3millID®

INSTALLATION GUIDE

SPECIFICATIONS

Performance Level for Access Control

This product complies with the following UL 294, 7th edition Access Control Performance Levels:

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

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

Environmental

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

Electrical

Power supply	Power is to be provided by a UL 294 Listed, low-voltage Class 2 Limited Power Supply or controller, capable of 4 hours standby.
Voltage	+10Vdc to +16Vdc

Current: maximum average measured at 10Vdc

Model	Part No.	Normal Standby	Operating
Mullion	3MIL-R11330-NB	60mA	75mA
Single Gang	3MIL-R11320-NB	60mA	75mA
S-Gang Keypad	3MIL-R11325-NB	65mA	100mA

Data Voltage	Rest >4Vdc / Active <1Vdc
Data Output	Wiegand, Open Supervised Device Protocol (OSDP), OSDP Secure Channel (SC)
Indication	1 RGB LED + RGB LED illuminated keypad to: 3MIL-R11325-NB
Sounder	Integral speaker

www.3millid.com

Specifications subject to change without notice.

100-03060-A

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

Supported Card Technologies in Multi-Tech Modes

125kHz proximity cards	13.56MHz smart cards
- HID® Proximity	- MIFARE® DESFire® EV1/EV2

Supported Card Technologies not evaluated by UL.

- AWID® Proximity
- CASI/GE Security ProxLite
- MIFARE Classic® - ISO 14443
- Vicinity Card Serial Number - ISO 15693

Dimensions

Model	Part No.	Size - Inches (millimetres)
Mullion	3MIL-R11330-NB	3.8 x 2.1 x 0.8 in (96 x 52 x 21)
Single Gang	3MIL-R11320-NB	4.7 x 3.0 x 0.8 in (120 x 76 x 21)
S-Gang Keypad	3MIL-R11325-NB	4.7 x 3.0 x 0.8 in (120 x 76 x 21)

Wiring

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

Cable length	Up to 492 feet (150m) from controller.

Recommended for Wiring

Cable type	BELDEN 953x (or equivalent UL listed) for Wiegand. BELDEN 9502 (or equivalent UL listed) for RS-485.
Minimum wire size	Not less than 24 AWG.
Shielding	Connect the reader's ground wire to cable shielding and connect shield wires at the microcontroller.

All cables and wiring must be UL listed and suitable for use.

Installation

Installation of readers should be carried out by a suitably qualified engineer.
Readers are certified to be installed up to a height of 2 metres (approximately 79 inches).
It is recommended to install readers at a height of between: 1.2 metres - 1.5 metres (approximately 47 - 59 inches).

3millID®
Mullion

3MIL-R11330-NB

SE DESFire®
+
Proximity reader

3millID®
Single Gang

3MIL-R11320-NB

SE DESFire®
+
Proximity reader

3millID®
S-Gang Keypad

3MIL-R11325-NB

SE DESFire®
+
Proximity reader

FC
2AKUW-AV90

ISED
C-21595
C-21596
C-21597

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.

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

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

SECURITY
c UL us
LISTED
TYPE S
BP21018

RoHS compliant

Together with information provided by suppliers and subcontractors, these devices comply with the requirements and relevant provisions of:

EU Directive 2011/65/EC.

CE

These RFID proximity readers comply with the essential requirements and relevant provisions of:

EU Directive 2014/53/EU

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/EU

Scan here to download this INSTALLATION GUIDE or go to:
https://www.3millid.com/support/reader-installation-guides/

'MIFARE', 'MIFARE Classic' and 'MIFARE DESFire EV2' are trademarks of NXP B.V.

Please turn over for general wiring diagrams

The illustrations and notes:

1 to 6

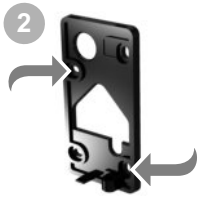
are provided as a general guidance for mounting, fixing and connecting the **3MIL** series of RFID readers.

Consult your installer and the manufacturer 's details of your controller when configuring your access security system.

1

Pull bottom edge of reader module away from the backplate, and lift up.

2



Mount the reader backplate to a flat surface using suitable hardware having a diameter no greater than 0.15 in (4mm).

3 Reader terminal connection call-outs.

1	0V
2	+Vdc
3	DATA1/CLK
4	DATA0/DAT
5	GREEN
6	RED
7	BUZZER
8	TMPR/CP
9	RS485 -
10	RS485 +

Use the appropriate READER to INTERFACE wiring installation diagram below.

4

Position the reader module, ensuring the top-edge fixing lugs engage correctly with the recesses located at the top of the backplate.

5

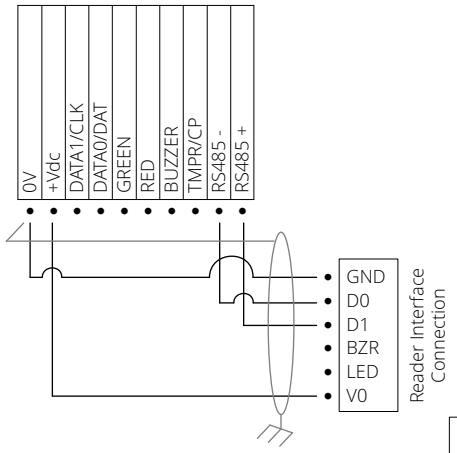
Swing the bottom edge of the module down and forward until you feel the unit click shut.

6

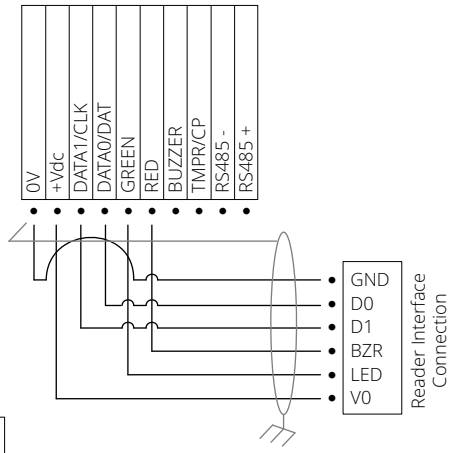
Secure the reader module to the backplate using the M3x10mm screw as supplied. If required, use a security screw.

READER to INTERFACE wiring installation diagrams

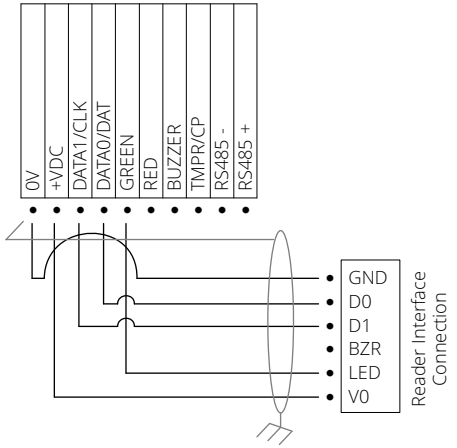
OSDP (Preferred)



WIEGAND 2-wire



WIEGAND 1-wire (2 wire is recommended)



Connect reader cable drain shield to earth ground.

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https://www.3millid.com/support/reader-installation-guides/

LED Behaviour TABLE — Expected LED Behaviour based on above Reader to Interface wiring

Card Reader Modes		OSDP		WIEGAND			
OnGuard Software Setting for Mode		(Preferred wiring)		2-WIRE LED		1-WIRE LED	
1	Card and PIN	1	Blinking Red to Blinking Yellow	1	Red and Blue - Alternating	1	Solid Blue
2	Card Only	2	Blinking Red	2	Red and Blue - Alternating	2	Solid Blue
3	Card or PIN	3	Blinking Red	3	Red and Blue - Alternating	3	Solid Blue
3b	PIN only	3b	Blinking Red to Solid Yellow	3b	Red and Blue to Solid Yellow	3b	
4	Cipher Lock emulation	4	Blinking Red	4	Red and Blue - Alternating	4	Solid Blue
5	Facility Code mode	5	Blinking Red	5	Red and Blue - Alternating	5	Solid Blue
6	Locked	6	Solid Red	6	Solid Red	6	Solid Blue
7	Unlocked	7	Solid Green	7	Solid Green	7	Solid Green
8	Default State when Powered On line	8	Red and Blue - Alternating	8	Red and Blue - Alternating	8	Red / Green / Blue then Solid Blue
9	Access Granted	9	Blinking Green (2-Beeps)	9	Green and Blue - Alternating	9	Green and Blue - Alternating
10	Access Denied	10	Solid Red (3-Beeps)	10	Solid Red	10	Blue (Flashes for a second)
11	Waiting for PIN	11	Blinking Yellow	11	Flashing Yellow	11	Blue and Yellow - Alternating
12	Waiting for Second Card	12	Blinking Green	12	Green and Blue - Alternating	12	Green and Blue - Alternating