

ECUS

## ISO 26262 certified automotive controllers

**TTControl's HY-TTC 500 electronic control units received the ISO 26262:2018 functional safety certification up to ASIL C. The ECUs provide up to seven CAN ports.**



*The ECUs are designed to build up a centralized electronic architecture using one controller for the whole vehicle (Source: TTControl)*

requirements up to SIL 2 (IEC 61508), PL d (ISO 13849), and AgPLd (ISO 25119). Programming can be done either in C or in Codesys. Safe data communication is achieved by the CANopen Safety protocol (EN 50325-5). In case of safety-relevant failure, outputs can be shut-off in three groups allowing an emergency operation. The CAN-based Isobus (ISO 11783) higher-layer protocol is supported as well. Automatic bit-rate detection and configurable CAN termination are offered.

The ECUs can be used as a platform for vehicle prototyping and development, as a vehicle control unit (VCU), for (electrical) power train applications, or vehicle dynamics control systems.

ISO 26262:2018 is a functional safety standard applicable for electrical and electronic (E/E) systems in road vehicles, including vehicles over 3,5 t. TÜV Nord (German Technical Inspection Association) certified the ECU family when programmed in C.

“Drivers of trucks and busses, as well as mobile machinery used on roads, such as firefighting vehicles, garbage trucks, and road sweepers, expect their vehicles to offer the same safety level as passenger cars,” said Manfred Prammer, Managing Director of TTControl. “By using our ASIL C certified electronic controllers, vehicle manufacturers raise the safety standard in the heart of their electronic architecture and prevent system failures. Using certified safety-relevant components reduces vehicle-level validation costs significantly.”

The units are available in five variants, HY-TTC 508, HY-TTC 510, HY-TTC 540, HY-TTC 580, and HY-TTC 590. The controllers feature a 32-bit, 180-MHz dual-core ARM Cortex-R4 lockstep processor. The devices fulfill

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