

Wireless Control of Electrical Circuit Breaker



Case Study Industrial Automation: ABB, Italy

ABB is a leader in power and automation technologies operating in more than 100 countries throughout the world. They develop control systems, high/low voltage products, instruments, motors, drives, and robots.

In Italy, the world's first Bluetooth enabled circuit breaker was jointly developed by ABB Corporate Research and ABB Sace. The product, called Emax, is a low voltage circuit breaker used to protect low voltage distribution systems and equipment. The Emax Circuit Breaker comes from ABB Italy and is connected to a handheld device via Bluetooth technology.

WIRELESS ACCESS

All the parameters are accessible through the wireless connection via Bluetooth technology. Through connectBlue's embedded Bluetooth OEM module, the operator can control the Emax Circuit Breaker wirelessly via his/her standard handheld computer or device.

This wireless access enables the operator to conveniently reach the Circuit Breaker even when installed in harsh environments where computers and cables would not be functional.

The Bluetooth integration made by ABB Corporate Research is also made available for other ABB product divisions as the implementation is based on standard modules and can easily be modified for similar requirements.

BLUETOOTH REQUIREMENTS

The choice made by ABB Corporate Research and ABB Sace to use a Bluetooth OEM Serial Port Module from connectBlue was based on the fact that connectBlue products are specifically developed for tough industrial applications that require a very high reliability.

The Bluetooth OEM Serial Port Module is being used in combination with an external Bluetooth antenna for mounting in the metallic casing. In addition, the module provides full Bluetooth Qualification and Type Approval minimizing certification cost and time to market for ABB.

KEY FEATURES

From the front panel of the Emax Circuit Breaker, the operator configures parameters such as the following:

- Current limits
- Over current timers
- Diagnostics
- Event logging

ABOUT CONNECTBLUE

connectBlue™ is a leading provider of robust Industrial and Medical wireless solutions, designed and tested for the most demanding applications and environments. Based on Bluetooth technology, Wireless LAN (WLAN) and IEEE 802.15.4/ZigBee, connectBlue provides ready-to-use products and modules as well as custom design solutions. connectBlue has its head office in Sweden and local offices in Germany and USA. For more information, visit www.connectblue.com