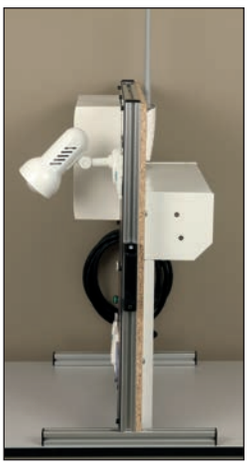
KNX TECHNOLOGY - CONNECTED HOUSE

ref. MC-KNX-2

SUPPLIED FULLY WIRED AND CONFIGURED | AUTONOMOUS WIFI NETWORK | TEACHING RESOURCES STUDENT / TEACHER



Profile view

Back side

The micromodule is protected behind a transparent plate that covers the connectors and protects electrical contacts.
Only the programming button remains accessible without disassembly.

Front side

This educational panel of KNX home automation represents an installation of individual house type. Simple and intuitive, it allows an easy discover of this technology.
It offers educational features allowing the student:
- To observe, manipulate, assemble and disassemble
- To measure and evaluate characteristics
- To reproduce industrial schemes
- To understand and to interpret the mechanical, electrical, electronic operations...

Programming is carried out from a computer, with the ETS software (included).
The model can be controlled remotely via tablet and smartphone, using the Android and IOS compatible application.
Delivered with ETS Lite software for programming the model.

EDUCATIONAL OBJECTIVES

- ***Discovery of the KNX protocol***
- ***Operate the installation and maintenance***
- ***Understand the specifications of an electrical installation***
- ***Produce electrical diagrams and components nomenclature***
- ***Analyze manufacturers' technical data sheets***
- ***Carry out the wiring/connection of electrical components using safety wires***
- ***Carry out the commissioning***
- ***Configure a WIFI network for remote control using a tablet or smartphone (not supplied)***

TEACHING FILE PROVIDED

Teaching instructions in Instructor / Students format, including:
- Educational activities to create scenarios
- Practical exercices for skills assessment.
- Technical instructions, manufacturer documentations for KNX components
- Extracts of electrical standards
- Electrical wiring diagram
- Several KNX configuration programs

COMPOSITION

An aluminum profile frame
- Profile section 30 x 30mm
- Frame dimensions: 650 x 700 x 350mm

1 silkscreened front panel equipped with:
- 1 modular electric panel
  - 1 residual current circuit breaker 16A of habitat type
  - 1 circuit breaker 2A of habitat type
  - 1 KNX Power Supply
  - 1 variable lighting actuator and ON/OFF outputs
  - 1 roller shutter with ON/OFF outputs
  - 1 USB / KNX interface
  - 1 IP / KNX interface
- 1 embedded universal actuator
- 1 LED lighting spot for variable lighting
- 2 LED lights (living room + bedroom)
- 1 LED light simulating the electric door latch
- 1 KNX switch with 2-button (manages the variable and regular lighting of the bedroom)
- 1 KNX switch with 4-button (manages the lighting of the living room, the electric door latch and 2 scenarios).

1 white back side equipped with:
- 1 roller shutter
- 1 Wifi router to create a local Wifi network and control the installation from a Smartphone application (Wifi network specific to the model)
- 1 power socket 230V 2P+E to connect the Wifi router.

CYBERSECURITY OPTION

ROUTER - FIREWALL - VPN

ref. IP-FW

Router-Firewall can be integrated into Langlois communicating products.
It allows the application of skills in network administration and cybersecurity.
This module is very easy to integrate and configures simply and quickly.
The IP-FW option includes:

- 1 Router-Firewall ready to use with solution installed and configured.
- 1 set of ethernet cables
- 1 technical notice
- 1 set of network and cybersecurity oriented practical work:
  - Reminder on network administration and cybersecurity
  - Installation and connection of the module
  - Configuration of the box (DHCP Server, LAN Interface, VLAN, traffic rule...etc...)
  - Configuring a VPN tunnel
  - Carrying out maintenance operations.