

## TECHNICAL HOTLINE +44 (0)1268 563720

**CIRCUIT PROTECTION** 



The Sentry range of Consumer Units from MK Electric has been stylishly designed to blend in with its environment. The curved lines and slim-line appearance mean it won't look out of place when installed in hallways, lounges or kitchens of new properties. The range expanded includes a 21-module unit for larger installations and also a 4-module unit to cater for small one-off installations and extensions to existing ones.

#### Attractive design

Curved lines, low profile appearance and magnolia colour let the unit blend with its environment. Available in 4 to 21 module sizes

**Flush mounting versions** Flush mounting available for even neater installations

**Protective lid** Opaque and downward opening lid conceals protective devices and unsightly labelling

**Floating busbar system** Gives maximum installation flexibility

**Broad selection of pre-assembled split load units available** Suits a variety of applications and saves installation time

#### **Stacking options**

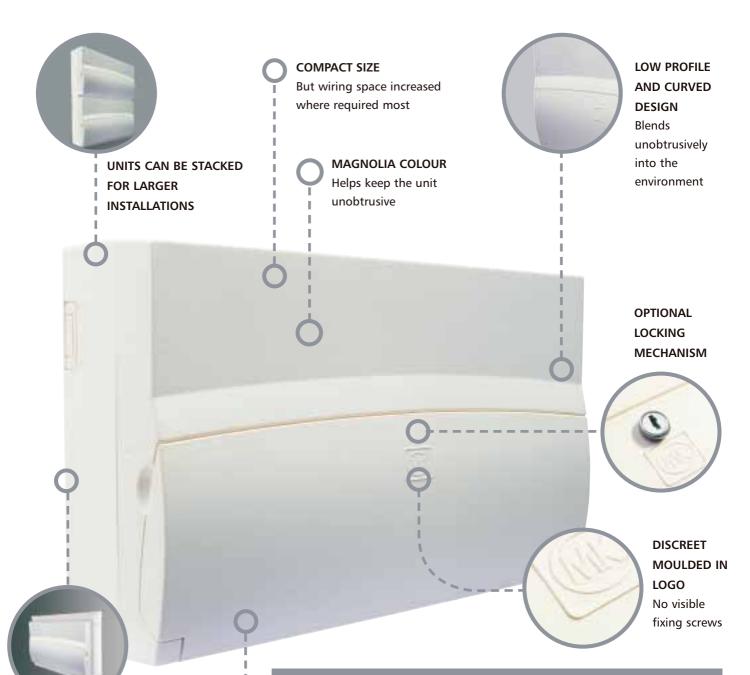
For larger installations dual rail 24, 32 and 42 module units possible in both insulated and metal

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**CIRCUIT PROTECTION** 

www.mkelectric.co.uk



**FLUSH MOUNTABLE OPTIONS** For an even neater installation



OPAQUE AND DOWNWARD OPENING LID Hides unsightly labels and devices

## CONSUMER UNIT SELECTION GUIDE

**STEP 1** Determine the type of consumer unit configuration required. e.g Split Load, Dual Tariff, Standard or combination of split load / dual tariff. For each Switch Disconnector or RCD to be used allow 2 modular ways.

**STEP 2** Determine the number of outgoing circuits required. e.g Cooker, Lighting, Ring Main etc. For each circuit to be protected by an MCB or RCBO allow 1 modular way.

**STEP 3** Determine what control products are required. e.g Bell Transformer, Time Delay Switch, contactors, timeswitches etc.

**STEP 4** Determine the number of 'spare' modular ways required for future upgrades. For each 'spare' modular way select 1 Sentry blank module – 5544s or K5545s (cover mounted blanks supplied with consumer units. See page 227).

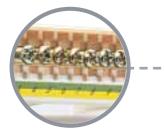
**STEP 5** Now add together the total number of modular ways required.

**STEP 6** Select from our range of Insulated, Metal, Flush or stacked consumer units (using standard consumer units plus stacking kits). Choose the type and size most appropriate for your requirements.



## TECHNICAL HOTLINE +44 (0)1268 563720

## **CIRCUIT PROTECTION**

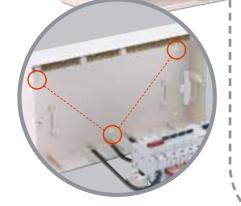


BACKED OUT AND CAPTIVE COMBI-HEAD SCREWS Allows speedy installation COLOUR CODED EARTH AND NEUTRAL TERMINAL LOCATED AT TOP OF UNIT FOR EASE OF WIRING



AMPLE 360° KNOCK-OUTS FOR CABLE ROUTING Open cable entry at rear plus optional rear knock-outs

> EASILY REMOVABLE DIN-RAIL Improves first fix



### **FIXING HOLES**

Allow tripod fixing to cope with uneven surfaces. Hole locations allow access for cordless drills and power drivers

## RAISED DIN-RAIL For improved cable routing

## OFFSET INCOMER

Provides additional wiring space making mains input connections easier

AMPLE WIRING SPACE

## FLOATING BUSBAR SYSTEM

For maximum installation flexibility including acceptance of control modules





**CIRCUIT PROTECTION** 

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Selection Chart	Switch Disconnector	MCB Single Pole Type B	Туре С		RCD 110V Double Pole 10mA	30mA	RCD 230V Double Pole 10mA	30mA
MODULES	тwo	ONE	ONE	ONE	тwo	TWO	тwo	TWO
RATING		* 10 <b>10</b> 10 10						
3A		5903s	8703s					
6A		5906s	8706s	6932s				
		5910s	8710s	6933s				
16A		5916s	8716s	6934s	6016s	6416s	6316s	5716s
		5920s	8720s	6935s				
25A								
32A		5932s	8732s	6936s		6032s		6730s
		5940s	8740s	6937s				5740s
45A		5945s		6938s				
		5950s	8750s	<b>6939s</b> †				
63A	5560s							5760s
								5780s
	5500s							7700s

† available early 2004

#### SPLIT-LOAD CONFIGURATION

A full range of pre-assembled units are available, however if they do not fit your requirements, Sentry Consumer units can be configured to numerous split-load or multi-incomer configurations, by cutting the floating busbar and removing the 'U' links between the terminal bars.

The maximum number of switched or RCD ways available to a Consumer unit is dependent on the neutral terminal bar arrangement. eg. K5621s can become a split-load board by removing one 'U' link between neutral bars and having up to 14 ways switched and up to 3 ways protected by the RCD, or up to 17 ways protected and up to 3 ways switched.

TERMINAL BAR CONFIGURATION										
List no	Modules (empty)		rth iinals	Neutral Terminals		Max no. of circuits with switch disconnector or RCD as incomer	Total no. of circuits with split load / dual tarrif	Max no. of circuits on main switch	Max no. of circuits on RCD or 'off-peak'	Max no. of circuits on split load / dual tariff
Insulated		Circuits	Bond	Total	Separate Blocks					
K5604s	4	4	1	4		2				
K5608s	8	8	2	8		6				
K5612s	12	12	2	12	2x6***	10	8	6*	6*	
K5616s	16	16	2	16	2x8***	14	12	8*	8*	
K5621s	21	21	2	21	3x7***	19	17	7 or 14**	7* or 14**	1x7, 1x7, 1x7*
Metal										
K5504s	4	4	1	4		2				
K5508s, K6508s	8	8	3	8		6				
K5512s, K6512s	12	12	3	12	2x6***	10	8	6*	6*	
K5516s, K6516s	16	16	3	16	2x8***	14	12	8*	8*	
K5521s, K6521s	21	21	3	21	3x7***	19	17	7 or 14**	7* or 14**	1x7, 1x7, 1x7*

\* Combined number of circuits must not exceed number in total column. \*\* Dependant on which U link is removed. \*\*\* Separate blocks connected by removeable U links.



## **TECHNICAL HOTLINE +44 (0)1268 563720**

## **CIRCUIT PROTECTION**

		RCD Pulsating DC F Current Sensiti	ault ve	RCD Time Delayed 230V Double Pole	RCD 230/400V Four Pole	Note: Only suitable as standalone devices, in Sentry four module enclosures and Commando Combi		
100mA	300mA	10mA	30mA	100mA	30mA	100mA	300mA	
тwo	тwo	TWO	TWO	TWO	FOUR	FOUR	FOUR	
								RATING 3A
								6A
		6216s	6716s					16A
					6425s			25A
			6630s					32A
			5640s		6440s	6240s		
								45A
6160s	5860s		5660s		6463s	6363s	6263s	63A
6180s	5880s			6980s				
6600s	7800s			6400s				

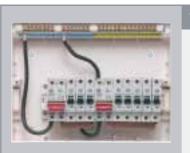


## TO BUILD A SPLIT-LOAD CONSUMER UNIT e.g. 4+4 split-load

## **Requires:**

K5612s	Insulated Consumer unit, 12 mod
K5563s	Split-load cable kit
5500s	Switch Disconnector
5780s	RCD, 80A 30mA

Select up to 8 MCBs.



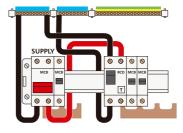
## TO BUILD A MULTI-INCOMER CONSUMER UNIT

## **Requires:**

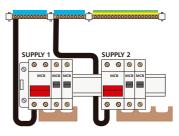
K5512sMetal Consumer Unit, 12 modK5565sMulti-Incomer cable-kit2 x 5500sSwitch Disconnector, 100A

## CABLE KITS DIAGRAM

Split-load configuration



## **Multi-Incomer configuration**

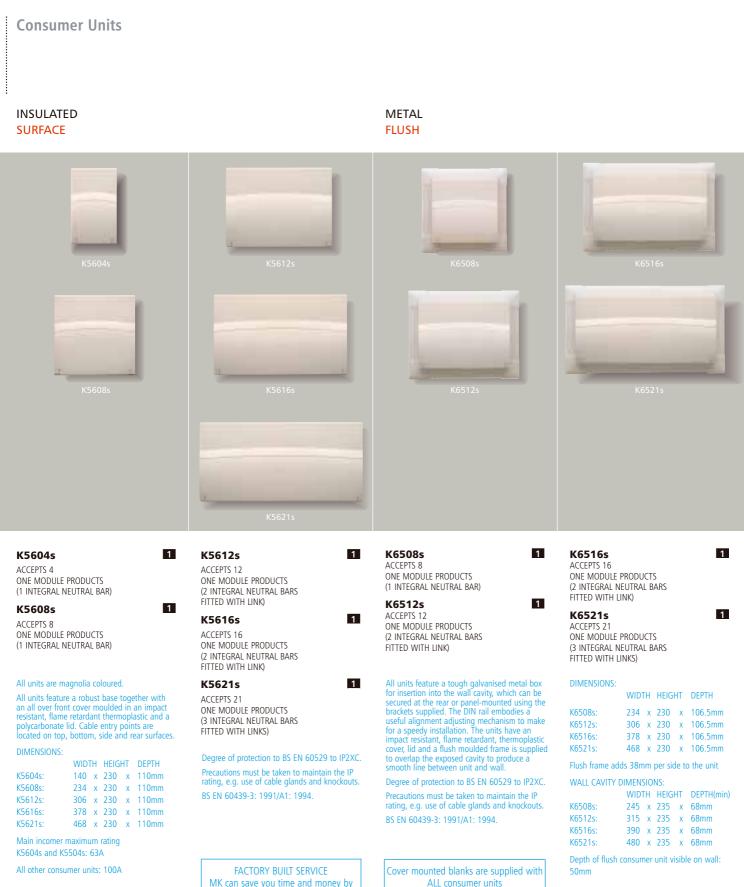


## **CIRCUIT PROTECTION**





**CIRCUIT PROTECTION** 



MK can save you time and money by pre-assembling Consumer units with your required Sentry components

(2 off x 1 for 4, 8 and 12 module and

2 off x 2 for 16 and 21 module)

**CIRCUIT PROTECTION** 

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## **Consumer Units**

WITH SPLIT-LOAD ARRANGEMENTS METAL SURFACE

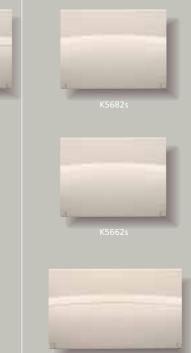






WITH TIME DELAY SPLIT-LOAD ARRANGEMENTS MFTAI **SURFACE** 

## WITH SPLIT-LOAD ARRANGEMENTS **INSULATED SURFACE**



K5666s

1

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K5682s 100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

#### K5662s

1

100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

#### K5666s

100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

#### All units are magnolia coloured.

All units are magnola coloured. All units are pre-fitted with a switch disconnector and RCD together with all necessary split load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being exceeded.

#### K5582s

100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

#### K5566s

100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

#### All units are magnolia coloured.

All units are pre-fitted with a switch All units are pre-litted with a switch disconnector and RCD together with all necessary split-load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being evcended exceeded.

#### DIMENSIONS:

	WIDT	WIDTH		HT	DEPTH
K5582s:	306	х	230	х	110mm
K5566s:	378	х	230	х	110mm
K5586s:	378	х	230	х	110mm
K5581s:	468	х	230	х	110mm
K5531s:	468	х	230	х	110mm

#### 1

1

K5586s 100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

### K5581s

100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/14 AND 14/1

### Degree of Protection to BS EN 60529 to IP2XC

Precautions must be taken to maintain the IP rating e.g. use of cable glands and knockouts BS EN 60439-3: 1991/A1: 1994

## K5531s

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100A 100mA TIME DELAY RCD AND 80A 30mA RCD ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/14 AND 14/1

The unit is pre-fitted with a time delay RCD and 80A 30mA RCD together with all necessary split-load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration, subject to the rating of either RCD's not being exceeded.

Cover mounted blanks are supplied with ALL consumer units (2 off x 1 for 4, 8 and 12 module and 2 off x 2 for 16 and 21 module)



**CIRCUIT PROTECTION** 

WITH TIME DELAY SPLIT-LOAD ARRANGEMENTS INSULATED **SURFACE** 













FOR HEATING CONTROL METAL / INSULATED SURFACE





#### K5686s

100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

#### K5681s

100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 14/1 AND 1/14

#### DIMENSIONS:

	WIDT	WIDTH		HT	DEPTH	
K5682s:	306	х	230	х	110mm	
K5662s:	306	х	230	х	110mm	
K5666s:	378	х	230	х	110mm	
K5686s:	378	х	230	х	110mm	
K5681s:	468	х	230	х	110mm	
Degree of protection to BS EN 60529. 1992						

IP2XC Precautions must be taken to maintain the

IP rating. eg. correct use of cable glands and knockouts

#### BS.EN 60439-3:1994

#### K5632s

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100A 100mA TIME DELAY RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

## K5626s

100A 100mA TIME DELAYED RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

#### 

DIMENSIONS:						
	WID	ΓH	HEIG	ΗT	DEPTH	
K5632s:	306	х	230	х	110mm	
K5626s:	378	х	230	х	110mm	
K5636s:	378	х	230	х	110mm	
K5631s:	468	х	230	х	110mm	
Degree of protection to BS.EN 60529: 1992						

IP2XC

Precautions must be taken to maintain the IP rating. eg. correct use of cable glands and knockouts

BS.EN 60439-3:1994

#### K5636s

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100A 100mA TIME DELAY RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

#### K5631s

100A 100mA TIME DELAY RCD. ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/14 AND 14/1

## K5556s

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METAL CONSUMER UNIT ONE 63A SWITCH DISCONNECTOR TWO 100A SWITCH DISCONNECTORS AND 3 INTEGRAL NEUTRAL BARS ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS

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#### K5656s

INSULATED CONSUMER UNIT ONE 63A SWITCH DISCONNECTOR TWO 100A SWITCH DISCONNECTORS AND 3 INTEGRAL NEUTRAL BARS ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS

The unit is pre-fitted with 3 switch disconnectors for use in multi-tariff heating applications.

#### DIMENSIONS:

	WIDTH		HEIG	HT	DEPTH		
K5556s:	378	х	230	х	110mm		
K5656s:	378	х	230	Х	110mm		
Degree of Protection to							

Degree of Protection to BS EN 60529 to IP2XC

Precautions must be taken to maintain the IP rating e.g. use of cable glands and knockouts BS EN 60439-3: 1991/A1: 1994

FACTORY BUILT SERVICE MK can save you time and money by pre-assembling Consumer units with your required Sentry components

Cover mounted blanks are supplied with ALL consumer units (2 off x 1 for 4, 8 and 12 module and 2 off x 2 for 16 and 21 module)

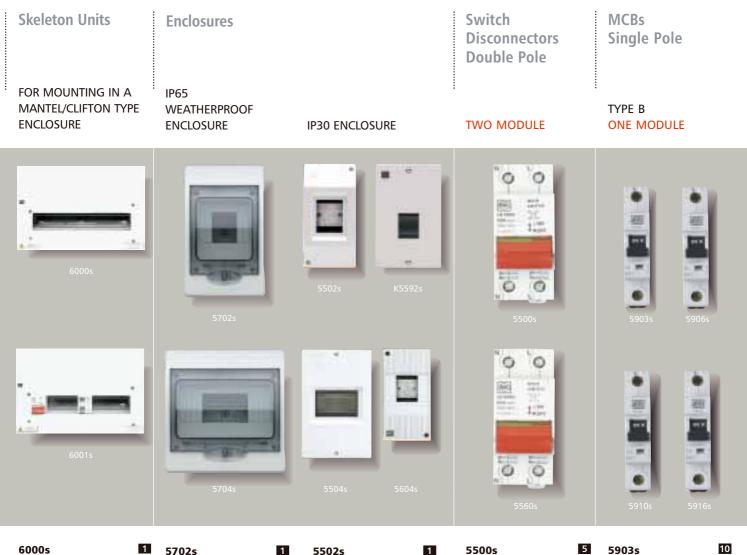


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#### 6000s ACCEPTS 14 ONE MODULE PRODUCTS (1 INTEGRAL NEUTRAL BAR)

6001s 100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 10

ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 2/8 AND 8/2

These units are suitable for use in most Mantel and Clifton type enclosures.

Factory assembled units are available for specific installations.

#### DIMENSIONS

	WID	TH	HEIG	ΗT	DEPTH	
6000s:	222	х	333	х	90mm	
6001s:	222	x	333	х	90mm	
Degree of Protection to						

BS EN 60529: 1992 IP30

Precautions must be taken to maintain the IP rating, eg. correct use of cable glands and knockouts. BS EN 60439-3: 1994

5702s WEATHERPROOF COMPLETE WITH NEUTRAL AND EARTH TERMINAL BLOCK ACCEPTS UP TO 4 MODULES 1

#### 5704s

1 WEATHERPROOF COMPLETE WITH NEUTRAL AND EARTH TERMINAL BLOCK ACCEPTS UP TO 8 MODULES

Typical applications for enclosures are house extensions, garages and small workshops. These enclosures will accommodate two or four module Sentry RCDs or a combination of Sentry modules, excluding contactors.

DIMENSIONS:

#### WIDTH HEIGHT DEPTH 5702S: 200 x 123 x 112mm 5704S: 200 x 195 x 112mm 5502S: 149 x 76 76mm х

5504S: 188 x 121 x 74mm 5604S: 160 x 85 x 68mm K5592s:185 x 119 x 66mm Degree of Protection to BS EN 60529: 1992 5702s: IP65 5704s: IP65 5502s<sup>-</sup> IP30 5504s: IP30

5604s: IP30

K5592s: IP30

5502s INSULATED COMPLETE WITH MOUNTING RAIL, NEUTRAL AND EARTH TERMINALS TWO MODULE

#### K5592s RCBO ENCLOSURE - METAL TWO AVAILABLE MODULES SUITABLE FOR LIST NOS. 6932s, 6933s, 6934s, 6935s, 6936s, 6937s, 6938s WITH MOUNTING RAIL,

METAL FRONT PLATE 5504s METAL WITH MOUNTING RAIL. FARTH TERMINALS AND

EARTH TERMINALS AND

MOULDED FRONT PLATE FOUR MODULE

#### 5604s INSULATED

WITH MOUNTING RAIL. TWO INTEGRAL BLANKING PLATES AND TAMPER-PROOFING COMPONENTS FOUR MODULE

K5592s suitable for Sentry Single Module RCBO. Precautions must be taken to maintain the IP rating, eg. correct use of cable glands and knockouts

IP65 enclosures to EN 60670

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Accepts direct to busbar or cable-in / cable-out connection. Category of duty: AC22A for switching of resistive and inductive loads.

100A 230V

5560s

63A 230V

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Positive contact status indication in accordance with 16th Edition IEE Wiring Regulations (537-02-03 and 537-03-02) **DIMENSIONS:** 81 x 36 x 76mm CABLE CAPACITY:

BS EN 60947-3: 1992

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

10

10

10

3A 230V

5906s

6A 230V

5910s

10A 230V

5916s

16A 230V

5

Positive contact status indication in accordance with 16th Edition IEE Wiring Regulations (537-02-03 and 537-03-02) DIMENSIONS: 83 x 18 x 74mm CABLE CAPACITY: 3, 6, 10, 16A: 35mm<sup>2</sup> Short-circuit breaking capacity: 6KA BS EN 60898: 1991



**CIRCUIT PROTECTION** 

Sentry

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**RCBOs** With Solid Neutral Single Pole TYPE C TYPE B **ONE MODULE ONE MODULE** .... .... ..... 84 10 A 8.4 10 10 10 1 1 8703s 6932s 6935s 5920s 8720s 6A 230V 30mA 20A 230V 30mA TRIPPING CURRENT 20A 230V 3A 230V 20A 230V 5932s 10 8706s 10 8732s 10 TRIPPING CURRENT 1 6936s 32A 230V 6A 230V 32A 230V 1 6933s 32A 230V 10 10 10 5940s 8710s 8740s 10A 230V 30mA TRIPPING CURRENT 40A 230V 10A 230V 40A 230V 30mA 1 6937s TRIPPING CURRENT 10 10 10 5945s 8716s 8750s 40A 230V 45A 230V 16A 230V 50A 230V 1 6934s 30mA TRIPPING CURRENT 10 16A 230V 5950s 1 6938s 30mA 50A 230V 45A 230V TRIPPING CURRENT 30mA TRIPPING CURRENT 6939s\* 1 Suitable for installation in Sentry 50A 230V Consumer Units and two or four Consumer Units and two or four Consumer Units and two or four Consumer Units and K5592s 30mA TRIPPING CURRENT module enclosures. module enclosures. module enclosures. enclosure. Positive contact status indication in accordance with 16th Edition IEE Positive contact status indication in accordance with 16th Edition IEE Positive contact status indication in accordance with 16th Edition IEE Positive contact status indication in accordance with 16th Edition IEE \*Available early 2004 Wiring Regulations (537-02-03 and 537-03-02) Wiring Regulations (537-02-03 and 537-03-02)

Wiring Regulations (537-02-03 and 537-03-02) DIMENSIONS: 83 x 18 x 74mm CABLE CAPACITY: 3, 6, 10, 16A: 35mm<sup>2</sup>

DIMENSIONS:

83 x 18 x 74mm

CABLE CAPACITY:

BS EN 60898: 1991

20, 32, 40, 50A : 35mm<sup>2</sup>

Short-circuit breaking capacity: 6KA

Short-circuit breaking capacity: 6KA BS EN 60898: 1991

Wiring Regulations (537-02-03 and 537-03-02) DIMENSIONS: 83 x 18 x 74mm CABLE CAPACITY:

DIMENSIONS:

112 x 18 x 73mm

CABLE CAPACITY:

BS EN 61009-1 BS IEC 61009-2-2

Live 25mm<sup>2</sup>, Neutral 16mm<sup>2</sup>

Pulsating d.c.fault current sensitive

Short circuit breaking capacity: 6KA

20, 32, 40, 50A : 35mm<sup>2</sup> Short-circuit breaking capacity: 6KA BS EN 60898: 1991



## **CIRCUIT PROTECTION**

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MCB Retrofit Kit

222

RCDs Double Pole

16 AMP TWO MODULE

32 AMP TWO MODULE



63 AMP TWO MODULE



5567s



1

6032s



**5740s** 40A 230V 30mA TRIPPING CURRENT

1

1

**5760s** 63A 230V 30mA TRIPPING CURRENT

1

1

1

1

**6160s** 63A 230V 100mA TRIPPING CURRENT

5860s 63A 230V 300mA TRIPPING CURRENT

For use when installing MCBs into old Sentry Consumer Units with fork style busbar (non 's' suffix or 'K' prefix).

5567s

MCB RETROFIT KIT FOR MOUNTING IN OLD

SENTRY CONSUMER UNITS

Kit contains a busbar, extension terminal (5562s), a 100A rated cable and a 25mm<sup>2</sup> capacity spade connector terminal with clamp screw.

May be used to fit up to 3 new Sentry MCBs. If more need to be installed please use 5511s busbar with kit. 30mA TRIPPING CURRENT 6316s 16A 230V

16A 110V 10mA TRIPPING CURRENT

6016s

6416s

16A 110V

10mA TRIPPING CURRENT
5716s

16A 230V 30mA TRIPPING CURRENT

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Positive contact status indication

Positive contact status indication in accordance with 16th Edition IEE Wiring Regulations (537-02-03 and 537-03-02) DIMENSIONS:

85 x 36 x 75mm CABLE CAPACITY: 50mm<sup>2</sup>

BS EN 61008:1995

6032s 32A 110V 30mA TRIPPING CURRENT

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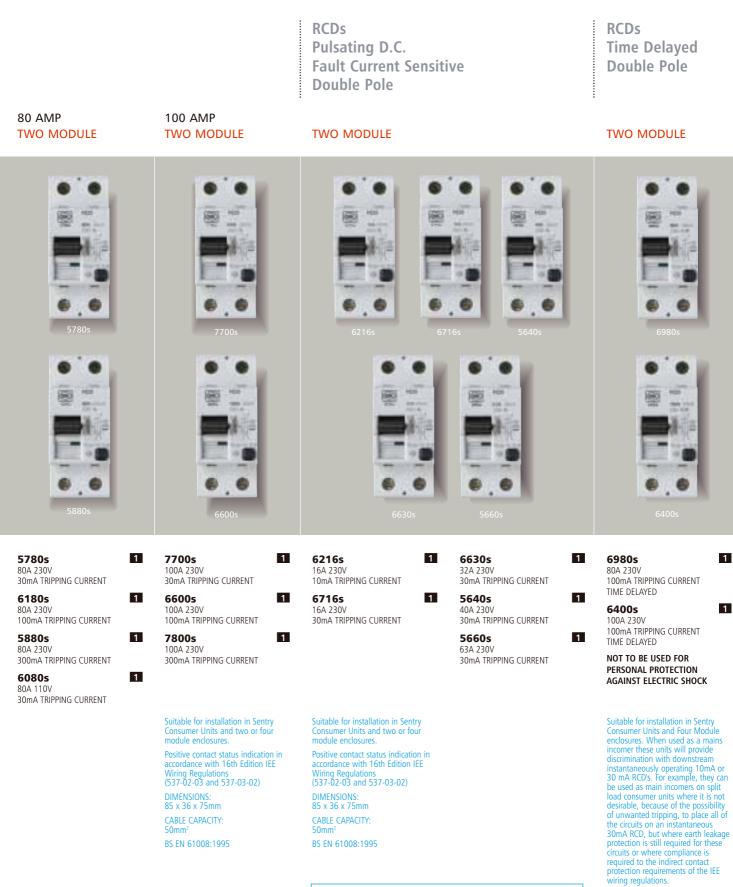




# Sentry

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## **CIRCUIT PROTECTION**



FACTORY BUILT SERVICE MK can save you time and money by pre-assembling Consumer units with your required Sentry components

DIMENSIONS: 81 x 36 x 76mm

CABLE CAPACITY: 50mm<sup>2</sup>

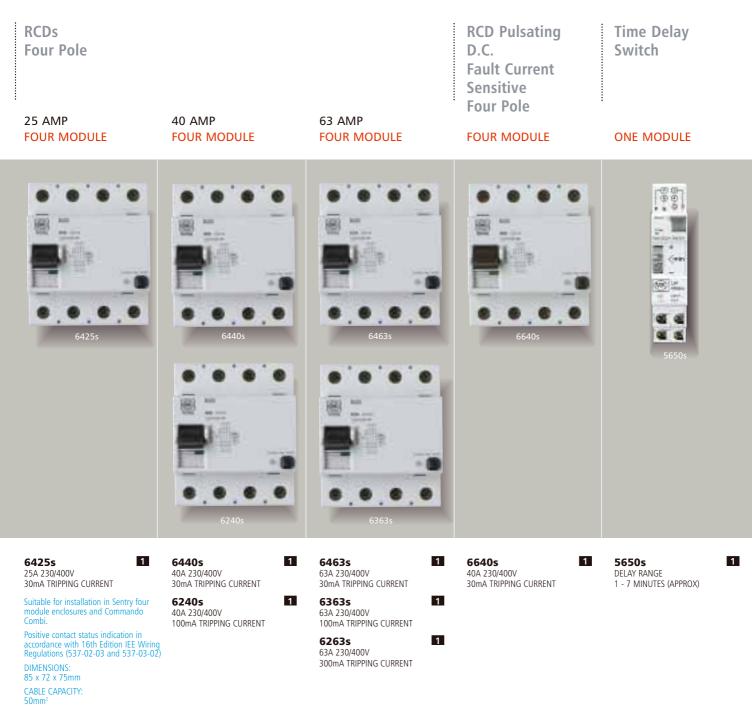
BS EN 61008: 1994

224



**CIRCUIT PROTECTION** 

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BS EN 61008: 1995



Suitable for installation in Sentry two or four module enclosures. Positive contact status indication in accordance with 16th Edition IEE Wiring Regulations (537-02-03 and 537-03-02) DIMENSIONS: 85 x 72 x 75mm CABLE CAPACITY: 50mm<sup>2</sup> BS EN 61008: 1995 Suitable for installation in Sentry Consumer Units and two or four module enclosures. Offers time delay control for complete circuits of either tungsten or fluorescent lighting with any number of standard push switches. It can also be used to control fans in bathrooms without a window. Delay setting can be over-ridden by setting to 'Perm-on' mode, or by fitting a remote overriding switch. Switch has a switching capacity of 16A Resistive loads (upf). Fluorescent lamps uncompensated / Series compensated 1300W Parallel compensated 480W Incandescent lamps 2000W Neon glow lamp load (locating lamp for Push Switch) 50mA max. VOLTAGE RATING: 230V 50Hz DIMENSIONS: 84 x 18 x 70mm CABLE CAPACITY: 1 x 4mm<sup>2</sup> or 2 x 1.5mm<sup>2</sup>



Sentry



#### **ONE MODULE**

**Contactors** 

**TWO MODULE** 

#### THREE MODULE



## 6220s 20A DOUBLE POLE

tariffs.

operation.

6720s 20A DOUBLE POLE WITH MANUAL OVERRIDE

Suitable for installation in Sentry

Consumer Units and two or four module enclosures. Automatically switches higher loads than possible with a time switch eg; off peak

A manual override enables the

temporary setting of the contactor in either the on or off position in addition to normal automatic

When a contactor is mounted alongside an MCB of greater than 10 amp current rating or two contractors are mounted alongside an MCB or side by side, it is necessary to insert a blank module between them (list No.5544s)



DOUBLE POLE



### **CONTACTOR RATINGS:**

6220s 6420s 6720s	7240s 7440s	7263s 7463s
20A	40A	63A
5.4kW 16kW	8.6kW 26kW	13.6kW 41kW
1.1kW 4kW	2.2kW 7.5kW	4kW 11kW
2,800W 2,000W	7,000W 4,200W	10,000W 6,300W
230V 50Hz	230V 50Hz	230V 50Hz
6mm <sup>2</sup> rigid	25mm <sup>2</sup> rigid	25mm <sup>2</sup> rigid
	6420s 6720s 20A 5.4kW 16kW 1.1kW 4kW 2,800W 2,000W 230V 50Hz	6420s         7440s           6720s         7440s           20A         40A           5.4kW         8.6kW           16kW         26kW           1.1kW         2.2kW           4kW         7.5kW           2,800W         7,000W           2,000W         4,200W           230V 50Hz         230V 50Hz

#### 7301s AUXILIARY CONTACT 7302s

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SUPPRESSION BLOCK

7301s Auxiliary Contact

RATED CURRENT Ith 5A

terminals.

DIMENSIONS: 6220s: 84 x 18 x 66mm

7302s Suppression Block

6420s: 84 x 36 x 66mm

6720s: 84 x 18 x 66mm

7240s: 84 x 36 x 66mm

7263s: 84 x 36 x 66mm

7440s: 84 x 54 x 66mm 7463s: 84 x 54 x 66mm

7301s: 84 x 18 x 66mm (including half module blank) 7302s: 84 x 18 x 66mm

Suitable for installations where contactor controls are not bounce

free. 7302s connects across the coil

Suitable for connection to all Sentry contractors, the auxiliary contacts

enable remote indication of contactor status. Auxiliary contact is provided with 1 open and 1 closed contact. 7301s is a half module width, a half module blank is supplied to complete the installation,

#### 1 5711s RATING 1A AT 8V PRIMARY 1

220 - 240V A.C.50Hz

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**TWO MODULE** 

## Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Note: When installed in a consumer unit, ensure that output cables inside the enclosures are suitable for a 230V environment, either by sleeving the bell wire to BS. 2848 or using 230V cable.

Complete with terminal covers. Also suitable for surface mounting. DIMENSIONS:

88 x 36 x 67mm CABLE CAPACITY: 1 x 2.5mm<sup>2</sup>

EN 61558-2-8



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## **Time Switches**

**SYNCHRONOUS** THREE MODULE OUARTZ **STABILISED** THREE MODULE

**SYNCHRONOUS ONE MODULE** 

DIGITAL ONE CHANNEL **TWO MODULE** 

DIGITAL ONE CHANNEL **ONE MODULE** 

DIGITAL TWO CHANNEL **TWO MODULE** 



1 5724s 24 HOUR DIAL MIN SETTING 30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units or four module enclosures **VOLTAGE RATING:** 

220-240Va.c. 50Hz CURRENT RATING:

Resistive load 16A Inductive load 4A Tungsten lamps 6A (1350W) Fluorescent lamps 1350W DIMENSIONS:

85 x 54 x 68mm CABLE CAPACITY: 2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup> 5824s

24 HOUR DIAL MIN SETTING 30 MINUTES

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Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures. Power reserve 150 hours VOLTAGE RATING: 220-240Va.c. 50-60Hz

CURRENT RATING: Resistive load 16A Inductive load 4A Tungsten lamps 6A (1350W) Fluorescent lamps 1350W DIMENSIONS:

85 x 54 x 68mm CABLE CAPACITY: 2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup> EN 60730-2-7: 1993

Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures VOLTAGE RATING: 240V 50Hz

CURRENT RATING: Resistive load 16A Inductive load 4A Tungsten lamps 6A (1350W) Fluorescent lamps 1350W DIMENSIONS: 90 x 18 x 68mm CABLE CAPACITY: 2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>

EN 60730-2-7: 1993

MIN SETTING 1 MINUTE

Pre-programmed with UK time and automatic summer/winter adjustment Provides 20 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time

adjustment. Power reserve of 3 years Suitable for DIN-rail mounting in Sentry Consumer Units and two or four module enclosures

**VOLTAGE RATING:** 240V 50/60Hz

CURRENT RATING: Resistive load 16A Inductive load 2.5A Tungsten lamps 5A (1000W) Fluorescent lamps 1000W DIMENSIONS: 85 x 36 x 68mm CABLE CAPACITY: 2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup> EN 60730-2-7: 1993

Provides 42 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment, holiday programme and random generator are standard facilities.

Power reserve of 150 hours. Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures

**VOLTAGE RATING:** 240V 50/60Hz

CURRENT RATING: Resistive load 16A Inductive load 2.5A Tungsten lamps 5A (1000W) Fluorescent lamps 1000W

DIMENSIONS: 90 x 18 x 74mm CABLE CAPACITY: 2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup> EN 60730-2-7: 1993

MIN SETTING 1 MINUTE

Pre-programmed with UK time and automatic summer/winter adjustment.

Provides 42 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment.

Power reserve of 3 years. Suitable for DIN-rail mounting in Sentry Consumer Units and two or four module enclosures.

**VOLTAGE RATING:** 240V 50/60Hz

CURRENT RATING: Resistive load 16A Inductive load 2.5A Tungsten lamps 5A (1000W) Fluorescent lamps 1000W

DIMENSIONS: 85 x 36 x 68mm

CABLE CAPACITY: 2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup> EN 60730-2-7: 1993

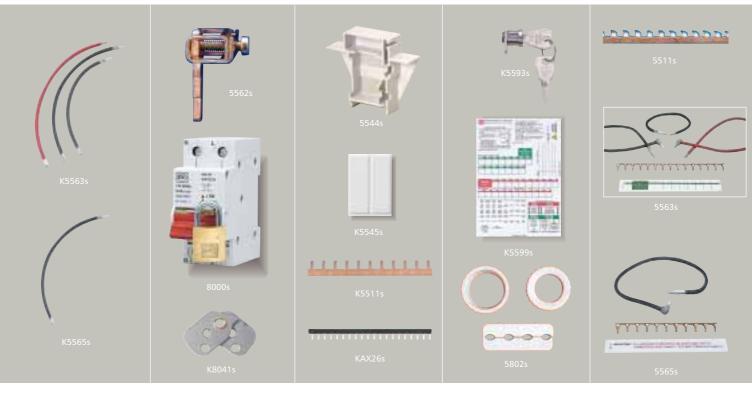
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**CIRCUIT PROTECTION** 

Consumer **Unit Cable Kits**  Accessories

**RETRO FIT** OLD NON 'K' SERIES ACCESSORIES



5 K5563s new 'K' series SPLIT-LOAD KIT Consists of 3 cables (2 neutral and 1 live)

for use when assembling a split load arrangement.

K5564s new 'K' series 5 MAIN SWITCH AND 2 X RCD CABLE KIT Consists of all necessary split load cabling (complete with terminals/ferrules), circuit identification labelling.

5

#### K5565s new 'K' series MULTI-INCOMER KIT

Consists of a black flexible cable with pre-fitted terminal for the neutral return from switch or RCD to second or third neutral bar.

### K55639

#### For use when assembling split-load arrangement. K5564s

For use when assembling a switch and twin RCD arrangement.

#### K**5565s**

For use when assembling a consumer unit in a multi-incomer arrangement with separate supply to each incomer.

These kits must be used to ensure compliance with BS EN 60439-3

#### 5562s EXTENSION

TERMINAL For use when assembling a consumer unit as a distribution board. Enables direct connection of cables to the neutral bar. Consists of a 25mm<sup>2</sup> capacity terminal with clamp screw.

## 8000s

PADLOCK For use when locking the non 'K' series Sentry Consumer Unit transparent lid or in conjunction with 8041s, when locking an MCB,RCBO, RCD or switch disconnector. Supplied with two keys.

### K8041s

LOCKING DEVICE For use when locking a Sentry MCB, RCBO, RCD or switch disconnector in either the on or off position.

5544s MCB BLANK - GREY

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#### Designed to fill unused modules in Sentry Consumer Units and small enclosures. DIN-rail mounted.

10 K5545s COVER MOUNTED BLANK For filling spaces in the 'K' series Sentry consumer unit cover, where there are unused modules.

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K5511s new 'K' series 1 BUSBAR 11 module

K5590s new 'K' series 1 BUSBAR 20 module

#### 10 KAX26s new 'K' series BUSBAR COVER

Suitable for insulating the busbars K5511s and K5590s 20 module.

#### K5593s BARREL LOCK AND KEY KIT Suitable for securing 'K' series Sentry Consumer Unit lids.

K5599s 5 CONSUMER UNIT LABELS Additional printed and blank labels, for identifying devices and circuits.

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5802s RCD INSULATION KIT For use when an RCD is installed in a metal enclosure in an area of high earth loop impedance. Kit consists of male and female screwed ring for fitting into a 32mm knockout and clamp to hold cables secure

#### BUSBAR Featuring 20 MCB ways and one main incomer finger. 5563s old non 'K' series SPLIT-LOAD KIT

BUSBAR

5511s old non 'K' series

5590s old non 'K' series

Featuring 10 MCB ways and

one main incomer finger.

Consists of all necessary split load cabling (complete with terminals/ferrules) busbar and circuit identification labelling.

#### 5565s old non 'K' series MULTI INCOMER KIT

For use when assembling a consumer unit in a multi incomer arrangement with separate supply to each incomer. This kit must be used to ensure compliance with BS EN 60439-3

These kits must be used to ensure compliance with BS EN 60439-3



MK offer a service to provide fully assembled consumer units.

## FACTORY BUILT ASSEMBLY (FBA)

Using standard Sentry components we can build and supply fully assembled units to an agreed design. E.g. Have your split-load boards supplied with all the devices fitted, busbars cut and fitted with neutral and live cables terminated.

#### **SPECIALS**

To provide fully assembled custom built boards with standard and non-standard components.

- Ideal for housing developers, or any application requiring typically more than ten units.
- Quick installation time for Contractors.
- Short manufacturing lead time.
- Fast quotation, design turnaround.
- The process is simple:
  - i) Discuss the application with your Novar Business Development Manager.
  - ii) Agree the design with Novar Technical Services.
  - iii) Agree the price and delivery date.

MK Electric – Technical Services Tel: (+44) 01268 563720 Fax: (+44) 01268 563064



## **Sentrysocket®**

## **CIRCUIT PROTECTION**

www.mkelectric.co.uk



Sentrysocket provides a high level of protection against electrocution and is available in eight MK wiring device ranges to suit most applications.

#### **IMPORTANT**

#### ACTIVE CONTROL CIRCUIT

This version of Sentrysocket incorporates a 'RE-SET' mechanism and is mains failure sensitive ie. it will function under all normal conditions expected of an RCD but it will also trip in the event of a power cut or a dramatic reduction in mains voltage. This makes it ideal for use where hazardous situations could occur due to equipment such as rotating machinery and heat developing apparatus becoming suddenly energised after a power cut.

#### PASSIVE CONTROL CIRCUIT

This version of Sentrysocket incorporates a 'STAY-SET' mechanism and is mains failure proof ie. it will function under all normal conditions expected of an RCD but will not trip in the event of a power cut. This makes it suitable for freezers or use in inaccessible or unmanned locations.

ALL SENTRYSOCKETS ARE PULSATING D.C. AND A.C. FAULT CURRENT SENSITIVE PRODUCTS

**RCD** Protected **Switchsocket Outlets** 

13 AMP LOGIC PLUS **FLUSH** 

ALBANY PLUS **FLUSH** 



K6100 WHI 1 1 GANG, 10mA RATED, TRIPPING

CURRENT, ACTIVE CONTROL CIRCUIT

K6300 WHI 1 1 GANG, 30mA RATED, TRIPPING CURRENT, ACTIVE CONTROL CIRCUIT

K6303 WHI 1 GANG, 30mA RATED, TRIPPING CURRENT, PASSIVE CONTROL CIRCUIT

K6211 WHI 1 2 GANG, 10mA RATED, TRIPPING CURRENT, ACTIVE CONTROL CIRCUIT

1 K6231 WHI 2 GANG, 30mA RATED, TRIPPING CURRENT, ACTIVE CONTROL CIRCUIT

K6233 WHI 2 GANG, 30mA RATED, TRIPPING CURRENT, PASSIVE CONTROL CIRCUIT

## MOUNTING BOXES FLUSH: 886 ZIC - 35mm deep SURFACE: K2140 WHI, 30mm deep

These a.c. and pulsating d.c. fault current sensitive products have up to 15mm thick frontplates and are suitable for 35mm deep boxes and supply voltages of 240V a.c., 50Hz.

Boxes must have a minimum depth of 30mm

A 25mm deep box (862 ZIC) can be used but conduit entry is restricted.

Refer to Sentrysocket section for more information on active and passive control circuits. DIMENSIONS: 86 x 146mm FIXING CENTRES: 120.6mm BS.7288: 1990

K6101 MCO K6101 SAB	1 1
1 GANG 10mA RATED TRIPPING CURP ACTIVE CONTROL CIRCUIT	RENT
K6301 MCO	1

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1 K6301 SAB 1 GANG 30mA RATED TRIPPING CURRENT

ACTIVE CONTROL CIRCUIT

1 K6304 MCO K6304 SAB 1 1 GANG

30mA RATED TRIPPING CURRENT PASSIVE CONTROL CIRCUIT

#### MOUNTING BOXES

FLUSH: 886 ZIC Boxes must have a minimum depth of 30mm

SURFACE (MCO) WITH KNOCKOUTS: K897 ALM WITHOUT KNOCKOUTS: K830 ALM It is important to ensure that the correct control circuit, active or passive, is selected for each application.

Only suitable for supply voltage of 240V a.c., 50Hz. DIMENSIONS: 86 x 146mm

FIXING CENTRES: 120.6mm BS 7288 1990



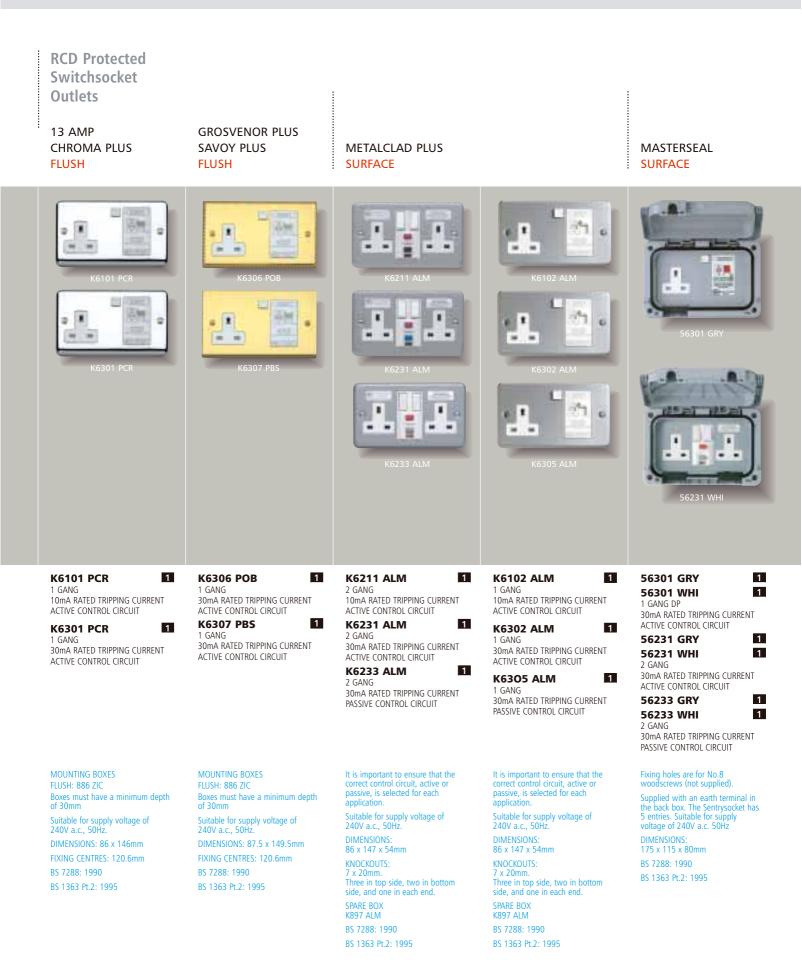


# Sentrysocket

#### TECHNICAL HOTLINE +44 (0)1268 563720

## **CIRCUIT PROTECTION**

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CIRCUIT PROTECTION

### www.mkelectric.co.uk

## Sentrysocket

#### Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:

Low Voltage Directive (73/23/EEC) Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD Single Sockets comply with the requirements of the following standards:

BS 7288: 1990 (1993) BS 2011 Part 2.1 Db (Damp Heat - cyclic) BS 2011 Part 2.1 Ka (Salt mist) BS EN 50082-1

Sentrysocket RCD Double Socket also complies with the requirements of BS EN 61543: 1996

#### **Technical specification**

#### Electrical

Rated Voltage: 240V a.c.

Current rating: 13A resistive

Rated tripping current 30mA and 10mA versions

Terminal capacity: 3 x 4mm<sup>2</sup> for 1 gang 2 x 4mm<sup>2</sup> for 2 gang

#### Physical

Ambient operating temperature:  $-5^{\circ}C$  to  $+40^{\circ}C$ 

IP rating: IP4X

Max. installation altitude: 2000 metres

Single socket Sentrysockets are only suitable for use in TN-S system where the Supply Neutral Connection is connected to the Supply Earth.

They are not suitable for connection across two lines of a 127V line to Neutral Voltage System.

#### Cable management

Decorative finish Sentrysockets can be mounted in a variety of MK trunking systems.

## Installation

#### Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.





#### Description

Sentrysocket provides a high level of protection against electrocution and gives further protection when used with appliances vulnerable to insulation damage, particularly when they are in damp environments or outdoors. These Sentrysocket units are not suitable for mounting in damp environments or outdoors.

Sentrysocket, incorporating an RCD, is part of a complete range of fixed and portable wiring devices and circuit protection devices suitable for use in domestic, commercial and light industrial applications.

#### Active control circuits

Incorporate a 'Re-set' mechanism and are mains failure sensitive, ie they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

#### **Passive control circuits**

Incorporate a 'Stay-set' mechanism and is mains failure proof, ie it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

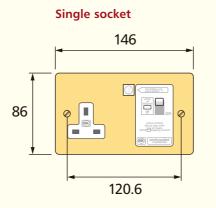
### Features

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Comply fully with current Wiring Regulations
- Double pole switching

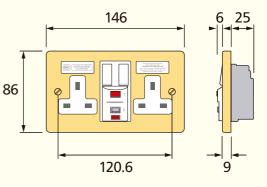
#### • Flexible and versatile in use

- Ideal for use with equipment subject to wet weather or high humidity
- Part of a complete range of MK circuit protection devices
- They are a.c. and pulsating d.c. sensitive for residual current

## Dimensions (mm)



## Double socket





# West India Quay, London



No 1 West India Quay is a £220 million, 36-storey mixed development comprising more than 150 luxury private apartments and a 4.5-star Marriott Hotel, which has over 300 guest rooms and 47 serviced apartments. The hotel occupies the first twelve floors. The developers are MWB Group plc and Manhattan Loft Corporation, and the main contractor Multiplex Construction UK Ltd. The £21million contract for the building services was awarded to Shepherd Engineering Services (SES).

In addition to a number of MK wiring devices and consumer units, MK timeclocks have been installed to control the apartments' air conditioning saving considerably on wiring, as they are able to take their power directly from the MK Sentry consumer units.