

# Wireless Circuit Breaker Communication Module

## User Guide

33102  
11/2022

Internal

Internal

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# Wireless Circuit Breaker Communication Module User Guide

## Safety Precautions

### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E or CSA Z462 or local applicable regulation.

This equipment must only be installed and serviced by qualified electrical personnel.

Turn off all power supplying this equipment before working on or inside equipment.

Always use a properly rated voltage sensing device to confirm power is off.

Read and understand this guide and the guides according to the switchgear and controlgear where the Wireless Circuit Breaker Communication Module will be installed before performing any installation or maintenance operation. If the installation and user guides of the switchgear and controlgear do not cover the integration of the Wireless Circuit Breaker Communication Module, contact the manufacturer of the switchgear.

DO NOT replace the Wireless Circuit Breaker Communication Module by any similar product not specified within this document.

DO NOT use the Wireless Circuit Breaker Communication Module in a manner not specified by this document.

Check if the technical ratings of the sensor Wireless Circuit Breaker Communication Module are adapted to the application (See §5 Installation & Operation manual).

Replace all devices, doors and covers before turning on power to the equipment.

**Failure to follow these instructions will result in death or serious injury.**

### CAUTION

#### EXPOSURE TO RADIO FREQUENCY

Read and understand this guide before performing any installation with the sensor Wireless Circuit Breaker Communication Module.

FCC: This device complies with FCC RF radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

IC: This device complies with Industry Canada RF radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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

## **ATTENTION**

### **EXPOSITION AUX RADIOFREQUENCES**

Lisez et comprenez ce guide avant d'effectuer une installation avec le module de communication de disjoncteur sans fil du capteur.

FCC: Cet appareil est conforme aux limites d'exposition aux rayonnements RF de la FCC établies pour la population générale. Cet appareil doit être installé de manière à fournir une distance de séparation d'au moins 20 cm de toutes les personnes et ne doit pas être situé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.

IC : Cet appareil est conforme aux limites d'exposition aux rayonnements RF fixées par Industrie Canada pour la population générale. Cet appareil doit être installé de manière à fournir une distance de séparation d'au moins 20 cm de toutes les personnes et ne doit pas être situé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.



**⚠ CAUTION****EXPOSURE TO CHEMICAL AGENT**

DO NOT use chemical solvent or alcohol on the CL110 sensor.

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

**⚠ CAUTION****HOT SURFACES**

As the sensor can measure temperatures above 50°C:

Use appropriate PPE when working with the sensor.

Allow surface to cool before servicing.

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

## Validity Scope

This guide is valid for the **Wireless Circuit Breaker Communication Module** for use with MasterPacT NT/NW and PowerPacT P- and R-frame circuit breakers.

## Document Scope

This guide describes the **Wireless Circuit Breaker Communication Module** and its functionalities.

It provides characteristics, wiring diagrams, and installation to set up the **Wireless Circuit Breaker Communication Module**.

## Related Documents

| Title of Documentation                                              | Language | Part Number     |
|---------------------------------------------------------------------|----------|-----------------|
| Wireless Circuit Breaker Communication Module<br>Instruction Manual | English  | <b>JYT52742</b> |
|                                                                     | Spanish  | <b>JYT52742</b> |
|                                                                     | French   | <b>JYT52742</b> |

| Title of Documentation                                                   | Language | Part Number  |
|--------------------------------------------------------------------------|----------|--------------|
| MasterPact NT Circuit Breakers and Switch - User Guide                   | English  | 0613IB1209   |
|                                                                          | Spanish  | 0613IB1209   |
|                                                                          | French   | 0613IB1209   |
| MasterPacT NW Circuit Breakers and Switch - User Guide                   | English  | 0613IB1204   |
|                                                                          | Spanish  | 0613IB1204   |
|                                                                          | French   | 0613IB1204   |
| PowerPacT P-Frame - Installation Guide                                   | English  | 48049-148-05 |
| PowerPacT Drawout P-Frame - Installation Guide                           | English  | 48049-336-02 |
| PowerPacT R-Frame - Installation Guide                                   | English  | 48049-243-04 |
| Micrologic A and E Trip Units - User Guide                               | English  | 48049-136-05 |
|                                                                          | Spanish  | 48049-136-05 |
|                                                                          | French   | 48049-136-05 |
| Micrologic P Trip Units - User Guide                                     | English  | 48049-137-05 |
|                                                                          | Spanish  | 48049-137-05 |
|                                                                          | French   | 48049-137-05 |
| Micrologic H Trip Units - User Guide                                     | English  | 48049-330-03 |
|                                                                          | Spanish  | 48049-330-03 |
|                                                                          | French   | 48049-330-03 |
| MasterPacT NT/NW and PowerPacT P- and R-Frame Modbus Communication Guide | English  | 0613IB1313   |

You can download these technical publications and other technical information from our website at

<https://www.se.com/ww/en/download/>

# PowerPacT Wireless Circuit Breaker Communication Module Description

## Introduction

## Description

The Wireless Circuit Breaker Communication Module Communication accessory for Circuit breaker, which enables wireless monitoring for Low voltage MCCB and ACB circuit Breakers via ZigBee protocol.

The Wireless Circuit Breaker Communication Module part number is 33102.

The ranges of UL circuit breakers compatible with the Wireless Circuit Breaker Communication Module are:

- MasterPacT™ NW circuit breaker
- MasterPacT™ NT circuit breaker
- PowerPacT™ R-frame circuit breaker
- PowerPacT™ P-frame circuit breaker

The ranges of trip Units with the Wireless Circuit Breaker Communication Module are:

- MicroLogic 5.0 P
- MicroLogic 6.0 P
- MicroLogic 7.0 P
- MicroLogic 5.0 H
- MicroLogic 6.0 H
- MicroLogic 7.0 H

**NOTE:** Wireless Circuit Breaker Communication Module is compatible only with the Micrologic ranges manufactured after 06/2022.

**NOTE:** The BCM Wireless module is only compatible with MicroLogic™ P or H trip units that have the blue ERMS label (A) as shown.



## Wireless Circuit Breaker Communication Module Resources

The Wireless Circuit Breaker Communication Module resources are:

- One digital input which is self-powered for ERMS Input Switch
- One digital output.
- 5 Auxiliary contacts connected to the circuit breaker, via its microswitches

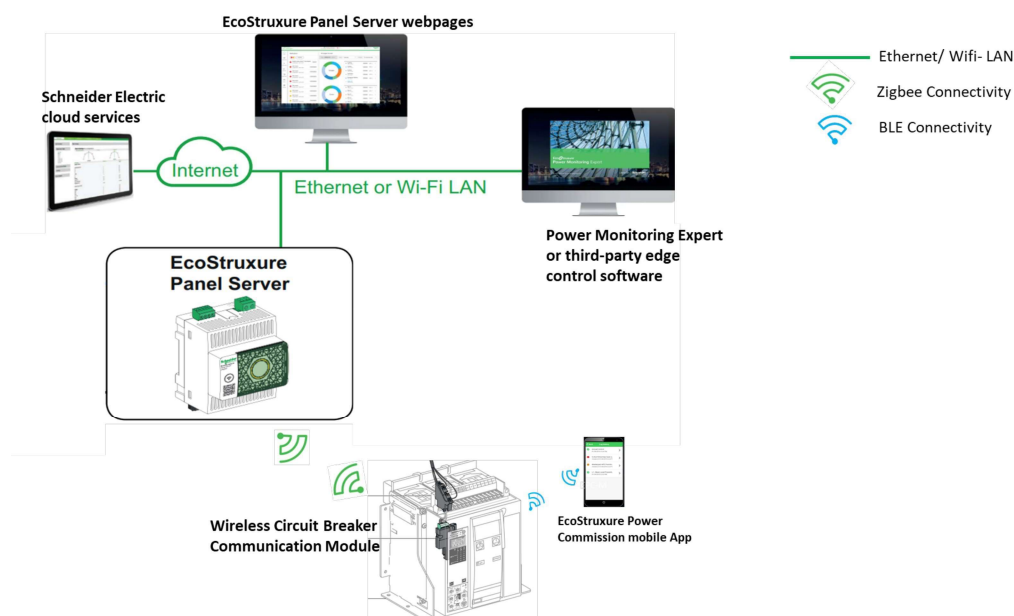
## Features

The Wireless Circuit Breaker Communication Module provides the following features:

- The energy reduction maintenance setting (ERMS) function
- Remote monitoring of Breaker with Gateways through ZigBee Communication
- Remote communication with a smartphone or tablet through Bluetooth® wireless technology.

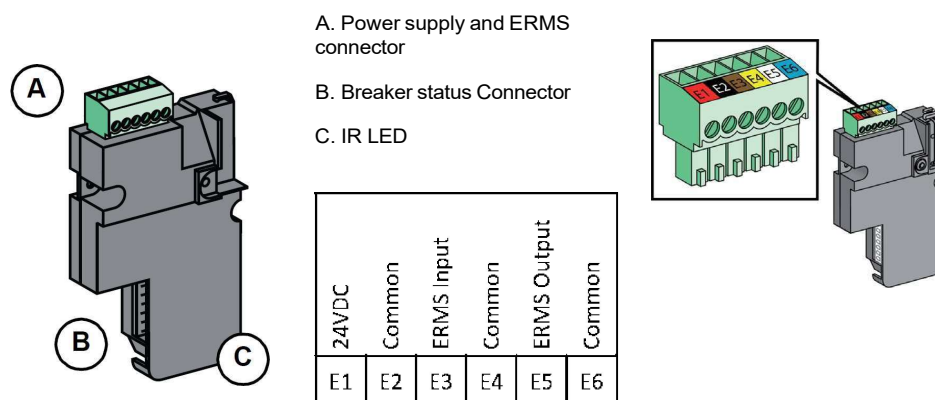
## Communication Architecture

The following illustration shows typical architectures of a Wireless Circuit Breaker Communication Module with an EcoStruxure Panel Server:



## Hardware Description

The following illustration shows typical architectures of a Wireless Circuit Breaker Communication Module with an EcoStruxure Panel Server:



## QR Code

You can scan the QR code pasted on the front face of the Breaker

When accessing the Go2SE landing page, the following information is displayed:

- Wireless Circuit Breaker Communication Module commercial reference and serial number
- Wireless Circuit Breaker Communication Module technical characteristics
- Wireless Circuit Breaker Communication Module technical publications

This QR code is also used for pairing the Wireless Circuit Breaker Communication Module with EcoStruxure Power Commission App via **BLE**

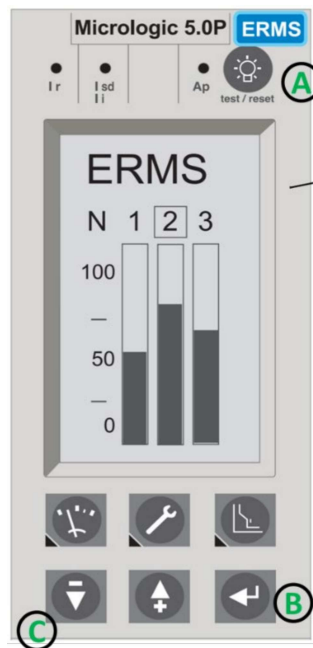
In case the QR code on the front part of the Breaker cover is damaged, the user can use the second QR code attached to the internal side surface of the breaker

## Tamper Detection

A tamper-indicating label helps detect unauthorized physical access into the Wireless Circuit Breaker Communication Module. One tamper-indicating label is affixed and folded on the rear and bottom of the Wireless Circuit Breaker Communication Module.

## HMI

Wireless Circuit Breaker Communication Module uses the Push buttons of the Micrologic Trip Unit for its operations. Following are the buttons used.



A. Test/ Reset button

B. Enter button

C. Up arrow button

## BLE Activation

1. For Activating BLE communication in BCM Wireless Press Test Button (A) from the Micrologic trip unit's for more than 15 seconds
2. Micrologic eHMI Blinks as 1 second ON 1 second OFF frequency for 5 minutes timeout or till Device is paired with EcoStructure Power Commissioning Mobile App

## Password Reset

1. To reset the password for BLE communication, Trigger password reset from EcoStructure Power Commissioning Mobile App
2. Press Test Button (A) from the Micrologic trip unit for more than 5 seconds immediately after triggering in App

## Connectivity Detection with TripUnit

1. To Detect connectivity of BCM Wireless with the Micrologic trip Unit Press the Up Arrow Button (**C**) button on the Micrologic trip unit for 5 seconds.
2. TripUnit HMI will flash 1 second ON and 1 second OFF for 20 seconds indicating active communication. The absence of this indication implies a loss of communication between TripUnit and BCM Wireless

## Zigbee Decommissioning in Case of Communication Loss

Press the combination keys of Test and Reset Button (A) and Enter Button (B) together from the Micrologic trip unit for 5 seconds

## Schneider Electric Green Premium™ Ecolabel

### Description

Green Premium by Schneider Electric is a label that allows you to develop and promote an environmental policy while preserving your business efficiency. This ecolabel is compliant with up-to-date environmental regulations.

### Accessing Green Premium

Green Premium data on labeled products can be accessed online through any of the following ways:

- By navigating to the Green Premium page on the Schneider Electric website.
- By flashing the QR code displayed in the following image.

---

## Checking Products Through the Schneider Electric Website

1. To check the environmental criteria of a product using a PC or smartphone, follow these steps: 1. From [www.se.com](http://www.se.com), select Support > Green Premium: RoHS, REACH.
2. Find Check a Product and click Launch now to open the search tool webpage.
3. Enter the commercial reference or product range the product to search for.
4. To search for several products simultaneously, click the Add button, and then fill in the field.
5. Click Check product(s) to generate a report of the environmental criteria available for the products with the entered commercial references.

## Environmental Criteria

The Green Premium ecolabel provides documentation on the following criteria about the environmental impact of the products:

- RoHS: European Union Restriction of Hazardous Substances (RoHS) directive.
- REACH: European Union Registration, Evaluation, Authorization, and Restriction of Chemicals regulation.
- PEP: Product Environmental Profile.
- EoLI: End of Life Instructions.

## RoHS

Schneider Electric products are subject to RoHS requirements at a worldwide level, even for the many products that are not required to comply with the terms of the regulation. Compliance certificates are available for products that fulfill the criteria of this European initiative, which aims to eliminate hazardous substances.

## REACH

Schneider Electric applies the strict REACH regulation on its products at a worldwide level and discloses extensive information concerning the presence of SVHC (Substances of Very High Concern) in all of these products.

## PEP

Schneider Electric publishes a complete set of environmental data, including carbon footprint and energy consumption data for each of the life cycle phases on all of its products, in compliance with the ISO 14025 PEP eco passport program. PEP is especially useful for monitoring, controlling, saving energy, and/or reducing carbon emissions.

## EoLI

These instructions provide:

- Recyclability rates for Schneider Electric products.

- Guidance to mitigate personnel hazards during the dismantling of products and before recycling operations.
- Part identification for recycling or selective treatment, to mitigate environmental hazards/incompatibility with standard recycling processes.

## Product Technical Characteristics

### Characteristics

Product Range:

Product name: Wireless Circuit Breaker Communication Module

Product or component type: Communication Accessory Device

short name: Wireless INTERNAL COM MODULE External

supply:

Input Supply: 24VDC

Tolerance: 20%

Maximum Current: 75mA max

Connection type: Pluggable Terminal block

Mating Cycle: 50

HEIGHT: 86 MM

WIDTH: 56MM

Number of inputs: 6

Number of outputs: 1

Local signaling LED: No LED or push button

### Product Environment

Ambient air temperature for operation -25... 70 °C

Ambient air temperature for storage -40... 85 °C

Pollution degree 2

Relative humidity 60%

Relative humidity@ maximum condition 90%

IP degree of protection IP30 / all sides of the EUT enclosure (2,5 mm tool) IP20 / Connectors.

Mechanical robustness Vibrations in operation: 1 Gn, 5 Hz...150 Hz conforming to IEC 60068-2-6

Vibrations de-energized: 1 Gn, 5 Hz...150 Hz conforming to IEC 60068-2-6

Shocks in operation: 10 Gn for 11 ms conforming to IEC 60068-2-27

Shocks de-energized: 15 Gn for 11 ms conforming to IEC 60068-2-27

Jolts de-energized: 100 jolts/axle, 15 Gn for 6 ms conforming to IEC 60068-2-29



Free fall resistance: 1.2 m

## RF Characteristics

| SL No | Wireless Circuit Breaker Communication Module                     |                       |                                |
|-------|-------------------------------------------------------------------|-----------------------|--------------------------------|
|       | Parameters                                                        | Zigbee                | Bluetooth                      |
| 1     | Operating temperature range                                       | -40 to 70 °C          | -40 to 70 °C                   |
| 2     | Operating frequency band                                          | 2405 to 2480 MHz      | 2402 to 2480MHz                |
| 3     | Number of channels                                                | 16 channels           | 78/40 BLE                      |
| 4     | Adaptive / non adaptive /adaptive but can operate as non-adaptive | Adaptive              | Adaptive                       |
| 5     | Communication data rate                                           | 250kbs                | 3Mbps (Bluetooth) / 1 Mbps BLE |
| 6     | Antenna type and Gain                                             | Trace Antenna         | Trace Antenna                  |
|       |                                                                   | dependent             | dependent                      |
| 7     | Transmission technology                                           | DSSS                  | FHSS                           |
| 8     | Modulation type                                                   | OQPSK                 | GPSK                           |
| 9     | The nominal working voltage of the product under test             | 24V DC                | 24V DC                         |
| 10    | Receiver category                                                 | Cat2                  | Cat2                           |
| 11    | Peak EIRP                                                         | 5.37 dBm              | 5.37 dBm                       |
| 12    | Average Power                                                     | 0 dBm + 1dB tolerance | 0 dBm + 1dB tolerance          |
| 13    | No of Antennas                                                    | 1                     | 1                              |



# Wireless Circuit Breaker Communication Module Functions

## ERMS Application

### Presentation

Wireless Circuit Breaker Communication Module provides energy reduction maintenance setting function

The energy reduction maintenance setting function is described here in detail.

### Energy Reduction Maintenance Setting Function

The energy reduction maintenance setting (ERMS) function is compatible only with the MasterPacT NT/NW and PowerPacT P- and R-frame circuit breakers. It allows the selection of the Micrologic P and H trip unit settings: Normal and ERMS mode.

This application is used to reduce the instantaneous (Ii) protection settings in order to trip as fast as possible when a fault occurs. The factory setting for Ii protection in ERMS mode is  $2 \times I_n$ .

This protection parameter can be modified using the EcoStruxure Power Commission Mobile application.

The ERMS mode is in the OFF state if the Ii setting is less than the ERMS setting.

#### HAZARD OF ARC FLASH

DO NOT change the Micrologic P/H trip unit setting while in ERMS mode.

Seal the transparent cover of the Micrologic P and H trip unit when using the ERMS mode.

**Failure to follow these instructions will result in death or serious injury.**

If any of the basic protection settings using the rotary dial is modified on the Micrologic trip unit while in ERMS mode, the Micrologic trip unit switches immediately to the normal mode.

The Micrologic trip unit returns automatically to the ERMS mode after 5 seconds.

The selection of the normal or ERMS mode is made by a selector switch connected to two inputs of the Wireless Circuit Breaker Communication Module.

When the ERMS mode is engaged, ERMS is displayed on the display of the Micrologic trip unit and a pilot light connected to the output of the Wireless Circuit Breaker Communication Module in the ON state.

The parameter ACCESS PERMIT in the COM setup/Remote setting menu on the display of the Micrologic trip unit must be set to YES.

This is based on the following behavior:

- **Setting access permit parameter:**
  - The access permit parameter can be changed only from the display of the Micrologic trip unit.

- Behavior:
  - ERMS ON and OFF orders are not executed if the access permit parameter is set as NO.

**NOTE:** The ERMS ON and OFF orders are executed only when the access parameter is set to YES and the passcode in the Micrologic trip unit is set to 0000.

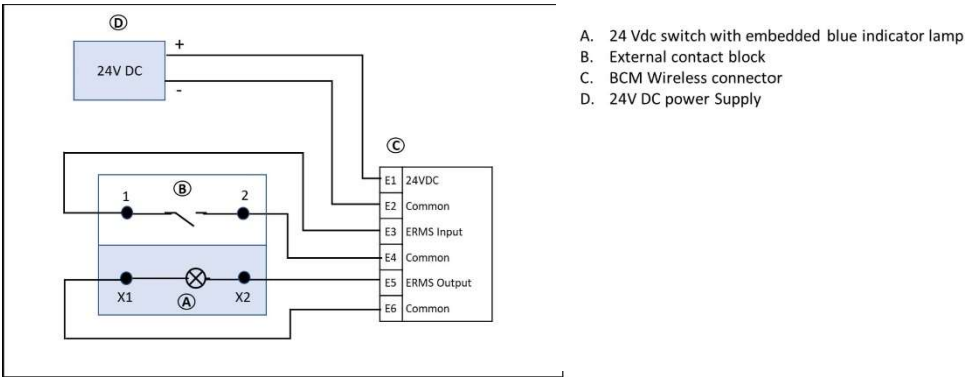
Mention of Padlock on ERMS switch

Compatible Devices

| Range                                                                                                                                                                                                           | Minimum Hardware Configuration Required                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• MasterPacT NT circuit breaker</li><li>• MasterPacT NW circuit breaker</li><li>• PowerPacT P-frame circuit breaker</li><li>• PowerPacT R-frame circuit breaker</li></ul> | Fixed or Drawout circuit breaker+ Wireless Circuit Breaker Communication Module+ MicroLogic P trip unit with firmware version Plogic-2022AN or v8282 and above or MicroLogic H trip unit with firmware version Hlogic-2022AN or v8282 and above |

Description of ERMS lamp and switch

Wiring Diagram



ERMS Mode Engaged

A digital output is assigned to indicate that the ERMS mode is engaged. This output relay is closed in the ERMS mode.

**NOTE:** ERMS may be activated after a short delay due to internal controls in the system. Ensure that the ERMS lamp is ON and Micrologic HMI displays ERMS before operating the equipment.

## ERMS Events

The following alarm is generated by the ERMS function. For more information on Wireless Circuit Breaker Communication Module events, refer to the Events and Alarms section.

### ERMS Setting Inconsistency

This event is generated in ERMS mode when the ERMS setting (I<sub>erms</sub>) is set above the I<sub>i</sub> protection setting of the trip unit. Recommended action: check the ERMS setting (I<sub>erms</sub>).

### ERMS Engaged for More Than 24 Hours

A maintenance operation requiring switching the I<sub>i</sub> protection settings in ERMS mode normally lasts for no more than a few hours. Therefore, when the ERMS mode is engaged for more than 24 hours, an event is generated to remind the user to switch the I<sub>i</sub> protection settings back to normal mode. Recommended action: disengage ERMS by a selector switch.

## Bluetooth Low Energy Communication

### Presentation

Using Bluetooth® Low Energy functionality, you can access the Wireless Circuit Breaker Communication Module from a smartphone running EcoStruxure Power Commission App. You can establish a Bluetooth Low Energy connection with only one Wireless Circuit Breaker Communication Module at a time. Only one smartphone at a time can connect to a Wireless Panel Server.

### Prerequisites for Using Bluetooth Low Energy

The prerequisites for establishing a Bluetooth Low Energy connection are:

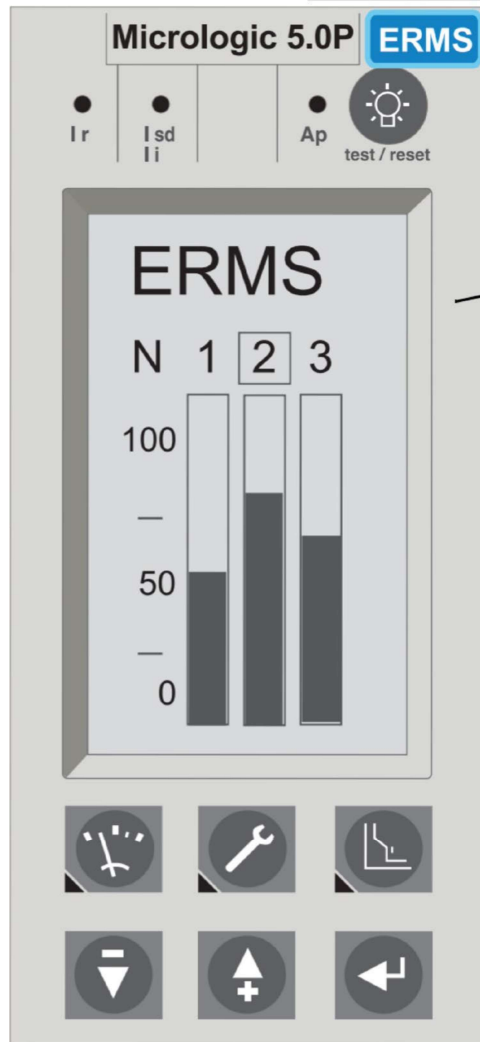
- Wireless Circuit Breaker Communication Module must be powered.
- Bluetooth Low Energy communication must be activated on the Wireless Circuit Breaker Communication Module. See Activating Bluetooth Low Energy Communication.
- You must have a smartphone running EcoStruxure Power Commission App.
- The smartphone must support Android 8.0 or iOS 13 or above and be compatible with Bluetooth Low Energy (a Bluetooth feature supported since Bluetooth version 4.2).
- You must have access to the Wireless Circuit Breaker Communication Module, and be physically within an open field range of up to 10 meters in front of the switchboard for optimized connection for the duration of the connection.

### Activating/ Deactivating Bluetooth Low Energy Communication

By default, Bluetooth Low Energy communication is deactivated.

To activate Bluetooth communication on the Wireless Circuit Breaker Communication Module use the HMI buttons of Micrologic with the following actions

- Press Test Button from the Micrologic trip unit for more than 15 seconds



## Establishing a Bluetooth Low-Energy Connection

Proceed as follows to establish a Bluetooth Low Energy connection from your smartphone to the Wireless Circuit Breaker Communication Module:

1. Start EcoStruxure Power Commission App on your smartphone.
2. Select the Wireless Circuit Breaker Communication Module to which you want to connect.
3. Scan the QR code on the front face of the Wireless Circuit Breaker Communication Module.
4. On the Micrologic trip unit, Press the Test/Reset Button for more than 15 seconds Result: Micrologic eHMI Blinks as 1sec on 1sec OFF frequency for 5 minutes timeout or till the Device is paired with EcoStruxure Power Commissioning Mobile App
5. When the connection is established, the Micrologic eHMI blinking stops.
6. To end the connection, you can disconnect from EcoStruxure Power Commission App.

## Troubleshooting Bluetooth Low Energy Communication issues

The following table lists common problems when establishing a Bluetooth connection to the Wireless Circuit Breaker Communication Module.

| Problem Description                                              | Problem Causes                                                                          | Solutions                                                                                                             |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| The Bluetooth connection was established but the signal is lost. | The smartphone has been moved out of range.                                             | Place the smartphone within the range of Bluetooth and establish a new connection.                                    |
| On Activating BLE, the MicroLogic eHMI blink does not happen     | A smartphone is already connected to the Wireless Circuit Breaker Communication Module. | Check whether another smartphone within range is also connected to the Wireless Circuit Breaker Communication Module. |

## Security Feature

Bluetooth Low Energy communications are encrypted using Advanced Encryption Standard (AES) 128-bit encryption. The LE Secure Connections pairing model helps ensure protection against passive eavesdropping.

## ZigBee Connectivity

When commissioned, the Wireless Circuit Breaker Communication Module must be paired with Schneider Electric EcoStruxure Panel Server gateways.

## ZigBee Pairing

To enable Zigbee commissioning Press Enter Button(B) from the MicroLogic trip unit's HMI for more than 5 seconds, please ensure to keep the Trip unit's HMI in home Screen.

Result: MicroLogic Trip Unit eHMI Blinks as 1 second ON and 1 second OFF frequently for 15 minutes timeout or till the Device is Paired.

The gateway or Panel Server discovers the wireless devices and pairs them with the Wireless Circuit Breaker Communication Module.

Result: The MicroLogic TripUnit eHMI Blinking stops.

## ZigBee Unpairing in Case of Communication Loss

Press the combination keys of Test and Reset Button (A) and Enter Button (B) together from the MicroLogic trip unit for 5 seconds

For detailed information about pairing the devices, see the user guide of the relevant Panel Server gateways: DOCA0172EN EcoStruxure Panel Server - User Guide

## Install Code

## Monitoring via ZigBee

Wireless Circuit Breaker Communication Module provides the following data over ZigBee communication.

### Metering

- Total resettable active energy delivered
- Total non-resettable active energy delivered
- Total resettable active energy received
- Total non-resettable active energy received
- Total resettable Reactive energy Delivered
- Total resettable Reactive energy received
- Total resettable Apparent Energy Delivered and Received.

### Measurement

- Phase current (measured)
- Neutral current (calculated)
- Phase-to phase voltage
- Phase-to neutral voltage
- Ground Current
- External neutral voltage sensor presence
- External neutral current sensor presence
- Frequency

### Power

- Total power factor
- Per phase factor power
- Total active power
- Total reactive power
- Total apparent power
- Per phase total active power
- Per phase total reactive power
- Per phase total apparent power
- PF sign convention
- Actual demand power
- Peak demand power



## Breaker Status Alarm

- Breaker status
- Breaker setting change alarm
- Breaker health status
- OF counter
- SD counter
- SDE counter
- Contact wear

## Protection Alarm

- Long-time protection
- Short-time protection
- Instantaneous protection
- Ground-fault protection
- Earth-leakage protection
- DIN protection
- SELLIM protection
- Push button test
- Internal cause
- OverVoltage protection 1P (59-1)
- UnderVoltage protection 1P (27-1)
- OverFrequency protection (81-0)
- UnderFrequency protection (81-U)
- ReversePower protection (32P)
- Current unbalance
- Voltage unbalance
- Phase rotation
- OverPower protection
- Overcurrent on phase 1
- Overcurrent on phase 2
- Overcurrent on phase 3
- Overcurrent on Neutral

## Protection Pre-alarms

- Long-time protection time pre-alarm
- Earth-leakage protection pre-alarm
- Ground-fault protection pre-alarm

## ERMS Alarms

- ERMS engaged

- ERMS disengaged
- ERMS engaged for more than 24 hours
- li value is set below ERMS value
- ERMS fallback
- ERMS internal failure

## EcoStruxure Power Commission Mobile App

### EcoStruxure Power Commission App Overview

The EcoStruxure Power Commission App enables to modification of the ERMS configuration of the Wireless Circuit Breaker Communication Module.

### Key Features

EcoStruxure Power Commission App performs the following actions for the supported devices:

- Energy Reduction Maintenance Setting Configuration change.
- Firmware upgrade of Wireless Circuit Breaker Communication Module
- Breaker status
- Health status of Wireless Circuit Breaker Communication Module

## Firmware Upgrade

### Presentation

Use the latest version of the EcoStruxure Power Commission App for all firmware updates.

All firmware designed for the Wireless Circuit Breaker Communication Module is signed using the Schneider Electric public key infrastructure (PKI).

### Checking the Firmware Version

The current Wireless Circuit Breaker Communication Module firmware version can be checked with EcoStruxure Power Commission App.

## Updating Firmware With EcoStruxure Power Commission App

If the Wireless Circuit Breaker Communication Module is not updated to the latest firmware version, update firmware

The update can be done using EcoStruxure Power Commission App.

The prerequisites for updating the firmware with EcoStruxure Power Commission App are the following:

The latest version of the EcoStruxure Power Commission App must be downloaded and installed on the smartphone.

The smartphone must be connected to the Wireless Circuit Breaker Communication Module through Bluetooth Low Energy connection.

At the end of the firmware update process, the Wireless Circuit Breaker Communication Module reboots automatically.

# Cybersecurity Recommendations

## An Introduction to Cybersecurity

Cybersecurity is intended to help protect your communication network and all equipment connected to it from attacks that could disrupt operations (availability), modify information (integrity), or give away confidential information (confidentiality). The objective of cybersecurity is to provide increased levels of protection for information and physical assets from theft, corruption, misuse, or accidents while maintaining access for their intended users. There are many aspects to cybersecurity including designing secure systems, restricting access using physical and digital methods, identifying users, as well as implementing security procedures and best practice policies.

## Schneider Electric Guidelines

In addition to the recommendations provided in this guide that are specific to Panel Server, you should follow the Schneider Electric defense-in-depth approach to cybersecurity.

This approach is described in the system technical note [How Can I Reduce Vulnerability to Cyber Attacks?](#)

In addition, you will find many useful resources and up-to-date information on the Cybersecurity Support Portal on the Schneider Electric global website.

## Schneider Electric Cybersecurity Policies and Rules

Schneider Electric uses a Secure Development Lifecycle (SDL) process, a key product development-based framework that helps ensure products follow secure design processes across all lifecycle stages. The Schneider Electric SDL process complies with IEC 62443-4.1.

The SDL process includes the following:

- SOL practices are applied to internal development actions, throughout the supply chain.
- Final security review required for project release.
- Security training for personnel involved in product development.

## Troubleshooting

|                                                                  |                                                                                                                      |                                                                                                                                    |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Switching on to ERMS mode is not possible                        | Inconsistency of the ERMS setting                                                                                    | Check and modify the ERMS setting                                                                                                  |
|                                                                  | Wireless Circuit Breaker Communication Module is connected with the incompatible version of the Micrologic Trip Unit | Check the ERMS sticker and HW compatibility between the Wireless Circuit Breaker Communication Module and the Micrologic Trip Unit |
| Switching off the ERMS mode is not possible                      | Inconsistency of the ERMS setting                                                                                    | Check and modify the ERMS setting                                                                                                  |
| The Bluetooth connection was established but the signal is lost. | The smartphone has been moved out of range.                                                                          | Place the smartphone within the range of Bluetooth and establish a new connection.                                                 |
| On Activating BLE, the Micrologic eHMI blink does not happen     | A smartphone is already connected to the Wireless Circuit Breaker Communication Module.                              | Check whether another smartphone within range is also connected to the Wireless Circuit Breaker Communication Module.              |
| Wireless Circuit Breaker Communication Module is no responsive   | The issue with the power supply to Wireless Circuit Breaker Communication Module.                                    | Use the "Connectivity detection feature" to see if the Wireless Circuit Breaker Communication Module is Functional.                |
| ERMS engaged but ERMS Lamp not glowing                           | Physical connection loss to the lamp                                                                                 | Check the wiring of the lamp                                                                                                       |

# Radio Frequency Compliance Statements

Statement from 15.19 (a)(3) (Part 15 devices): FCC ID: 2AH7L-BCMWW1 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Statement from 15.21: Changes or modifications not expressly approved by Schneider Electric could void the user's authority to operate the equipment.

Statement from 15.105: Class A Digital Device

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

RSS GEN Issue 5 section 8.4 statement: This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: 1. This device may not cause interference. 2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: 1. L'appareil ne doit pas produire de brouillage; 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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As standards, specifications, and design change from time to time,  
please ask for confirmation of the information given in this publication.

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