

IR Eye5 Infrared Transceiver

Product Guide – Eye5
Part Number 02-9467
Revision 1, Issued
10/16/06

Overview

The IR Eye5 is a general purpose, low-voltage infrared (IR) transceiver developed to communicate and function with INNCOM's System-5 devices, protocols, and applications.

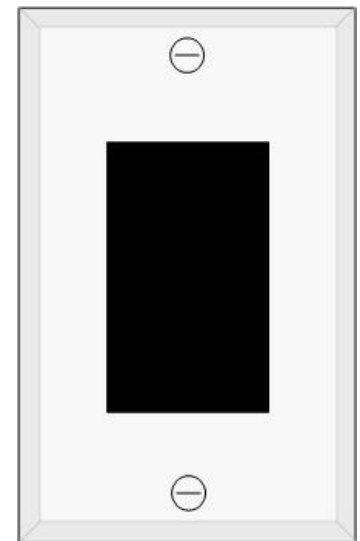
The IR Eye5 is used to integrate INNCOM System-5 components wirelessly in the guestroom. The device can be either surface mounted or mounted in an electrical box with an IR-transmissive cover plate.

The IR Eye5 offers:

- Diffuse infrared communication with a range of up to 80 feet
- Immunity to fluorescent lamps
- Raw data rate of approximately 2500 bps
- Diverse mounting techniques to serve a variety of applications

Application

The IR Eye5 works within INNCOM's System-5 protocol and can be used in a fluorescent light environment. However, it may be subject to interference from plasma televisions, and care must be taken in situating the device if a plasma television is present.



**INNCOM's IR Eye5
Mounted in Decora Cover**

Installation Requirements

Mounting in Drywall. The IR Eye5 can be mounted in a single-gang electrical box with a Decora cover, a single-gang mud ring, or a single-gang low-voltage caddy. A line-of-site communication path is NOT necessary for the IR Eye5 to communicate.

The plastic wall caddy shown at right (Figure 1) is the best option for mounting the IR Eye5 in drywall; however, a standard metal caddy can also be used. Dimensions are shown in Figure 2.

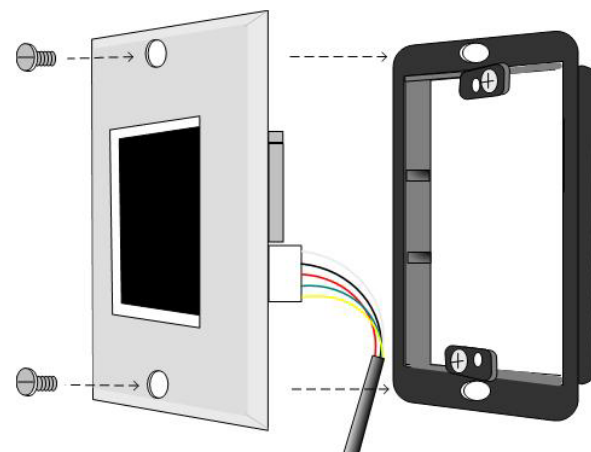


Figure 1. IR Eye5 and Wall Caddy

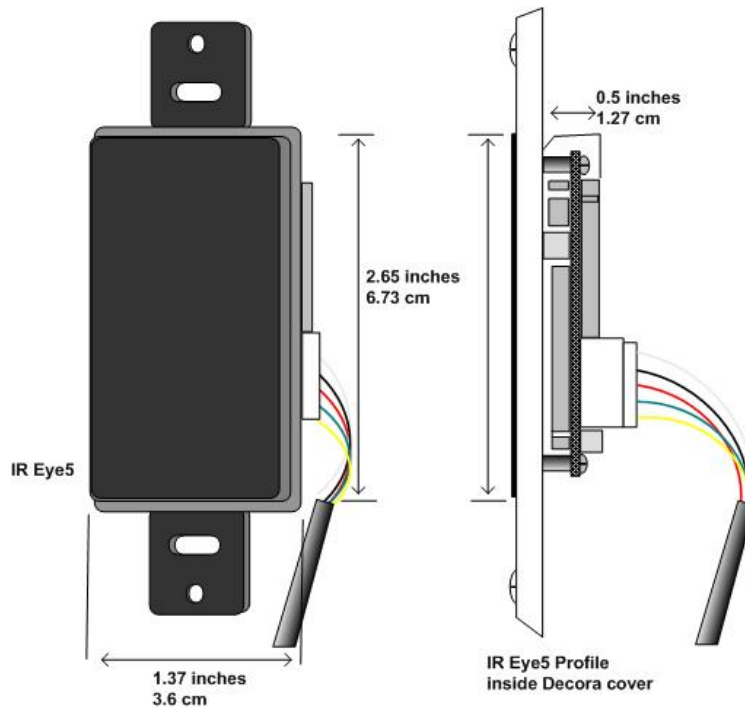


Figure 2. IR Eye5 Dimensions

Mounting in PTAC or Millwork. To support applications in which it is not feasible to install the IR Eye5 in drywall, the device can be placed in a specially designed housing (Figure 3) and mounted inside a PTAC (Figure 4) or onto guestroom millwork (Figure 5).

A common application of the IR Eye5 is as a transceiver for thermostat control. In this application, the IR Eye 5 is mounted in the PTAC then wired to the INNCOM controls of the PTAC. The IR Eye5 communicates by infrared to the INNCOM e598 Smart Digital Thermostat.

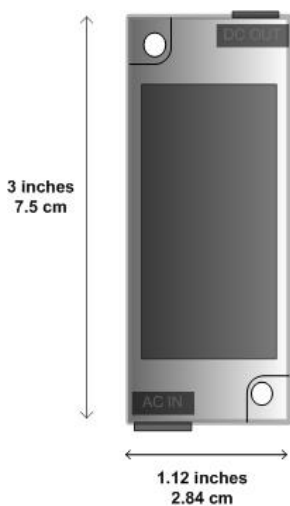


Figure 3. IR Eye5 in Housing



Figure 4. PTAC Application



Figure 5. Millwork Application

Wiring

The IR Eye5 cable is sized for the application; standard cable lengths are 20”, 36”, and 112”. The cable has a quick-disconnect link that is attached to a circuit board to power the device. In applications where a standard-length cable is not feasible, the IR Eye5 can be field-wired using a CAT 6E.

Technical Specifications

Table 1. Technical Specifications

Supply Voltage	12 ±5% VDC, regulated
Supply Current	25 mA (standby) 60 mA (transmission) 90 mA (peak)
Power Consumption	0.75 W
Storage Environment	-40 to 70 °C (-40 to 158 °F), 15 to 99% RH non-condensing
Operating Environment	0 to 50 °C (32 to 122 °F), 15 to 95% RH non-condensing
Size Surface Mount	3" x 1.25" x 1.00" (7.6 cm x 3.2 cm x 2.54 cm)
Size Decora	Single-gang Decora-style insert
Mounting Direction	Surface mount with direct or good reflective indirect visibility to partner stations
Headers	H1 Eye5 connector (5 pins)
Approval	FCC Part 15 Class A

Ordering Specifications

The INNCOM Part Number for the IR Eye5 is 02-9467.

Document Revision History

Table 2. Document Revision History

REVISION	DATE ISSUED	REASON FOR CHANGE
First issue	10/5/06	
Revision 1	10/17/06	Wiring paragraph added