

Press Release

ICS E1 INDUCTIVE SENSORS: HIGH RELIABLE DETECTION IN MOBILE EQUIPMENT

Prevent potential failures and false actuations due to electrical load dumps or high electromagnetic radiated interferences generated by radio transmitters.

Lainate, October 2021 - Carlo Gavazzi Automation, the international electronics group with activities in the design, manufacture and marketing of electronic equipment, today presents its new series of inductive sensors, the ICS E1.

The ICS E1 inductive sensor family is a robust solution for daily outdoor operations to ensure accurate and reliable detection of actuating parts such as hydraulic pistons, gear speed and position, crane position and movement, on vehicles such as waste disposal trucks, mobile cranes, concrete mixers, tractors, fire trucks, harvesting machinery, buses and forklifts.

The ICS E1 sensors are resistant to extreme operating conditions such as frequent exposure to high levels of shocks and vibrations, wide temperature variations, voltage peaks of up to 200 V, frequent high pressure and high temperature wash-down cycles. They are also immune to radiated electromagnetic interference of up to 200 V/m.

“Extremely robust, the ICS E1 sensors provide an outstanding immunity to false actuation when exposed to radiated electromagnetic interferences emitted by radio transmitters; that makes the E1 sensor the optimal solution for detection on mobile equipment”, Aldo Caputo, International Product Manager, says. “With this launch we aim to consolidate and increase our presence in the industry of mobile equipment, providing sensors that guarantee accuracy in detection and continuity of operation of these type of vehicles operating in harsh conditions”.

Developed in our competence centre in Denmark, the ICS E1 series has been specifically designed to allow reliable operation in harsh conditions typical of mobile equipment so as to reduce vehicle’ downtime. These sensors are mainly addressed to OEMs manufacturers of garbage trucks, concrete trucks, fire trucks, mobile cranes, agriculture machines, heavy-duty vehicles, forklifts and buses.

Main technical features

- **E1 type approval:** a rigorous certification for mobile equipment and automotive industries
- Immunity to radiated interference of up to **200 V/m**
- **Integrated load dump protection** to prevent voltage peaks on the on-board power supply, generated by a battery disconnection while the alternator is charging
- **Wide voltage supply range**, from 8 to 60 VDC, to grant correct operation with any vehicle’s battery condition
- **High switching distances** from 4 to 22 mm to allow safe installation on the machine
- Extended operating temperature range **from -40 to +85°C**
- **20 g vibration resistance and 100 g shock resistance**
- **40 g continuous shock resistance**
- **IP68 and IP69K protection** for a certified full protection of the sensor against high pressure and high temperature washing cycles
- **M12, M18 and M30** rugged stainless-steel housings, 2m PUR cable or M12-plug, and on request, **pigtail solutions** with connectors typical of mobile applications are available for increased flexibility in the installation

ABOUT CARLO GAVAZZI AUTOMATION

Carlo Gavazzi Automation is an international electronics group with activities in the design, manufacture and marketing of electronic equipment targeted at the global markets of industrial and building automation.

Carlo Gavazzi Automation provides customers with technologically innovative, high quality and competitive solutions, in compliance with their requirements and expectations through its 22 National Sales Companies in Europe, the Americas and Asia & Pacific, operating with its production sites in Denmark, Italy, Malta, Lithuania and China.

For further information:

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