

CANopen-Safety controller with four CAN interfaces

Inter Control (Germany) has extended its digsy compact controller family by the Compact-S safety controller. The device dedicated for outdoor applications such as mobile machinery has built-in two redundant CPU units. Two of the four CAN interfaces supports the CANopen-Safety protocol (EN 50325-5). The controller is certified for SIL-2, PL d applications.

BASED ON THE DIGSY FAMILY, which has proven hundred thousand-fold in the field, the manufacturer has developed a safety controller which copes with the demands of manufacturers of mobile working machines. This redundant controller exchanges data via an internal data interface between the two independent CPU units. This principle offers firstly the advantage that the internal interface allows a much faster exchange of safety relevant data as a communication via CAN, and secondly the elsewhere necessary test effort inside the application software is reduced dramatically.

“This both measures contribute to a significantly increased performance in comparison to competitors’ products,” said Joachim Stratmann, Inter Control’s sales manager. The controllers are compliant to SIL-2 (safety integrity level) according IEC/EN 61508 (edition 2.0), and PL d (performance level) according ISO/EN 13849.

In total 40 inputs and 18 outputs are available to the application. For the communication with further devices, four CAN interfaces are available. Two of them support the CANopen-Safety protocol. As additional communication interfaces four EIA 232 ports are available. Two of them are free programmable and the other two are dedicated to download and diagnostics purposes. The product features as internal self-test, diagnostics capability, and a second switch-off path for the outputs. “Because the approval is already according Edition 2.0 of the standard EN 61508, this controller offers the required guaranteed future to the OEM’s,” explained Stratmann.

By complying the programming rules, which are described in the safety manual, it is possible to realize safety-related and non-safety functions on the same controller in parallel. This is especially at smaller machines an advantage. This means, the entire application run on single host controller.

Inter Control is a suppliers of mobile electronics for outdoor applications, such as construction equipment, agricultural machinery, material handling equipment or other industrial vehicles. Being a pioneer of mobile electronics controllers and displays with CAN communication, the 600-employees company has long tradition in these markets. It is a CiA member since 1995. Six subsidiaries abroad and more than 30 international representatives makes the products available worldwide.

