OrangeLink FD-RA0x

Bidirectional magnetic reader

Functional characteristics

The FD-RA01 and FD-RA02 are card readers module which can read data from track 2 ISO magnetic cards with the following characteristics:

♦ Able to read the data recorded on the track 2 of ISO magnetic cards
♦ Read data registration (entry/exit) based on the swiping direction of the card
♦ Visual indications through 2 multicolored LEDs (red/green/yellow/blue) in the little arrow symbols on either side of the reader
♦ Audible signal through an internal buzzer
♦ Connection to the FD-BUS using SPP (Serial Proprietary Protocol) at a speed of 115.2 Kbaud (default) or 19.2 Kbaud
♦ Address selection for the reader by means of a rotary switch on the back of the device
♦ Double connector (internally in parallel) for easy reconnection to the FD-BUS.

Only FD-RA02

♦ Display of alphanumeric and semi-graphical information on an LCD display, on 2 rows of 16 characters with BLUE backlight
♦ Automatic disabling of the display backlight to save energy when operated from the battery

Protection

The equipment is protected against the following events:

♦ polarity reversal on the cables (RJ45) connecting to the FD-BUS
♦ voltage surge in the power supply and data lines

Modes of Operation

The FD-RA0x module can read magnetic cards in registered and non-registered mode.

♦ In registered mode (entry/exit for attendance registration), the card is read by swiping the card in the desiderd direction.
♦ In non-registered mode (access control) the card is read by swiping the card in any direction.

Visual indicators

The FD-RA0x module can give the user indications by means of:

♦ alphanumeric LCD display (only FD-RA02)
♦ 2 multicolored LEDs located in the arrow symbols
♦ buzzer

The most common indications are as follows:

♦ When switched on, the module displays the address previously set with the rotary switch.
♦ If there is no polling from the Field Manager, the module displays the message "No communication" and both arrows flash yellow.
♦ When the module receives the configuration from the Field Controller, the arrow symbols on either side of the reader lit green.
♦ On access grant, the arrow symbol corresponding to the direction of passage is lit green. and an audible signal is given.

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Parameter	Description
Dimensions	130 x 100 x 50 mm
Weight	255g
Power supply	Through the FD-BUS connectors From $8V_{DC}$ to $14V_{DC}$ 200 mA nominal (at $14V_{DC}$) 240 mA with LEDs lit (at $14V_{DC}$) 100 mA with backlight off (at $14V_{DC}$) (only FD-RA02)
Processor	P89C664 Philips at 11.0592 MHz
Connections	FD-BUS (2 RJ45s in parallel) with RS485 and power supply
FD-BUS communication	Differential RS485 serial interface Baud rate (nominal) 11,5000 baud
Bidirectional reading	On swiping direction
Operating temperature	0°C to 50°C
Address selector	0 to 15 by rotary switch selector
Relative humidity	Up to 90% without condensation
Mounting	Wall-mounted with the supplied wall bracket
Indicator signals	Alphanumeric display, 16x2 with blue backlight (only FD-RA02) 2 multicolored LEDs (red/green/blue) in the arrow symbols on either side Audible signal through an internal buzzer
Other functions	Protection against reversed polarity at input Battery power saving by switching off the backlight
Compliance	$C\,E$ Directives EMC 89/336/EEC; 92/31/CEE B.T. 72/23; 93/68/EEC: EN60950, EN55024, EN61000-3-2/3