684-52 OEM Proximity Reader

Data Sheet

Overview

The 684-52 OEM proximity reader consists of three parts: a potted unit containing the electronics, a front cover, and an optional spacer plate. A fixed 10 way colour-coded cable protrudes from the back of the potted unit.

The reader will read the code from an RFID transponder and output the code in one of many user selectable formats.

The unit also allows for user control of the three LEDs and sounder. A 6-way DIP switch under the front cover is used to select the required output format and LED operational modes.

Specifications

Power requirements: 5.0-13.6V dc. Current consumption is 100 mA typical (80mA at 5V).

RF Frequency: 125 kHz.

40 bit read only transponders supported: EM4001 family, TEMIC e5550 and equivalent devices.

Output formats supported: Wiegand (42-bit, 34-bit, and 26-bit), Mag Stripe emulation, Clock/Data, RS232 (9600,n,8,1) EIA and TTL levels.

Continuous (while tag in the field) or single transmission.

Typical reading range with supply voltage in range 5.5V-13.6V: keyring tag with 20mm coil - 85mm, ISO card with 50mm coil - 175mm.

Typical reading range with supply voltage at 5.0V: keyring tag with 20mm coil - 80mm, ISO card with 50mm coil - 160mm.

3 LEDs (GREEN, RED, YELLOW).

Sounder emits a 60ms beep at 4 kHz when a transponder is read. In addition sounder operates while SOUND input is pulled low.

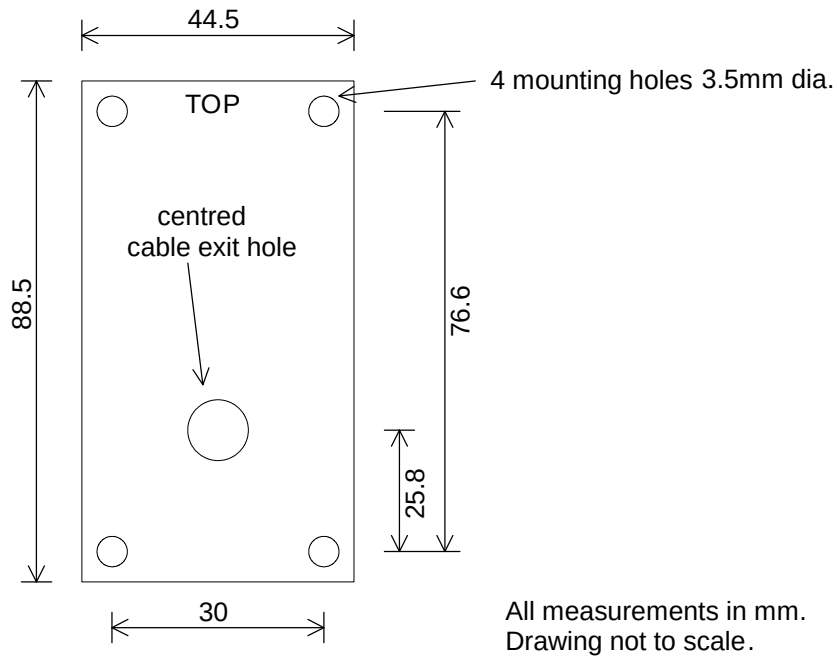
Operating temperature range: -20ºC - +60ºC.

10 way cable: 1m long

Weight: 90 grams.

Dimensions: reader 89 x 45 x 16 mm, optional spacer plate 89 x 45 x 7 mm

Physical Dimensions and Mounting Details



All measurements in mm.
Drawing not to scale.

If the spacer plate is used the reader cable may be brought out of one of four exit points on the spacer: top, bottom, left or right. This enables the cable to be run on the surface of the wall. If no spacer plate is used a minimum hole size of 6.5mm must be drilled in the wall at the cable exit position as shown above to allow the cable to exit perpendicular to the reader.

The optional spacer plate may also be used when mounting the reader on a metal surface to reduce the negative effects of metal on the read range.

Connections

The table below details the function of each wire:

Colour	Name	Function
GREY	PRESENT	Pulses low when an RFID tag is detected. It stays low while the module output is active.
WHITE	CLOCK/DATA0/TX	Outputs RFID tag code in selected format.
BROWN	DATA/DATA1	Outputs RFID tag code in selected format.
YELLOW	YEL-LED	Controls Yellow LED in LED Mode 1.
ORANGE	RED-LED	Controls Red LED in LED Mode 1.
GREEN	GRN-LED	Controls Green LED in LED Mode 1 and both Red and Green LEDs in LED Mode 2.
BLUE	SOUND	Controls Sounder
PURPLE	RS-232	RS-232 output
RED	+VDC	Connect +5V - +13.6V from power supply.
BLACK	0V	Connect 0V from power supply.

Note: LED and SOUND inputs are active low. The input is internally pulled high and may be pulled low by an open collector transistor or driven low by the output of a 5V CMOS or TTL gate.