Roger Access Control System
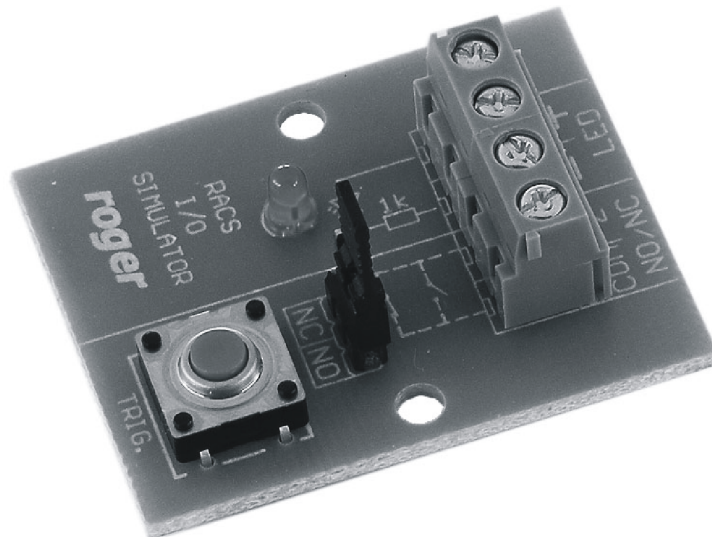
IOS-1
Input-output simulator

User Manual

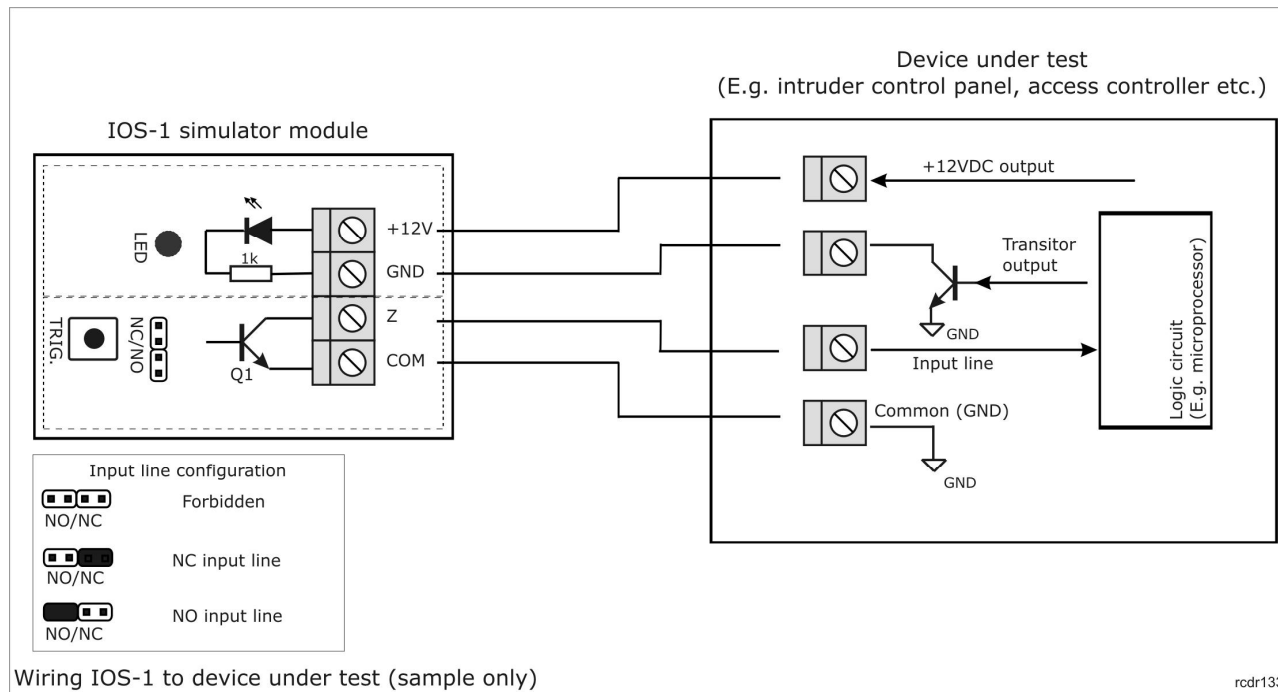*Product version v1.0*

Document version: Rev. B

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General

IOS-1 module enables simulation of NO/NC input lines as well as visualization of status at output lines (both relay and transistor types). The module can be used for education, testing or demonstration in regard of alarm and access control devices. IOS-1 does not require power supply. Circuit for input simulation and circuit for visualization of output status are independent of each other.

Operation

General diagram of operation and exemplary application of IOS-1 are shown in figure below.

Wiring IOS-1 to device under test (sample only)   rcdr133

Z and COM terminals are used for simulation of input line. Input line can be configured by means of jumpers as NO (Normally Open) or as NC (Normally Close). In case of NO setting, pressing TRIG. button results in activation of Q1 output transistor and consequently shorting of Z terminal with GND. In case of NC setting, output transistor is normally activated, Z and COM terminals are shorted and pressing of TRIG. button results in deactivation of output transistor and consequently disconnection between Z and GND terminals.

Note: COM terminal must be connected to lower potential than Z terminal. Typically COM terminal at IOS-1 module is connected to GND or COM terminal of the tested device.

+12V and GND terminals enable visualization of status at output line. Voltage feeding in range of 5..15V between mentioned terminals results in LED lighting up on board. LED activation can be caused by negative voltage at GND terminal or positive voltage at +12V terminal. Typically, such solution enables signaling of status for any relay or transistor output line with negative or positive output voltage.

Technical Specification	
Parameter	**Characteristics**
Environmental class (according to EN 50131-1)	Class I, indoor conditions, temperature range: +5°C to +40°C, relative humidity: 0 to 95% (non condensing)
Module dimensions	35 X 43 mm
Module weight	~ 10g
Certificates	CE

Product History			
Hardware	**Firmware**	**Date**	**Description**
v1.0	-		Initial version of the product

Ordering information	
IOS-1	I/O Simulator module (electronic module only)

	This symbol placed on a product or packaging indicates that the product should not be disposed of with other wastes as this may have a negative impact on the environment and health. The user is obliged to deliver equipment to the designated collection points of electric and electronic waste. For detailed information on recycling, contact your local authorities, waste disposal company or point of purchase. Separate collection and recycling of this type of waste contributes to the protection of the natural resources and is safe to health and the environment. Weight of the equipment is specified in the document.

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