



Motor Technology News – December 2014

Alan Turing's codebreaking machine voted engineers' favourite artefact

The Bombe, a machine developed at Bletchley Park during WW2, has been voted the engineers' favourite, in a new survey to mark the 30th anniversary of the Engineering Heritage Awards.

Members of the Institution of Mechanical Engineers have voted the Bombe as their favourite Engineering Heritage Award winner in a new survey.



210 of The Bombe were made, which weighed about a ton each.

Engineers were asked to vote for their favourite recipient of an Engineering Heritage Award, ahead of the 30th anniversary of the Awards scheme and the presentation in October of the 100th Award to the Old Furnace at Ironbridge, which is cited by many as the birthplace of the Industrial Revolution.

The awards, established in 1984, aim to promote artefacts, sites or landmarks of significant engineering importance – past and present. Members were asked to vote for their favourite of the 99 artefacts already in receipt of one of these awards. The Bombe achieved over 19% of the vote, closely followed by Concorde with almost 17% of the vote.

[Read more here](#)

New compact, high-speed kit encoder is programmable

Lenord + Bauer has launched a new compact, contact-free encoder kit, the MiniCODER plus GEL 2444-P, for high-speed, dynamic applications that can be easily set-up and tested, using a unique service tool the GEL 211, utilising the units WIFI connectivity. It enables automatic sensor calibration that aids correct installation and reliable operation.



Programmable GEL 2444-P MiniCODER and tooth-wheel

Small differences in the output signals are monitored and corrected, such as signal amplitude and sin/cos amplitude differential. On some systems, if not corrected, these differences might otherwise lead to drive and control faults.

The microprocessor within the encoder features a configurable operating hours counter and can also monitor the operating temperature.

[Read more here](#)

New test and programming unit for sensors has WIFI web interface

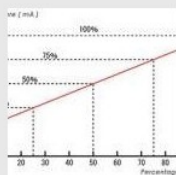
Lenord + Bauer has launched a new test and programming unit, the GEL 211, for its GEL 2444x series sensors with sin/cos output 1 Vp/p and reference signal. It is used for easily checking the signals for compliance with adjustable tolerance limits.



GEL 211 commissioning and programming unit for GEL 244x series MiniCODERS

This includes sin/cos signals (amplitude, offset and phase offset), reference signal (amplitude, offset, position and width), which can assist during installation and servicing.

[Read more here](#)



What do the modern 4 to 20mA loop and a pneumatic control system have in common?

The 4 to 20mA loop is currently the most common signal standard in modern use, but inherent within it is the ratio of 1:5 that is present even in pneumatic control systems.

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New MiniCODER is programmable

Lenord + Bauer's new compact, contact-free kit-encoder, GEL 2444-P, is the next generation of MiniCODER, providing significant benefits. Under the newly formed product category, MiniCODER plus, the GEL 2444-P sensor has an additional integrated chip that can be programmed.

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Factfile: when are Steppers better than Servos?

Despite many claims to the contrary servo motors do not necessarily provide the best performance on every application.

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Puzzle Corner: Balancing Balls

You've got eight ball bearings in front of you all of which look absolutely identical. However, one weighs slightly more than all the others. It has been mixed up with the other ball bearings.

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