

# EVlink Pro AC

## OCPP Protocol

## Connectivity Guide

GEX1969200-11  
03/2026



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As part of a group of responsible, inclusive companies, we are updating our communications that contain non-inclusive terminology. Until we complete this process, however, our content may still contain standardized industry terms that may be deemed inappropriate by our customers.

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# Safety Information

## Important Information




Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

 <b>DANGER</b>
<b>DANGER</b> indicates a hazardous situation which, if not avoided, <b>will result in</b> death or serious injury.
 <b>WARNING</b>
<b>WARNING</b> indicates a hazardous situation which, if not avoided, <b>could result in</b> death or serious injury.
 <b>CAUTION</b>
<b>CAUTION</b> indicates a hazardous situation which, if not avoided, <b>could result in</b> minor or moderate injury.
<b>NOTICE</b>
<b>NOTICE</b> is used to address practices not related to physical injury.

## Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

# About the Book

## Purpose of this Document

The purpose of this document is to guide you with the connectivity of EVlink Pro AC range with OCPP protocol 1.6 supervisions.

## Document Version History

Document Reference–Revision	Release Date	Software Version	Evolution
GEX1969200–11	February 2026	2.0.1	Add parameter ISO15118ChargeEnabled.
GEX1969200–10	December 2025	2.0.0	Add parameters about the ISO18118 PnC feature
GEX1969200–09	June 2025	1.6.0	Allow to use Voltage and Current measurand without phases
GEX1969200–08	April 2025	1.5.0	iMaxDeratingSwCapacity has write access Update measurand supported
GEX1969200–07	November 2024	1.4.0	Security extension integration Update error codes
GEX1969200–06	March 2024	1.3.6	Default values parameter Websocket evolution
GEX1969200–05	June 2023	1.3.0 & 1.3.2 & 1.3.4	
GEX1969200–04	April 2023	1.2.2	PowerMeterPublicKey is: MeterPublicKey
GEX1969200–03	April 2023	1.2.1	
GEX1969200–02	March 2023	1.1.6	
GEX1969200–01	November 2022		
GEX1969200–00	May 2022		Document creation

## Terminology

Acronym	Designation
EVSE	Electrical Vehicle Supply Equipment (charging station compliant with OCPP standard)
EVCE	Electrical Vehicle Charging Expert
OCPP	Open Charge Point Protocol (communication protocol used between the charging stations and a central system)

## Related Documents

Document Title	Document Reference	Author	Link
EVlink Pro AC Installation Guide	NNZ1940301	Schneider Electric	<a href="https://www.se.com/ww/en/download/document/NNZ1940301/">https://www.se.com/ww/en/download/document/NNZ1940301/</a>

EVlink Pro AC ISO 15118 module installation guide	JPT2009201	Schneider Electric		
EVP3MM Modem Instruction Sheet	NNZ26782	Schneider Electric		<a href="https://www.se.com/ww/en/download/document/NNZ2678201/">https://www.se.com/ww/en/download/document/NNZ2678201/</a>
Open Charge Point Protocol 1.6	1.6	Open Charge Alliance		<a href="https://www.openchargealliance.org/">https://www.openchargealliance.org/</a>
EVlink Pro AC - Cybersecurity Guide	GEX5261101	Schneider Electric		<a href="https://www.se.com/ww/en/download/document/GEX5261101/">https://www.se.com/ww/en/download/document/GEX5261101/</a>

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# Safety Precautions

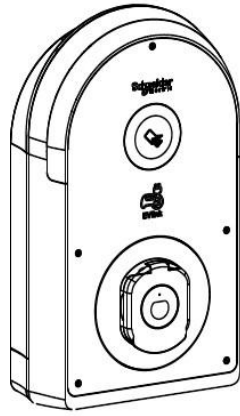
## **NOTICE**

### **HAZARD OF INCORRECT USE**

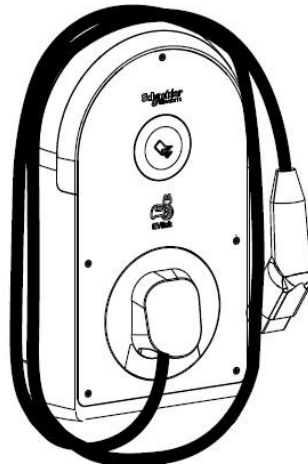
- This document contains general descriptions and/or general technical specifications of the products mentioned. It cannot be used to determine the suitability or reliability of these products for specific user applications. It is the responsibility of each user or integrator to conduct the appropriate risk analysis in full, assessing and testing products as regards the application in which they will be used and the execution of this application. Neither Schneider Electric nor any of its affiliated companies or subsidiaries can be held responsible for incorrect use of the information contained in this document. If you have any suggestions for improvements or correction, or have found errors in this publication, please notify us.
- All relevant state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to ensure compliance with documented system data, only the manufacturer should perform repairs to components. When equipment is used for applications with technical safety requirements, follow the relevant instructions.

**Failure to follow these instructions can result in equipment damage.**

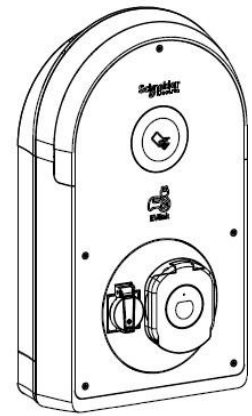
# Product Family



Charging stations with a T2S socket



Charging stations with an attached cable



Charging stations with a T2S socket and a domestic socket

## Supported OCPP Operations

Supported protocol is OCPP 1.6 JSON.

Supported file transfer protocols: **FTP**, **FTPS**, **HTTP** and **HTTPS**.

The following tables detail the supported OCPP messages.

### Operations Initiated by Charge Point

Operation group	Message	Comment
Core	Authorize	Supported
Core	BootNotification	Supported
Core	DataTransfer	Supported
Firmware management	DiagnosticsStatusNotification	Supported
Firmware management	FirmwareStatusNotification	Supported
Core	Heartbeat	Supported
Core	MeterValues	Supported
Core	StartTransaction	Supported
Core	StatusNotification	Supported
Core	StopTransaction	Supported
Security	LogStatusNotification	Supported
Security	SecurityEventNotification	Supported
Security	SignedFirmwareStatusNotification	Supported

## Operations Initiated by Central System

Operation group	Message	Comment
Reservation	CancelReservation	Supported
Core	ChangeAvailability	Supported
Core	ChangeConfiguration	Supported
Core	ClearCache	Supported
Smart charging	ClearChargingProfile	Supported Refer to Smart Charging, page 11
Core	DataTransfer	Supported
Smart charging	GetCompositeSchedule	Supported Refer to Smart Charging, page 11
Core	GetConfiguration	Supported
Firmware management	GetDiagnostics	Supported
Local auth list management	GetLocalListVersion	Supported
Core	RemoteStartTransaction	Supported
Core	RemoteStopTransaction	Supported
Reservation	ReserveNow	Supported
Core	Reset	Supported
Local auth list management	SendLocalList	Supported
Smart charging	SetChargingProfile	Supported Refer to Smart Charging, page 11
Remote trigger	TriggerMessage	Supported
Core	UnlockConnector	Supported
Firmware management	UpdateFirmware	Supported
Security	DeleteCertificate	Supported
Security	GetInstalledCertificateIds	Supported
Security	GetLog	Supported
Security	InstallCertificate	Supported
Security	SignedUpdateFirmware	Supported

# Smart Charging

The table below provides the supported smart charging features.

Class	Attribute	Comment
ChargingProfile	chargingProfileId	Supported
	transactionId	Supported
	stackLevel	Supported
	chargingProfilePurpose	All profiles are supported (TxDefaultProfile, TxProfile, ChargePointMaxProfile).
	reccurencyKind	All types are supported (Daily, Weekly).
	validFrom	Supported
	validTo	Supported
ChargingSchedule	duration	Supported
	startSchedule	Supported
	chargingRateUnit	A is supported – W is not supported.
	minChargingRate	Parameter not used
chargingSchedule-Period	startPeriod	Supported
	limit	Supported
	numberPhases	Parameter not used

**NOTE:** Messages containing not supported attributes are rejected by the charging station.

# Vendor Error Codes

The table below details all error codes that can be raised by the charging station.

Generic error name	Specific error name	Error code	Error description	OCPP code
Software configuration	Software downgrade	1.1	Charging station detects that the software version is lower than expected.	OtherError
Hardware configuration	Mother board issue	2.0	Issue with EVSE hardware.	InternalError
	Physical derating issue	2.1	Invalid physical derating configuration OR change of physical derating configuration during charge. Configure the microswitch according to the <i>EVlink Pro AC Installation Guide</i> (NNZ1940301).	InternalError
	Plug issue 6mA	2.2	6mA plug missing.	InternalError
	Issue on temperature sensor	2.4	Issue with the temperature sensor. Only for Eichrecht commercial references.	InternalError
Upstream Protection Devices	MNX tripping	3.0	Trip of MNX / Contactor discordance.	OverCurrentFailure
RDC DD	RDC DD (6mA) measurement board error	4.0	RDC DD internal device reports an internal error.	InternalError
6mA detection	6mA DC leakage detected	5.0	DC leakage value higher than 6mA.	OtherError
Metering	Input voltage issue	6.0	Phase synchronization defect or input voltage or frequency error.	InternalError
	Internal metering card issue	6.1	At least one metering fault has been detected.	InternalError
PowerMeter	Internal power meter communication loss	7.0	Loss of communication with Modbus power meter for metering (either internal or external), for 3 consecutive unsuccessful attempts.	InternalError
	Dataset issue	7.1	Verification of the dataset signature failed or Others dataset error.	InternalError
Bluetooth	Bluetooth communication issue	8.0	Issue with Bluetooth processor: communication lost or update impossible.	InternalError
Badge reader	Badge reader issue	9.0	Loss of communication with the RFID, NFC reader.	ReaderFailure
EV issues	EV issue: Control Pilot (CP)	10.0	Communication fault with a Mode 3 / T2 vehicle ( <b>CP</b> (Control Pilot) error).	EVCommunicationError
	Plug Presence (PP) conformity	10.1	Cable status wrong (the value of the coding resistor "PP" is wrong).	EVCommunicationError
	EV issue: short-circuit CPW	10.2	Charging fault short-circuit on Control Pilot Wire.	EVCommunicationError
Outlet	Lock/Unlock cable failure	11.0	Wrong handling during the plug/unplug of the socket, or motor blocked.	ConnectorLockFailure
Contactor	Contactor discordance	12.0	Contactor is not in the requested state: welded or blocked in open position.	InternalError
Phase discordance	Load three-phase compliancy	13.0	Three phases charging not allowed in simplified mode 3.	OtherError
Overconsumption	EV overconsumption	14.0	Overcurrent or overload charging fault due to EV.	OverCurrentFailure

Generic error name	Specific error name	Error code	Error description	OCPP code
Ventilation not allowed	Ventilation not allowed	15.0	Battery gas leakage risk. Car asking ventilation that is not compatible with our products.	OtherError
EVCE	EVCE communication loss	16.0	Supervision communication lost between EV Charging Expert and the charging station.	OtherError
OCPP	Supervision (OCPP) issue	17.0	Communication or configuration of Supervision (OCPP) issue.	OtherError
EM	Dynamic Energy Management communication loss: TIC or Modbus	18.0	Communication lost with external device for energy management (TIC or Modbus).	OtherError
Temperature	Temperature out of the authorized range	19.0	Temperature too high or too low. Only for Eichrecht commercial references.	OtherError

# Parameters

1. The table below details all EVSE parameters covered by the OCPP 1.6 Standard that can be read or modified from the supervision.

Key	Min	Max	Unit	Access right (*)	Default value	Description
AllowOfflineTxForUnknownId	False / True		-	RW	True	Allows offline transaction for unknown id
AuthorizationCacheEnabled	False / True		-	RW	False	Indicate if authorization cache is enabled
AuthorizeRemoteTxRequests	False / True		-	RW	True	Authentication verification for Remote Start Transaction
ClockAlignedDataInterval	0	+inf	s	RW	0	Aligned data interval
ConnectionTimeOut	10	600	s	RW	60	Cable connection timeout
ConnectorPhaseRotation	See OCPP standard			RW	0.RST, 1.RST, 2.RST	Phases connection
ConnectorPhaseRotationMaxLength	-	3	-	RO	3	Maximum number of Connector Phase Rotation
GetConfigurationMaxKeys	-	100	-	RO	100	Maximum number of requested configurations
HeartbeatInterval	1	86400	s	RW	30	Heartbeat interval in seconds
LightIntensity	0	100	%	RW	80	LED intensity
LocalAuthorizeOffline	False / True		-	RW	True	Local authorize offline
LocalPreAuthorize	False / True		-	RW	False	Local pre-authorize
MeterValuesAlignedData	See OCPP standard			RW	Energy.Active.Import.Register	Aligned data
MeterValuesAlignedDataMaxLength	-	10	-	RO	10	Aligned data max length
MeterValuesSampledData	See OCPP standard			RW	Energy.Active.Import.Register	Sample data: see table below.
MeterValuesSampledDataMaxLength	-	10	-	RO	10	Sample data max length
MeterValueSampleInterval	0 (non-zero minimum value is 1)	+inf	s	RW	0	Sample data interval. A value of 0 means that no sampled data is transmitted.
MinimumStatusDuration	0	120	s	RW	5	Minimum status duration
NumberOfConnectors	1	2	-	RO	1	Number of connectors
ResetRetries	1	5	-	RW	3	Number of times to retry an unsuccessful reset
StopTransactionOnEVSideDisconnect	False / True		-	RO	True	Indicate whether transaction should be stopped on EV disconnection
StopTransactionOnInvalidId	False / True		-	RW	True	
StopTxnAlignedData	See OCPP standard			RW	-	Clock-aligned periodic measurand(s) to be included in StopTransaction message
StopTxnAlignedDataMaxLength	-	5	-	RO	5	Maximum number of items in a StopTxnAlignedData Configuration Key

Key	Min	Max	Unit	Access right (*)	Default value	Description
StopTxnSampledData	See OCPP standard			RW	-	Sampled measurands to be included in StopTransaction message
StopTxnSampledDataMaxLength	-	5	-	RO	5	Maximum number of items in a StopTxnSampledData Configuration Key
SupportedFeatureProfiles	String of max 65535 characters			RO	Core Firmware Management Reservation SmartCharging RemoteTrigger LocalAuthListManagement	List of supported Feature Profiles
SupportedFeatureProfilesMaxLength	0	65535	-	RO	5	Maximum of supported Profiles Length
TransactionMessageAttempts	0	+inf	-	RW	0	Message attempts transaction event
TransactionMessageRetryInterval	0	+inf	-	RW	0	Message attempt interval transaction event
UnlockConnectorOnEVSideDisconnect	False / True			-	RO	True
WebsocketPingInterval	0	180	s	RW	30	Only relevant for websocket implementations
LocalAuthListEnabled	False / True			-	RW	False
LocalAuthListMaxLength	-	100	-	RO	100	Maximum number of identifications that can be stored in the local list
SendLocalListMaxLength	-	100	-	RO	100	Maximum number of identifications that can be send in a single send local list request
ReserveConnectorZeroSupported	False / True			-	RO	True
ChargeProfileMaxStackLevel	-	999	-	RO	999	Maximum StackLevel of a ChargingProfile
ChargingScheduleAllowedChargingRateUnit		Current		RO	Current	A list of supported quantities for use in a ChargingSchedule
ChargingScheduleMaxPeriods	-	50	-	RO	50	Maximum number of periods
ConnectorSwitch3to1PhaseSupported	False / True			-	RO	False
MaxChargingProfilesInstalled	-	99	-	RO	99	Maximum number of Charging profiles installed at a time
CpoName	-	-	-	RW	-	CPO name to be used in Certificate Signing Request SignCertificate request is not supported
(*) RO = Read Only RW = Read and Write						

2. The table below details all EVSE parameters not covered by the OCPP 1.6 Standard that can be read or modified from the supervision.

Key	Min	Max	Unit	Access right (*)	Default value	Description
AuthorizationKey	String of max 20 characters			W	EVlink_Pro_A C_Autho	Key used to connect to OCPP supervision. Editable only with eSetup
SupervisionUrl	Must start with ws:// or wss://			RW	-	Supervision URL
BoxIdentifier	String of max 50 characters			RW	-	Box identifier
EvPresenceNotification	False / True		-	RW	False	Enable EV presence notification through DataTransfer
AuthenticationOCPPMode	False / True		-	RW	True	True = authentication enabled False = authentication disabled
DefaultIdTag	String of max 20 characters including lowercase, uppercase and numbers			RW	18237379292	Default id tag
CompressDiagnostic	False / True		-	RW	True	Compress maintenance report
PlugNumberingMode	0	1	-	RW	0	Ascertain connector id number: 0 = ID 1 for domestic socket and T2 1= ID 1 for T2 and ID 2 for domestic socket
DhcpEnabled	False / True		-	RW	True	Activate DHCP
IpAddress	IP address format			RW	192.168.0.102	Static IP address or IP address given by the DHCP Only valid IPv4 addresses
NetworkSubmask	Submask format			RW	255.255.255. 0	Subnet mask Only valid IPv4 addresses
NetworkGateway	IP address format			RW	192.168.0.25 4	Gateway address Only valid IPv4 addresses
DnsAddress1	IP address format			RW	8.8.8.8	DNS1 IP address Only valid IPv4 addresses
DnsAddress2	IP address format			RW	4.4.4.4	DNS2 IP address Only valid IPv4 addresses
RestoreTimeout	0	86 400	s	RW	600	Save and restore timeout. Allows you to configure the minimum delay between a power cut and resuming the load. Maximum duration is 24 hours.
SelfSignedCertificate Authorized	False / True		-	RW	False	Accept self-signed certificates.
StopTxnMinimumDuration- Data	0	+inf	s	RW	60	Minimum duration between 2 meters values for stop transaction(s)
MeterPublicKey	-	-	-	RO	-	Obtain public key for Eichrecht. Refer to <i>EVlink Pro AC Eichrecht - Instruction Sheet</i> (PKR12258).
StationName	0	31	-	RW	ProAC – serialnumber	StationName  Authorized character: a-z, A-Z, space, hyphen, underscore, and dot.

SecurityEventsEnabled	False / True		-	RW	True	Send the security events to CPO
SecurityProfile	0	2	-	RW	0	Key used to enable or switch security profiles with supervision
StopTxnMinimumDurationData	0	4294967295	s	RW	60	Minimum duration between 2 meters values for stop transaction (s)
StopTxnMaximaleData	0	4294967295	-	RO	1440	Maximal data store in a stop transaction
ModbusEnable	False / True		-	RW	False	Activation or deactivation Modbus server
OcppEnable	False / True		-	RW	False	OCPP activation/deactivation
ResendBootNotificationInterval	0	535	s	RW	40	Time interval to resend BootNotification
iMaxDeratingSwCapacity	10	32	A	RW	32	Current derating
IMaxEvseCapacityTE	-	-	A	RO	10	Maximum current allowed on domestic socket. Only the following values are allowed: 6, 8 10
LedNightIntensity	0	100	%	RW	40	LED intensity for the night
LedDayStartHour	00:00	23:59	hh:mm	RW	08:00	Hour to start day intensity for LED
LedDayEndHour	00:00	23:59	hh:mm	RW	20:00	Hour to end day intensity for LED
WebsocketConnectionTimeout	5	60	s	RW	5	Time in seconds where connection attempting can be considered as fail
WebsocketRequestTimeout	10	60	S	RW	10	Time in seconds after which the request can be considered as failed

CertificateStoreMaxLength	-	10	-	RO	10	Maximum number of Root CA certificates that can be installed in the charge point
MeterMID	False / True		-	RO	-	True if charging station has a MID otherwise false
CertificateSignedMaxChainSize	-	10000	-	RO	10000	Maximum size of the certificate signed.
ISO15118PnCEnabled	False / True		-	RO	False	True to activate the Plug & Charge feature, false to deactivate it.
SeccLeafSubjectOrganization	0	64	-	RW	Schneider Electric	Organization of the EVSE leaf certificate, indicates which CPO operates this EVSE.
SeccLeafSubjectCommonName	7	64	-	RW	ZZ00000	Common name of the EVSE leaf certificate.
SeccLeafSubjectCountry	2 characters according to ISO 3166-1 alpha-2		-	RW	FR	Country of the EVSE leaf certificate, indicates in which country the CPO operates.
CentralContractValidationAllowed	False / True		-	RW	False	If this variable exists and has the value true, then the Charge Point can provide a contract certificate that it cannot validate to the Central System for validation as part of the Authorize.req.
CertSigningRepeatTimes	0	60	-	RW	1	This configuration key can be used to configure the amount of times the Charge Point SHALL double the previous back-off time, starting with the number of seconds configured at CertSigningWaitMinimum, every time the back-off time expires without having received the CertificateSigned.req containing the signed certificate based on the CSR generated.
CertSigningWaitMinimum	0	60	-	RW	2	This configuration key defines how long the Charge Point has to wait (in seconds) before generating another CSR, in the case the Central System accepts the SignCertificate.req, but never returns the signed certificate back. This value will be doubled after every attempt. The amount of attempts is configured at CertSigningRepeatTimes.
ContractValidationOffline	False / True		-	RW	False	If this variable is true, then the Charge Point will try to validate a contract certificate when it is offline.
ISO15118ChargeEnabled	False / True		-	RW	False	Activate or deactivate the possibility to load with the ISO15118 protocol when the charge point is equipped with the extension card for ISO15118.

(\*)

RO = Read Only

RW = Read and Write

3. The table below details the supported measurands.

Measurand	Description	Unit
Current.Import (+ Phase)	Instantaneous current flow to EV for the specified phase. Phase information is optional.	Amp
Current.Offered	Maximum current offered to EV.	Amp
Energy.Active.Import.Register	Value read from the <b>active electrical energy</b> register of the most authoritative electrical meter. The meter measures energy imported from the grid supply.	Wh
Energy.Reactive.Import.Register	Value read from the <b>reactive electrical energy</b> register of the most authoritative electrical meter. The meter measures energy imported from the grid supply.	Varh
Frequency	Instantaneous reading of powerline frequency. <b>NOTE:</b> OCPP 1.6 does not have a UnitOfMeasure for frequency, the UnitOfMeasure for any SampledValue with measurand: Frequency is Hertz.	Hz
Power.Active.Import (+ Phase)	Instantaneous active power imported by EV. Phase information is optional.	kW
Voltage + Phase	Instantaneous root means square value for AC supply voltage for the specified phase.	Volts
Power.Offered	Maximum power offered to EV	kW

4. Data Transfer

Description	Parameter to activate	Vendor ID	Message ID	Data
Enabling notification if vehicle detected with EV detection loop. Refer to document NNZ19403, chapter Conditional inputs number E5/E6.	EvPresenceNotification	Schneider Electric	Detection loop	<ul style="list-style-type: none"> <li>Connector ID: 1</li> <li>Name: <b>Vehicle</b></li> <li>State: <b>0</b></li> </ul>
Charger will blink on reception of this message	-	Schneider Electric	Locate	-

NOTE : A valid JSON payload (e.g {}) must be provided into the data field of the "Locate" data transfer even if there is no data.



# Cybersecurity and Data Privacy

Refer to EVlink Pro AC - Cybersecurity Guide, reference GEX5261101.

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