

Mifare® ID Reader

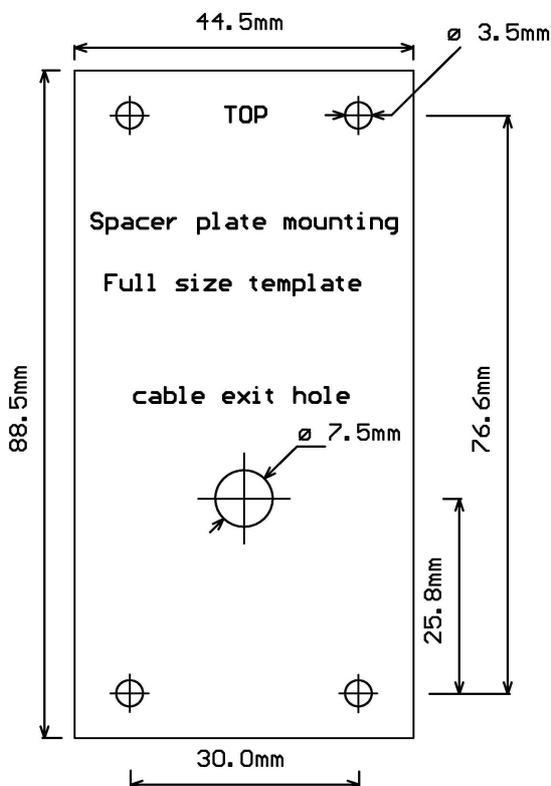
714-52 Rev 5.0

Short form datasheet

Specifications

- Power requirements: +5.0 V to +13.6 V DC. Current consumption 100 mA peak, 35 mA average
- RF Frequency: 13.56 MHz
- Supported cards: MIFARE® Classic, MIFARE® Ultralight, MIFARE® Ultralight C, MIFARE® DESFire, MIFARE® Plus S/X, NFC NTAG
- Contactless interface as per specification: ISO/IEC 14443 Type A
- Output formats supported: Wiegand (66 bit, 44 bit, 34 bit odd/even parity, 34 bit odd/odd parity, 32 bit, 26 bit), Mag stripe emulation, Clock/Data, RS232 (9600,n,8,1) with both EIA compatible levels and TTL levels
- Continuous output with tag in field or single transmission
- Typical read range: 50 mm for ISO cards, 20 mm for tags
- 3 indicator LEDs (RED, YELLOW, GREEN), controlled by user
- Beeper (4 kHz tone) controlled by user, additionally emits a 50 ms beep when card is read
- Operating temperature range: -20 °C to +60 °C
- 10 way cable: 1m long
- Weight: 95 grams
- Dimensions: Reader 89 x 45 x 17 mm, optional spacer plate 89 x 45 x 7 mm

Physical Dimensions and Mounting Details



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 recommended hole size of 7.5 mm must be drilled in the wall at the cable exit position 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

Colour	Name	Function
GREY	PRESENT	Open collector output, drives low during certain selected output formats
WHITE	CLOCK/DATA0/TX	Open collector output, tag data in selected format
BROWN	DATA/DATA1	Open collector output, tag data in selected format
YELLOW	YELLOW LED	Input, controls YELLOW LED in LED Mode 1, active low
ORANGE	RED LED	Input, controls RED LED in LED Mode 1, active low
GREEN	GREEN LED	Input, controls GREEN LED in LED Mode 1 and both RED and GREEN LEDs in LED Mode 2, active low
BLUE	BEEPER	Input, controls BEEPER, active low
PURPLE	RS232 TX	Output, RS232 Tx, EIA compatible levels/polarity
RED	+VDC	Power, connect to positive of power supply (+5V to +13.6V)
BLACK	0V	Power, connect to 0V of power supply

Note. Open collector outputs are pulled high internally to +5V through 10k resistors. Inputs are pulled high internally and require to be taken low to control the beeper and LEDs, they may be left floating if unused.

Output Mode Selection

SW1	SW2	SW3	SW4	Output format
ON	ON	ON	ON	Inhibit – RF field off
ON	ON	ON	OFF	RS232 – 24 bit
ON	ON	OFF	ON	RS232 – 32 bit
ON	ON	OFF	OFF	RS232 – 56 bit
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 – even/odd parity
ON	OFF	ON	ON	Wiegand 32 – no parity
OFF	OFF	OFF	ON	Wiegand 34 bit – even/odd parity
ON	OFF	ON	OFF	Wiegand 34 bit – odd/odd parity
OFF	OFF	OFF	OFF	Wiegand 44 bit
ON	OFF	OFF	ON	Wiegand 66 bit – odd/even parity

LED Mode Selection

LED Mode	SW5	Function
1	ON	3 Individual LEDs each controlled by their own input
2	OFF	RED/GREEN with single control line (GREEN). Floating/High control input → RED LED on and GREEN LED off, pulled low → RED LED off and GREEN LED on YELLOW LED is always off

Continuous/Single Transmission Mode Selection

Mode	SW6	Function
Continuous	ON	While a tag is in the field the reader continuously transmits the tag ID in the selected format. Repetition rate is format dependant but varies between 80ms to 260ms
Single	OFF	When a tag enters the field the output is transmitted once only. Tag must be removed from the field for at least 1 second before tag can be re-read and output transmitted