

DEMONSTRATION PANEL FOR DESIGN AND FUNCTIONAL ANALYSIS OF THE ELECTRONIC/ELECTRICAL SYSTEMS OF AN INTELLIGENT OPEN SPACE

Mod. PDG-13/EV

INTRODUCTION

This panel for the management of an intelligent open space consists of actual electrical components, already connected with each other and consequently operating, so that students can learn and test electronic systems of building utilities. Students can reprogram the installed components partially or totally, besides checking their setting at work. Furthermore electric parameters can be measured with conventional instruments.

This panel is enclosed in a metallic framework supported by side uprights provided with castors for an easy transport inside the laboratory. This framework is made of sheet steel chemically treated and painted with several coats of epoxy varnish. The panel is made of insulating material and it represents the ideal support of the necessary components for carrying out the testing programme. The apparatuses are clearly represented on the panel with their standardized international symbols and with a lay-out plan.

All the necessary electric components for the correct power supply of circuits are included in the panel.



TRAINING PROGRAM:

This panel shows an electrical installation operating on BUS system for the installations of "intelligent" management of an open space of business use such as banks, jeweller's shops and/or environments needing particular safety systems.

The control and checking elements of power consuming devices are connected with the BUS, and they refer to the following topics:

- lighting installation of building interiors with control devices and on/off actuators
- control of accesses by magnetic badge reader
- control of technical alarms by video surveillance
- control of heating system by thermostat and actuator
- control of opening/shutting of blinds
- presence detection in the building via sensor
- control of anti theft alarms
- control of scenarios: system functionality with retrieval of typical situations on needs of power consuming devices such as daytime normal operation, partial operation for cleaning, operation with closed room, etc...

Furthermore, using software packets will lead:

- to modify the programming of installed components partially or totally, for zone configuration according to user's needs
- to develop graphic pages for system supervision

TECHNICAL SPECIFICATIONS:

Framework is made of sheet steel chemically treated and painted with several coats of epoxy varnish; its base is provided with castors for an easy transport in the laboratory.

Main components installed:

- 1 switchboard with data strip for the connection of power supply unit and of modular components including the connectors for shunting the bus line
- 1 USB interface for the connection with personal computer
- 7 control pushbuttons for lights, with 2 or 4 channels with bus coupler
- 2 six-channel binary outputs – 6 A 230 Vac – for enabling power consuming devices, with bus coupler
- 1 two-channel binary output – 6 A 230 Vac – for enabling video recording on presence condition in the watched area
- 1 presence detector with bus coupler
- 2 miniaturized blinds with shutters for simulating doors or windows
- 1 switch for moving and managing two blinds, with bus coupler
- 1 thermostat with bus coupler for controlling room temperature (air conditioning), and with hot/cold actuators displayed by four warning lights
- 12 lamp sockets with lamps for lighting
- 1 transponder reader for enabling accesses
- 1 transponder programmer for different access levels
- 1 four-channel one-year clock module for driving system functions according to time
- 1 scenario module for retrieving four different scenes
- 2 B/W micro CCD cameras for interiors with electronic optical components and objective of 60°
- 2 power supply units of 12 Vdc for powering the cameras
- 1 tabletop professional B/W monitor of 9" powered with 230 V~
- 1 alarmable cyclic selector of manual/automatic sequence for controlling up to 4 cameras
- 1 alarmable video recorder with programmable speed, duration of 3, 6, 12, 24 hours

Dimensions of demonstration panel: 1260 x 960 mm

Dimensions of framework: 1300 x 600 x 1700 mm

Net weight: 84 kg



Sample configuration with PC and desk for computer (not included)

SOFTWARE INDISPENSABLE (NOT INCLUDED)

Original **Design Software ETS (EIB Tool Software)** multilanguage edited by consortium Konnex, to be purchased separately.

This software enables to assign the specific functionality to the installation, as well as the starting and diagnosis of BUS devices.

This software can be used with a personal computer (not included in the equipment) connected with the BUS system via USB interface.

SUPPLIED ACCESSORIES:

- 1 single-phase power cord with UNEL plug

POWER SUPPLY:

230 V / PE 50-60 Hz
Max. absorption: 500 VA

THEORETICAL-EXPERIMENTAL HANDBOOKS

Application handbook with exercises.