



VICON ACCESS CONTROL

Readers and Cards



Overview

Vicon's series of proximity readers set the electronic security benchmark for 125 kHz readers. Based on proven contactless digital radio frequency identification (RFID) technology, the readers interface with Vicon Access Control (VAX) system by complying with the Wiegand communication protocol. They offer value added features such as MAXSecure™, that provides increased security of data, and fleaPower™ to help conserve energy.

The readers support a number of VAX proximity card and tag technologies. These cards and tags are passive devices, eliminate maintenance by requiring no battery and can be ordered to support several proximity reader technologies. Refer to the Ordering Information table for details on all models.

Product at a Glance

- ▶ Reader models with read ranges of up to 5, 7 or 8 in.
- ▶ 125 kHz frequency
- ▶ Supports Wiegand output interface
- ▶ Mounts to single gangbox or door and window frames (mullion), model dependent
- ▶ Model available with integrated keypad
- ▶ IP67 rated
- ▶ Powered by 12 VDC

Specifications

Proximity Readers

Model	VAX-300R	VAX-500R	VAX-600KP
Technology:	Proximity		
Frequency:	125 kHz		
Read Range ⁴ :	Up to 6 in. (152 mm)	Up to 8 in. (203 mm)	Up to 7 in. (176 mm)
Interface:	Wiegand ABA Track II		Wiegand
Keypad Output:	NA		Wiegand
Audio Tone:	Beeper included standard		
LED:	Four-state standard (red, green, amber and off)		
Cards Supported ⁶ :	Vicon VAX cards and tags, including VAX-CRD-SD, VAX-CRD-MT and VAX-PRX-TAG		
Voltage ³ :	+5 - 16 VDC; linear power supply recommended		
Current:	30 mA typical, 75 mA peak @12 VDC	35 mA typical, 75 mA peak @12 VDC	70 mA typical, 110 mA peak @12 VDC
Cabling ⁵ :	24 AWG minimum, multi-conductor stranded with an overall foil shield (ex. Belden 9535 or similar)		
Mounting:	Mullions, including metal door and window frames and flat surfaces	Metal or plastic US single wall gangbox and flat surfaces	
Dimensions (W x H x D):	1.7 x 3.2 x 0.7 in. (43 x 81 x 18 mm)	3 x 4.6 x 0.4 in. (76 x 117 x 10 mm)	3 x 4.6 x 0.75 in. (76 x 117 x 19 mm)
Weight:	3 oz (85 g)	4 oz (113 g)	4 oz (113 g)
Color Options:	Black; white snap-on cover included (standard)		
Indoor/Outdoor Installation:	Electronics sealed in weather- and tamper-resistant epoxy potting		
Operating Temperature:	-40° F to 149° F (-40° C to 65° C)		
Certifications:	FCC, ICC, CE, C-Tick, UL standard 294 ¹ ; IP67 ²		

NOTES:

1. Carrying the ETL Label and tested by Intertek; conforms to UL Standard 294.
2. Self evaluated.
3. Linear power supplies are recommended for best operation.
4. Using VAX-CRD-SD with 12 VDC at the reader. Other credentials may be less. Read ranges are further subject to the type of proximity credential or smartphone, as well as the manner in which it is used and the installation and its environment.
5. For example, Belden 9535 or similar, supporting the five conductors comprising the physical layer of the Wiegand interface (power, ground, data 0, data 1, and/or beeper and LED). Alternatively, Belden 9539 or similar, for all reader functions. Contact your access control system manufacturer for their specific requirements.
6. Examples include, but are not limited to, VAX-CRD-SD, VAX-CRD-MT and VAX-PRX-TAG.

Specifications

Proximity Cards

Model	VAX-CRD-SD	VAX-CRD-MT	VAX-PRX-TAG
Technology:	Proximity		
Frequency:	Excitation (125 kHz)		
Read Range:	Up to 4 in. (102 mm)	Up to 4 in. (102 mm)	Up to 3.5 in. (88 mm)
Formats:	Wiegand (26-bit and custom formats), ABA Track II magnetic stripe (clock and data)		
Operation:	Passive (no battery)		
Marking:	Date code and ID		
Type:	Clamshell style	Dye sublimation	Fob style (key tag)
Slot Punch:	Standard vertical slot	Vertical and horizontal indicators	Built-in eyelet
Imaging:	Use a glossy adhesive overlay for color dye sublimation printing or print directly on card	Supports dye sublimation imaging	N/A
Color:	Off white	White	Gray
Dimensions:	2.2×3.4×0.06 in. (56×86×1.5 mm)	2.1×3.4×0.031 in. (53×86×0.79 mm)	1.2×1.5×0.15 in. (30×38×3.8 mm)
Operating Temperature:	-35° F to 122° F (-37° C to 50° C)		

Ordering Information

Model Number	Description
VAX-300R	PROXIMITY READER; designed to be mounted to door or window frames (mullion); up to 6-in. reading range
VAX-500R	PROXIMITY READER; designed to be mounted to a standard single gangbox wall switch box up to 8-in. reading range
VAX-600KP	PROXIMITY READER; Integrates both a proximity reader and keypad; designed to be mounted to a standard single gangbox wall switch box up to 8-in. reading range
Proximity Cards	
VAX-CRD-SD	PROXIMITY CARD; clamshell style; non-graphic
VAX-CRD-MT	PROXIMITY CARD; ISO style; dye sublimation imaging
VAX-PRX-TAG	PROXIMITY FOB; small tag designed to be carried on a key ring

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Specifications subject to change without notice.

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