Sentry

Consumer Units and Enclosures

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Sentry® Consumer Units and Enclosures

PRODUCT RANGE

Consumer units	List Nos.
Surface metal	K5504s, K5508s, K5512s, K5516s, K5521s
Surface metal, split load	K5582s, K5586s, K5566s, K5581s, K5531s
Surface insulated	K5604s, K5608s, K5612s, K5616s, K5621s
Surface insulated, split load	K5682s, K5662s, K5632s, K5626s, K5666s, K5686s, K5636s, K5681s, K5631s
Flush metal	K6508s, K6512s, K6516s, K6521s
Heating control	K5556s, K5656s
Stacking kits	K6061s, K6062s, K6063s
Two module enclosures	
Surface insulated	5502s
RCBO enclosure – metal	K5592s
Four module enclosures	
Surface metal	5504s
Surface insulated	5604s
Weatherproof enclosures	
Surface insulated, 2 module	5702s
Surface insulated, 4 module	5704s
Skeleton units	
For mounting in a mantel/clifton type enclosure	6000s
For mounting in a mantel/clifton type enclosure, split load	6001s

Standards and approvals

All Sentry consumer units are designed to fully comply with the requirements of BS EN 60439-3.

IP rating of consumer unit enclosures IP2X.

Description

Sentry consumer units and enclosures are available in various surface metal, surface insulated and flush metal types, designed on a modular basis, with 2 to 21 module enclosures in the range, to accommodate the range of MK modular protection and control products. In addition 24, 32, 42 module surface metal and insulated dual rail comsumer units can be assembled using a suitable stacking kit.

Surface insulated units provides an all insulated housing. Metal units provide a housing with facility for earthing the metal box.

The enclosures are provided with ample wiring space and cable entry points. The lids can be locked with a barrel lock & key (accessory K5593s)

Colours/finishes

All insulated and metal consumer units have a textured magnolia cover and lid. The surface metal consumer unit bases are in magnolia (powder coated paint). The flush bases are of galvanized steel. All 2 and 4 module and Weatherproof enclosures are available in light grey.

Certain models are provided with a pre-assembled split load arrangement with switch and RCD. The range is complemented by a versatile selection of small, two and four module enclosures suitable for housing RCDs or other combinations of Sentry products. A 2 module enclosure K5592s is suitable for housing the one module RCBO.
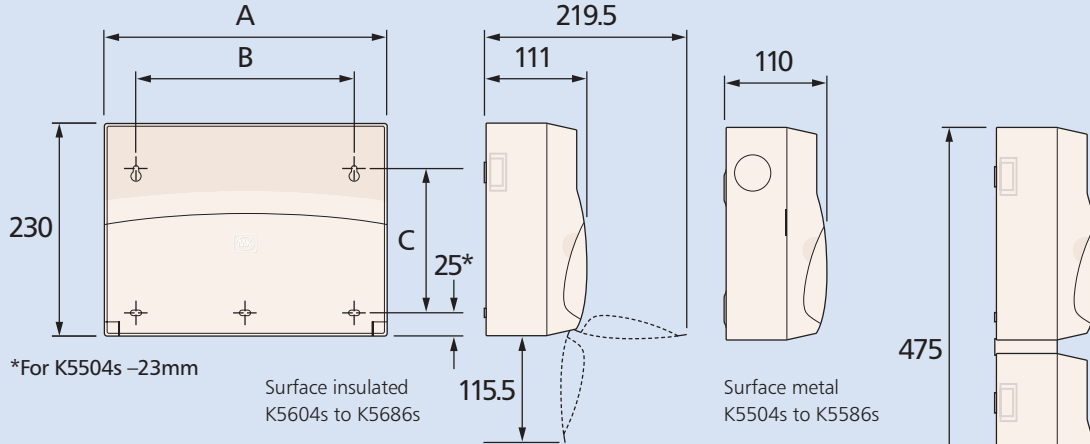
All Sentry Consumer Units have neutral and earth terminal bars with 16mm^2 capacity for solid stranded copper cables.

For enquiries where large number of similarly designed consumer units i.e. specified. MK can provide complete pre-assembled factory built units, subject to certain conditions. For further information please contact the MK Technical Sales Services Department

Features

- ■ Attractive styling
- ■ Modular design
- ■ Suitable for most residential, commercial and light industrial applications
- ■ Fully comply with British and European Harmonised Standards
- ■ Available as an empty enclosure or pre-fitted with switch disconnector and RCD
- ■ Factory built options available

MK

Dimensions (mm) – Consumer unit
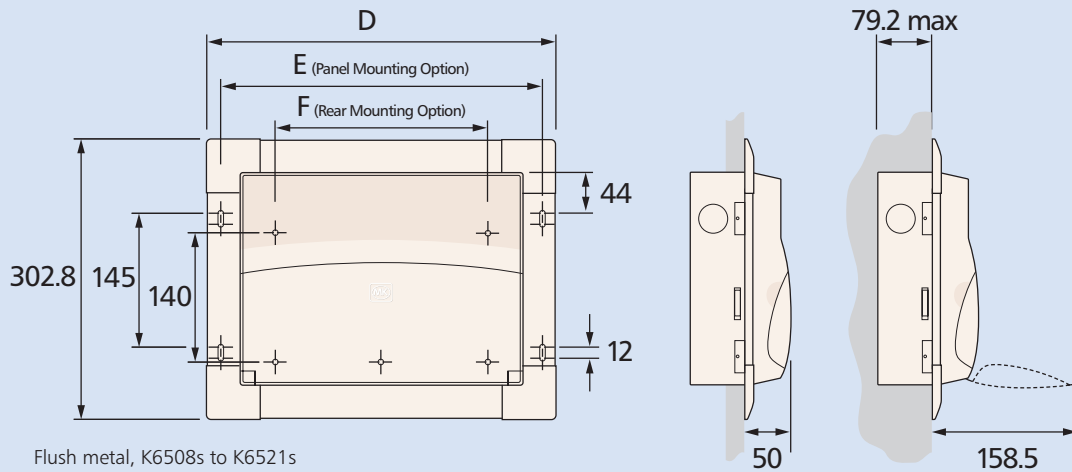
A
B
230
25*
C
111
219.5
110
475
115.5

*For K5504s –23mm

Surface insulated
K5604s to K5686s

Surface metal
K5504s to K5586s

Dual Rail
(Insulated or Metal)
using kit
K6061s to K6063s

		A	B	C
Surface Insulated	4 module	140	70	156
	8 module	234	164	156
	12 module	306	236	156
	16 module	378	308	156
	21 module	468	398	156
Surface Metal	4 module	140	75	149
	8 module	234	168	147
	12 module	306	240	147
	16 module	378	308	147
	21 module	468	400	147

		D	E	F
Flush Metal	8 module	307	276	160
	12 module	379	348	230
	16 module	451	420	300
	21 module	541	510	390

D
E (Panel Mounting Option)
F (Rear Mounting Option)
302.8
145
140
44
12
79.2 max
50
158.5

Flush metal, K6508s to K6521s

Flush metal
K6508s to K6521s
Panel mounted

Flush metal
K6508s to K6521s
Rear mounted

Flush-mount cavity dimensions, K6508s to K6521s

	Height	Width	Depth*
8 module	236-246	242-252	69-79
12 module	236-246	314-324	69-79
16 module	236-246	386-396	69-79
21 module	236-246	476-486	69-79

*Depth does not apply if panel-mounted

All dimensions ±0.5mm unless stated

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TECHNICAL SPECIFICATION

Electrical

Maximum current rating:
All Sentry consumer units have a maximum rating of
100A except K5504s, K5604s, which are rated at 63A

Terminal capacity: 16mm^2

Rated frequency: 50Hz

Rated operational voltage:
Consumer unit: 220-250V
2 module enclosure: 220-250V
4 module enclosure: 220-415V

Rated insulation voltage:
Consumer unit: 300V
2 module enclosure: 300V
4 module enclosure: 660V

Short circuit withstand:
16kA rms (based on the use of a BS 1361 Type 2 fuse of
rating not exceeding 100A)

Earthing system:
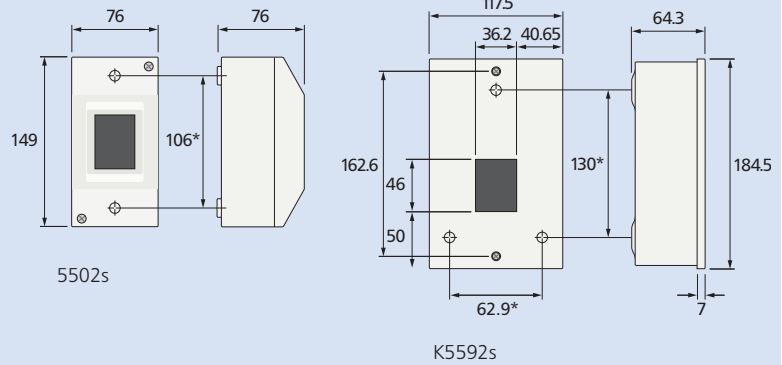Suitable for use with TN-S, TN-C-S and TT systems

Split load

Split load units are supplied with a pre-fitted switch,
RCD and suitable cables.

The switch and RCD ratings.
The following versions are offered:

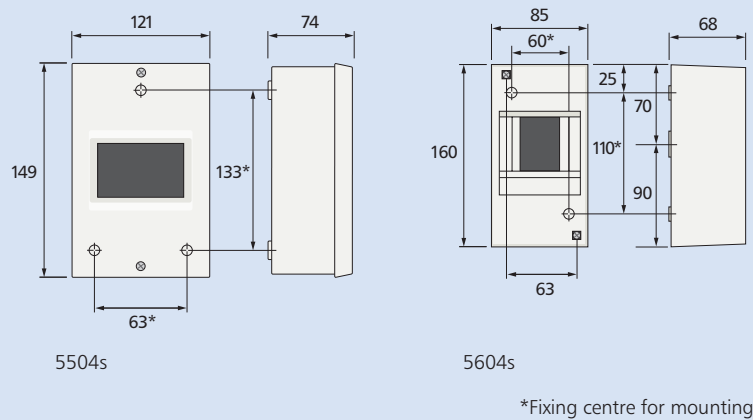|	Main Incomer	RCD
K5682s	100A Switch	63A
K5662s	100A Switch	80A
K5632s	100A T/D RCD	63A
K5666s	100A Switch	63A
K5686s	100A Switch	80A
K5636s	100A T/D RCD	80A
K5681s	100A Switch	80A
K5631s	100A T/D RCD	80A
K5626s	100A T/D RCD	63A
K5582s	100A Switch	63A
K5566s	100A Switch	63A
K5586s	100A Switch	80A
K5581s	100A Switch	80A
K5531s	100A T/D RCD	80A

Physical

Ambient operating temperature:
–5°C to +40°C (not to exceed an average of more than
25°C in any 24 hour period)

IP ratings: (see also 'Service Conditions', below)

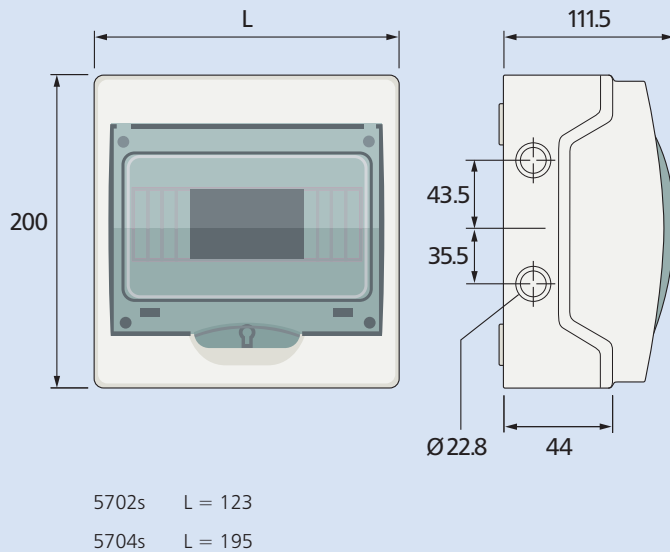|	
Consumer unit	IP2XC
2 module enclosure 5502s:	IP3X
2 module enclosure 5702s:	IP65
2 module enclosure K5592s:	IP30
4 module enclosure 5504s:	IP3X
4 module enclosure 5604s:	IP3X
4 module enclosure 5704s:	IP65

Max. installation altitude: 2000 ft

Dimensions (mm)

Two module enclosures

5502s

K5592s

Four module enclosures

5504s

5604s

*Fixing centre for mounting

Dimensions – IP65 enclosures

5702s   L = 123

5704s   L = 195

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TECHNICAL SPECIFICATION

Electrical

Maximum current rating:

5702s	2 pole devices	up to 100A
5704s	4 pole devices	up to 63A

Note:

5702s – Can accept up to 4 module ways with removal of moulded blanks.

5704s – Can accept up to 8 module ways with removal of moulded blanks.

Terminal capacity:
5702s: 4 x 6mm² earth and neutral
5704s: 2 x 6mm² and 6 x 4mm² earth and neutral

Rated operational voltage: 220-415V

Rated insulation voltage: 660V

Standards

Complies with EN 60670

Installation

Consumer units

The Consumer units are provided with internal busbar shields.

Front covers have lockable lid (using barrel lock & key accessory K5593s), which masks the front cover retaining screw. Removal of the front cover for internal access requires the use of tools.

Cover mounted blanks are provided with each Sentry Consumer unit to fill unused ways.

4,8 and 12 module – 2 off x 1

16 and 21 module – 2 off x 2

If additional unused ways are required the DIN rail mounted blank 5544s must be used to complete the installation.

Two/four module enclosures

Front covers require tools to enable removal and gain internal access.

5604s has provision for tamper-proofing.

Note: Only the K5592s enclosure will accept the one module RCBO's.

Service conditions

Wiring of these products must comply with current IEE regulations.

Consumer units and two and four module enclosures are intended for indoor use in dry conditions and are not suitable for locations where high humidity and/or high temperatures may be experienced.

It is important that during installation of any Sentry enclosure, steps are taken to ensure that the IP rating is maintained, e.g. correct use of cable glands and knockouts/cutouts.

Testing

Site assembled consumer units using MK components comply fully with BS EN 60439-3 so do not require further site testing other than normal routine installation tests.

Split load and multi-incomer arrangements

Such assemblies must utilise the relevant Sentry kit in order to comply with BS EN 60439-3 and to avoid the need for additional testing.

Stacking kits

Accessory kits (stacking frame, fittings and earth cable) can be used to produce stacked dual rail units in the insulated and surface metal ranges for the 12, 16 and 21 module units.

K6061s – for 12 module units to create 24 module dual rail consumer unit.

K6062s – for 16 module units to create 32 module dual rail consumer unit.

K6063s – for 21 module units to create 42 module dual rail consumer unit.

Weatherproof enclosures

The weatherproof enclosures may be used for outdoor applications up to the level of the IP65 rating.

The cable entry position on the top and bottom of the enclosure is at the discretion of the installer and can be achieved with suitable tools. Knockouts/cutouts are provided for side entry.

Precautions must be taken to maintain the IP rating, e.g. correct use of cable glands and knockouts. The caps provided must be used to cover the mounting screws.

Note: IP65 rating only achieved with lid in the closed position.

These enclosures will not accept the one module RCBOs.