

Introduction

The EXsmart2 and MIFARE Mullion are high performance contactless MIFARE smart card reader available with or without a backlit tactile keypad. It has a read range up to 5cm and can be mounted internally or externally. The EXsmart2 is also compatible with a standard electrical back-box. All of the readers have a fully-encapsulated design provides protection against water ingress.

EXsmart2 and MIFARE Mullion are compatible with all standard control panels.

For technical assistance, contact TDSi Support.

EXsmart²

EXsmart² 5002-0435
 EXsmart²k 5002-0436
 MIFARE Mullion 5002-0440U

Mounting

All the readers be fixed directly to the mounting surface but only the square readers will fit onto a standard electrical back-box (not supplied) to allow adequate clearance for the connection terminal block.

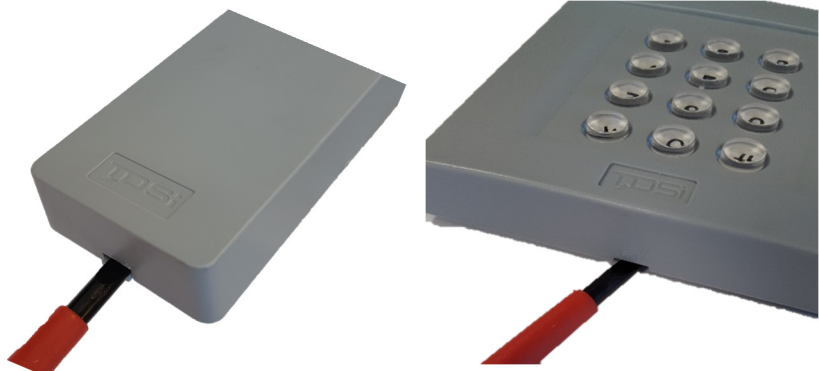
- 1 Connect all wires to the relevant connections for the reader (see over page).
- 2 Drill and screw the reader directly to the wall or Knock-out access for the cable in the rear of the electrical back-box, fit the back-box into the wall, and run the cable through the back box
- 3 Place the cover over the reader and gentle apply pressure to push the cover back until it is locked in placed.
- 4 If the reader is to be mounted externally, apply a bead of non-caustic sealant between the top and side edges of the reader and the mounting surface



Note: Do not apply sealant between the bottom edge and the mounting surface.

Removal of Front Cover

To remove the front cover once it has been fitted, Insert a flat blade such as a screwdriver into the slot as shown and lever the cover away from the base.



Connections

The MIFARE Mullion is supplied pre-wired whereas the EXsmart² has a terminal block plug allowing you to pre-wire the connection. It supports all standard access control standards including TDSi's MICROgarde, Excel, EXpert and EXpander control panels. Although any 6 core screened cable could be used TDSi recommend 7/0.2 screened e.g. Beldon 9730 (max. cable length 150m when used with MICROgarde I and MICROgarde II, EXcel, EXpert, EXpander Controllers).

| Reader Terminal PIN | Cable Colour | Function | MICROgarde | | EXcel ² , EXpert ² , EXpander ² | | Excel ⁴ | | | | Non-TDSi Controllers | |
|---------------------|--------------|-----------|------------|-----|--|----|--------------------|----|----|----|-----------------------------------|---------|
| | | | 1/3 | 2/4 | 1 | 2 | 1 | 2 | 3 | 4 | Mag strip | Wiegand |
| 1 | Red | +12V DC | 26 | 26 | 30 | 30 | 17 | 28 | 28 | 44 | +9 to 16V DC 75mA Max | |
| 2* | Black | 0V | 27 | 27 | 29 | 43 | 18 | 29 | 29 | 45 | 0V | |
| 3 | Yellow | Mag Data | 23 | 28 | 24 | 38 | 14 | 25 | 30 | 41 | Mag data | Data 0 |
| 4 | White | Mag Clock | 24 | 29 | 25 | 39 | 15 | 26 | 31 | 42 | Mag clock | Data 1 |
| 5 | | | | | | | | | | | Card Present | Hold |
| 6 | | | | | | | | | | | Green LED on when connected to 0V | |
| 7 | Blue | Red LED | 25 | 30 | 27 | 41 | 16 | 27 | 32 | 43 | Red LED on when connected to 0V | |
| 8 | | | | | | | | | | | Buzzer on when connected to 0V | |

* IMPORTANT: The cable screen MUST be connected to ground at one end of the cable only, preferably at the Controller end, with the controller connected to a good ground. If the reader is fitted onto metal such as a metal pillar then screen or ground the reader only at the reader end and not at the Controller.

Reader Rear Dip Switch Settings

| SW 1 | SW 2 | Function or connection to TDSi controllers |
|------|------|---|
| OFF | OFF | Expert, Excel, Expander Controllers and Reader 1 & 2 only of MICROgarde |
| OFF | ON | Reader 3 & 4 of MICROgarde only |
| ON | OFF | Wiegand 26-bit |
| ON | ON | Factory Mode ¹ |

¹ Reader Configuration cards available from TDSi

Specifications

| | |
|---------------------------------|---|
| Temperature range | -20 °C to +55 °C |
| Humidity range | 5-95% non-condensing |
| Dimensions EXsmart ² | 102 x 102 x 20mm |
| Dimensions Mullion | 102 x 40 x 20mm |
| Power | 9 -16V DC 75mA Max |
| Operating Frequency | 13.56 MHz, 106kBaud |
| Interface | Mag-strip (Clock & Data) Track 2 ABA, Wiegand 26-bit, Factory Mode Programmable ¹ |

TDSi
Unit 10 Concept Park
Innovation Close
Poole
Dorset
BH12 4QT, UK

Tel: +44 (0) 1202 723535
Fax: +44 (0) 1202 724975

Sales Enquiries: Sales@tdsi.co.uk
Marketing Enquiries: marketing@tdsi.co.uk
Technical Enquiries: support@tdsi.co.uk