

### Product Features

Designed to embrace cutting-edge RFID technologies in a stylish and innovative package, this advanced access control reader offers a refreshing breakthrough in the access security marketplace. Shaped in a sleek mullion style design, the reader may be mounted to most plain wall finishes.

This powerfully secure and innovative reader has a beautifully clean aesthetic, and a bright RGB LED that can be applied to many applications such as colour coded access levels, migration status or mood lighting.

The reader housing is moulded using tough polycarbonate plastic, and includes a shadow-line backplate, a subtle and simple mechanical design feature that makes the reader, when fixed, appear to float against the wall.



- 125KHz Proximity
- 13.56MHz Smart Contactless
- Bluetooth LE
- Black textured moulding
- Slim profile
- RGB LED
- Fully encapsulated electronics
- Wide range of output formats
- 5 year limited warranty
- Read range up to 10cm (4 inches)

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**E&OE**

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**FC** These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.  
**UTJ-AV90**


*Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

These devices contains: **FCC ID: TCZ-10103751G1**

**SECURITY**  
**UL** **EQUIPMENT**  
**LISTED** \*\*\*\*\*

**CE** These RFID proximity readers comply with the essential requirements and relevant provisions of:  
EU Directive 2014/53/EC

**ROHS** Together with information provided by suppliers and subcontractors, these devices comply with the requirements and relevant provisions of:  
EU Directive 2011/65/EC

 This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of your waste equipment by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment. By separating and recycling your waste equipment at the time of disposal you will help to conserve natural resources and ensure that the equipment is recycled in a manner that protects human health and the environment.  
EU Directive 2012/19/EC

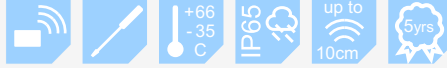


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## 1. parts list

- 1 x reader MODULE
- 1 x reader BACKPLATE
- 1 x 3 x 10mm black cross-head securing screw

## 2. specification



### performance level for access control

This product complies with the following UL294 Access Control Performance Levels:

Destructive Attack	Level I
Line Security	Level I
Endurance	Level IV
Standby Power	Level I

See the UL Listed access control unit controller installation instructions for reader compatibility.

UL Ref. Number                    ??????

### environmental

Operating Temperature	-35°C to +66°C	(-31°F to + 151°F)
Humidity	85 ±5% at 30 ±2°C	(86 ±3°F)
Ingress Protection	IP65	(not evaluated by UL)
Positioning	Suitable for INDOOR and OUTDOOR use.	

### electrical

Power supply	Power is to be provided by a UL294 Listed, low-voltage Class 2 power limited supply or control panel, capable of 4 hours standby.
Voltage	+10Vdc to +16Vdc
Current	70mA typical
Data Voltage	Rest >4Vdc / Active <1Vdc
Data Output	Wiegand, Clock & Data, Custom Outputs
Indication	1 RGB LED
Sounder	Integral speaker

### dimensions

96mm x 52mm x 21mm (3.8 x 2.1 x 0.8 inches)

### polymeric materials

Potting compound	UL R/C (QMFZ2)
Mouldings	UL746C

### wiring

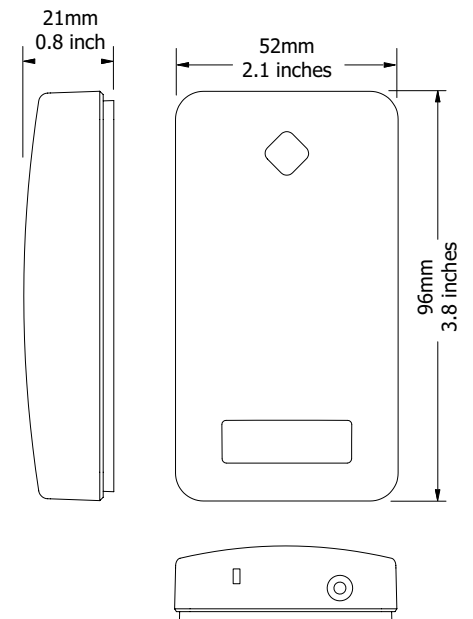
**Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction.**

Recommended cable	BELDEN 953x (or equivalent UL listed) - Wiegand BELDEN 9502 (or equivalent UL listed) - RS485
Cable length	All cable and wiring must be Listed and suitable for use. Cable length must not exceed 30 metres maximum (98.5 feet) for UL
Minimum permissible wire size	not less than 26 AWG (0.24mm <sup>2</sup> )

### connections

Screw terminal (All readers in this series use this terminal connection)

	1 - 0V	Supply voltage ground
	2 - +Vdc	Supply voltage (+10Vdc to +16Vdc)
	3 - DATA1/CLK	Wiegand or Clock/Data output
	4 - DATA0/DAT	Wiegand or Clock/Data output
	5 - GREEN	Green LED control input
	6 - RED	Red LED control input
	7 - Buzzer	Buzzer control input
	8 - TMPR/CP	Tamper or Card Present output
	9 - RS485-	RS485 Bus
	10 - RS485+	RS485 Bus



### 3. installation guide

1

Remove module securement screw. Lever bottom edge of reader module away from the backplate, and lift up.

2

Fix reader BACKPLATE to a plain surface finish, using suitable screw fixings having a diameter no greater than 4mm (0.15 inch).

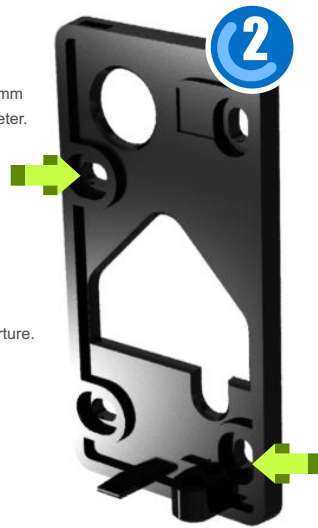
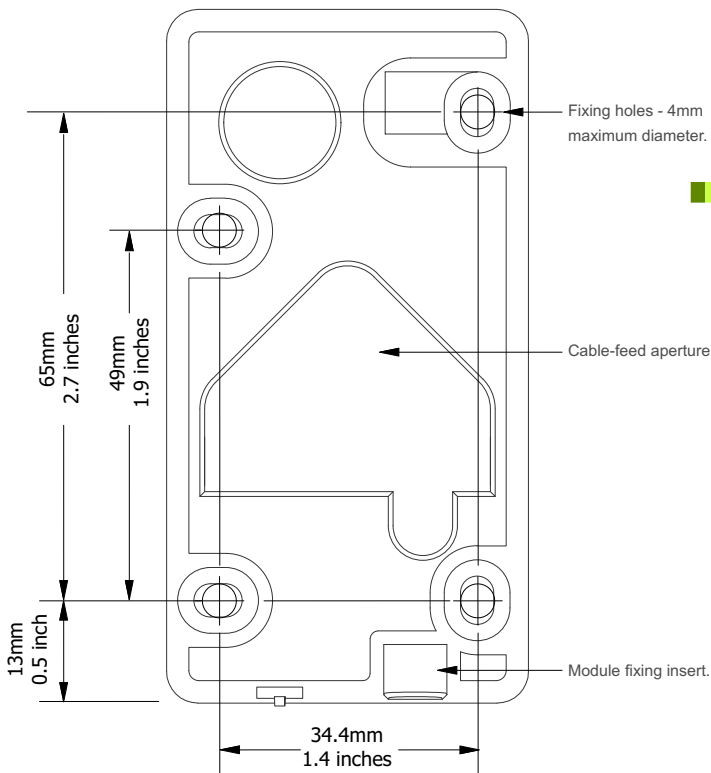


If printed full scale, you may use the drawing below as a fixing template.

**MEASURE and CHECK DIMENSIONS before use.**

NOTE:

Mounting this reader on (or near) metal may impair the read range of the unit.



Once the backplate is secured, make wire connections to the reader, in accordance with the screw terminal connections shown on Page 3 of this document and your control panel requirements. Ensure the cable does not impair or prevent the reader module being secured.



3

Fasten the reader module, ensuring the top-edge fixings engage correctly with the recesses at the top of the backplate. Swing the bottom edge of the module down and forward until you feel the unit 'snap' shut. Secure the module to the backplate using the M3x10mm screw supplied.

*If required, you may opt to use a security screw to the sizes shown here.*



Following installation, it is recommended the access control system and control units are subjected to a maintenance and operational test procedure.

**TEST COMPLETE SYSTEM AT LEAST ONCE A YEAR**

