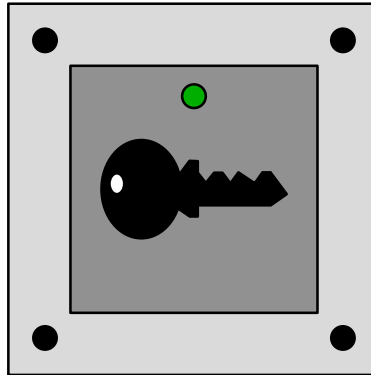


READYKEY® K2025

Panel Mount Reader Installation Datasheet



Description

The Panel Mount Reader consists of a black housing, which contains the reader electronics, with a four conductor cable, and a four piece reader head circuit board assembly. The reader head circuit board assembly is designed to be installed in a 1.575 inches by 1.575 inches (40 mm by 40 mm) cut-out inside an enclosure such as a door entry panel, alarm enclosure box or flush mounted on masonry, drywall or other surfaces. The housing can be installed up to 20 inches (500 mm) away from the reader head circuit board and up to 3000 feet (1000 m) away from a Readykey door controller.

Items Enclosed:

- Panel Mount Reader & Head
- 4 x Terminal screws
- MOV for Electronic Lock EMI Suppression if necessary
- Lexan Window & Backplate
- Reader Label

Dimensions: H x W x D

- Reader Electronics Housing Module: 3.625 x 3.625 x 0.591 inch (92 x 92 x 15 mm)
- Reader Head: 2.364 x 2.364 x 0.473 inch (60 x 60 x 12 mm)

Specification

- Maximum Reading Range: 0.394 inch (10 mm)
- Operating Temperature: -40°F to 122°F (-40°C to +50°C)
- Current: 100 mA (maximum)
- Supply Voltage: 9-20v DC (supplied by door controller)
- Cable Type: 4 or 6-conductor, multi-stranded, unscreened

Cable Gauge and Distances:

- up to 200m / 600 feet 0.22mm², 7/0.2 24 AWG
- up to 500m / 1500 feet 0.5mm², 16/0.2 20 AWG
- up to 1000m / 3000 feet 1.0mm², 32/0.2 18 AWG

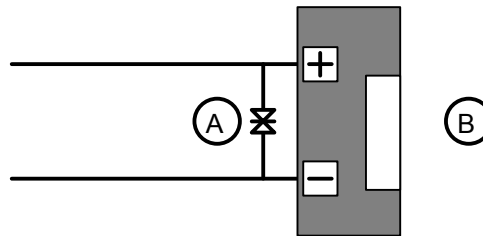
Reader Wiring

Door Controller:	Reader:
GND	-V
SIG	SIG
DR1	n/c
DR2	n/c
LED	VCA
+18v	+V

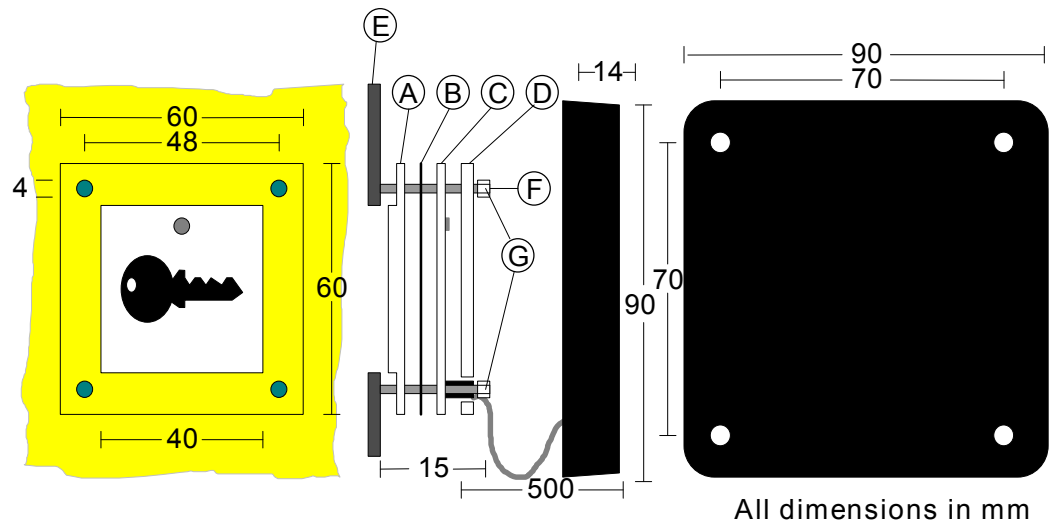
Note: The wiring and location of readers is fully described in the K2100/K1100 Installation Manual supplied with every Readykey door controller.

MOV - Lock Suppression

A metal-oxide-varistor (MOV) is provided with each K2025 reader. This device prevents back e.m.f. ('spikes') being returned from the electric lock to the door controller. This is commonly included with the electronic locking device but may be necessary to be installed because e.m.f. can cause severe damage over a period of time, and erratic operation of the system if not controlled.



The MOV (A) should be installed across the power terminals of the lock (B). It can be connected across the lock outputs on the door controller, but this will be less effective.



All dimensions in mm

Panel Mount Reader - Installation

This reader is designed to be mounted in a steel panel (E), such as used in a door-entry system. There are two main units; the main housing module, a black rectangular unit containing the reader electronics, connected by a cable to the reader head. The cable between the two parts is tuned to an exact length, it measures an approximate 20 inches (500mm) long and should not be cut, extended or shortened or the reader may not operate properly.

Panel Opening Mounting Requirements

The reader head is designed to fit into a 1.562 inch (40mm) square hole. Holes on the reader head are 1.875 inches (48mm) between centers for the mounting screws (F). The screws should be at least .625 inches (15mm) long if other styles are to be used. The front cover (A) is designed to protrude .0937 inches (2.5mm) through the opening.

Locating the MainReader Electronic Housing

Mount the reader housing in a convenient place behind the panel opening. The holes in each corner will accept No. 6 screws. Ensure that the housing is close enough to the reader head to allow the panel to be removed without straining the attached connecting cable. Wire the Module to the door controller in the same fashion as all other Readykey style readers. This is described in the K2100/K1100 Door Controller Installation Manual.

Mounting the Reader Head

There are 4 components to the reader head:

1. Remove the protective film from the front Lexan window (A). Mount the reader head so that the center fits through the opening, with the shallow slot to the bottom.
2. Remove the backing from the 'Key' label (B), and attach to the reader head circuit board (C), the clear hole should align with the green LED.
3. Place the circuit board (C) and label over through the mounting screws against the window with the cable facing away from the opening.
4. Attach the rear Lexan cover (D) and clamp using the mounting screws and nuts to hold in place (G).

General Tips

- The cable distance from door controller to reader should never exceed 3000 feet (1000m), always use the correct gauge.
- If using a Request to Exit switch, ensure that the wiring is not accessible if the reader is removed.
- Ensure that the LED is always visible to the keyholder.