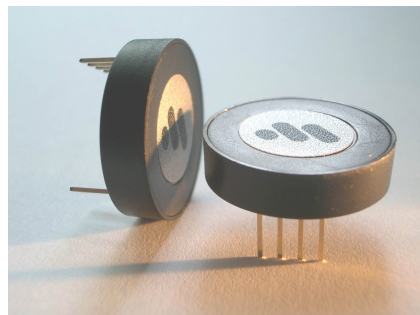


EM-05B

Introduction

The EM-05B is a low cost high performance proximity reader module featuring long range and small dimensions that has been designed specifically for OEM applications. The EM-05B features good read range at voltages as low as 5 volts making it ideally suited to a wide variety of applications, particularly access control. The same basic unit can be configured to output most of the common formats, including 26 bit wiegand format making it easy to upgrade existing installations.



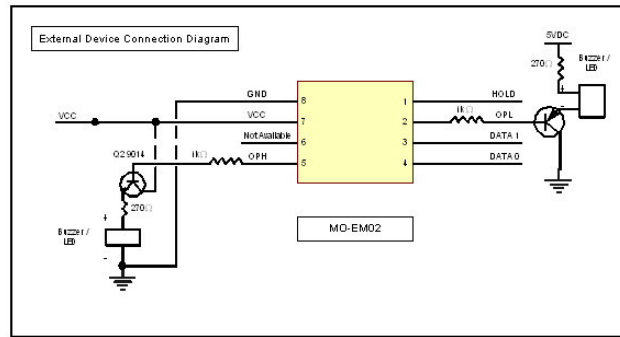
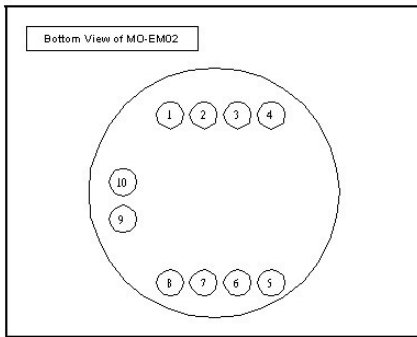
The reader generates a 125KHz inductive field that extends some way beyond the reader module. When a transponder is placed within the vicinity of the reader module it draws power from this field and providing the field is of sufficient strength the internal microcircuits contained in the transponder begin to function. Data is transferred from the transponder by means of amplitude modulation in such a manner that the transponder varies the rate at which it draws power from the field in a way that corresponds to the internal identity code programmed in this internal memory. These changes in field power can be detected by the reader and converted back into a copy of the original data.

Specifications

Power Requirements	5V DC at 35mA. A linear regulator is recommended.
Interface	Standard 26 bit wiegand or tailor made output format according to customer specifications.
Read Range	Production Pass range is 45mm with ISO EM card
Frequency	125KHz standard
Transponder	Read Only.
Audio/visual Indication	LED and Buzzer signal output
Dimensions	Diameter 23mm x Height 6mm
Weight	50gm
Response Time	Less than 0.1 sec

EM-05B

Pin #	Symbol	Description	Normal Status	Input / Output
1	HOLD	Connect to 0VDC, cannot read card	H/L voltage	INPUT
2	OPL	When read card, output 0VDC for 150ms	H/L voltage	OUTPUT
3	D1	Wiegand Data 1	H/L voltage	OUTPUT
4	D0	Wiegand Data 0	H/L voltage	OUTPUT
5	OPH	When read card, output 15mA, 5VDC for 150ms	L/L voltage	OUTPUT
6	NA	N/A	NA	NA
7	5VDC	4.5 – 5.5 VDC	5VDC	INPUT
8	GND	GND	0VDC	INPUT



Trouble Shooting

- 1) Make sure the pin connection is in correct.
- 2) Make sure the power supply is from 4.75 to 5.5VDC and 50mA output
- 3) After power on, if pin 2 voltage change follows the below information, it means the processor is functioning correctly.

