

THE CAMDENBOSS CHRONICLE

13th-14th November 2019

HOUSING TOMORROW'S TECHNOLOGY



CAMDENBOSS - YOUR IoT E-MECH AND ENCLOSURE PARTNER

With the IoT and Industry 4.0 markets now taking electronics into new and diverse environments, it is vital to select the right enclosure to house these systems.

Whether you are placing them on a lamp post and need an IP67 enclosure, inside the home and need an aesthetically pleasing enclosure or even on a busy factory floor and need a dust tight enclosure, with our extensive range of enclosures, we have the ideal solution for your project.

For instance, our X series range of IP67 heavy duty electrical enclosures are designed for outdoor, harsh and electrical applications making them ideal for almost any IoT hub project. With this series there are additional accessories available such as mounting brackets, vents, dual doors, mounting plates and locks; you can really tailor the X series enclosure to suit you.

As well as our X series hub, our DIN Rail mounted CNMBs and CVB Plus enclosure solutions provide the ideal housing for electronic and electrical applications. We also have a wide range of DIN Rail interface modules such as USB, diode and RJ45, all of which come pre-assembled to provide you with everything you need to complete your IoT project! See pages 4 & 5 for more details.

With the IoT market expanding at such a fast rate, it has never been more important to source the correct enclosure. Call our sales team today on 01638 716101 to find out what enclosure or e-mech product would be best suited for your next project.

(Pictured: X7 series heavy duty enclosure, CNMB DIN Rail enclosure and CDIB DIN Rail instrument enclosure)

SEE PAGES 4 & 5 FOR YOUR ENCLOSURE REFERENCE GUIDE



VISIT US ON STAND **C42** FOR ALL OF YOUR ENCLOSURE NEEDS!

SMART FACTORY EXPO

CAMDENBOSS ONE-STOP SHOP

MAKE YOUR NEXT IIoT PROJECT
STAND OUT FROM THE COMPETITION

Finding the right enclosure for your IoT hubs and nodes can be daunting. Here at CamdenBoss we continue to lead the market in standard 'off the shelf' and custom design enclosures; making us the perfect partner for your next smart project.

OFF THE SHELF ENCLOSURES

Our enclosures are ideal for many IoT applications, whatever the industry. These include handhelds, desktop, metal or DIN Rail enclosures and are categorised to enable engineers to easily visualise which enclosure is going to be suitable for their needs. Our 'off the shelf' enclosures are ready for anyone building and designing the newest innovative products.

Our standard range enclosures, such as the X series, offer the perfect all-round solution to



indoor or outdoor applications such as IoT distribution 'hubs', high voltage power sources or diagnostic sensory equipment. The 1100 series, with a sleek and contemporary design is an ideal electronics housing for nodes around the home and office whilst the 5000 series diecast enclosure provides a more robust shell for industrial applications.

CNMB DIN Rail enclosures, with their modular characteristics, create an enclosure of choice for service room electrical systems whilst compact enough to be mounted within larger enclosures as industry 4.0 systems.



design. Be sure to check out our product range on page 7 and take advantage of the 'one-stop solution'.

Our range of enclosures can also be customised with vents, slots, holes and more through our in-house CNC processes. We also offer in-house digital printing using the latest technology to provide high quality finishes.

Not only do we offer a vast selection of enclosures but we also have a comprehensive range of components necessary for your

Size isn't an issue. From small electronics enclosures to 3m high POS kiosks CamdenBoss and Smartboxx provide the 'one-stop shop' solution.

CUSTOM ENCLOSURE SOLUTIONS

Smartboxx design and manufacture custom enclosure solutions, from concept all the way through to volume manufacture. A quick and cost-effective way to get your unique product, market ready.

Getting a completely bespoke solution to market can sound daunting, but this is far from the case when using Smartboxx. You provide the initial specification / product requirements, Smartboxx's engineers will do the rest. Did we mention no tooling? Every unique solution Smartboxx provides is achieved with no mould tools. Utilising 3D CAD-CAM software, CNC machinery and a team of skilled fabricators, we ensure a service level guaranteed to exceed expectation.

Everything Smartboxx does has flexibility in mind. No mould tools enable design changes to be made at any stage of the product's life cycle with just a few

clicks of a button. Flexible call-off orders allow you to hit higher price breaks, while receiving multiple manageable deliveries. A full product 'development' stage allows you and one of their engineers to nail down your custom solution.

With all this provided in Thetford, UK, now has never been a better time to get in touch and get the ball rolling on your unique solution.



CALL US TODAY ON 01638 716101

SMARTBOXX CUSTOM ENCLOSURE SOLUTIONS

DESIGN



PROTOTYPE



VOLUME MANUFACTURE



DOUGHNUT MAYHEM

CamdenBoss manufacture state-of-the-art drive-thru system for Ireland's first Krispy Kreme restaurant



"We are sorry to have contributed towards Dublin's traffic chaos!"

CamdenBoss recently manufactured a drive-thru system for the new Blanchtown Krispy Kreme facility in Ireland.

Consisting of a 'Customer Order Display' and 'Digital Menu Board', the two striking POS units feature 55" interactive displays, speaker, microphone and eye-catching illuminated visuals down each side. Wireless communications

between the smart device and the operator at the next window, revolutionise drive-thru systems with the introduction of IoT into the catering industry.

CamdenBoss' full customisation process ensured that the design, development and manufacture of these products was a seamless transition from beginning to end.

Multiple manufacturing processes were used to achieve each unit; including plastic and

metal fabrication, joinery and full assembly work.

The opening night of the Blanchtown drive-thru proved chaotic; with no less than 70 vehicles queuing through the drive-thru at any one time. It appears Ireland's love for doughnuts has been reignited with this impressive venue!

CamdenBoss' Sales Manager, Sam Wain, commented; "We are sorry to have contributed towards Dublin's traffic chaos!"



PRODUCT BRANDING

Make use of the CamdenBoss digital printing, engraving and labelling service to ensure your custom solution is fully branded and market ready.



CUSTOMER DRIVEN, ENCLOSURE SOLUTION MANUFACTURERS

You supply the specification / datasheets, CamdenBoss provide the engineers to turn your ideas into ready-for-market, fully branded solutions.



TOOL-FREE MANUFACTURING SOLUTION

Looking to test the market? Or simply don't have the funding to invest in a mould tool yet? Don't let that put you off a custom enclosure solution, Smartboxx provide a tool free, cost effective solution for your product. Plastic and sheet metal fabrication, digital printing, gasket seals and assembly are just some of the processes CamdenBoss can offer.



CAMDENBOSS REFERENC



**1500 series
Universal smart enclosure**

The unique shape of this housing makes it possible to mount at 90 or 45 degree angles to a wall, operating as either door entry systems or smart room control panels. The shape also allows it to be mounted directly to the corner of a room, if used as a monitoring or sensor device. Available in vented and non-vented options, with additional wall mounting brackets.



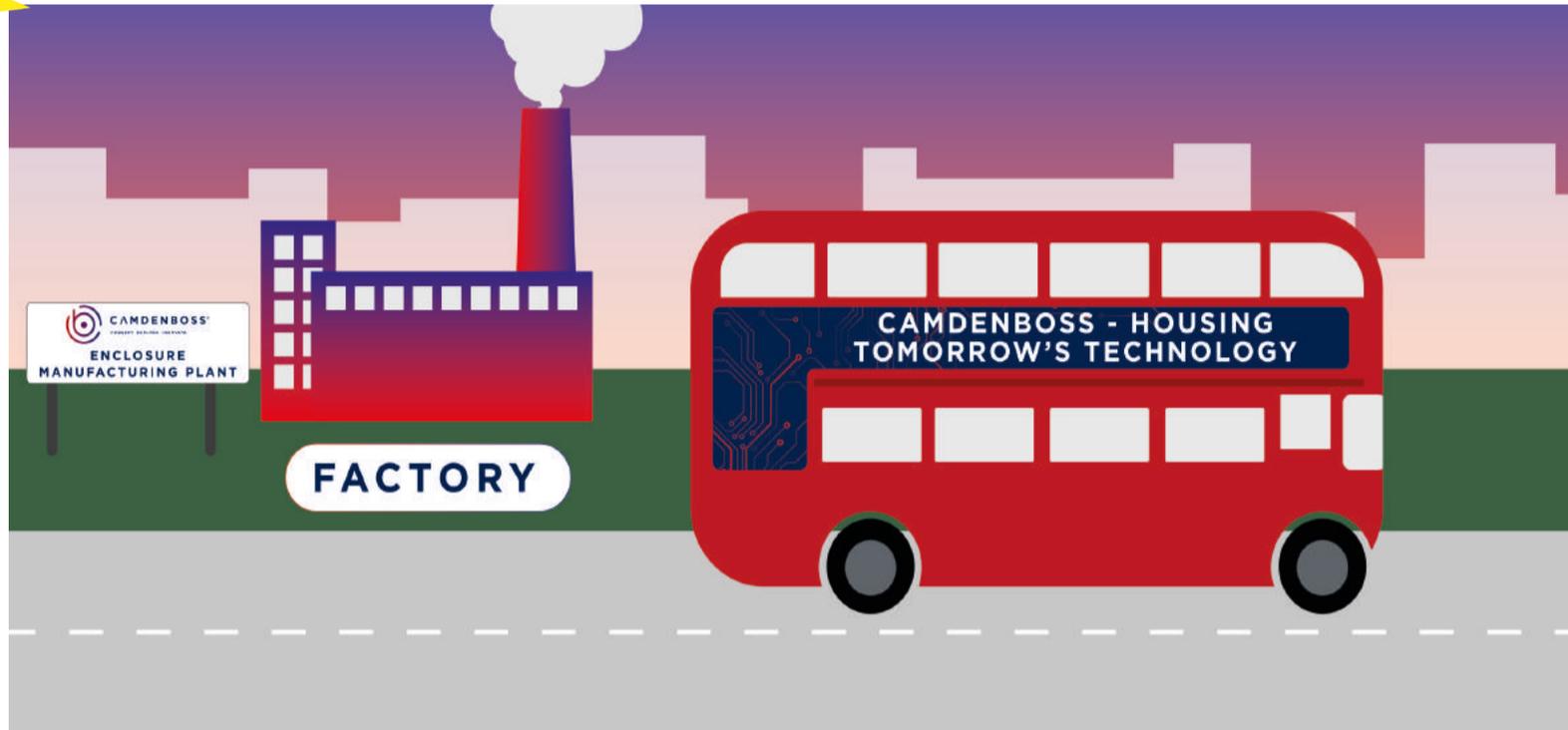
**66 series
Handheld rubber corner enclosures**

This comfort grip handheld case is ideal for IoT wireless measurement devices as well as a wide range of other industry equipment. The battery compartment option makes it ideal for field testing equipment.

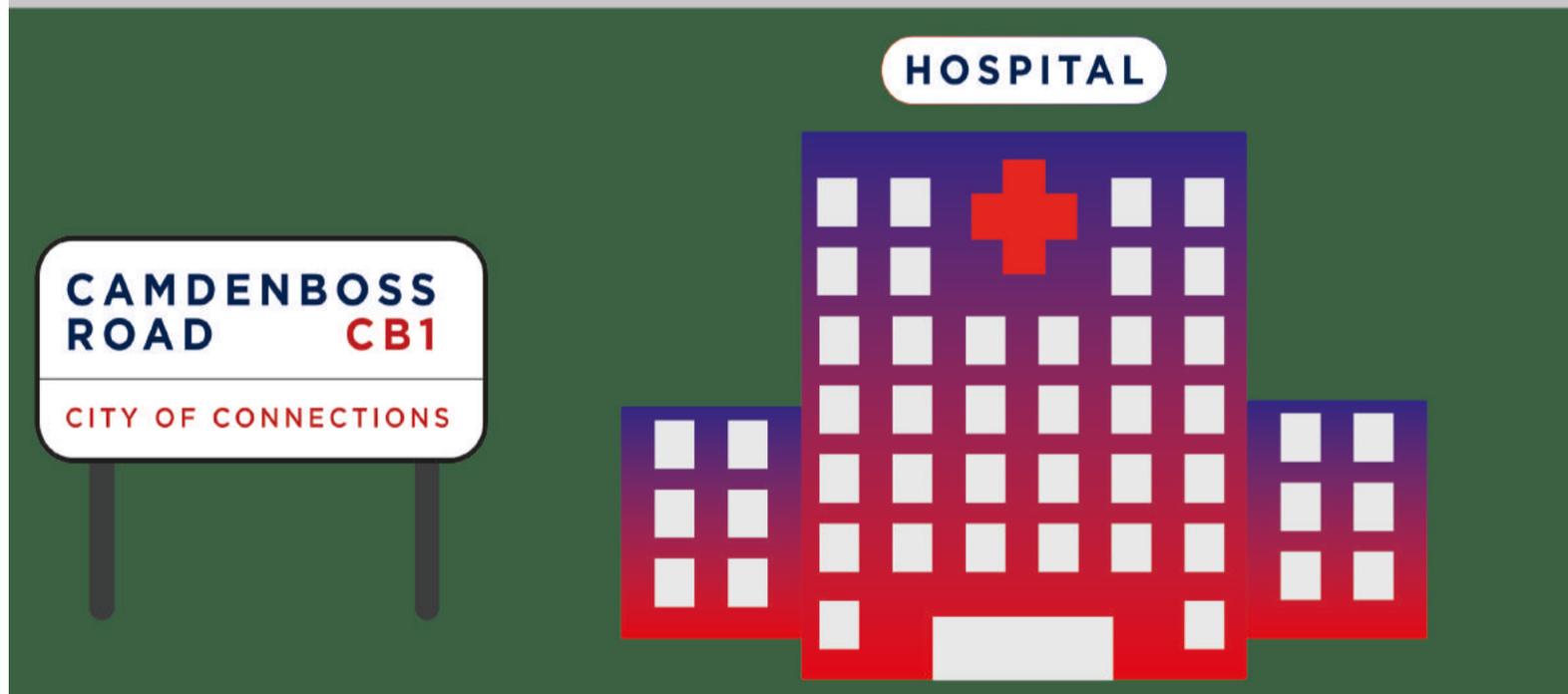


**5000 series
Multi-purpose diecast enclosure**

These enclosures offer superior protection to sensitive devices operating in smart factory applications. Easily customisable, the 5000 series would make light work of machinery control systems or monitoring devices.



FACTORY

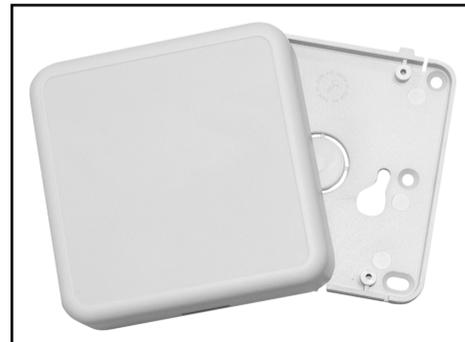


HOSPITAL



**7000 series
Recessed designer cases**

This all-round multi-purpose enclosure, is suitable for wall mount or desktop type instrument housings. You can even use it for operating blockchain node systems.



Room sensor enclosure

The wall mount enclosure is the ideal housing for smart factory industrial controls, and is capable of mounting directly to UK single gang back boxes. A knockout point on the base of the housing provides a cable entry point that remains hidden once mounted. Now available in white, grey and black, with vented and non-vented options.



**94 series
Flanged comms boxes**

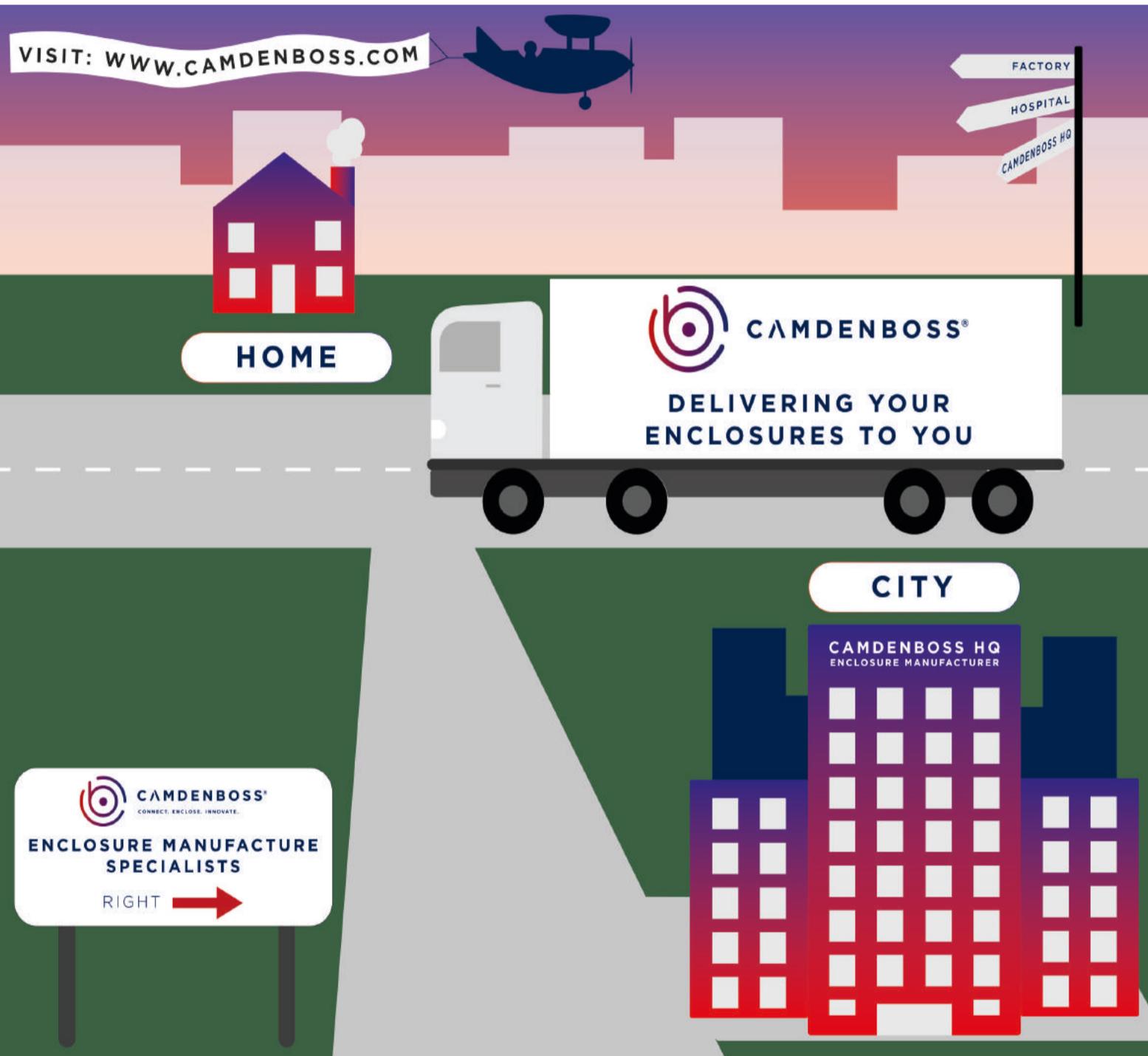
This stylish enclosure is ideal for comms boxes and network modules. Its surface mounting flanges make it suitable for wall mounted control systems.

ENCLOSURE GUIDE

YOUR DOUBLE PAGE REFERENCE GUIDE

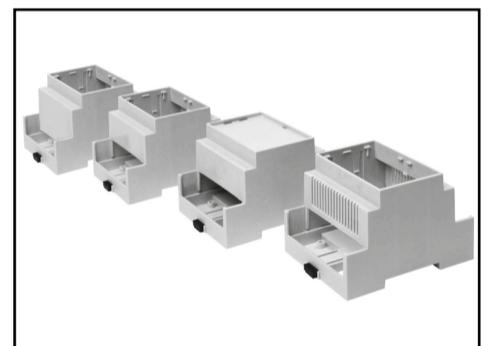
This reference guide is a great reminder of CamdenBoss and the industries that our enclosures can be used for. We've provided you with the names and suggested uses of the products on display at the Smart Factory Expo.

If you require any further information on our enclosures then please visit our website www.camdenboss.com or call us on 01638 716101.



1100 series
Stylish ABS cases

Suitable for small to medium sized electronic smart devices for industrial environments. Impact resistant ABS material provides adequate protection in testing environments. The recessed lid is the ideal space for controls, LCD displays and membrane keypads.



CNMB
Modular DIN Rail enclosures

CNMB DIN Rail housing is perfect for centralised systems in factory environments. Available in multiple lengths with terminal spaces, which open up a variety of applications such as drives and controls, IoT networking electronics, power management and instrumentation.



Custom design
Raspberry Pi 4 enclosure

Custom build, fabricated enclosures to house your very own raspberry pi modules.



X6 series
IP67 Electrical knockout enclosure

This heavy duty enclosure can be used in machine to machine electronics. Its cable knockouts makes it ideal for use as a junction enclosure.



X7 series
IP67 Electrical heavy duty enclosure

The rigid corners makes it perfect for keeping your industrial relay boxes, control switches and distribution applications secured against impact. It is suitable for indoor and outdoor use.



X8 series
IP67 Hinged lid electrical enclosure

This extensive range of heavy duty enclosures are designed for outdoor, harsh and electrical applications, making it ideal for your IoT hub. It features a hinged lid which allows quick and easy access without having to remove screws.

CUSTOMISED SOLUTIONS THAT SAVE YOU TIME AND MONEY

CASE STUDY

CamdenBoss continues to push the boundaries on delivering customer driven solutions. Re-purposing modern CNC machinery and additional investment in digital printing capacity has seen a reduction in lead times and increased production flexibility.

For this Industrial handheld equipment project, CamdenBoss worked closely with the customer to deliver the enclosure solution they needed. It was briefed that the enclosure would need to be portable, as it would be moved around the factory whilst in operation. Plenty of workable areas where required to incorporate controls, branding and component entries.

The standard 'off the shelf' 66 series handheld enclosure was chosen for its robust, soft touch feel, and easily customisable features. The enclosure is built up of two halves, held in place and secured by the four corner grips, for a quick and simple assembly; without the need of screws.

The enclosure was CNC customised on three faces, cable and connector holes were added in the top and bottom faces and LCD aperture in the front. The LCD aperture was fitted with a transparent acrylic window, solvent welded in by CamdenBoss. The front face was then printed directly onto the enclosure using a full colour high resolution digital printer. Soft touch

corners are available in a variety of colours as standard but, in this instance, they were manufactured as 'custom coloured corners' to match the product's corporate identity. 'Custom colour corners' are available in batches of 500 sets of four. The inside of the enclosure was spray coated with a nickel-based paint for RFI / EMC requirements.

Our client's handheld device was designed and manufactured as a vehicle instrument device to measure the speed and rotation of the internal combustion engines crankshaft. This smart device utilises a Bluetooth emitter that can communicate with given systems up to 100m. The Tachometer Device is just one example of how CamdenBoss supports the design and assembly of IoT devices within any industry.

As well providing internal components on the PCB, CamdenBoss also provided the IP66 cable gland fitted in the bottom of the enclosure.

With CamdenBoss being able to offer so many services, this customer had one reliable source for completing the major part of their

BEFORE			AFTER		
					
					
FITTED CABLES	CUSTOMER CHOICES	SURFACE COATING	COLOUR OPTIONS	PRINTING & ENGRAVING	MACHINING & FEATURES

system, without the need to rely on other sub-contractors for such things as CNC machining, printing, window assembly and EMC coating. With CamdenBoss the future is exciting, with more to offer the customer than ever before.

So, if you are looking for a handheld enclosure, capable of achieving results similar to the factory equipment mentioned in this case study, call our sales team today on 01638 716101!

PI 4 HOUSING SOLUTIONS

CAMDENBOSS USE THE SMARTBOXX PROCESS TO BRING TO MARKET A RANGE OF RASPBERRY PI 4 ENCLOSURES WITHIN A WEEK OF ITS RELEASE

With the launch of the Raspberry Pi 4, our design team designed and prototyped four different fabricated enclosures within a week of its release.

The four styles consisted of a 2-U shell construction, a 4-part construction, a slide together cube and a hexagon option capable of wall mounting. Each design took into account the complications of a stronger PCU adding air vents and fan mounting options. Growth is achievable in the hexagon and cube style housing as the extended height allows for other boards such as the PI HAT to be connected and function properly.

A step further was taken by the CamdenBoss team, with the goal of providing a DIN Rail solution to our customers looking to mount their Pi 4's in this way. They took one of the standard, moulded enclosures and customised it so that it would perfectly fit the PCB, without the need for screws. The board has been mounted upside down to allow for board additions and extensions.

To find out more information about our extensive range of enclosures, visit our website www.camdenboss.com or call our sales team on 01638 716101.



NEW
RASPBERRY PI 4
CUSTOM ENCLOSURES
WWW.CAMDENBOSS.COM

THE PERFECT DIN RAIL SOLUTION FOR A BUSY FACTORY

CASE STUDY

Our bestselling CNMB DIN Rail modular enclosure was recently designed in to work in busy factory environments for monitoring and control automation purposes.

The enclosure needed to be DIN Rail mountable, as the module had to be located away from the centralised control areas within warehouses and factories. The housing also needed to feature open terminal sections, to enable wire to board connections to be made using PCB terminal blocks. The customer chose our CNMB modular housing which was the ideal enclosure for their requirements. The CNMB/12/2 was used, along with a CNMB/12/PG solid lid. They also chose one of our terminal blocks, making the sourcing quicker and easier.

The module designed provides a wide range of uses, with potential to control up to 12 light circuits, four of which are dimmable through a built-in feature. There are 16 entries for push buttons and movement detectors; what's more you can also control one screen, a roller shutter or gate. An integrated 12V DC power supply enables the user to power movement detectors, primarily for smart security systems around the home. Not only that, the



device also allows two temperature sensors to be connected.

The automation module is also equipped with a network interface, enabling the user to connect up to five smart devices such as: smartphones, tablets, control points, thermostats etc. The configuration is limited to filling out the IP address to connect with the system, and that's it, everything else runs on autopilot.

If you are interested in discussing your next design project, or have a similar idea in mind that would benefit from the features found on our CNMB series, call us today on 01638 716101.

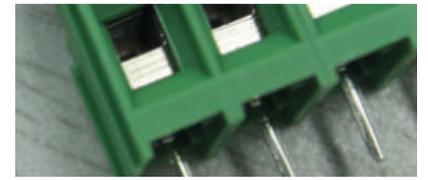
CamdenBoss consistently drive quality and innovation to enable the customer to stand out from the

crowd. Hosting a wide variety of electrical mechanical components such as terminal blocks and circuit protection fuses, to electronic enclosures, purpose built for many environments and applications such as factory drives and controls, automation or networking. Alongside standard off the shelf moulded product, a custom fabrication method is available using Smartboxx technology. In house customisation is available adding value to your design through digital printing and CNC machining slots and cut outs for component mounting.

Giving customers engineered solutions and modern products, all designed around today's market.

CAMDENBOSS PRODUCT RANGE

TERMINAL BLOCKS & STRIPS



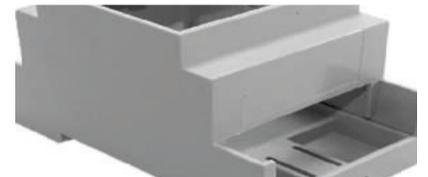
SWITCHES & INDICATORS



METAL ENCLOSURES



DIN RAIL ENCLOSURES



PLASTIC ENCLOSURES



INTERFACE MODULES & SUPPORTS



1500 SERIES UNIVERSAL SMART ENCLOSURE

Effortlessly mount the 1500 series universal smart enclosure directly to secure mounting points at 45 degrees, creating a functional and aesthetic control panel/input point.

Utilise the large recessed front face for screen displays and membrane keypads, and bring this enclosure to life with your design.



Find out more at WWW.CAMDENBOSS.COM

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FROM NORFOLK TO NAGPUR...

...WITH NO TOOLING

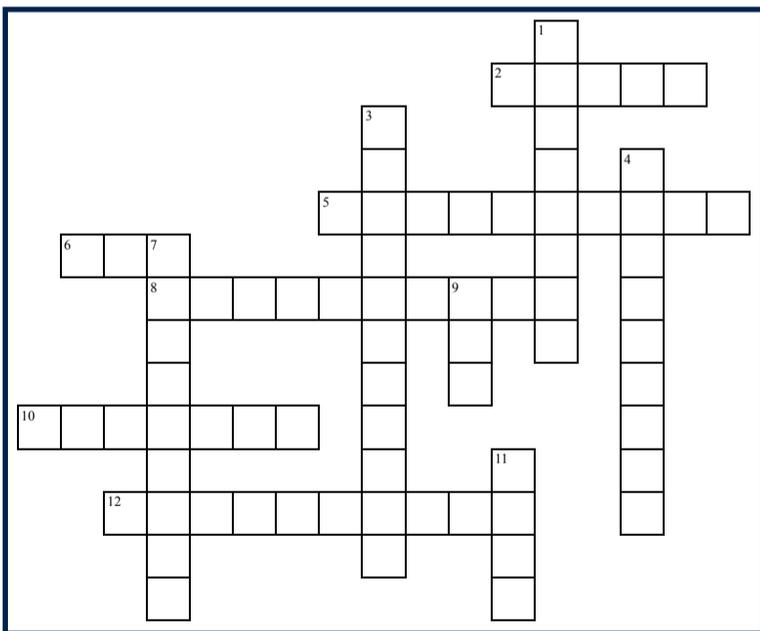
See page 2 for more information on our custom design solutions



THANK YOU FOR VISITING US ON
STAND C42...
DON'T FORGET TO STAY IN TOUCH!



CAMDENBOSS CROSSWORD



Across:

- 2. What country is Nagpur in? (5)
- 5. CamdenBoss specialise in these products that you need, to house your IoT tech (10)
- 6. Each of the three CamdenBoss X series ranges are available in either polycarbonate or ... (3)
- 8. The world's first intercity railway opened in 1830 taking passengers between Liverpool and which city? (10)
- 10. Our stand focused on four industries: home, city, hospital and which other? (7)
- 12. Liverpool airport is named after which famous Liverpudlian?(4,6)

Down:

- 1.4.0 is the name given to automation within manufacturing industries (8)
- 3. On our stand, the city is called the 'City of
- 4. Earlier on in the newspaper, it was announced that CamdenBoss have manufactured a state-of-the-art system for Ireland's first Krispy Kreme restaurant (5,4)
- 7. Which process did CamdenBoss use, to be able to bring to market a range of Raspberry Pi 4 enclosures within a week of its release? (9)
- 9. What is the name of our Northern Sales Manager? (3)
- 11. is the name of our modular DIN Rail instrument enclosures (4)

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Tel: 07831 190518

SOUTHERN SALES MANAGER: CHRIS AMES
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Tel: 07903 019207

Crossword Solution - Across: 2. India, 5. enclosures, 6. ABS, 8. Manchester, 10. factory, 12. John Lennon Down: 1. Industry, 3. connections, 4. drivethru, 7. Smartboxx, 9. Tom, 11. CNMB



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