

# Custom enclosures keep the underground running

The London Underground, part of Transport for London, carried 1.26 billion passengers in the last year, making it one of the busiest networks in the world. To help keep it running smoothly, Verotec, the specialist electronic enclosure manufacturer, used its TecServ+ Project Service operation to design and manufacture bespoke enclosures used to house some critical switching and interfacing equipment.

One of London Underground's system integrators needed application-specific housings for a system upgrade; the requirements, specifications and concept sketches were supplied to Verotec. The TecServ+ operation, which incorporates design, engineering, project management, compliance testing and manufacture, initially produced 3D model files and detailed manufacturing drawings for customer review. Once approved, initial physical concept prototypes, supplied unfinished to reduce costs and time, were produced.

Following customer evaluation, modified versions of the original prototypes were signed off for production, and Verotec supplied the first batch within the required



short lead time. The TecServ+ operation is particularly useful in turning a rough concept requirement into a physical product. Tim Armstrong, Verotec commercial director, said: "We have a huge amount of experience in turning an idea into reality. In this case, by working closely with our customer from the inception of the project through to the final manufacture, we were able to provide them with a bespoke enclosure design on time and within budget."

[www.verotec.co.uk](http://www.verotec.co.uk)

## No more hard wiring with openSAFETY

New openSAFETY operator panels from B&R allow safe data exchange over the bus system. The integrated openSAFETY interface renders the hard wiring of E-stop, operating mode and start buttons obsolete.

Setting up operator panels with several hard-wired switches and buttons by threading countless cables up through the swing arm system is nothing but a headache. The openSAFETY operator panels, on the other hand, only require a bus and power connection. This means that these systems can be placed exactly where they are needed without having to deal with unwieldy cable harnesses.

Commissioning and service are also simplified, saving additional money in these areas as well. The E-stop button is just as reliable as its hard-wired counterparts.

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