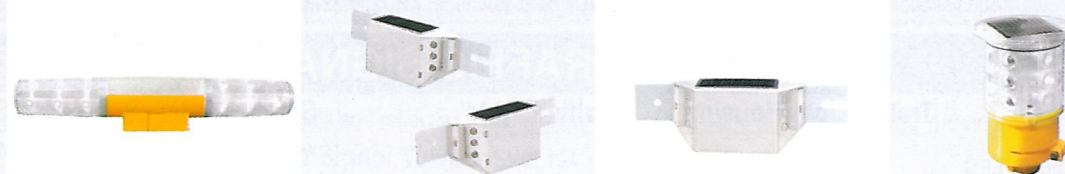
Code	XHL-C6009-2-*†	XHL-C6009-1-*†	Code	DWS301-*	DWS302-*
Battery	6V/ 10Ah (Lead-Acid)	6V/ 20Ah (lead-Acid)	Type	Steady on	Flashing
LED qty	33 (5mm)	60 (5mm)	Night Visibility	3,6km	3,6 - 6km
Flash Rate	60 Flashes/ min	60 Flashes/ min (flowing)	Operating Time	70Hrs	140Hrs
Size (mm)	750 x 600 x 60	1600 x 480 x 60	Battery	4.6Ah NiMh	4.6Ah NiMh

\*Add LED colour to code: ● Y (Yellow), ● R (Red)  
†Add arrow direction: L (Left), R (Red)

\*Add colour to code: ● R (Red), ● A (Amber), ● BL (Blue), ● GN (Green), ● W (White)

## SOLAR ROAD LIGHTS

**NEW**



Code	TEA-1B02-BH	TEA-1B03*-BH	TEA-1B03C-BH	TEA-1E10A-BH
Solar cell Power	2250mWp	350mWp	400mWp	500mWp
Current	400mA	85mA	100mA	125mA
Voltage	5.5V	4.0V	4.0V	4.0V
Storage component				
Category	NiMh Battery	NiMh Battery	NiMh Battery	NiMh Battery
Capacity	8000mAh	800mAh	1200mAh	1200mAh
Voltage	3.6V	2.4V	2.4V	2.4V
Colour	Amber	White	White	Amber
Lighting Mode	Fast Flash ± 75/min	Steady On	Steady On	Fast Flash ± 60/min
Working Time after full charge	80h	80h	80h	30h
Size	650 x Ø98 x 240H	250L x 78H x 50D	250L x 78H x 50D	Ø103 x 150H
Average life	4 Years	4 Years	4 Years	4 Years

\*Add to code: A for right LED display; B for left LED display

## COMMUNICATION EQUIPMENT

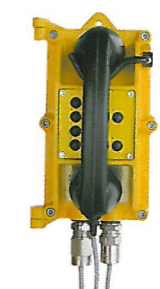
### Robust Telephones



Zenith



Ratel



Phoenix



Acoustic



Non Acoustic

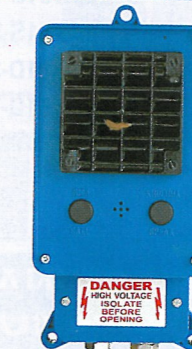
Code	Z500	A120	A130	ATB100	TB100
Rating	<b>IP65</b>	Weatherproof	Double Protection		
Size (HxWxD)	260 x 120 x 100	230 x 140 x 110	280 x 15 x 140	670 x 500 x 450	670 x 450 x 500
Housing	ABS	M/Steel Powder Coated	Gun Metal Brass	Fibreglass	Polypropylene
Weight	1Kg	2.5Kg	9Kg	7.5Kg	5Kg

Automatic analogue industrial/mining telephone compatible with all 24V/48V PABX systems, pulse/tone switchable. Ring signal 45V-90VAC 17Hz-50Hz

### Page Telephone

Code	P300
Rating	Weatherproof <b>IP65</b>
Size (HxWxD)	310 x 140 x 120
Housing	ABS
Weight	3Kg

- 2-50 telephones connect in parallel with twisted telephone cable pair.
- Operated on 220V/110VAC. Standard.
- Central 12V PSU option available.
- Simplex, open voice comms at 2 watt output



Biza Khuluma

### Telephone Extension Light/Siren

Phone Ringer. For standard 2 wire analogue phones only.

#### SSLU

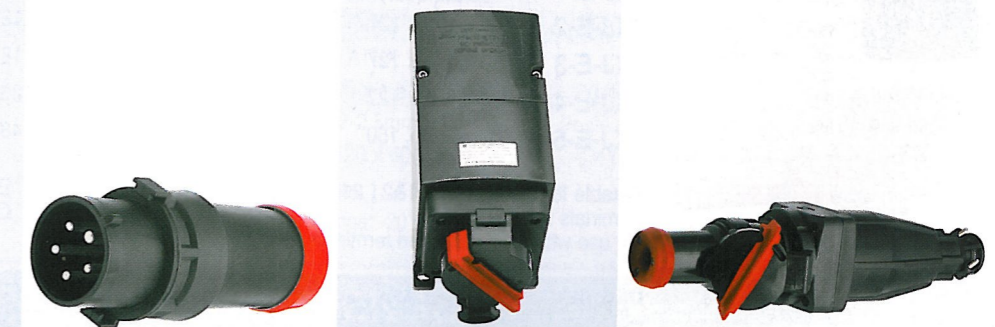
Weatherproof **IP65**  
340 x 140 x 120  
ABS  
3Kg

- Operates in sympathy with the telephone ring signal.
- Powered by 110 or 220VAC
- Siren 116db o/p.
- Light 8 x super bright LED.



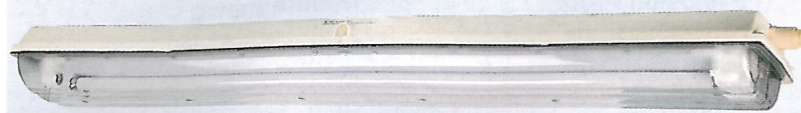
Light & Siren Unit

## EXPLOSION PROOF PLUGS & SOCKETS IP65



RATED CURRENT (A)	RATED VOLTAGE (V)	POLES	PLUG	SOCKET	COUPLING
16	220 - 240	2P+E	BCZ8052T-16/220	BCZ8052S-16/220	BCZ8052L-16/220
	380 - 400	4P+E	BCZ8054T-16/380	BCZ8054S-16/380	BCZ8054L-16/380
32	220 - 240	2P+E	BCZ8052T-32/220	BCZ8052S-32/220	-
	380 - 400	4P+E	BCZ8054T-32/380	BCZ8054S-32/380	-
63	220 - 240	2P+E	BCZ8052T-63/220	BCZ8052S-63/220	-
	380 - 400	4P+E	BCZ8054T-63/380	BCZ8054S-63/380	-

## EXPLOSION PROOF LIGHTING



Fluorescent 230V IP66

Code	Watts	Size (mm) L x W x D	Code
BAY51-Q18X1X	1 x 18W	780 x 196 x 128	BAY51-Q18X1X-EMG
BAY51-Q18X2X	2 x 18W	780 x 196 x 128	BAY51-Q18X2X-EMG
BAY51-Q36X1X	1 x 36W	1380 x 222 x 134	BAY51-Q36X1X-EMG
BAY51-Q36X2X	2 x 36W	1380 x 222 x 134	BAY51-Q36X2X-EMG
BAY51-Q56X2X	2 x 56W	1672 x 196 x 115	BAY51-Q56X2X-EMG

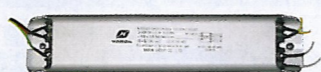
(Lamps included.) See page 500 for spare lamps. Emergency duration 90min on one lamp.

### Fluorescent 230V IP66 (Certificate No. S-XPL/04547)

ATEX: Group II category 2GD Material: Polycarbonate diffuse  
Ideal for IIA, IIB, IIC locations Full plastic body  
Suitable for Zone1, 2 and 21, 22 Ex mark II 2G Exedq II CT4

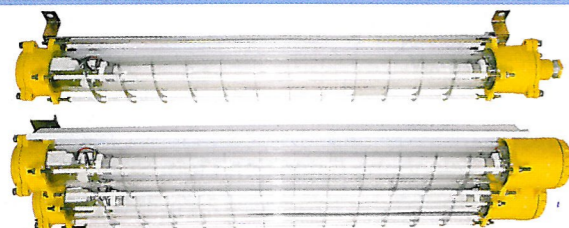
#### Accessories

Code	Description
5136011	Explosion-proof ballast for 1x36W or 2x36W
5118004	Explosion proof ballast for 1x18W or 2x18W
5136004	36W Key for opening fitting
5118002	18W Key for opening fitting



Ballast

Key



#### Description

ATEX: Group II category 2G  
Ideal for IIA, IIB, IIC locations  
Suitable for Zone1 and 2

Material: Aluminium body, glass lamp housing, stainless steel diffuser, carbon steel reflector  
Ex mark: II 2G Exd II CT6

### Fluorescent 230V IP65

Code	Watts	Size (mm) L x W x D
BAY51S-18X	1 x 18W	885 x 130 x 130
BAY51S-36X	1 x 36W	1470 x 130 x 130
BAY51D-36X	2 x 18W	865 x 225 x 140
BAY51D-72X	2 x 36W	1470 x 225 x 140

(Lamps included.) See page 500 for spare lamps.

## EXPLOSION PROOF TERMINAL BOXES

Terminals not included



### Aluminium Terminal boxes - IP65

Material: Aluminium alloy, Powder coated

Code	Size (mm) L x W x D	No. of terminals fitting into box					No. of rows	No. of entries
		2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>		
BXJ-E-1	190 x 132 x 127	20	18	15	12	10	1	2 bottom
BXJ-E-2	190 x 190 x 127	20	18	15	12	10	1	2 bottom
BXJ-E-3	250 x 190 x 127	30	28	22	18	15	1	3 bottom
BXJ-E-4	250 x 250 x 127	60	56	44	36	30	2	3 bottom
BXJ-E-5	300 x 200 x 150	80	72	60	48	-	2	4 bottom

Suitable for use in: Zone 1&2, 21&22  
Terminals not included  
For use with ATEX approved terminals. See page 140 & 141

Ex Mark: II 2G Exe II T6  
Cable Entries: M20 X1.5

### Polyester Terminal boxes - IP65

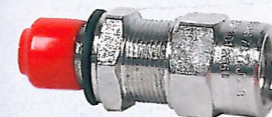
Material: Glass fibre reinforced Polyester resin

Code	Size (mm) L x W x D	No. of terminals fitting into box					No. of rows	No. of entries
		2.5mm <sup>2</sup>	4mm <sup>2</sup>	6mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>		
BXJ8050-1	139 x 110 x 98	12	11	9	-	-	1	2 bottom
BXJ8050-2	220 x 130 x 109	25	23	18	15	-	1	2 bottom
BXJ8050-3	260 x 179 x 120.5	30	27	22	18	15	1	3 bottom
BXJ8050-4	360 x 220 x 122	44	40	33	26	22	1	4 bottom
BXJ8050-5	360 x 360 x 122	88	80	66	52	44	2	4 bottom

Suitable for use in: Zone 1&2, 21&22  
Terminals not included  
For use with ATEX approved terminals. See page 140 & 141

Ex Mark: II 2G Exe II T6  
Cable Entries: M20 X1.5

## EXPLOSION PROOF GLANDS



Supplied with Shroud



Class 1 Zone 1 Cert. MS787/J608  
For use on Exd equipment to SABS 314.

### Flameproof Glands

#### S.W.A. Glands

Size	Code
0	FSG-0
1	FSG-1
2	FSG-2
3	FSG-3
4	FSG-4



Class 1 Zone 1  
Cert. MS787/J206

#### Compression Glands

Size	Code
00	FCG-00
0	FCG-0
1	FCG-1
2	FCG-2
3	FCG-3
4	FCG-4

### EX Cable Glands Explosive Areas IP68

Code	Size	Cable Size Ø
124M20EX03	M20	6-12mm
124M25EX03	M25	13-18mm
124M32EX03	M32	18-25mm



### For Armored Cable Double Seal IP66

Size	Code
20mm	EPG-710002
25mm	EPG-710004
32mm	EPG-710006
40mm	EPG-710008



### Compression Glands IP65

### Compression Glands IP65

Size	Code
20mm	EPC-706001
25mm	EPC-706002
32mm	EPC-706003
40mm	EPC-706004



## EXPLOSION PROOF STOPPERS



BA-



BZ-

### Exe Stopping Plugs

Size	Code	Length L (mm)	Code	Length L (mm)
20mm	BA-715001	17	BZ-714002	10
25mm	BA-715002	17	BZ-714003	12
32mm	BA-715003	20	BZ-714004	12
40mm	BA-715004	20	BZ-714005	14.5
50mm	BA-715005	20	BZ-714006	15

Material: Aluminium Alloy, carbonate  
Steel Zinc-Plated  
II 2G Exd IIC

II 2G Exe II

## EXPLOSION PROOF JUNCTION BOXES



BXJ8050-20B/6-4



BHD-D/M25

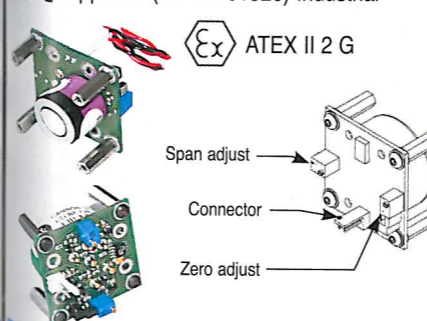
BHD51-G3/4I

Code	Engineering Plastic	Die-Cast Aluminium	
	BXJ8050-20B/6-4	BHD51-G3/4I	BHD-D/M25
Type	Terminal box	Lightning Terminal Box	Terminal Box
Material	Glass fibre reinforced plastic	Aluminium Alloy, powder-coated	
EX-Mark	II 2G Exe II T6	II 2G Exd II BT6 / CT6	
Certificates	PTB 03 ATEX 1021	PTB 06 ATEX 1013	
Gland Size	M25 x 1.5	G3/4 (not incl.)	M25 x 1.5 (not incl.)
Terminals	Posts 0.2-2.5mm <sup>2</sup> x 6	Posts 0.2-2.5mm <sup>2</sup>	DIN 2.5mm <sup>2</sup> x 6
Size	120 x 120 x 60mm	Ø110 x 110H	Ø110 x 71H
	Suitable for Zone 1, 2, 21 and 22 Temperature range: -20°C to +55°C	Ideal for IIA, IIB and T6 Areas	

## TOXIC GAS SENSOR

### Approval

CE Approval (BS EN 61326) Industrial



ATEX II 2 G

Low range 4-20mA microprocessor transmitter gas sensor. Transmitters are available with the following pre-calibrated ranges:

Code	Type
CO-BF-*	Carbon Monoxide
H2S-BF-*	Hydrogen Sulphide
SO2-BF-*	Sulphur Dioxide
CH-A3-BF-*	Explosive gasses

\*Add to code for ranges: 1 (0-500ppm)  
2 (0-2000ppm)

Note: ppm (maximum gas concentration)

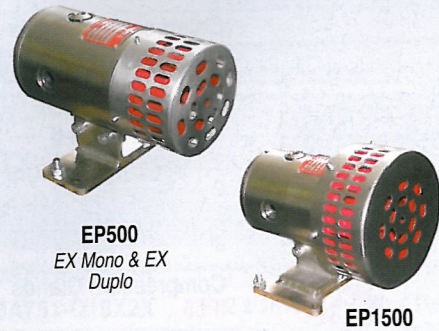
Note: CH-A3-BF-\* detects multiple gas

• Propane • Carbon Monoxide • Benzene  
• Methane • Ethylene • Alcohol

### 4 to 20mA Transmitter Specifications

- Input voltage required: +7.5 to 35VDC
- Output at zero gas concentration (or 15% oxygen): 4mA (user adjustable)
- Output at full-scale (or 25% oxygen): 20mA (user adjustable)
- Setability/ stability: <0.05mA (<0.25% full scale)
- Maximum load @ 20mA, 24VDC: 825ohms
- Supply voltage dependance: ±0.2% output from +7.5 to 35VDC
- Connector: 2 pin Molex plug (ref 22-27-2021) supplied with leads
- Transmitter current requirement: <100mA

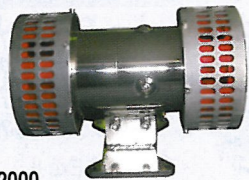
## FLAMEPROOF SIRENS & BEACONS



EP500  
EX Mono & EX  
Duplo



EP1500



EP2000

### Flameproof Motorised Sirens

• Application: Class 1, 2 & 3 all groups. Division 1 and 2 areas

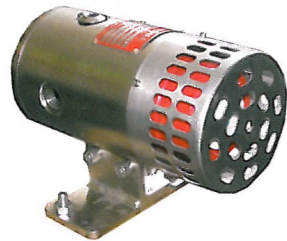
Code	Operating Voltage Range	Frequency (Hz)	Max Current at Rated Voltage (A)	Audible Range	Min Sound at Rated Voltage (dB@1m)
		Duty Cycle 1min on, 8min off			
		*Duty Cycle - Continuous			
EP500*	115VAC	1200	2	1000m	113 - Ex Duplo
EP500*	230VAC	1200	1	1000m	113 - Ex Duplo
EP500†	12VAC/DC	1200	9	1000m	113 - Ex Mono
EP500†	24VAC/DC	1200	4.8	1000m	113 - Ex Mono
Duty Cycle 30min on, 10min off					
EP1500	115VAC	1600	2.6	1500m	126
EP1500	230VAC	1600	2.1	1500m	126
EP2000	115VAC	370/660	4.0	2000m	128
EP2000	230VAC	370/660	3.0	2000m	128

### Flameproof Electronic Sounder

- Maintenance free solid state sounder
- Four sounds from one unit for different applications
- High sound output with volume control
- Application: Class 1, 2 & 3, all groups. Division 1 and 2 areas

Code	Description	Sound Output @1m
EXS*	Flameproof Multi Sounder	93-113dB

\*Add voltage: 12VDC, 24VDC, 115VAC, 230VAC



EXS Multi  
Sounder

- High quality steel casting, precision engineered
- Rugged multipurpose weatherproof device
- Application: Class 1, 2 & 3, all groups. Division 1, 1 and 2 areas

### Flameproof Beacon

Code	Description	Colour	FPM	Light
EXF-A*	Flameproof Beacon	Amber	110	Xenon Tube
EXF-B*	Flameproof Beacon	Blue	110	Xenon Tube
EXF-G*	Flameproof Beacon	Green	110	Xenon Tube
EXF-R*	Flameproof Beacon	Red	110	Xenon Tube
EXFL-A*	Flameproof Beacon	Amber	110	LED
EXFL-R*	Flameproof Beacon	Red	110	LED
EXFL-G*	Flameproof Beacon	Green	110	LED

\*Add voltage: 12VDC, 24VDC, 110VAC, 230VAC

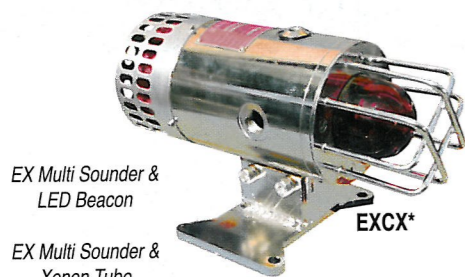


EX Xenon & EX  
LED

### Flameproof Beacon and Sounder Combination

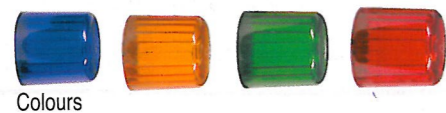
Code	Colour	Light	Description	FPM
EXCX-A*	Amber	Xenon Tube	Flameproof Sounder and Beacon	110
EXCX-B*	Blue	Xenon Tube	Flameproof Sounder and Beacon	110
EXCX-G*	Green	Xenon Tube	Flameproof Sounder and Beacon	110
EXCX-R*	Red	Xenon Tube	Flameproof Sounder and Beacon	110
EXCL-A*	Amber	LED	Flameproof Sounder and Beacon	110
EXCL-G*	Green	LED	Flameproof Sounder and Beacon	110
EXCL-R*	Red	LED	Flameproof Sounder and Beacon	110

\*Add voltage: 12VDC, 24VDC, 115VAC, 230VAC



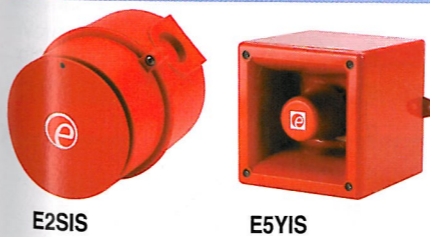
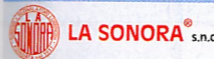
EX Multi Sounder &  
LED Beacon

EX Multi Sounder &  
Xenon Tube



Colours

## EXPLOSION PROOF EQUIPMENT



### Flameproof Sounders and Beacons

• Application: Class 1, 2 & 3 all groups. Division 1 and 2 areas

Code	Operating Voltage Range	Material	Max Current at Rated Voltage (A)	Min Sound at Rated Voltage (dB@1m)	IP Rating	Tone
DB1 240VAC	240VAC	ABS	30mA	103	IP66	27 Tone
DB1 24VDC	24VDC	ABS	250mA	103	IP66	27 Tone
DB5	24VDC	ABS	14mA	100	IP65	26 Tone
DB7	24VDC	Polyester	34mA	103	IP66	27 Tone
XB8	24VDC	Polyester	55mA	60F/M	IP66	Beacon

### Manual Callpoint IP67

Code	Description
BG2	Switch Ratings: 0 to 30VDC – 5A (resistive) or 3A (inductive); 30 to 50VDC – 1A (resistive) or 3A (inductive); 0 to 254VAC – 5A (resistive) or 3A (inductive). Material: UV resistant glass reinforced polyester.

EXH 24VAC	24VAC	PC/ABS	450mA	105	IP55	Horn
EXH 115VAC	115VAC	PC/ABS	205mA	105	IP55	Horn
EXH 230VAC	230VAC	PC/ABS	70mA	105	IP66	Horn

GR3T 24VAC	230VAC	Aluminium	70mA	110	IP55	Siren
GR3T 115VAC	115VAC	Aluminium	150mA	110	IP55	Siren
GR3T 24V	12-24VAC/DC	Aluminium	160mA	109	IP55	Siren

Above Sirens 100% continuous rated

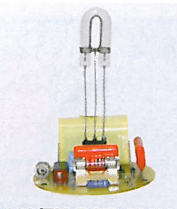
### Aluminium Explosion-proof Beacon IP66 Xenon Tube

Code	Colour	FPM	Connection
FHL113-A*	Amber	110	3/4 inch
FHL113-R*	Red	110	3/4 inch
FHL113-G*	Green	110	3/4 inch

\*Add Voltage 24V (12-24VAC/DC), 110VAC, 230VAC

### Spare PCB c/w Xenon Tube

113/FH-PCB	12/24VAC/DC P.C.B c/w Xenon Tube	
113/FH-PCB 110V	110V P.C.B c/w Xenon Tube	
113/FH-PCB 230V	230V P.C.B c/w Xenon Tube	



113/FH-PCB 230V

### Sounders Intrinsically safe zone 0, 1 & 2 Gas Group 11C

Code	Operating Voltage Range	Material	Max Current at Rated Voltage (A)	Min Sound at Rated Voltage (dB@1m)	IP Rating	Tone
E2SIS	24VDC	ABS Flame retardant UL94VO	25mA	100	IP65	49 Tone
E5YIS	24VDC	ABS Flame retardant UL94VO	93mA	105	IP66	32 Tone

### Beacons

E2BIS*	24VDC	ABS Flame retardant UL94VO	25mA	-	IP65	Beacon
--------	-------	----------------------------	------	---	------	--------

\*Add colour: ●R (Red), ●A (Amber), ●G (Green), ●B (Blue)

### Sounder/Beacons

E25BIS*	24VDC	ABS Flame retardant UL94VO	48mA	100	IP65	49 Tone
---------	-------	----------------------------	------	-----	------	---------

\*Add colour: ●R (Red), ●A (Amber), ●G (Green), ●B (Blue)

## FLAMEPROOF EQUIPMENT

### 1 Way Control Stations

Zone 1 Group IIA, IIB, IIC

Code	Description	Enclosure Size Code
<b>Cast Iron</b>		
PBS71-START-*	Start Station	b
PBS71-1-*	Emergency Stop (spring return)	b
PBS71-2-*	Padlockable Stop Station	b
PBS71-3-*	Emergency Stop (push/pull)	b
PBS71-6-*	Emergency Stop Padlockable	b
CT/KMS-93-†	Mining Key Switch	a

\*Add 'D' for 1 x Top & 1 x Bottom 20mm entries, 'B' for 2 x 20mm bottom entries  
†SC = shuttle car key, CM = continuous miner, DV = feeder bunker

### 2 Way Control Stations

PBS72-*	Start/Stop Station	b
PBS72-3-*	Emergency Stop (push/pull)/Start	b

Enclosure Size Code: H x W x D (External) \*Add 'D' for 1 x Top & 1 x Bottom 20mm entries, a = 120 x 120 x 90 b = 144 x 100 x 75 'B' for 2 x 20mm bottom entries

### Direct On Line Starter – No Terminal Box

AC3 kW	Overload Range	D.O.L. Code	Enclosure Size Code	With Isolator	Enclosure Size Code	Coil Voltage AC
400V	525V					
4	5.5	7-10A	FDL09	c	/S	d
5.5	7.5	9-13A	FDL12	c	/S	d
7.5	10.5	12-18A	FDL18	c	/S	d
11	15	17-25A	FDL25	d	/S	e
15	18.5	23-32A	FDL32	d	/S	e
18.5	22	33-50A	FDL40	f	/S	f
22	30	33-50A	FDL50	f	/S	f
30	37	43-65A	FDL65	f	/S	f
37	45	54-80A	FDL80	f	/S	f
45	55	83-90A	FDL95	f	/S	f

Enclosure Size Codes: H x W x D (External)  
c = 210 x 150 x 115, d = 320 x 210 x 190, e = 320 x 150 x 135, f = 450 x 330 x 220

### Isolators

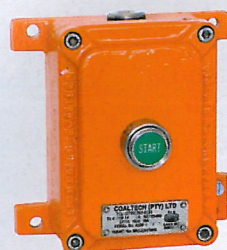
Code	Description	Enclosure Size Code	Cable Entries
ISO80/1/20	20 Amp 2 Pole Isolator	a	1 x Top & 1 x Bottom
ISO80/3/20	20 Amp 3 Pole Isolator	a	1 x Top & 1 x Bottom
ISO80/3/32	32 Amp 3 Pole Isolator	a	1 x Top & 1 x Bottom
ISO160/3/32	32 Amp 3 Pole Isolator	g	2 x Bottom
ISO160/3/40	40 Amp 3 Pole Isolator	g	2 x Bottom
ISO160/3/63	63 Amp 3 Pole Isolator	g	2 x Bottom
ISO160/3/80	80 Amp 3 Pole Isolator	g	2 x Bottom

Enclosure Size Codes: H x W x D (External)  
a = 120 x 120 x 90 g = 210 x 150 x 135

### Switches

Code	Description	Enclosure Size Code	Cable Entries
SETS	Single Ended Trip Switch	c	2 x Bottom
DETS	Double Ended Trip Switch	c	2 x Bottom
LSWR80	Roller Limit Switch	a	1 x Side

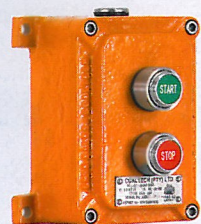
Enclosure Size Codes: H x W x D (External)  
c = 210 x 150 x 135 a = 120 x 120 x 90



PBS71



CT/KMS-93



PBS72



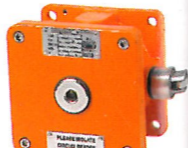
ISO80



ISO160



DETS



LSWR80

## EXPLOSION PROOF LIGHTING

### Flood Light 230V IP66

Watts	Code High Pressure Sodium Lamp	Code Metal Halide Lamp	Code Empty Fitting	Lamp Holder
70W	BAT53-HSE70G	BAT53-HIE70G	-	E27
100W	BAT53-HSE100G	BAT53-HIE100G	-	E40
250W	BAT53-HSE250G	BAT53-HIE250G	-	E40
400W	BAT53-HSE400G	BAT53-HIE400G	BAT53-EMPTY	E40

(Lamps excluded.) See page 509 for lamps.

### Description

ATEX: Group II category 2G  
Ideal for IIA, IIB locations  
Suitable for Zone 1, 2 and 21, 22 locations  
Material: Die cast aluminium alloy outer shell  
High pressure anti static plastic sprayed  
Silicon rubber seal, high grade anodic  
Aluminium reflector IP66  
Temperature range: -25°C to +55°C  
Ex mark II2G Exde II BT3



400W

250W

70/100W

### Bulkhead IP65

Code	Watts	Lamp Type	Lamp Holder
BAD-A200X	200W	Incandescent or	E27
	160W	Mercury Blended or	
	20W	Energy Saving CFL	
BAD61-HSE70X	70W	High Pressure Sodium. c/w ballast & ignitor	E27
BAD61-HSE100X	100W	High Pressure Sodium. c/w ballast & ignitor	E27

(Lamps excluded.) See page 509 for lamps.

### Description

ATEX: Group II2G Exd II CT4  
Ideal for IIA, IIB, IIC areas  
Suitable for Zone 1 and Zone 2 locations. (Certificate No. PTB 03 ATEX 1077)



BAD-125X

BAD61

### Energy Saving Lighting IP65

Code	Watts	Lamp Type	Lamp Holder
BAD81-42X	42W	Energy Saving CFL	E27
BAD81-68X	68W	Energy Saving CFL	E27

Lamps included. Suitable for ceiling mounting.

### Description

AteX: Group II Category 2G  
Ideal for IIA, IIB, IIC areas  
Suitable for zone 1, 2 and 21, 22  
Exmark: II 2G Exd II CT4

### Accessories

Code	Description
81004	42W Spare lamp
81005	68W Spare lamp



BAD81-42X

BAD81-68X

### Urano Floodlights Asymmetrical Diffused (wide beam) 230V 50Hz IP55

Code	Watts	Lamp Type	Current	Lamp Holder
GW84134M	150W	MD Metal Halide	1.8A	Rx7s
GW84224	Optional wire guard			

(Complete with lamp) ATEX: Class II3GD T4. Zone 2G to Zone 22D

### Titano Asymmetrical Diffused Floodlights (wide beam) 230V IP66

GW84592M	250W	MT Metal Halide	2.2A	E40
GW84594M	400W	MT Metal Halide	3.4A	E40
GW84407	Optional wire guard			

(Complete with lamp) ATEX: Class II3GD T3. Zone 2G to Zone 22D

### Halle-High Bay 230V IP65 Control Gear. 470mmØ bowl

GW83563S	250W	SE High Pressure Sodium	3A	E40
GW83564M	250W	ME Metal Halide	2.2A	E40
GW83566S	400W	SE High Pressure Sodium	4.2A	E40
GW83567M	400W	ME Metal Halide	3.4A	E40
GW84814	Optional wire guard			

(Complete with lamp) ATEX: Class II3GD T4. Zone 2G to Zone 22D



Note: FLP discounts apply



## EXPLOSION PROOF LIGHTING

**NEW**



Cable not included  
Toughened Glass



c/w battery charger



c/w battery charger



c/w battery charger

Code	BSX-60	BAD203	BAD201	BAD303
Power Supply	≤100W (E27)	7.2V 2Ah Battery (incl.)	3.6V 1.8Ah Battery (incl.)	6V 4.5Ah Battery (incl.)
Battery life	-	≥10hrs	≥10hrs	High Intensity: 1-2hrs. Working light: ≥10hrs
Charging time	-	4.5-6hrs	4.5hrs	12-16hrs
Ex Mark	Ex II 2G Exde II CT4	Ex II 2G Exib II CT6	Ex II 2G Exib II CT6	Ex II 2G Exde II CT4
Zone	Zones 1 & 2	Zones 1 & 2	Zones 1 & 2	Zones 1 & 2
IP-Rating	IP65	IP68	IP66	IP68
Size	Ø138 x 433mm	Ø40 x 208mm	Ø25 x 120mm	105 x 53 x 153 (excl. head)
Spares	Spare Glass: <b>BSX102</b>	Battery <b>203-BAT</b>	Battery <b>201-BAT</b>	Battery <b>303-BAT</b>

## LED EXPLOSION PROOF BEACONS

Beacon/ Sounder - ≥80dB

Ex II 2G Exd [ib] II CT6

**NEW**



Beacon

Ex II 2G Exd II CT6



Code	Colour	Code	Colour
BBJ-ZG*	Green	BJD-ZG*	Green
BBJ-ZR*	Red	BJD-ZR*	Red
BBJ-ZY*	Yellow	BJD-ZY*	Yellow
BBJ-ZB*	Blue	BJD-ZB*	Blue

\*Add voltage to code: 110VAC, 230VAC

### Description

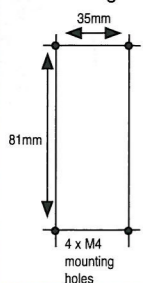
- LED lamp, low energy consumption, long service life
- IP-Rating **IP65**
- Flash frequency: 150/min
- Cable entry c/w cable seal-ring and locking device

- Suitable for use in Zones 1 & 2
- Ideally suited for use in IIA, IIB and IIC areas.
- Glass cover resistant to temperature changes
- Housing in aluminium alloy, powder-coated

## EXPLOSION PROOF LIMIT SWITCHES IP65

Contacts: 1NO + 1NC  
6A @ 220/380VAC

Cable entry: M20  
c/w cable gland



**NEW**



Code	BZX51-6D	BZX51-6S	BZX51-6Z	BZX51-6L
------	----------	----------	----------	----------

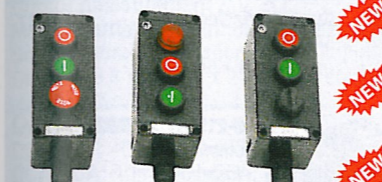
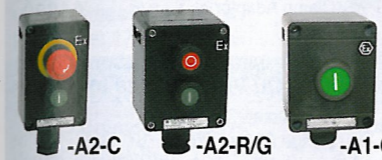
Ex mark: Ex II 2G Exed II CT6

Suitable for: Zone 1 & 2

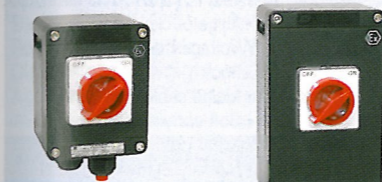
Group IIA, IIB, IIC class T6 or below

FLP

## EXPLOSION PROOF CONTROL STATIONS IP65



-A3-R/G/E -A3-R/G/L -A3-R/G/S



-16/2 -16/3 -32/2 -32/3

Code	Description	Gland Size	Enclosure Size H x W x D (mm)
BZA8050-K1	On/Off Selector Switch 1 x N/O (10A)	M25	107 x 85 x 87
BZA8050-A1-G	Start Pushbutton 1N/O	M25	107 x 85 x 87
BZA8050-A1-R	Stop Pushbutton 1 N/C	M25	107 x 85 x 87
BZA8050-A1-C	Emg. Stop Twist to release 1N/C	M25	107 x 85 x 87
BZA8050-A2-C	Emg. Stop (Twist to release 1N/C) & Start Pushbutton 1N/O	M25	139 x 85 x 87
BZA8050-A2-R/G	Start/Stop 1N/O & 1N/C	M25	139 x 85 x 87
BZA8050-A3-R/G/L	Start/stop and LED pilot light c/w 1N/O + 1N/C per button	M25	185 x 85 x 87
BZA8050-A3-R/G/E	Start/stop and emergency stop (twist to release) c/w 1N/O + 1N/C per button	M25	185 x 85 x 87
BZA8050-A3-R/G/S	Start/stop and selector 3 position stay put switch c/w 1N/O + 1N/C per button (switch can be used as auto-off-man)	M25	185 x 85 x 87

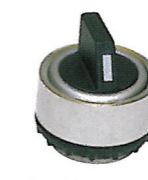
### Isolating Switches

BZZ8050-16/2	16A 2-Pole Isolator Padlockable	M25	139 x 110 x 109
BZZ8050-16/3	16A 3-Pole Isolator Padlockable	M25	139 x 110 x 109
BZZ8050-32/2	32A 2-Pole Isolator Padlockable	M25	220 x 130 x 109
BZZ8050-32/3	32A 3-Pole Isolator Padlockable	M25	220 x 130 x 109

Explosion protection: Ex II 2G Exed II CT6  
Material: Glass fibre reinforced polyester resin  
Rated working voltage: 220VAC/380VAC  
Rated working current: 10A

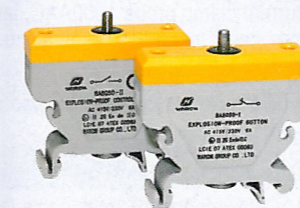
ATEX Classification Group II Category 2GD. Suitable for Zone 1, 2 and 21, 22 locations.

## EXPLOSION PROOF PUSHBUTTONS & PILOT LIGHTS

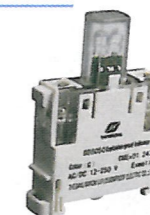


Colour	Push Button Flush	Pilot Light Head	Selector Switch	EMG-Stop Twist Release	EMG-Stop Push/Pull Button	On/Off Key Switch
Red	EX8050-R	EX8050-PLR	EX8050-SS	EX8050-EMG	EX8050-40093	EX8050-KS
Green	EX8050-G	EX8050-PLG				
Yellow	EX8050-Y	EX8050-PLY				
White	-	EX8050-PLW				

### Contact Blocks



### LED Lamp Blocks



### Isolating Switch On/Off



Description	Code	Description	Code	Description	Code
1N/O	EX8050-NO	24VAC	EX8050*-24VAC	2 Pole 10A	EX8050-2P
1N/C	EX8050-NC	110VAC	EX8050*-110VAC	4 Pole 10A	EX8050-4P
		230VAC	EX8050*-230VAC		

\*Add colour of lamp to code: R (Red), G (Green), Y (Yellow), W (White)

FLP

**POWER QUALITY ANALYSERS**



Code	MI-2192	MI-2092
<b>Power Quality Testing</b>		
RMS Voltages, Currents (average, min., max)	✓	✓
THD Harmonics Analysis	✓	✓
Power: Active, Reactive, Apparent Cos $\phi$ character sign	✓	✓
Voltage Events (dips,sags, interruptions)	✓	✓
Periodic Analysis	✓	✓
Statistical Analysis	✓	✓
Anomalies (Events) Analysis	✓	✓
Neutral current (calculated)	✓	✓
<b>Online monitoring</b>		
Meter mode – tabularic results	✓	✓
Scope mode – oscilloscope	✓	✓
Spectrum Analysis mode	✓	✓
<b>EN 50160 compliant testing</b>		
Fast Set Up – auto mode	✓	✓
Voltage	✓	✓
THD & Harmonics	✓	✓
Dips, Sags, Interruptions	✓	✓
Flicker	✓	✓
Frequency	✓	✓
Interharmonics/Signalling	Optional	✓
Unbalance	✓	✓
EN 50160 test report	✓	✓
<b>Special tools</b>		
FAST LOGGING mode	✓	✓
WAVEFORM mode	✓	✓
TRANSIENT mode	✓	✓
<b>Energy</b>		
Total	✓	✓
Subtotal counters	✓	✓

**Optional accessories for MI-2092 & MI-2192**

Description	Code
Mini Clamp 100A/1V (range 2A + 100A)	A1069
Clamp Adaptor	A1039
Flex Clamp 3000A/1V (range 60A + 3000A)	A1120
Current Transformer 5A/1V (range 0.1A + 5A)	IA1037



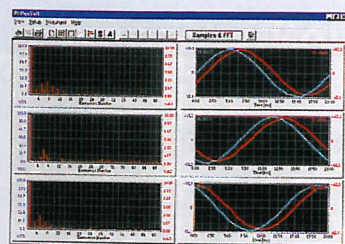
**MI-2192 & MI-2092 Set** comprises of:

- Instrument
- Current clamp 1000A/1V, (range 20A + 1000A), 3pcs
- Test tip, 3pcs
- Alligator clip, 4pcs
- Voltage measurement cable, 6pcs
- Mains cable
- Soft carrying bag
- Small soft carrying bag
- Instruction manual
- Declaration of conformity
- Product verification data
- Power Link PC software with RS 232 cable

**ENERGY ANALYSERS**



PQA702



Windows 95/98 based software



Accessories included with PQA702

**Parameters:**

- Instantaneous: W, VA, VAR, V, A, TPF, DPF, Hz
- Max demand: W, VA, A, programmable 1 to 60m
- Automatic calculation of kVAR necessary to compensate low PF
- Maximum and minimum calculations (single phase and system variables): W, VA, VAR, V, A, DPF, TPF, Hz, THD, THD odd, THD even (THD is considered for both current and voltage)
- Energies: +Wh, -Wh, +VArh, -VArh +VAh, -VAh (also by time period)
- FFT analysis (harmonic distortion): histogram indication up to 50th harmonic, numerical and percentage indication of harmonic content of both voltage and current. THD, THD odd, THD even and single harmonic measurement

**Data Recording:**

- Start measuring period: programmable from 00:00h to 23:59h
- Data integration time interval (10ms sampling) programmable from 1-999s (15 min)
- Data References: date and time
- Available memory: 1 Mb ram

**Code:** PQA702 New

PQA700-H Unit for hiring

PQA700-R Hire charge per day

**Portable Power Quality Analyser**

- Measurement of all electrical variables, harmonic analysis and other parameters. Includes printer, carry case and accessories.
- Printer: Impact Dot Matrix, paper width 54mm
- Power Supply: 230VAC  $\pm$ 15% plus internal rechargeable battery (Life: 1 hour)
- Carrying case/weight: 160 x 340 x 510mm / Instrument: 3.7kg, the whole set: 10kg
- **Standard accessories included:**

Rental facility available per day/visit. Compulsory separate insurance is required.

Code:	Accessories
CA1000H	Current clamp probe 1-10-100-1000AAC, jaw opening 52mm, cable length 2m. Accuracy: 0.7% @ 1A, 0.5% @ 10A, 0.3% @ 100A, 0.2% @ 1000A
CA3000Q	Current clamp probe 3000AAC, jaw opening 90mm, internal dimensions 65 x 150mm, cable length 2m. Accuracy: 1.5% @ 150A, 0.75% @ 1600A, 0.5% @ 3000A
FLEX3000Q	Flexible current clamp 0.5A to 3000A

**20MHZ HANDHELD DUAL CHANNEL SCOPE METER**



**Technical Specifications:**

Bandwidth: 20MHz x 2 channels  
 Sampling Rate: real time 100M Sa/sec  
 Horizontal sensitivity: 5ns/div-5s/div,  $\pm$ 0.01%  
 Horizontal resolution: 5ns  
 Memory depth: 2k per channel  
 Vertical sensitivity: 5mV/div-5V/div,  $\pm$ 5%  
 Vertical resolution: 8 bit  
 Rise time: 17.5ns  
 Trigger mode: Auto, Normal, Single time, Edge, TV  
 Max. input voltage: 300V DC + AC peak  
 Input impedance: 1M $\Omega$   $\pm$ 2%, 20pF  $\pm$ 3pF  
 Input coupling: DC & AC  
 Waveform maths: +, -, \*, /  
 Auto measurement: Freq, Period, Vpp, Vavg, Vrms  
 Cursor measurement  $\Delta$ V,  $\Delta$ T  
 Max. recording length: 6k samples per channel  
 Screen storage: 4 screens and 4 settings  
 Display: 3.8 inch 320 x 240 pixels color LCD with backlight

**DMM Functions:**

DCV/ACV: 400m/4/40/400V,  $\pm$ 1.0%  
 DCA/ACA: 40m/400m/20A,  $\pm$ 1.5%  
 OHM: 400/4k/40k/400k/4M/40M $\Omega$ ,  $\pm$ 1.0%  
 CAP: 51.2n/512n/5.12 $\mu$ /51.2 $\mu$ /100 $\mu$ F,  $\pm$ 3.0%  
 Audible continuity: (<50 $\Omega$ ) & diode test  
 Battery: 7.4V/1500mAh lithium, 6 hours  
 Power consumption: <6W  
 Dimensions & weight: 180x113x40mm, approx. 690g  
 Accessories: AC adaptor, interface wire & software, probes

**Code:** DS1022M

- 3 3/4 digital multimeter built with dual channel scope of 20MHz bandwidth, 320x240p colour LCD display
- Waveform maths, auto and cursor measurement
- True RMS, relative measurement
- **USB interface** to computer
- Ideal tool for use in Lab., school, factory, field work and home wiring repair, etc.

**SOLAR MODULE ANALYSER**



Code	PROVA200	PROVA300XP
Description	Analyser	Printer

- Voltage range: 0-60VDC
- Current range: 0-6A
- I-V Curve test for solar cell
- Maximum solar power (Pmax) search by Auto-scan (60V, 6A)
- Maximum voltage (Vmax) at Pmax
- Maximum current (Imax) at Pmax
- Voltage at open circuit (Vopen)
- Current at short circuit
- Calculation of efficiency (%)
- Manual single point test

**SAFETY GLOVES**



CUST.GI

CE Approved



VPG90

IRC-3

Test V	2500V	5kV	10kV	20kV	30kV
User V	500V	1kV	7.5kV	17kV	26.5kV
Size	Code	Code	Code	Code	Code
8	GI2,5-8	GI5-8	GI10-8	GI20-8	GI30-8
9	GI2,5-9	GI5-9	GI10-9	GI20-9	GI30-9
10	GI2,5-10	GI5-10	GI10-10	GI20-10	GI30-10
11	GI2,5-11	GI5-11	GI10-11	GI20-11	GI30-11

**Accessories**

Protective plastic case for gloves **CUST.GI**  
 Pneumatic Tester. This tester inflates the gloves and you can detect any perforation on the dielectric of the gloves **VPG90**

**Insulated Rubber Carpet in 3 & 6mm thickness x 1 metre wide** – priced per metre  
 3mm x 1 metre (w). Voltage test 30000V, max use voltage 26500V **IRC-3**

## HIGH VOLTAGE TEST EQUIPMENT

### High Voltage Proximity Detector



HP275

#### Description:

The HP275 is a high voltage proximity detector. It has eight voltage detection settings from 240VAC to 275kVAC. The HP275 consists of an internal pickup sensor plate, a sensitivity selector, a visual and an audible annunciator. With the HP275, physical contact with electrical conductors is not necessary when testing for live lines. This tester works by proximity.

#### Features:

- 8 voltage settings: Test 240VAC, 2kV, 6kV, 11kV, 22kV, 33kV, 132kV and 275kV.
- High bright LEDs visual indication.
- Sound indication.
- Easy-to-prove method.
- Self-test selection.
- Uses 3 x 1.5V "D" batteries.
- High impact nylon and rubber casing.
- Non-contact work by proximity.
- Compatible with most link sticks.
- Light weight, robust & compact.
- Water resistant for outdoor use.
- Detects low voltage on any system.

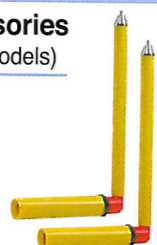
### High Voltage Multifunction Phasing Sticks

- Lightweight • Designed for maximum safety • Carry case included



Code	System Voltage	Full Scale Voltage	Maximum Voltage
PC-7K	6.6kV	8kV	9kV
PC-11K	11kV	12kV	15kV
PC-22K	22kV	24kV	30kV
PC-33K	33kV	36kV	40kV
PC-44K	44kV	48kV	55kV

#### Accessories (for all models)



#### Code Description

- PC-BK 90° bends (pair)
- PC-C1K 30mm cone tips (pair)
- PC-C2K 70mm cone tips (pair)



#### Specifications:

Electrical	PC-7K	PC-11K	PC-22K	PC-33K	PC-44K
Total resistance	±3.95MΩ	±6.78MΩ	±13.5MΩ	±20.1MΩ	±27MΩ
Neon threshold	1.2kV	1.2kV	1.2kV	1.2kV	1.2kV
Neon fully lit @	1.5kV	1.5kV	1.5kV	1.5kV	1.5kV

#### Mechanical

Handle length	765mm	765mm	765mm	765mm	765mm
Front end length	340mm	340mm	460mm	610mm	760mm
Total length	1105mm	1105mm	1225mm	1375mm	1525mm
Total weight	±1.2kg	±1.2kg	±1.3kg	±1.4kg	±1.5kg

Handle material: Composite material with polyurethane Front end: Fibre glass wound tubing

#### Environmental

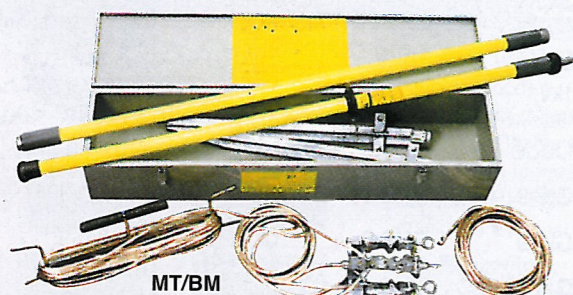
Operating temp.: -25°C to +55°C Operating humidity: 20 to 96% RH

### Short Circuiting and Grounding

Short circuiting and grounding equipment for electrical cabinets and MV installations with universal contact clamps

#### Code Description

- MT/BM-25 Standard type. lcc: 13.7kA eff / 0.25s With short circuit cables section 25mm<sup>2</sup>
  - MT/BM-50 With short circuit cables section 50mm<sup>2</sup> lcc: 13kA eff / 0.5s
  - MT/BM-95 With short circuit cables section 95mm<sup>2</sup> lcc: 24kA eff / 0.5s
- Certificate complies to the International Standard CEI EN 61230 (CEI IEC 1230)



MT/BM

### Fuse Extraction Rod

EF30 Insulating Rod for fuse extraction and installation on systems with working voltages up to 30kV

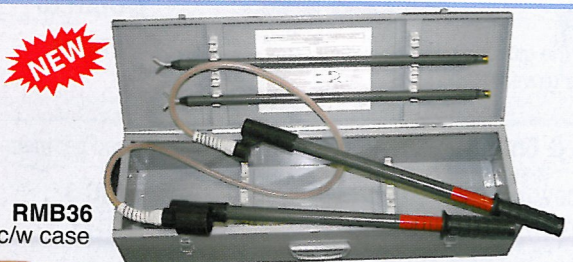


EF30

### Phasing and Voltage Detector of MV Presence / Absence by Visual Signalling (Indoor Use)

#### Code Description

- RMB36 • Double poles voltage detector
- Phase relationship detector
- HV fuse tester
- Operating range: 5/36 kV
- Total length of each rod complete with antenna: 1,17m



RMB36  
c/w case

## DIGITAL/ANALOG MULTIMETERS

### Digital Clamp Meter



PSE-266F

- AC Current: 1000A
- DC Volts: 1000VDC
- AC Volts: 750VAC
- Diode tester
- Audible continuity
- Frequency: 2Hz
- Data hold
- OHMS: 0-2MΩ
- Accepts adaptor for insulation tester

PSE-261

Plug-in Insulation Tester for 266 Series Clamp Meter  
Rated voltage: 500V DC  
Ranges: 20MΩ, ±2.0%  
2000MΩ, ±4.0%

### Digital Insulation Tester



KC-60B

- Zero Adjustment: automatic
- Rated Voltage: switchable 250V/500V/1000V, ±10%
- Measuring Range: 0-500M/1000M/2000MΩ, res. 1MΩ
- Basic Accuracy: ±4% +2dgt
- Short Circuit Output: 1.7mA/1.7mA/1.4mA
- Input Resistance: 2M/2M/ 5MΩ

### Hand Crank Insulation Tester



NB311110

- Test Voltage: 500V
- Insulation Resistance: 0Ω to 500MΩ
- OHM Meter:

### Analogue/Digital Insulation Tester



2732IN  
Analog

2751IN  
Digital

- 250V/100MΩ
- 500V/200MΩ
- 1000V/400MΩ
- AC Volts: 600V/750VAC
- Continuity Test: 0-100Ω/20, 200, 2kΩ
- Timer 3 to 5 min
- ± 5% F.S. accuracy
- Auto off
- Hold
- Auto discharge
- Battery operated (excl.)
- Supplied with test leads
- c/w carrying case

### Analog Earth Resistance Tester



ST-1505

- Earth resistance 10-100-1000Ω
- Earth voltage: 0-30VAC
- 800Hz ± 2mA
- 6 x 1.5V batteries (excl.)
- Supplied with test leads

### RCD Tester



TEL1-3 (230V)  
TEL1-4 (240V)

- Verifies that the wiring is correct (Neon light indication)
- RCD testing with variable fault current
- Trip settings 10 - 35mA

### Earth Leakage Testers



MINITRIP 1

MINITRIP 2

- Wiring check
- 5-55mA Stepped output. Earth current test rated at 230VAC
- 50/60Hz
- Rotary switch selection
- Push button injection

- Analogue
- 10-50mA variable earth current
- Wiring check
- 50/60Hz
- Potentiometer selection
- 230VAC ±15%



2820EL

- Digital
- Sensitivity test: 5-999mA (@ 317VL-E)
- Time delay test: 0.000-99.999S
- Sensitivity accuracy: ± 1mA
- Time delay accuracy: ± 2ms
- Multi-Voltage 100-400VAC
- 50Hz only
- Auto-off

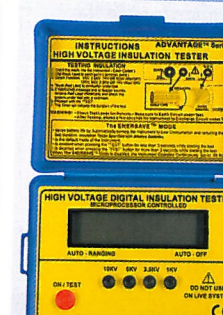
### Loop/PSC/Earth



2726NA

- Digital
- Line impedance
- Neutral impedance
- Earth impedance
- Voltage L-N
- Voltage L-E
- PSC L-N
- PSC L-E
- Scroll through results
- 50Hz 230V ± 20%
- Auto-ranging
- Auto-off
- c/w carrying case

### H.V. Insulation



2803IN  
max 5kV

2804IN  
max 10kV

- 1kV, 2.5kV, 5kV, 10kV test voltage
- ± 5% F.S.
- Up to 500GΩ/10kV
- 8 x 1.5V AA alkaline batteries (excl.)
- Digital display
- Timer
- Bargraph
- Auto-hold - Auto-off
- Auto-discharge
- Non isolated circuit sensing

### MINITRIP 1/L

As MINITRIP 1 with 15A plug and lead. 150mA also available



### UNI-TRIP 50/150

50 or 150mA range 3 phase Earth Leakage Tester



## DIGITAL CLAMP METERS



Model	ST-330	MS2600	ST-9700	MS2026R	2605	3810	BM2000B
<b>Description</b>	AC current up to 400A Data hold Peak hold	AC Current up to 200A Data hold <b>Open jaw</b> Easy to use	AC/DC current up to 600A. Data Hold Buzzer for continuity test. Temperature -20°C to 1000°C. K-Probe (included)	AC current up to 1000A Data hold Peak hold Capacitance test 600nF to 100 µF	AC/DC Current Up to 1000A Autoranging Max, data/hold Buzzer for continuity	AC/DC Current Up to 1000A Autoranging Max, data/hold Buzzer for continuity	AC/DC Current up to 2000A. True RMS measurement. Frequency measurement. Relative reading Diode test
<b>Basic Accuracy</b>	±2.5% rdg ± 4 dgt Diode test		±1.5% rdg ± 4 dgt	±1.5% rdg ± 5 dgt	±1.2% rdg ± 3 dgt	±1.2% rdg ± 3 dgt	±1.9% rdg ± 5 dgt
<b>RANGES</b>						True RMS - 3810 only	
<b>AC Voltage</b>	200mV to 600V	1000V	600V	0 to 700V	0 to 600V		400mV to 700V
<b>DC Voltage</b>	200mV to 600V	700V	200V	0 to 1000V	0 to 600V		400mV to 1000V
<b>True RMS AC</b>	No	No	No	Yes	No	Yes	Yes
<b>AC Current</b>	2A to 400A	200A	200A/600A	0 to 1000A	Up to 1000A		20A to 2000A
<b>DC Current</b>	-	-	200A/600A	-	Up to 1000A		200A to 2000A
<b>Resistance</b>	200Ω to 20Ω	400Ω to 40MΩ	0Ω to 2KΩ		0Ω to 200KΩ		0Ω to 2KΩ
<b>Frequency</b>	-	10kHz to 100kHz	-	40Hz to 100kHz	-		50-60Hz

## DIGITAL/ANALOGUE MULTIMETERS

### Clamp Meters



Model	MS-2000G	ST-600
<b>Description</b>	<ul style="list-style-type: none"> <li>AC current 2000A</li> <li>Data hold</li> <li>Frequency and temperature measurement</li> <li>Clamp size 55mmØ</li> <li>Auto power off</li> <li>Diode and continuity check</li> </ul>	<ul style="list-style-type: none"> <li>Analogue clamp meter.</li> <li>AC current 0-600A</li> <li>Pointer lock function</li> <li>Range switch</li> <li>Ω Range</li> </ul>
<b>Basic Accuracy</b>	±2.5%	±3% of full scale
<b>RANGES</b>		
<b>AC Voltage</b>	750V	150/300/600V
<b>DC Voltage</b>	1000V	-
<b>True RMS AC</b>	No	No
<b>AC Current</b>	200/2000A	6/30/60/300/600A
<b>DC Current</b>	-	-
<b>Resistance</b>	2mΩ	0 to 2KΩ
<b>Frequency</b>	20kHz	-
<b>Temp</b>	0-750°C	-

### Multi-Tester



Model	ST-365TRB
<b>Description</b>	<ul style="list-style-type: none"> <li>3 colour and mirror scale</li> <li>Safety fused</li> <li>HFe and dB</li> <li>± 3% F.S. DC accuracy</li> <li>± 4% F.S. AC accuracy</li> <li>DC mA 50µA, 2.5, 25, 250mA</li> <li>Ω 2K to 20M</li> <li>VAC/VDC 0 to 1000V</li> <li>20kΩ/Volt AC</li> <li>1kΩ/Volt DC</li> </ul>

### Pocket Multimeter

#### ST-112



<ul style="list-style-type: none"> <li>Pocket size</li> <li>High speed autoranging</li> <li>Bargraph</li> <li>AC Volts: 500VAC</li> <li>DC Volts: 500VDC</li> <li>OHMS: 40MΩ</li> <li>Diode test</li> <li>Capacitance: 200µF</li> </ul>
---

### Capacitance Meter



TES-1500 TES-1550

Model	TES-1500
<b>Description</b>	<ul style="list-style-type: none"> <li>0.5% Accuracy</li> <li>Overload Fuse protection</li> <li>Test Clips/Direct insert jack for easy measurement</li> </ul> <p><b>Range:</b> 200pF/2nF/20nF/2µF/200µF/2000µF/20mF</p> <p><b>Measurement Voltage</b> 4.5V max.</p> <p><b>Test frequency</b> 8/80/800Hz</p> <p><b>Principle</b> Dual Stop Integration</p> <p><b>Zero Aro Adjustment</b> ±20pF Approx.</p>

### Automotive Meter

#### TES-1550

<ul style="list-style-type: none"> <li>Engine RPM Measurement</li> <li>Auto-power off</li> <li>Water-proof ABS housing</li> <li>Tacho: 10-10,000RPM (±2%rdg±1dgt)</li> <li>Dwell: %/4CYL/6CYL/8CYL</li> <li>DC/AC Current 40m/400m/20A</li> <li>DC/AC Voltage (±0.5%rdg±1dgt) 400m/4/40/400/750V(AC)/1000V(DC)</li> <li>Resistance 400/4k/40k/400k/4M/40MΩ</li> <li>Capacitance 4n/40n/400n/4µF/40µF</li> <li>Frequency 100/1k/10k/100k/500kHz</li> </ul>
---

## DIGITAL MULTIMETERS



Model	MAS830	MS8221A	VC9808	TES-2700	MS8226T	MY980
<b>Description</b>	Large LCD Display Transistor test 6 Functions 19 ranges Great value! Last reading hold	Large LCD Display Transistor test 7 Functions 24 ranges Great value! Last reading hold	Auto-ranging Data hold Spraywater-protected Temp measures: -40 to 1000°C (Probe included) Peak hold	Auto-ranging Data hold Spraywater-protected Bargraph	True RMS Auto Ranging Data hold LCD backlit RS232C interface to computer Temp: -20°C to 1000°C	True RMS Spraywater-protected Data hold
<b>Accuracy</b>						
<b>RANGES</b>	±0.5% rdg ± 2 dgt	±0.5% rdg ± 2 dgt	±0.5% rdg ± 2 dgt	±0.5% rdg ± 2 dgt	±0.5% rdg ± 1 dgt	±0.5% rdg ± 1 dgt
<b>AC Voltage</b>	100mV to 600V	1mV to 750V	200mV to 700V (40 to 400Hz)	3.2V to 600V (40 to 400Hz)	400mV to 700V	400mV to 700V (40 to 1000Hz)
<b>DC Voltage</b>	100mV to 600V	0.1mV to 1000V	200mV to 1000V	320mV to 600V	400mV to 1000V	400mV to 1000V
<b>Diode Test</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>AC Current</b>	-	1mA to 10A	2mA to 20A	200µA to 20A	400µA to 10A	2mA to 10A
<b>DC Current</b>	0.1mA to 10A	0.1mA to 10A	2mA to 20A	200µA to 20A	400µA to 10A	2mA to 10A
<b>Resistance</b>	0.1Ω to 2MΩ	0.1Ω to 20MΩ	200Ω to 2000MΩ	320Ω to 30MΩ	400Ω to 40MΩ	200Ω to 200MΩ
<b>Capacitance</b>	-	-	20nF to 200µF	-	40nF to 100µF	2000PF to 20µF
<b>Frequency</b>	-	-	100Hz to 20MHz	-	4Hz to 40kHz	20kHz



Code	ST-992	ST-2009	ST-9918	ST-9932FC	MS8264
<b>Description</b>	Auto Ranging Data Hold Auto Power off Max hold Temp measuring to 760°C K-Probe (included)	Auto Ranging Data Hold Auto Power off Temp measuring to 760°C K-Probe (included)	<b>Min/Max recording mode</b> Auto Ranging Temp measuring to 760°C K-Probe (included) Data Hold	Auto Ranging Data Hold Auto Power off Temp measuring to 1000°C K-Probe (incl) With RS-232 cable and Software interface to computer	<ul style="list-style-type: none"> <li>30 ranges, 3 1/2 digits LCD display</li> <li>AC voltage detection with LED indicator</li> <li><b>Enhanced protection</b> on all ranges: 200mA self-resume fuse, 1000V discharge capacitors, PTC, metal board shielding</li> <li>Data hold and new LCD illumination</li> <li>Temp: -40°C-1000°C</li> </ul>
<b>Accuracy</b>					
<b>Ranges</b>	0.5%rdg + 2dgt	0.5%rdg + 2dgt	±0.5%rdg + 2dgt	0.8%rdg + 3dgt	0.8%rdg + 3dgt
<b>AC Voltage</b>	600V	700V	600V	750V	2V to 750V
<b>DC Voltage</b>	600V	1000V	600V	1000V	200mV to 1000V
<b>Diode Test</b>	Yes	Yes	Yes	Yes	Yes
<b>AC Current</b>	10A	20A	10A	20A	10A
<b>DC Current</b>	10A	20A	10A	20A	10A
<b>Resistance</b>	2MΩ	40MΩ	40MΩ	40MΩ	200MΩ
<b>Capacitance</b>	-	100mf	200mf	100mf	200mf
<b>Frequency</b>	-	9.999MHz	10MHz	9.999MHz	200kHz
<b>Continuity Test</b>	Yes	Yes	Yes	Yes	Yes