

**CVC700**

## Leading the way into the future

The CVC700 vehicle controller is a first step toward a modular AGV system. It offers increased processing power and enhanced communication, using the same successful form factor and IP65 housing as the CVC600.

The CVC700 is a potent, cost-efficient, and future-proof controller, powered by a quad-core ARM processor, 4 GB flash memory and a 1 GB SDRAM. The powerful CVC700 enables innovative solutions to growing challenges in the automated vehicles business.



## Features

- High-performance quad core ARM processor
- 1 x Ethernet and 1 x USB for expansion of the system in the vehicle
- Built-in WiFi and Bluetooth
- Built-in IMU
- Communication with RS232, RS422 and RS485
- 3 CAN buses
- Linux operating system
- Designed for environment of battery operated electric vehicles
- Flexible IO to accommodate a wide spectrum of vehicle controls and sensors handled by separate CPU
- Wide operating voltage from 24 V to 48 V with built-in under voltage, over voltage and reverse polarity protection
- Ground fault detection
- All OK relay
- LED indications



Rugged



WLAN



High # of flexible I/O



CANopen



Wide voltage range



IMU

Order information	
CVC700 HW	18456-01 (The software must be ordered separately.)
CVC connector kit (black/white/blue AMPSEAL 3x23 pin)	18448-01
For software and vehicle options, see the <i>CVC700 SW datasheet</i> .	

Technical data	
Supply voltage, nominal	24 to 48 V
Supply voltage, minimum/maximum	16.8/70 V
Power consumption	Maximum 6 W (with no external USB)
Communication	2 x CAN (galvanic isolation) 1 x CAN-FD (galvanic isolation, reserved for future use) 1 x Ethernet 10/100 1 x RS232, 1 x RS422, 1 x RS485 Wi-Fi 802.11 a/b/g/n/ac 2x2 MU-MIMO WLAN encryption: - WEP (64/128) - WPA-PSK (TKIP & AES/CCMP) - WPA2-PSK (TKIP & AES/CCMP) Channels 2.4 GHz: 1-13 Channels 5 GHz: U-NII 1: Channels 36, 40, 44, 48, U-NII 2: Channels 52, 56, 60, 64, U-NII 2e: Channels 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144 U-NII 3: Channels 149, 153, 157, 161, 165. Bluetooth 4.2/5
Reversed polarity	The unit can withstand reversed polarity at 1.2 x nominal supply voltage.
Analog inputs	11 single ended inputs range 0.2 - 11.0 V
Digital inputs	12 (6 as encoder inputs)
Outputs	16, maximum 1.5/3 A continuous
Connector	3 x AMPSEAL 23-pin 1 x Ethernet M12 D-coded female 2 x SMA female connectors
Processor	Main ARM Cortex A9 quad-core IO Infineon Aurix TC267

Technical data	
Memory	Main 4 GB Flash, 1 GB SDRAM, 128 kB black box memory IO 2.5 MB Flash/240 kB SRAM/2 kB EEPROM/256 kB DataFlash
IMU (Three-axis rotational rate)	Range: $\pm 200$ °/s Resolution: 0.008 °/s /digit Linearity error: 0.25 % Noise: 0.008 °/s $\sqrt{\text{Hz}}$

Ambient condition	
Temperature, operation	-30 to +55 °C
Temperature, storage	-40 to +70 °C
Relative humidity, operation	Maximum 95%, noncondensing
Relative humidity, storage	Maximum 95%
Protection class	IP65

Dimensions	
Width x height x depth	125 x 50 x 195 mm
Weight	0.8 kg

