

RUBIC

MONITORING SYSTEM

The purpose of the system

In buildings where there is a need for installing a large number of independent emergency lighting fittings, there is always a problem connected to the process of controlling the condition of the fittings. Manual controlling of the condition of the fittings requires a lot of time and may sometimes disturb the regular use of the premises. RUBIC system, designed to monitor the operation of emergency fittings with independent power sources, was created to solve this problem. Modern solutions of the Rubic system allow for the configuration and control of the condition of the fittings from one place.

Description of the RUBIC system

Components of the system:

- C-Rubic control unit
- LIDER RS addressing emergency module
- P-Rubic programmer
- RPT signal amplifier
- PR-RUBIC printer

C-RUBIC control unit



- Standard monitoring of 250 fittings
- Expansion within the standard unit up to 1000 fittings
- Expansion of the system with one control unit up to 10 000 fittings
- Control and communication with other C-RUBIC control units
- Centronix printer connector
- 3 LED diodes signalling the condition of the system
- LCD monitor
- 230V 50Hz power supply
- Charge time - 24h
- Communication through a screened cable 2x0,5 mm²
- Distance between the control unit and the furthest fitting - 1200 m (or applying RPT)
- Power supply through 3x1,5 mm² cable

LIDER RS addressing emergency module:



- Unique address
- Fluorescent lamp power 6W - 80W
- Emergency operation time 1, 2 or 3 hours
- Fluorescent lamp type T8, T5 and compact 4 pin
- Compatibility with KVG and EVG ballasts
- Green diode - signals correct battery charge
- Red diode - signals abnormal functioning of the fitting.

P-RUBIC programmer



- Serial programming of LIDER RS modules
- Individual programming of LIDER RS modules
- Programming without the necessity of power supply to the LIDER RS module
- Independent power supply

RPT signal amplifier



- Extending the distance of the communication cable by another 1200m
- Unlimited number of amplifiers in one network
- Regular power supply

PR-RUBIC printer

- Printing reports
- Direct communication with the control unit.

Functions of the system

1. Constant communication between the central unit and the lighting fittings.
2. Running auto tests.
3. Running manual tests.
4. Registering test results (memory of central unit - minimum 1 year).
5. Printing test results using PR-RUBIC printer or an external printer.
6. Emergency operation blockade.
7. Dividing the monitored fittings into groups.
8. Reporting any abnormalities.
9. Connecting with a PC computer through an interface and creating visual presentations with the help of a special software.
10. Control of the system from any place through internet links.
11. Test calendar configured to suit individual needs.

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The system's mode of operation

Lighting fittings working under the RUBIC system have unique addresses and are connected to C-Rubic control unit with a communication cable. The fittings communicate with the central unit reporting any abnormalities which are signalled on the central unit display with LED diodes placed on the central unit panel. Each fitting connected to the system may have an individual description in the control unit. When abnormalities occur connected to the operation of a fitting, information about the type of abnormality and the location of the fitting appears on the display of the control unit. The system allows for manual testing of a single fitting. C-Rubic central unit's software allows to divide the fittings into groups which enables one to run tests only on chosen groups of fittings.

Apart from manual tests, the following auto-tests are carried out:

Test A – a short test, recommended every 30 days (PN-EN 50172) – checks the following parameters:

- enforcing emergency operation of the fitting for 5 minutes
- control of battery power discharge
- control of minimum voltage of battery

Test B – a long test recommended every 360 days (PN-EN 50172) – checks the following parameters:

- enforcing emergency operation of the fitting for the time programmed for each fitting (1, 2, 3 h)
- control of battery power discharge
- control of minimum voltage of battery
- control of the condition of battery

The frequency of running tests A and B may be programmed according to the needs of the user. There is a possibility of programming the tests with exact dates of when they should be carried out. Long tests B should be run when the premises are not to be used within 24 hours after finishing the test. This time is needed for the recharging of the batteries discharged during the long test.

Test results are stored in the memory of the central unit and may be viewed on the central unit's display. Test reports may be printed with the PR-RUBIC printer or any printer using LPT connector (Centronix).

