**vSECC**

**Communication Controller for Charging Stations**

**What is vSECC?**

vSECC (Supply Equipment Communication Controller) is a communication controller for charging stations and charge points. It serves as a communication interface between the electric vehicle, the Charging Station Management System (CSMS) and the power electronics. vSECC supports the charging communication over Combined Charging System (CCS) according to ISO 15118 and DIN SPEC 70121, CHAdeMO (Japanese Charging Consortium) and GB/T (Chinese Charging Standard). Moreover it controls the Power Electronics that provide AC or DC for charging, which can be controlled via Ethernet and CAN.

vSECC is suitable for both overnight and opportunity charge points along with wireless power transfer and roof-mounted pantographs using external WiFi module. Typical use cases could be charge points in public areas, residential facilities, fleet depots and company parking lots.

**Main Features**

- Compliant with common EV charging standards
- Supports OCPP 2.0.1 for the backend communication via Ethernet
- Manages two charge points in parallel
- Vehicle identification possible via External Identification Means (EIM), RFID and Autocharge
- 24 V industrial power supply

**Overview of Advantages**

- Universal controller for present and future electric vehicle charging use cases according to ISO 15118 and DIN 70121
- High performance multi-core processor to cover further project-specific requirements
- One device for all communication functions of the charging station
- Turnkey solution: Immediate installation in the charging station
- Compact industrial DIN rail design for easy integration into a switching cabinet
- Specified for industrial outdoor conditions
- CE marking
- Functional Safety: Control pilot and proximity pin supervision designed for SIL 2
- Comprehensive security analysis based on ISO 15408, ISO 27001, IEC 62443
- Remote software updates via OCPP for standard conformity and functionality extensions
- OCPP 2.0.1 implementation for more efficient error handling and configuration of the charge controller in the charging management system

**Get a quote:** [www.vector.com/vsecc](http://www.vector.com/vsecc)
Highest flexibility for all use cases: Connectivity interfaces of vSECC.

**Technical Data:**

<table>
<thead>
<tr>
<th>Feature</th>
<th>vSECC</th>
</tr>
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<tbody>
<tr>
<td>Main CPU</td>
<td>i.MX 6 Quad Core 4 x 1 GHz, 2 GB RAM, 8GB eMMC</td>
</tr>
<tr>
<td>Power Supply</td>
<td>18 V - 30 V DC</td>
</tr>
<tr>
<td>Communication</td>
<td>2 x CAN, 2 x 1000Base-Tx, 1 x RS232, 1 x RS485</td>
</tr>
<tr>
<td>Charging Interfaces</td>
<td>2 charge points managed simultaneously</td>
</tr>
<tr>
<td>Supported Standards DC</td>
<td>IEC 61851-23, SAE J1772, CHAdeMO, CCS (AC/DC)</td>
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<tr>
<td>Supported Standards AC</td>
<td>IEC 61851-1, ISO 15118-2/-3, GB/T 18487, GB/T 27930</td>
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<tr>
<td>Charging Environment</td>
<td>2 x fullbridge out (Imax = 1A), 2 x analog input position feedback</td>
</tr>
<tr>
<td>Digital Inputs</td>
<td>8 x IEC 61131-2 Type 1 digital input</td>
</tr>
<tr>
<td>Analog Inputs</td>
<td>2 x 0 - 10 V analog input, 9 x temperature sensor input</td>
</tr>
<tr>
<td>Safety Output</td>
<td>3x relay output (NO)</td>
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<tr>
<td>Digital Output</td>
<td>16 x digital out (Imax = 200mA)</td>
</tr>
<tr>
<td>Housing Dimensions (L/W/H)</td>
<td>162 mm x 89,7 mm x 62,2 mm (plastic)</td>
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<tr>
<td>Operating Temperature</td>
<td>–40 °C ... +70 °C</td>
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<tr>
<td>IP Protection Class</td>
<td>IP 20</td>
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</tbody>
</table>

**Glossary**

- CAN: Controller Area Network
- CCS: Combined Charging System
- CPO: Charge Point Operator
- HW: Hardware
- NO: Normally open
- OCPP: Open Charge Point Protocol
- PE: Power Electronics
- PEP: Power Electronics Protocol
- PLC: Power Line Communication
- RFID: Radio-frequency Identification
- SIL: Safety Integrity Level
- UI: User Interface
- VAS: Value Added Services