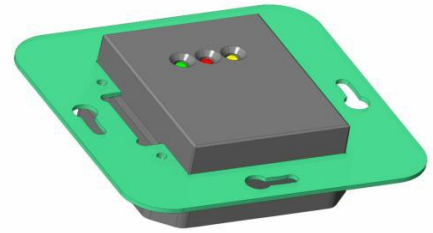# 717-53 MIFARE® ID Reader Switchbox Mount   Data Sheet

Overview

The 717-53 Mifare reader is a fully potted unit containing all the electronics required to read the unique ID from a MIFARE ® card and output the code in one of several formats. The format is selected on a 6-way DIP switch on the back of the unit.
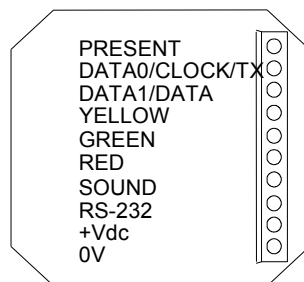
A 10-way pull-off connector on the back of the unit is provided to connect the unit to a controller.

The unit also allows for user control of all three LEDs and the sounder.

Specifications

- Power requirements: 5.0-13.6V dc. Current consumption is 110 mA typical.
- RF Frequency: 13.56 MHz.
- Card types supported: mifare® Std, mifare® Ultralight, mifare® DESFire, mifare® Plus S/X., NTAG2XX
- Contactless interface as per specification: ISO/IEC 14443 Type A.
- Output formats: Wiegand (44-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: 50mm
- 3 LEDs (GREEN, RED, YELLOW).
- Sounder emits a 50ms beep at 4 kHz when a transponder is read. In addition sounder operates while BEEP input is pulled low.
- Operating temperature range: -20 °C to +60 °C.
- Weight: 90 grams.
- Housing - ABS plastic - potted IP65.
- Dimensions: 48 mm x 48 mm x 37mm (excluding mounting plate)
- Suitable for installation into a 55mm switchbox.

Connections

```
PRESENT          ○
DATA0/CLOCK/TX   ○
DATA1/DATA       ○
YELLOW           ○
GREEN            ○
RED              ○
SOUND            ○
RS-232           ○
+Vdc             ○
0V               ○
```

The table below details the function of each connection:

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

Note: The YELLOW, GREEN, RED and BEEP 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.

Output Mode Selection

The 6-way switch is used to select the output format and LED mode. The required setting is selected from the following tables:

Output Format Table

SW 1	SW 2	SW 3	SW 4	Output Format
ON	ON	ON	ON	Inhibit - turn off coil
ON	ON	ON	OFF	RS232 - 24 bit
ON	ON	OFF	ON	RS232 - 32 bit
ON	ON	OFF	OFF	RS232 - 56 bit
ON	OFF	ON	ON	*Unused*
ON	OFF	ON	OFF	*Unused*
ON	OFF	OFF	ON	*Unused*
ON	OFF	OFF	OFF	Gen-Scan clock/data - 32 bit
OFF	ON	ON	ON	Fast Mag Stripe - 40 bit
OFF	ON	ON	OFF	Mag Stripe - 24 bit
OFF	ON	OFF	ON	Mag Stripe - 32 bit
OFF	ON	OFF	OFF	Mag Stripe - 40 bit
OFF	OFF	ON	ON	Basic Clock/Data - 56 bit
OFF	OFF	ON	OFF	Wiegand - 26 bit
OFF	OFF	OFF	ON	Wiegand - 34 bit
OFF	OFF	OFF	OFF	Wiegand - 44 bit

LED Mode Table

Mode #	SW 5	LED Mode
1	ON	3 Individual LEDs each controlled by their own input
2	OFF	RED/GREEN with single control line (GRN-LED)

Note
1. In LED Mode 2, both RED and GREEN leds are controlled by the GREEN input. When the GREEN input is floating or pulled high, the RED led is on and the GREEN led is off. When the GRN input is pulled low (connected to 0V) the GREEN led is on and the RED led is off. The YELLOW led is always off.

Continuous/Single Transmission Mode Table

Mode	SW 6	Operation
Continuous	ON	While a tag is in the reader's field the reader will continuously transmit the code in the format chosen by DIP switches 1-4. The repetition period is dependent on the format chosen but varies between 65ms and 230ms.
Single	OFF	Single transmission when tag is brought into the field. Tag must be removed from field for at least 1 second before a read of this tag is possible again.