

# Vector Controllers VC

## Communication ECUs for Evaluation, Development and Series Productions

### What are Vector Controllers?

The Vector Controllers are ECUs for specific use cases with the focus on data communication. They are perfect for the rapid development of functional samples and for use in series production. When purchasing an ECU for charging communication of commercial vehicles or various gateways: As a vehicle manufacturer, you only pay a share of the development costs of the ECU.

In addition, Vector will be glad to check the implementation of your specific application.

### Available Software

In combination with the Vector embedded software portfolio and wide-ranging firmware, applications can be quickly realized for a wide range of vehicle networks.

### Accessories

- > The Breakout Box enables easy access to all pins of the ECUs for measurement and testing purposes.
- > The JTAG adapter allows connection of debuggers or programming tools. In addition, it enables connection of the VX1000 measurement and calibration hardware for high-performance ECU connection.
- > A connector set is available for assembling a customized cable set.

### Benefits at a Glance

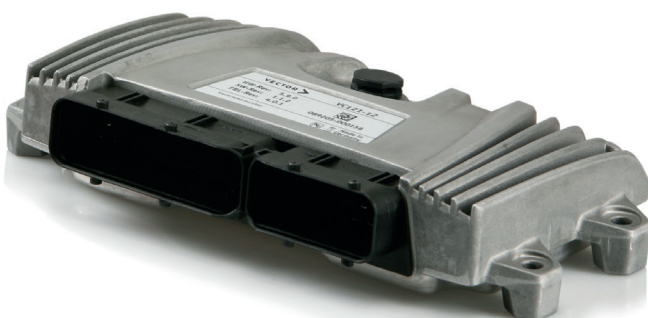
- > Standard technologies scaled down to small series productions and development samples
- > Already qualified hardware for use in vehicles
- > Shorter development cycles
- > High flexibility and cost optimization for serial production
- > Single source supplier for ECU hardware, project and embedded software as well as development tools

### Generic Charging Control Unit VC-VCCU

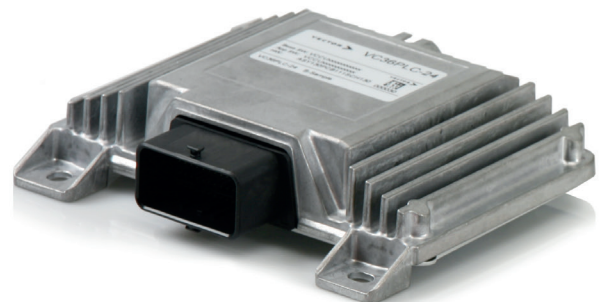
The **V**ehicle **C**harge **C**ontrol **U**nit is a generic charging control unit. It contains software for charging via Powerline Communication (PLC) and thus provides a perfect interface for prototype vehicles and development environments with the following features:

- > Charging communication according to ISO 15118 and DIN SPEC 70121
- > ECU complies with the norms of the automotive and commercial vehicle industry
- > Turnkey solution: Direct installation in the vehicle

**More Information:** [www.vector.com/VC-Family](http://www.vector.com/VC-Family)



VC121-12



VC36B-12 / VC-VCCU

**Technical Data:**

	VC121-12	VC36B-12	VC-VCCU
<b>Purpose</b>	<b>Multi Gateway</b>	<b>Ethernet Gateway</b>	<b>Charging Communication</b>
Main CPU	SPC56EC64	TC297TA	SPC564B74
Safety CPU	STM8AF62	-	-
CAN (FD) interfaces	5 x high-speed CAN 1 x partial networking	1 x high-speed CAN 3 x CAN FD (Non-ISO)	3 x high-speed CAN
LIN interfaces	2	1	-
100BASE-T1 / BroadR-Reach	1	5 (Broadcom BCM89531)	-
100BASE-TX	-	1	-
FlexRay	1 x Dual-Channel	-	-
PLC	-	-	1 (PE, CP, PP)
Digital & frequency inputs	20 x 0...U <sub>BAT</sub> 8 x 0...U <sub>BAT</sub> max. 20 kHz	4 x 0...U <sub>BAT</sub> , 20kHz	1 x 0...U <sub>BAT</sub> 1 x Terminal 15 Wake-up
Analog inputs	14 x 0...5 V, 12 bit 8 x 0...U <sub>BAT</sub> 12 bit	-	3 x für PT1000 1 x 0...12 V, 12 bit
Digital & PWM outputs	2 x 6 A 14 x 2,5 A 16 x 1 A 8 x 200 mA	-	1 x 5 A 3 x 200 mA 3 x 20 mA LED
H-bridge	-	-	max. 5 A / 12 V
Real-time clock	-	yes	yes
Sensor supply	2 x 5 V, 100 mA	-	1 x 5 V, 70 mA
Operating voltage	8...16 V DC	8...16 V DC	10...32 V DC
Total current draw (with load)	max. 42 A	< 3,5 A	< 12 A
Operating temperature	-40 °C...+85 °C	-20 °C...+40 °C	-40 °C...+85 °C
Dimensions (L / B / H)	220 mm x 120 mm x 40 mm	156 mm x 148 mm x 39 mm	156 mm x 148 mm x 39 mm
Housing degree of protection	IP67	IP40	IP6K6K / IP6K7 / IP6K9K (ISO 20653)
Plug connector	Tyco 1473244 (81 pins) and Tyco 1473252 (40 pins)	Molex CMC 48 Header	Molex CMC 36 Header
EMC / ESD	OEM-harmonized requirements	-	CISPR25, ISO 7637, ISO 11452, ISO 10605
Environmental compatibility	ISO 16750 / LV 124	-	ISO 16750