

Proximity Card Reader

Bulletin SS06044 Issue/Rev. 0.6 (9/17)

Access Control Accessory Built for AccuLoad®

The Smith Meter® Card Reader is an RF-based proximity reader interfaced to a microprocessor-based device capable of interpreting multiple card formats and transmitting card data to the AccuLoad or directly to an automation system.

Reader Features

- » Mounts to front of AccuLoad N4 or Split Architecture MMI for Division II approved areas
- » LED (red, green, yellow), buzzer, and relay, all of which can be controlled remotely by an automation system
- » Interfaces directly with AccuLoad or the automation system
- » Card authorization valid until programmable timeout expires (1-99 minutes)
- » Uses serial communications port (EIA-232 / 485) and Smith protocol communications
- » Available for N4 (Division II approved areas) or hazardous locations (Division I approved areas)

Card Features

- » Universal compatibility with HID Readers
- » External number for easy identification and control
- » Custom pre-printed artwork available
- » Meets ISO standards for thickness
- » Approved for hazardous locations operations

Applications

The Smith Meter Proximity Card Reader provides a high performance and reliable method of identifying drivers and users to either the AccuLoad or directly to an automation system. It is ideal as either a gate reader or an island reader.



Specifications

Electrical Inputs

DC Instrument Power:

- 24 Vdc, 35 mA
- 12 Vdc, 70 mA

Electrical Outputs

DC Output:

- Type: Optically-isolated solid state output.
- User-programmable as to function.

Polarity: Programmable (normally open or normally closed).*

Switch Blocking Voltage: 30 Vdc maximum

Load Current: 150 mA maximum with 0.9 volt drop (6 Ω typical)

Note: *Power-down normally open.

Card Interface

Excite Frequency: 125 kHz

Typical Read Range: Within up to 2" (5.08 cm) of glass

Environment

Ambient Operating Temperature

-40°F to 140°F (-40°C to 60°C)

Humidity

0 to 95% non-condensing

Reader Approvals

North America UL/CUL – XP Housing

Class I, Division 1, Groups C & D, Class II, Groups E, F and G; UNL-UL Enclosure 4X, CNL-CSA Enclosure 4, IP66

Class I, Zone 1, Group IIB

Class I, Zone 1, AEx d IIB T6

Exd IIB T6 Tamb = -40°C to +60°C

UL/CUL File E23545

European ATEX – XP Housing

Ex d IIB T6 Gb, IP66

DEMKO 03 ATEX 0252381

Global: IECEX – XP Housing

Ex d IIB T6 Gb, IP66 Tamb = -40°C to +60°C

IECEX UL 14.0046

North American UL/CUL – N4 Housing

Class I, Division 2, Groups C&D, Class I, Zone 2, Group IIB, UNL-UL ENCL. 4X, CNL-CSA ENCL. 4

Electromagnetic Compatibility

Complies with the European Community Electromagnetic Capabilities (CE Mark) Requirements as per European Directive 2014/30/EU.

Communications

General

Configuration: EIA-485 four wire (or two-wire) multi-drop network or EIA-232 three-wire communications link.

Data Rate: Programmable asynchronous data (baud) rate of 2400, 4800, 9600 or 19,200 bps.

Data Format: Fixed at one start bit, one stop bit, eight data bits, no parity

Line Protocol: Half-duplex, full-duplex, no character echo.

Protocol: Smith Meter ASCII LRC.

EIA-232

Type: Interfaceable with EIA-232 data communication standards. Data transmitters are tri-state design.

Up to 8 devices can be connected to the same transmit and receive data lines.

EIA-485

Type: Interfaceable with EIA-485 data communication standards.

Number of units per communication line: Up to 16 devices can be connected to the same transmit and receive data lines.

Card Specifications

Typical Read Range: Within 2" (5.08 cm) of glass

Dependent on installation conditions

Dimensions:

2.1" (5.4 cm) x 3.4" (8.6 cm) typical

Operating Temperature:

-40°F to 160°F (-40°C to 70°C)

Weight:

0.24 oz. (6.8 gm)

ID Numbers:

Five digits

Options:

Custom Artwork, one side only (text or graphics).

Contact factory for details

Approvals:

Approved/Certified/Listed Hazardous Location Cards only available from SMI

European:

Ex ib IIB T6 Gb Tamb = -40°C to +60°C

DEMKO 03 ATEX 0252381

Global: IECEX

Ex ib IIB T6 Gb Tamb = -40°C to +60°C

IECEX UL 14.0046

North America:

Intrinsically safe card for use in Class I, Division 1, Groups C and D, Class II, Groups E, F and G; Class I, Zone 1, AEx ib IIB T6; Class I, Zone 1, Ex ib II B T6.

Card Reader Modeling

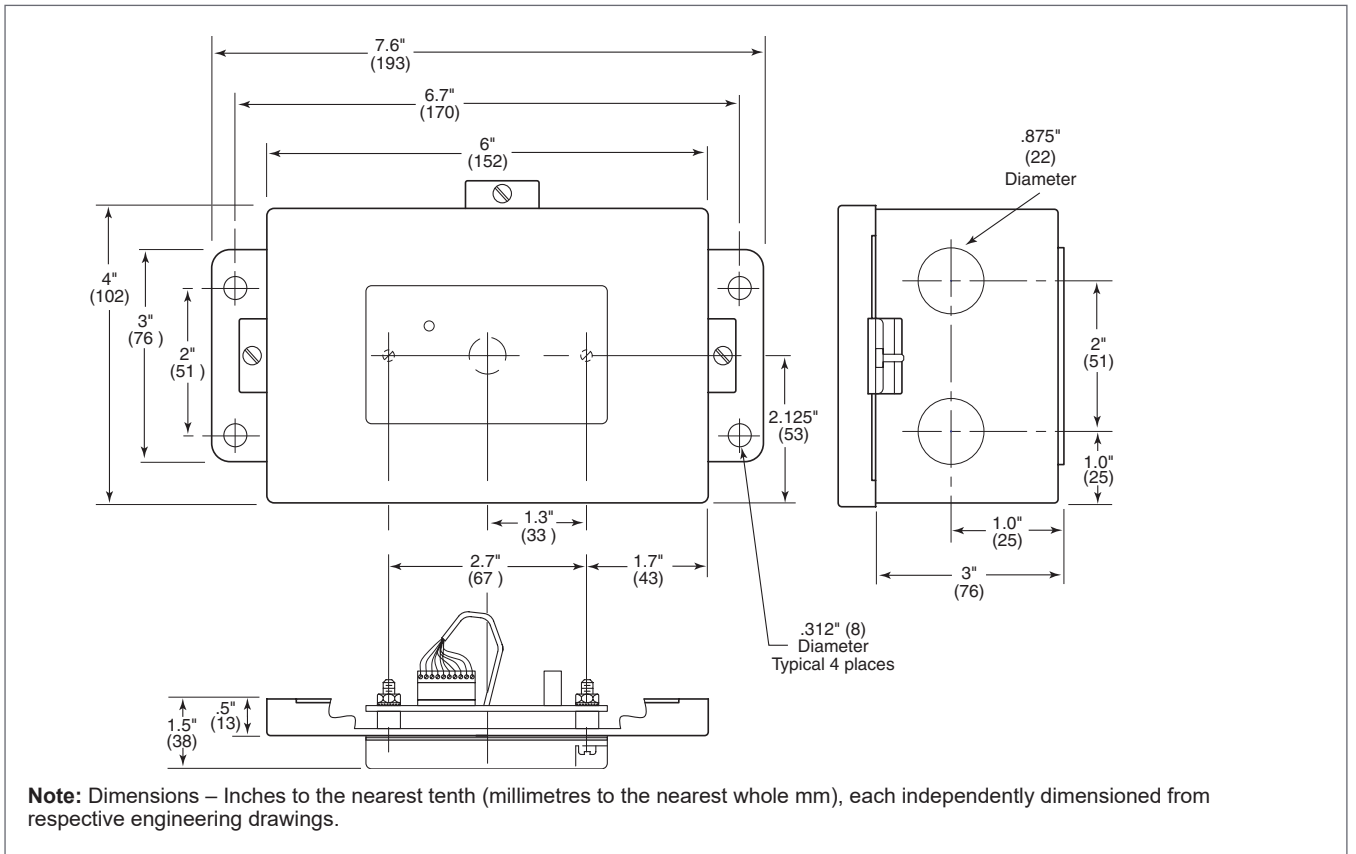
<p>Model Designation</p> <p>Proximity Card Reader</p>	<p>Housing</p> <p>XP - UL/CUL, ATEX, & IECEX N4 - UL/CUL</p>
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Proximity Card Modeling

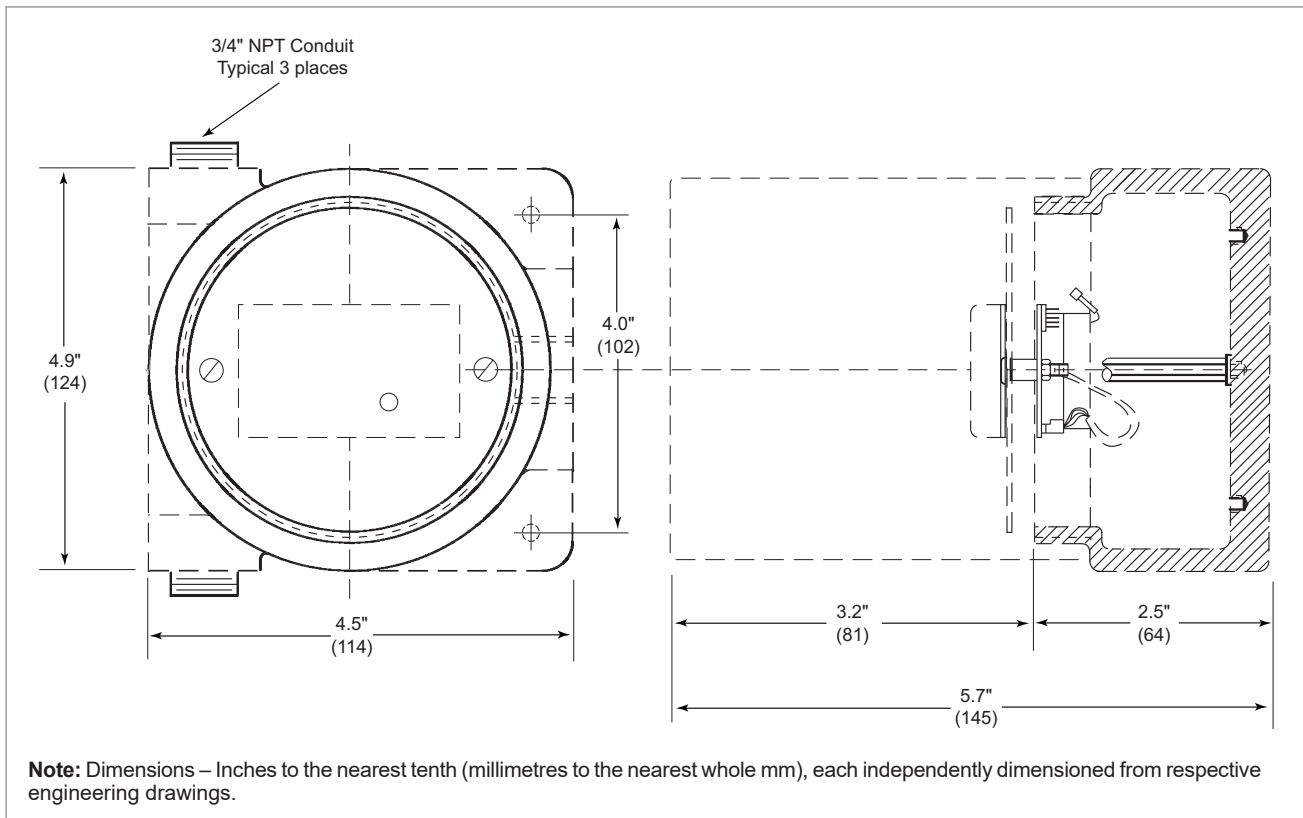
<p>Model Designation</p> <p>Proximity Card - PC</p>	<p>Printing</p> <p>STD - Blank CF - Custom Artwork</p>
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Intrinsically Safe
IS - Intrinsically Safe

Dimensions – General Purpose N4 Card Reader



Dimensions (Continued) – XP Card Reader



SS06044 rev. 0.6 - Key Fob removed; Approvals updated.

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

Contact information is subject to change. For the most current contact information, visit our website at www.fmctechnologies.com/measurementsolutions and click on the "Contact Us" link in the left-hand column.