

## Energy meter brings simplicity and compactness to cost allocation

Carlo Gavazzi has launched the world's first compact three-phase energy meter with a patented multi-application detachable display and dual mounting technology. The new EM21-72D can be used either as a basic energy meter or



multifunction meter and brings both simplicity and compactness to building management systems and cost-allocation applications.

The MID compliant EM21 is quick and easy to install and occupies just 72 x 72mm on panel doors or four DIN units on the rail. The self-powered meter features Easyprog simplified programming and automatic adoption of the

display to the selected application. Carlo Gavazzi's patented detachable display requires no batteries or electrical connections, simply plugging into the base unit via one of the two possible slots. The LCD gives a visual warning if incorrect phase sequence is detected.

Seven sets of three variables can be selected for display, providing for active and reactive energy measurement or a complete set of variables. Options include: system variables such as W, var, PF, Hz and phase-sequence; single-phase variables including A, VLL, VLN, PF; TRMS measurements of distorted sine waves; and energy measurements (total kWh and kvarh).

Operating temperature range is from -25 degrees C to +55 degrees C and the front panel offers IP50 protection against dust and water ingress.

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

**ENQUIRY No. 10B**

## Rugged commissioning valves offer flexibility and greater ease of installation

Armstrong has extended its range of commissioning valves and now offers easy-to-use valves for applications from DN15 up to DN300.

The new additions to the range are rugged, commercial/industrial grade BS-7350 compliant ARMflo CBV-G commissioning valves, constructed of ductile iron in DN65, DN80, DN100, DN125, DN150, DN200, DN250 and DN300 sizes. The multi-turn micrometer style handle enables precise valve adjustment to design flow rates with a high degree of repeatability.

These new commissioning valves offer greater flexibility and ease of installation by enabling



configuration to suit application needs, on-site, in just seconds.

ARMflo CBV-G 65mm to 300mm are delivered as variable orifice double regulating valves with grooved connections. The wye pattern globe valve design reduces turbulence induction and sensitivity as compared to low-end "butterflies". The unique split-case body design enables conversion from straight to 90 degree elbow configuration in seconds, using standard tools and without additional parts. This is ideal for use in tight spaces or where building obstructions make it necessary to redirect piping. The ARMflo CBV-G surpasses traditional valves in these situations by eliminating the cost and installation time of using separate elbow couplings and additional welded joints. [www.armstrongpumps.com](http://www.armstrongpumps.com)

**ENQUIRY No. 11D**

## Leakage monitor will help utilities track down customer-side losses

Qonnectis plc have developed the Leakfrog customer-side leakage monitor, currently being rolled out by Thames Water as part of its Victorian mains renewal programme. An innovative product which uses highly cost-effective and unique technology, the Leakfrog will allow water companies, for the first time, to monitor their domestic customers' homes for water leaks.

Designed to fit onto the Elster V210 water meter, but with the ability to be connected to other water meters, the Leakfrog is the first in a series of low cost high volume products that can be

deployed on the potable water distribution network, to measure flow and quickly establish whether there is leakage. The primary function of the Leakfrog is to detect and indicate the minimum observable flow down to one litre per second.

Leakfrog's main features include: IP67; long battery life; constant monitoring of homes for water leakage and wastage; calculation of exact magnitude of leak; Ease of integration with utilities' existing meter reading systems; and cost-effective volume installations in homes.

[www.qonnectis.com](http://www.qonnectis.com)

**ENQUIRY No. 10B**



# Lighting controls for simply saving energy

DANLERS Limited design and manufacture a range of high quality, PIR Occupancy switches for the automatic control of lighting, heating, ventilation or air conditioning loads. The controls are easy to install using the existing wiring, so there is no need for a specialist installer - saving time and money. Call for a free catalogue or more information.

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**ENQUIRY No.22**

