



Shaping your future

Enclosure specifiers now have more to choose from than a grey box as suppliers explore colour, shape and texture. By **Graham Pitcher**.

Henry Ford once said the Model T was available in any colour you wanted, so long as it was black. Until recently, a similar approach could have been applied to enclosures, except the colour would have been grey.

What a product looks like and its size are growing in importance as the expectations of the consumer world percolate into the industrial sector.

This means – for the most part – the days of the rectangular grey plastic or metal housing as the only enclosure solution have gone. In its place have come products offering a choice of colour, shapes and materials.

During the past two decades, OKW has developed a range of plastic enclosures for the electronics industry. However, the company says one of its latest developments is the result of a move to create something completely different.

According to Robert Cox, sales and marketing director for OKW Enclosures: “BLOB is the most radical range of handheld enclosures we have introduced. The contoured surfaces are designed to imply the function; when grasped, the user’s fingers naturally rest in the control area on the enclosure surface. As a result, users naturally understand how to use the electronics without instructions.”

It has taken three years for OKW to create the BLOB family. The two part design comprises top and bottom ABS mouldings and two standard colours are available: off white and lava grey.

Three variants can be selected. The handheld BLOB Unit, which measures 130 x 60 x 30mm, has a lower grasp area and a recessed keypad/control section. OKW says this part is suitable for left or right handed operation.

The BLOB Control version, which measures

114 x 76 x 31mm can be held with one hand and operated with the other. Depending on the position and definition of the display and operating area, different sensory gripping options are available.

Finally, the BLOB Panel model is designed for handheld or desktop products. With external dimensions of 200 x 165 x 36mm, it is aimed at two handed applications or for tabletop operation. Two symmetrically positioned gripping areas show product orientation. The Control and Panel versions have a separate recess where special functions can be highlighted. All models can accommodate AAA, AA and button cells, while cable glands can be positioned at any point on the split line for cable connection for power and data transfer. The enclosures can also be sealed to IP54 using an appropriate gasket kit.

Hammond Electronics is another supplier



BLOB is said by OKW to be the most radical range of handheld enclosures it has introduced

looking to meet demand for more visually attractive enclosures. It says customers from a range of sectors are asking for non rectangular die cast enclosures that provide an effective environmental sealed housing and good emc screening.

Its response is the extension of the 1590 family with the introduction of the 1590TRP and STP models. The first applications for the new shapes are said to include audio equipment, guitar stomp boxes, industrial remote controllers, desktop switch arrays and hand held test equipment controllers.

The octagonal 1590TRP measures 133mm across the flats and is 39mm high; as such, it will house a circular pcb of up to 126mm in diameter. Meanwhile, there are two trapezoidal units in the 1590STP range and both are 39mm high. The smaller unit, which takes a portrait format, is 112mm long and narrows from 79mm to 62mm. The larger landscape unit is 95mm in depth and

narrows from 151mm to 122mm. All three housings are available in natural and a choice of six smooth gloss polyester powder paint finishes.

A lap joint seals the units to IP54, protecting against the ingress of dust and water, and the painted finish is only applied to the external surfaces, maintaining rfi integrity. All units can be supplied factory modified with machining.

CamdenBoss, meanwhile, is offering small robust enclosures that are suited to handheld applications. The 33 series of grip cases uses an innovative design concept in which rubberised corners provide extra protection and additional grip. Features of the range include screwless assembly via four soft grip corners, battery compartment lid with retaining screw and internal screw pillars in lid and base.

Available in 25 and 35mm high options, the 33 series is supplied black or light grey high impact ABS, with the polypropylene soft grip corners available in a range of seven standard colours.

For larger designs, the 45 series of palm cases features integrated battery compartments and rubber boot options. Moulded in flame retardant black ABS, the 45 series has removable end panels and sliding battery compartment lid options for AA or PP3 batteries. Three sizes are available – 117.5 x 72.5 x 25.5mm, 139.5 x 82.5 x 26mm and 165 x 82.5 x 26mm – and plain versions without a battery compartment are available on special order.

At the other end of the scale is a range of keyfob enclosures. Moulded in ABS, the 2955-20 series of round keyfobs features snap fit assembly of lid and base and from one to five rubber buttons with contact pads.

Complementing this range are the 2956 and 2957 series. The 2956 is a black ABS moulded case without buttons, while the 2957 features up to three buttons – one central or one to three plastic buttons – and has a separate battery compartment for coin cells in its base.

OKW has also launched the Carrytec range. OKW's Cox said: "The all new range has been designed for medical electronics and portable test and measurement equipment. The enclosures have an integrated handle design and optional charging/data transfer stations."

For the moment, the only version available is the Carrytec S, which measures 222 x 205 x 80mm. However, an M version will be announced shortly.

Carrytec enclosures are moulded from two different materials. An off white ABS variant is suitable for indoor use, such as for medical equipment, while a lava grey fibreglass reinforced polyamide version is aimed at outdoor applications. Both can take advantage of an IP54 rated sealing kit for extra protection.

The three part enclosures – top, bottom and handle – are assembled using five security screws. The handle grip, moulded in soft touch thermoplastic elastomer, is captured by the top and bottom parts.

The top section has a recessed area which accommodates pushbuttons, membrane keypads, displays or touchscreens. Meanwhile, inset sections on the underside cater for cable connections and switches. PCBs can be fitted to screw pillars provided in both the top and bottom parts.

But if what you really need for your design is a good old fashioned grey box, they won't be going out of production any time soon.