



by Honeywell

# TAKE CHARGE.

USB Charging Solutions for enhanced efficiency, flexibility and safety.



Made Great  
In Britain.  
by Honeywell

# TAKE CHARGE

with MK's expanding range of USB Charging Solutions

When it comes to connecting devices such as phones, tablets, external hard drives and laptops, the 4-pin USB Type-A connection has been the standard for quite some time. As mobile devices increase their capacity and become more power hungry, the new USB Type-C connector is set to replace Type-A over time.

Many smart phone brands including Samsung, Google, Huawei and Motorola all now incorporate USB-C as standard on their newer models.

Apple have defaulted to USB-C only, on their Mac Book offerings, whilst some laptop manufacturers such as Dell, offer currently both port types.

Specifications now being seen from Electrical Consultants are now no longer detailing USB charging capability within sockets. They are beginning to detail USB-A and C, this change will only grow throughout 2021 and beyond.

# USB TYPE-C benefits

USB Type-C technology has the capability to not only charge a connected device but also power a much broader range of equipment. This is possible because the power capability of USB Type-C far exceeds that possible with USB Type-A.

USB Type-C devices and cables with Power Delivery Specification will be able to deliver and send up to 100W of power in the future. In addition to more power, data exchange rates are significantly higher with USB Type-C and even video transfer will become possible.

Today, its smaller connection size and reversible shape also means that users won't need to keep flipping the connector over to find the right orientation.

## Transitioning to USB-C

Although USB Type-C connection is on track to become the new standard, it will take some time for the market to fully make the transition from the still commonly-used Type-A, to Type-C connection. That's why we have launched a new USB integrated socket into our Logic Plus™ range that has two USB ports – one Type-C, one Type-A - complementing our existing, wide-range of 1 and 2gang dual USB-A integrated sockets and a USB charging euro module.

The sheer appetite for mobile devices has driven the inclusion of USB integrated sockets as standard into almost every type of building such as the home, education facilities, student accommodation, offices, hospitality, airports and retail. As the mobile devices market shift towards new Type-C connection, the question will not be if organisations need to provide this type of socket to users, but when.



# WHY CHOOSE MK's USB Charging Solutions?



## Take charge with optimal and efficient charging

MK's Dynamic Device Recognition (DDR) technology ensures that each device is charged in its own optimum way. DDR works because different proprietary devices charge in different ways so whatever make or model you are charging, that device recognises the MK USB socket or USB module as it would its own charger, drawing current from the USB charging socket in the way that best suits its design.

The new Logic Plus 2G integrated USB socket with 1x Type C and 1x Type A port provides a total of 15W across both outlets; the USB-C port is rated at 15W (5v/ 3A) power whilst the USB-A port is rated at 10W (5V/2A)



## Take Charge with installation ease

Perfect for retrofit as well as new build installations, MK's USB integrated sockets fit a standard 25mm back box. Note - Aspect and Edge products require 35mm back box.

Featuring In-line terminals which allow wires to be cut and stripped to the same length, speeding up the installation time needed.

Backed out and captive terminal screws and upward facing terminals with a funnel entrance make wiring and installation simpler and faster.



## Take charge with enhanced safety

For over 100 years MK has been synonymous with safety, expertly engineering products that deliver enhanced user protection. Our integrated USB sockets have been designed for user safety and preventing damage to the socket itself.

Should the total charging current exceed the rate level of 3A (2A for the dual Type-A products), the device will enter a current limited safety mode, or if a short circuit occurs, the output voltage will shut down completely.

Unlike many other USB sockets on the market, double pole switching is included for added user safety. This means that the neutral connections meet first and break last, an important feature for many public building specifications - like the education sector

Featuring MK's 3-pin 'child resistant shutter system', designed to inhibit access to the electricity supply unless all 3 pins of a standard British 13A plug are in position.

A 3mm minimum switch contact gap also eliminates the possibility of a circuit forming when switches are in the off position.

Our Logic Plus™ products are made using urea formaldehyde; a high-grade thermoset material that has inherent anti-bacterial properties. In addition, the range is scratch-free thanks to high quality mould tools, eliminating dirt traps for bacteria to spread – another way to help protect user health and well being.



## Take Charge with over 100 years of British manufacturing expertise

With a heritage and reputation for quality and reliability, MK's USB integrated sockets are manufactured at our Southend on Sea, Essex site and come with a 5-year product guarantee.



# 13A 2 GANG SWITCHSOCKET OUTLETS

with integrated dual USB ports

**Double Pole Switching**  
Neutral makes first, breaks last for total safety

**3mm Minimum Switch Contact Gap**  
Eliminates possibility of circuit forming when in the off position

**Two 5V Outlets With A Combined Total Of 3A Charging**  
To provide optimal charging capacity 3A can be drawn fully from Type C port when one device is charging or split between ports when devices are charging simultaneously.  
Note – A maximum of 2A can be drawn from Type A port provided the maximum capacity of 3A has not reached.

**Backed Out Terminal Screws Kept Captive Within The Terminal Housing**  
Aids, and makes installation faster

**In Line Terminals**  
Allows wire to be cut stripped to the same length for faster and easier installation

**Upward Facing Terminals With Funnel Entrance**  
Making wiring and installation easier.

**3-Pin "Child Resistant Shutter System"**  
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

**Vertically Stacked Central USB Ports\***  
Access to USB ports is not restricted when using virtually any standard 13A plug, including moulded plugs

**Dynamic Device Recognition**  
By detecting the nuances between the differing charging configurations tablet manufacturers use, the product can react accordingly for optimal charging efficiency

**Electrically Protected Against An Overload Or Short Circuit**  
Prevents damage to the socket and provides safety to the user in the event of an overload or short circuit conditions

**Dual Earth Terminals**  
For high integrity earthing

# 13A 1 GANG SWITCHSOCKET OUTLETS

with integrated dual USB Type-A ports

**Double Pole Switching**  
Neutral makes first, breaks last for total safety

**3mm Minimum Switch Contact Gap**  
Eliminates possibility of circuit forming when in the off position

**Dual Earth**  
For added safety in the event of earth leakage current

**Two 5V Outlets With A Combined Total Of 2A Charging**  
To provide optimal charging capacity 2A can be drawn fully from one port when one device is charging or split between ports when devices are charging simultaneously

**Dynamic Device Recognition**  
By detecting the nuances between the differing charging configurations tablet manufacturers use, the product can react accordingly for optimal charging efficiency

**Protected Against An Overload Or Short Circuit**  
Prevents damage to the socket and provides safety to the user in the event of an overload or short circuit

**3-Pin 'Child Resistant Shutter System'**  
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

**Vertically Stacked Dual USB Ports\***  
Access to USB ports is not restricted when using virtually any standard 13A plug, including moulded plugs

## Two dual USB port options available

### Type C socket

1x USB-C and 1x USB-A ports



Logic Plus™ - White

(also available in Logic Plus graphite finish)

### Type A socket

2x USB-A ports



Logic Plus™ - Graphite

(Type A Socket available in various ranges and finishes)

## Type A - Logic Plus and decorative ranges available

### 13A 1 Gang



### 13A 2 Gang





# USB INTEGRATED SOCKETS

## Frequently Asked Questions

### What charging capacity does the new USB Type-C socket provide?

The MK Electric USB Integrated socket with 1x USB Type-C and 1x Type A port provides a total of 3A charging capacity. This means that if only one device is connected, the total rated output current of 3A is available from either port. In the event that both ports are connected, the total rated current will be divided between the two ports. This prevents overload and excessive currents being provided to connectors, cables and devices which could generate a safety issue. Note – A maximum of 2A can be drawn from Type A port provided the maximum capacity of 3A has not reached

MK's Dynamic Device Recognition\* detects differing charging configurations and requirements and reacts accordingly, for example if two devices were charging simultaneously, more current will be diverted to the device with the least charge and the biggest demand for optimal and efficient charging.

### What is Dynamic Device Recognition?

Manufacturers have each adopted differing configurations for charging their devices. MK's USB Integrated sockets have been designed such that it understands and recognises this nuance and is designed to react accordingly, rather than be aligned to one specific charging configuration. This ensures we provide the optimum charging compatibility across a broad range of devices.

### Can I charge two different devices from two different manufacturers at the same time?

MK's USB Integrated sockets are designed such that the dynamic device recognition is unique to each USB port which means that different manufacturers devices can be charged simultaneously without any impairment to the other. As well as different manufacturers, each port can also charge different types of devices at the same time i.e. the ports are not allocated to specific devices such as tablets or phones.

### How can I be sure my device will be compatible?

MK Electric has undertaken extensive compatibility testing and found that numerous devices from various manufacturers are compatible.

### Which standards do your products conform to?

The range holds the CE mark as it conforms to all the safety certification and approvals applicable for a 13A socket including BS 5733 and relevant parts of BS 1363-2 and IEC BS1363-2 (2016). MK Electric prides itself on delivering the safest solution to our customers, which is why we also have conformity to the relevant directives applicable to electronic products and which should be mandatory for this type of product. This includes IEC 61000-6-1 and IEC 61000-6-3 which covers Electromagnetic compatibility (EMC).

### What back box depth will I need?

All products fit into a 25mm back box with the exception of MK Essentials, Edge™ and Aspect, which require a 35mm back box. For extra wiring space we would recommend the use of a 47mm back box for Edge™ and Aspect products, in line with current practice. We will also offer a 10mm moulded pattress to allow retrofit into a shallower box.

### Why are your USB ports vertically stacked in the centre of the socket?

The USB ports are aligned under the rockers to ensure the least disruption to the 13A plug space. When larger transformer type plugs are used on the 13A outlets, there is the risk that they will cover the USB ports and make them inaccessible if they are located elsewhere on the socket. Locating them in the way that we do allows for all four outlets to be used simultaneously.

### The front of the product becomes warm in use, is this normal?

Yes it is usual and expected for the front surface of the product to become warm in use. This is the case on all chargers and power supplies. However the MK charger is very efficient so this warming will be kept to a minimum.

### How is the chargers output protected?

The USB output is fully protected against overload and short circuit conditions. In the event of a short circuit the output will completely shut down. When the short circuit is removed the output will recover back to its normal level and continue to operate normally. If more than the rated charging current is attempted to be drawn from the product the charger will enter into a constant current operating mode. The current will remain constant but the voltage will drop as the over-load increases. Eventually the overload will be seen as a short circuit and the output will completely shut down.

### Can I undertake an Installation Commissioning Test with the product wired into circuit?

The USB charger should be removed from the circuit before undertaking an Insulation Resistance (Mega) test between Line and Neutral on the wiring installation.

However, If the product is accidentally left in circuit then it will not be damaged by a 500V IR test.

### Does the USB integrated socket have the same safety capabilities I would expect from MK Electric?

Yes, the sockets are Double Pole and have 3 Pin operated shutters and are fully approved in accredited test facilities to the latest BS 1363-2 safety standards.

## DUAL USB CHARGING MODULE

### Two 5V outlets with a combined total of 2A charging

To provide optimal charging capacity, 2A can be drawn fully from one port when one device is charging or split between ports when devices are charging simultaneously.

### Standard snapfit Euro Module Design

Fits into any standard Euro frontplate with a 50 x 50mm aperture. Ultimate flexibility of application with a selection of frontplate options as well as custom combination plates.

### Dust proof USB port shutter

Zero standby power consumption, auto disconnect when plug removed. Can be installed into a standard 35mm backbox. Ideal for retrofit installations.



MK Electric offer a wide range of frontplates in a variety of finishes and our MK Design Service also allows you to create your own bespoke combinations.

### Technical Specifications

TECHNICAL SPECIFICATION	BS 13A
USB CHARGING MODULE	2A, 5V d.c. USB Charging Module for portable electronic devices
ELECTRICAL SPECIFICATION	
VOLTAGE RATING	220-240Vac / 50-60Hz
CURRENT RATING	2A
TERMINAL CAPACITY	3 x 2.5mm <sup>2</sup>
PHYSICAL SPECIFICATION	
DIMENSIONS	50 x 50mm
AMBIENT OPERATING TEMPERATURE	0°C to 40°C
MAXIMUM INSTALLATION ALTITUDE	2000 metres



Edge™



Logic Plus™



Logic Plus - K2745WHI



# PRODUCT SELECTOR

## LOGIC PLUS™

LOGIC PLUS™ - USB TYPE C	LOGIC PLUS™ - USB TYPE A	
13A 2 GANG	13A 2 GANG	13A 1 GANG
		

FINISHES			
White (WHI)	K2745WHI	K2744WHI	K2754WHI
Graphite (GRA)	K2745GRA	K2744GRA	K2754GRA

## MK DIMENSIONS

MK DIMENSIONS - USB TYPE A		
13A 2 GANG	13A 1 GANG	
		

FUNCTIONAL MODULES		
White	MH24344WHIC	MH4354WHIC
Black	MH24344BLKC	MH4354BLKC

FRONTPLATES		
METAL FINISHES		
Brushed Stainless Steel (BSS)	MHFPO40BSS*	MHFPO44BSS*
Satin Steel (SST)	MHFPO40SST*	MHFPO44SST*
Satin Brass (SBR)	MHFPO40SBR*	MHFPO44SBR*
Bronze (BRZ)	MHFPO40BRZ*	MHFPO44BRZ*
SYNTHETIC FINISHES		
White (WHI)	MHFPO40WHI	MHFPO44WHI
Matt Black (MBK)	MHFPO40MBK	MHFPO44MBK
Light Silver (LTS)	MHFPO40LTS	MHFPO44LTS
Dark Silver (DKS)	MHFPO40DKS	MHFPO44DKS
Champagne (CHM)	MHFPO40CHM	MHFPO44CHM

\*Available with the option of either a white or black plastic trim. Add suffix 'W' or 'B' to the part number when ordering, e.g. MHFPxxxBSSW = Brushed Stainless Steel finish with a white trim.  
NB: It is recommended to match the trim colour to the functional module selected.

## METALCLAD PLUS™

METALCLAD PLUS™ - USB TYPE A (WITHOUT BACK BOX)		
13A 2 GANG	13A 1 GANG	
		


FINISHES		
Aluminium (ALM)	K2944D5ALM	K2954D5ALM
White (WHI)	K3044D5WHI	K3954D5WHI

## ALBANY PLUS™

ALBANY PLUS™ - USB TYPE A		
13A 2 GANG	13A 1 GANG	
		

FINISHES		
Brushed Stainless Steel (BSS)	K2944BSS	K2954BSS
Brushed Chrome (BRC)	K2944BRC	K2954BRC
Polished Chrome (POC)	K2944POC	K2954SAG
Satin Gold (SAG)	K2944SAG	K2954PCR

## EDGE™

EDGE™ - USB TYPE A	
BRITISH STANDARD 13A 2 GANG	
	

FINISHES	
Brushed Stainless Steel (BSS)	K14344BSS*
Lacquered Brushed Steel (LBS)	K14344LBS*
Brushed Chrome (BRC)	K14344BRC*
Polished Chrome (POC)	K14344POC*
Satin Gold (SAG)	K14344SAG*
Polished Brass (PBR)	K14344PBR*
Porcelain White (WHI)	K14344WHIW
Lustrous Black (LBK)	K14344LBKB



\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts.

## ELEMENTS

ELEMENTS	
13A 2 GANG	13A 1 GANG
	

SYNTHETIC FINISHES		
Chalk White (SCW)	K34344SCW	K34354SCW
Natural Stone (SNS)	K34344SNS	K34354SNS
Beach Pebble (SBP)	K34344SBP	K34354SBP
GLASS EFFECT FINISHES		
Ice White (GIW)	K34344GIW	K34354GIW
Polished Onyx (GPO)	K34344GPO	K34354GPO
METALLIC FINISHES		
Brushed Steel (MBS)	K34344MBS	K34354MBS
Brushed Bronze (MBB)	K34344MBB	K34354MBB
Satin Platinum (MSP)	K34344MSP	K34354MSP
Satin Titanium (MST)	K34344MST	K34354MST


## ASPECT

ASPECT - USB TYPE A		
13A 2 GANG	13A 1 GANG	
		

FINISHES		
Brushed Stainless Steel (BSS)	K24344BSS*	K24354BSS*
Lacquered Brushed Steel (LBS)	K24344LBS*	K24354LBS*
Brushed Chrome (BRC)	K24344BRC*	K24354BRC*
Polished Chrome (POC)	K24344POC*	K24354POC*
Satin Gold (SAG)	K24344SAG*	K24354SAG*
Polished Brass (PBR)	K24344PBR*	K24354PBR*
Porcelain White (WHI)	K24344WHIW	K24354WHIW
Lustrous Black (LBK)	K24344LBKB	K24354LBKB

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts.

## EURO MODULES

EURO MODULES	
	

FINISHES	
White (WHI)	K5837WHI
Black (BLK)	K5837BLK
Chalk White (SCW)	K5837SCW
Natural Stone (SNS)	K5837SNS
Beach Pebble (SBP)	K5837SBP



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