

# DIN RAIL CONTROLLER FOR AC CHARGER

VeKON Technology  
Secure your charging safety !



## Overview Of The Controller

The controller is a DIN rail mounted control module for IEC 61851 compatible EV charge points. Key features include RCM and DLB, helping charge point manufacturers and installers meet regulations in a cost-effective way and protect against electric shock in the unlikely event of an earth fault problem.

## Features

|                            |                                                                                                                                                                                                                                       |                                                                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEVICE VERSIONS            | 1. Basic: E32T21-B; 2. DLB: E32T21-D; 3. RCM: E32T21-R; 4. DLB & RCM: E32T21-D&R                                                                                                                                                      |                                                                                                                                                                                       |
| SUPPLIED PARTS             | E32T21 module, Current Transformer (CT), RCM; (when selected; optional part CT/RCM/CT+RCM)                                                                                                                                            |                                                                                                                                                                                       |
| AREAS OF APPLICATION & USE | <ul style="list-style-type: none"><li>Controlling the charging procedure of electric vehicles in accordance with IEC 61851 mode 3</li><li>For communication with the electric vehicle according to IEC 62196-2 or SAE J1172</li></ul> |                                                                                                                                                                                       |
| MOUNTING                   | Mounting onto standard rail according to DIN EN 60715                                                                                                                                                                                 |                                                                                                                                                                                       |
| CONNECTION ELEMENTS        | <ul style="list-style-type: none"><li>Mains input (207-257V@50Hz AC)</li><li>1 Relay contacts (230V AC) for switching the load</li><li>Solenoid or motor interlock drive for socket (Configuration dependant)</li></ul>               | <ul style="list-style-type: none"><li>Current Transformer (DLB) and RCMU</li><li>Vehicle interface/Signalling contacts</li><li>External LED support</li></ul>                         |
| INTEGRATED LED             | Displays the operating state of EVSE                                                                                                                                                                                                  |                                                                                                                                                                                       |
| OPERATING TEMP             | -25°C to 50°C                                                                                                                                                                                                                         |                                                                                                                                                                                       |
| CONFIGURABLE OPTIONS       | <ul style="list-style-type: none"><li>Tethered or Socket outlets</li><li>16A or 32A maximum operating currents depending on fitted system contactor</li></ul>                                                                         | <ul style="list-style-type: none"><li>Solenoid or motor locking systems</li><li>Interlock Feedback for status of motorised locks</li><li>RCM and DLB support enable/disable</li></ul> |

# DIN Rail controller for AC charger

## Terminal Assignment

| TERMINAL            | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L(LINE)             | This is where the AC'live'or'line'connection is made (207-257V@50Hz AC)*                                                                                                                                                                                                                                                                                                   |
| N(NEUTRAL)          | This is where the AC'neutral'connection is made (207-257V@50HzAC)*                                                                                                                                                                                                                                                                                                         |
| VO(PE)              | This is where the Protective Earth(ground)and Ov connections forthe RCM and IC resistor circuits are made*                                                                                                                                                                                                                                                                 |
| ML                  | Configuration is dependent.<br><ul style="list-style-type: none"> <li>•Provides a drive current to continuously energise the solenoidinterlock.</li> <li>•Provides a drive current to change the motorised interlock state to locked (The signal is activated for 500ms and changes to pulsed 500ms intervals until the lock is engaged).<br/>Rating 12V300mA."</li> </ul> |
| MU                  | Configuration is dependent.<br><ul style="list-style-type: none"> <li>• Provides a return path for the solenoid interlock drive current ML.</li> <li>• Provides a drive current to change the motorised interlock state tounlocked.</li> </ul> Rating 12V300mA.                                                                                                            |
| FB                  | lock feedback                                                                                                                                                                                                                                                                                                                                                              |
| P1                  | Relay 1 to coil on the EVSE(16A/32A)Contactor                                                                                                                                                                                                                                                                                                                              |
| P2                  | Relay 2 to coil on the Auxiliary Contactor                                                                                                                                                                                                                                                                                                                                 |
| CS(Proximity Pilot) | Connection for the IEC61851/J1772 EVSE Connector(see Proximity)                                                                                                                                                                                                                                                                                                            |
| CP(Control Pilot)   | Connection for the IEC61851/J1772 EVSE Connector(see Pilot Circuit)                                                                                                                                                                                                                                                                                                        |
| 12V(5V)             | 12V(5V)Supply to provide power to the RCM                                                                                                                                                                                                                                                                                                                                  |
| FA                  | Connects to RCM 'Fault out'.The E32T21 reads if fault condition reported by the RCM                                                                                                                                                                                                                                                                                        |
| TE                  | Connects to RCM 'Test'.The E32T21 uses this to check the operation of the RCM before each charging session commences.                                                                                                                                                                                                                                                      |
| CT                  | Connection for the other side of current transformer(DLB)                                                                                                                                                                                                                                                                                                                  |
| BL                  | Blue led                                                                                                                                                                                                                                                                                                                                                                   |
| RD                  | Red led                                                                                                                                                                                                                                                                                                                                                                    |
| GN                  | Green led                                                                                                                                                                                                                                                                                                                                                                  |

## 230V Power Supply Wiring Example

