Universal Photoelectric Beam

Features

- Long range beam
- 50 metres indoor and 25 metres outdoor range
- Input Voltage 12 - 24V AC/DC
- Built-in Laser beam alignment
- Twin beams minimizing false trigger
- Weatherproof cover
- LED indicator beam alignment
- Tamper switch

PE3000

Application

- Sliding Gates, Swing Gates or Garage Doors
- Overhead Doors, Conveyers or Door Entrance
- Boom Gates, Alarm System or Warehouse Monitoring

Description

The PE3000 photoelectric beam features twin beams designed to minimize false triggers caused by falling leaves or birds, ensuring more reliable performance. Its laser beam allows for precise alignment, making installation easier and more accurate. It works with any Elsema automatic gate or door controller cards used on sliding, swing or roller doors. It is used as a safety device to control automatic gates and doors.

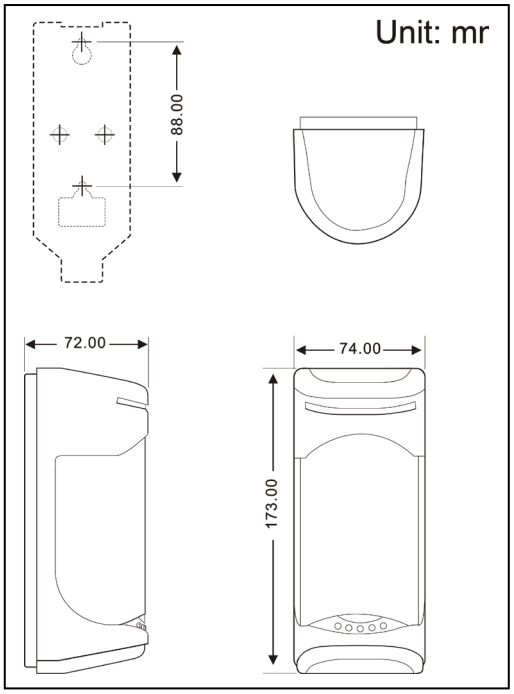
Technical Data

Power Source	12 to 24 Volts AC/DC
Standby	68mA at 12Volts DC
Response Time	5-15 millisecond
Connection	Screw in type terminal block
Additional feature	Normally closed (NC) Tamper output.
Operating Temperature	-25˚C to 55˚C
Relay Output	Common, Normally Open or Normally Close: 1Amps / 120VAC
Sensing Range	25 metres. Range will be reduced in bad weather, fog, dust etc.
Dimensions	173 (L) x 74(W) x 72(D) mm.

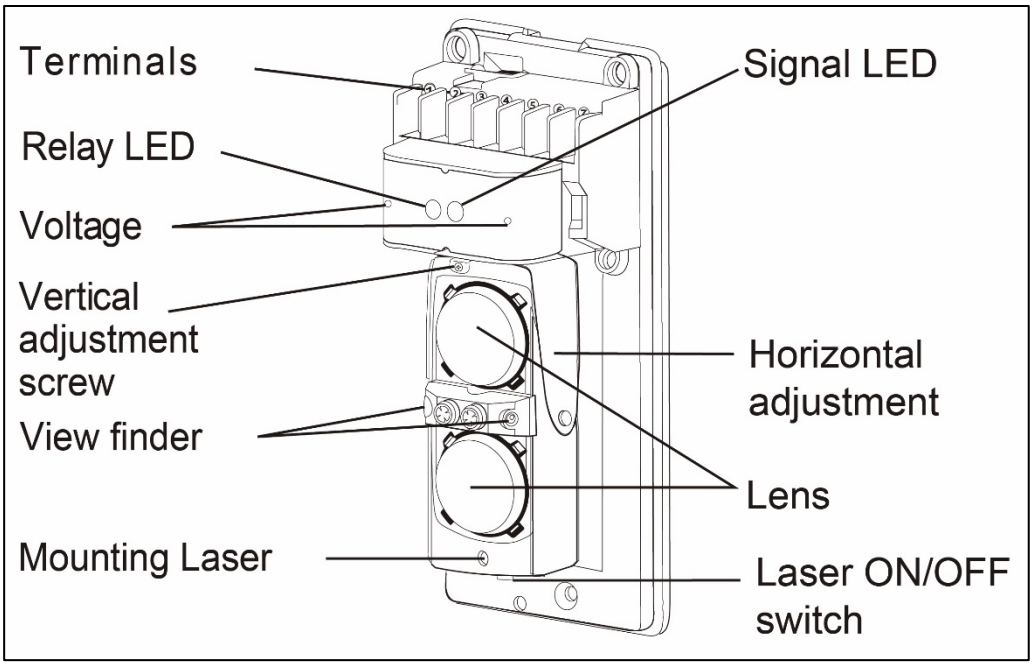
LED Status

LED Status	Off	On
Red	Beam is properly aligned	Beam is broken or not aligned
Orange	Tx signal is good and beam is aligned	Tx signal is weak or beam is broken
Green	Power not connected	Power is connected

PE3000 Dimensions

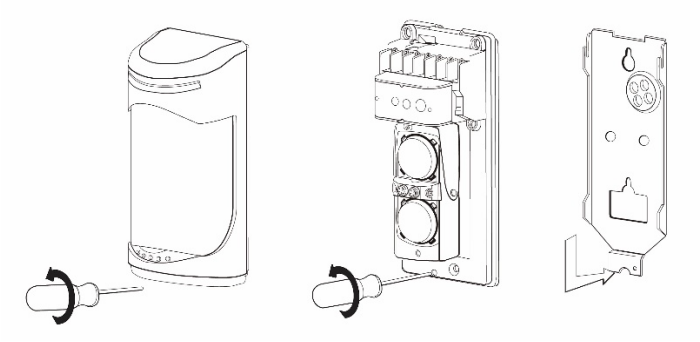


PE1500 parts

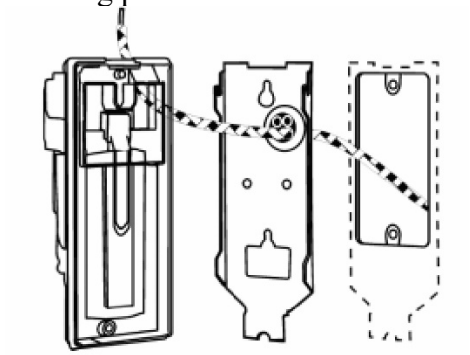


PE3000 Wall installation

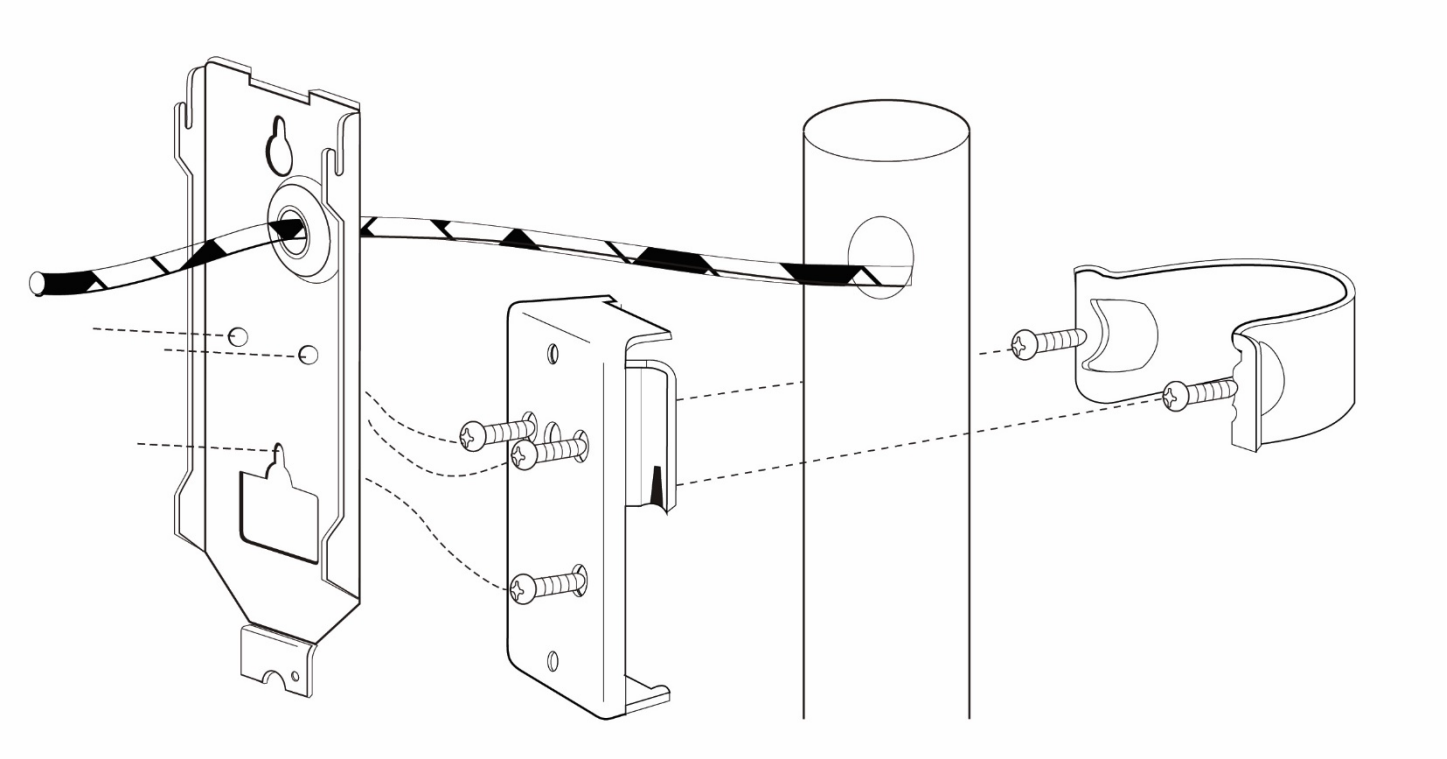
1. Loosen the cover locking screw and remove the cover. Then, loosen the unit setting screw located at the lower part of the unit's base. Slide the mounting plate downward to remove it.



2. Pull the wire through the wall at the installation site.
3. Break the grommet on the mounting plate and thread the wire through it. Secure the plate with a 4mm screw. Pull the wire through the body of the sensor and attach the sensor to the mounting plate.



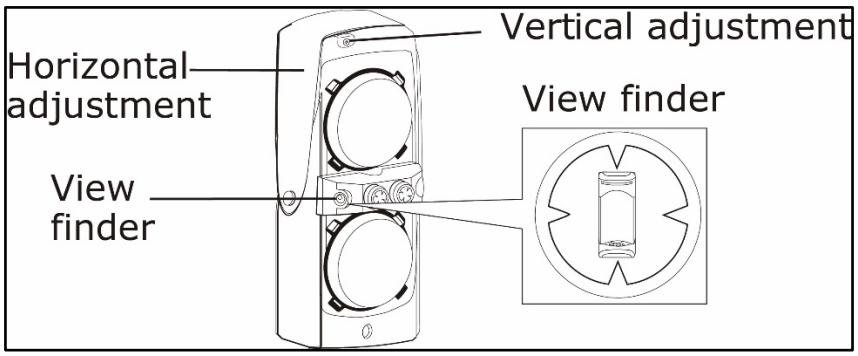
PE3000 Pole installation



PE3000 Alignment

1. Remove the transmitter cover and look into one of the alignment view finder, which is one of the 4 holes located between the two lenses, at 45 degree angle.
2. Use the horizontal and vertical adjustment until the receiver is clearly visible in the viewfinder.
3. Repeat the same with the receiver.
4. Replace the transmitter and receiver cover.

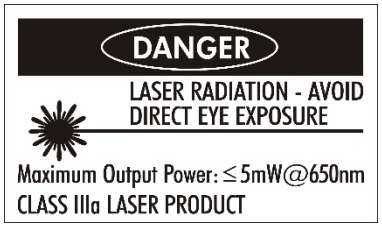
(If the opposite unit is not visible at first, put a white sheet of paper near the unit to highlight it)



Laser Adjustment

1. Remove the transmitter cover and turn ON the laser pointer with the laser ON/OFF Switch.
2. Use the vertical and horizontal adjustment until the pointer is centered on the receiver's laser pointer position.
3. Repeat the same with the receiver.
4. Turn laser OFF before replacing the cover.

Warning: Do not look directly into the laser pointer

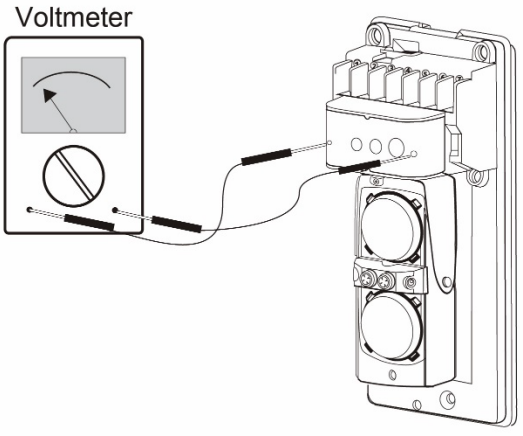


Fine Tuning the receiver

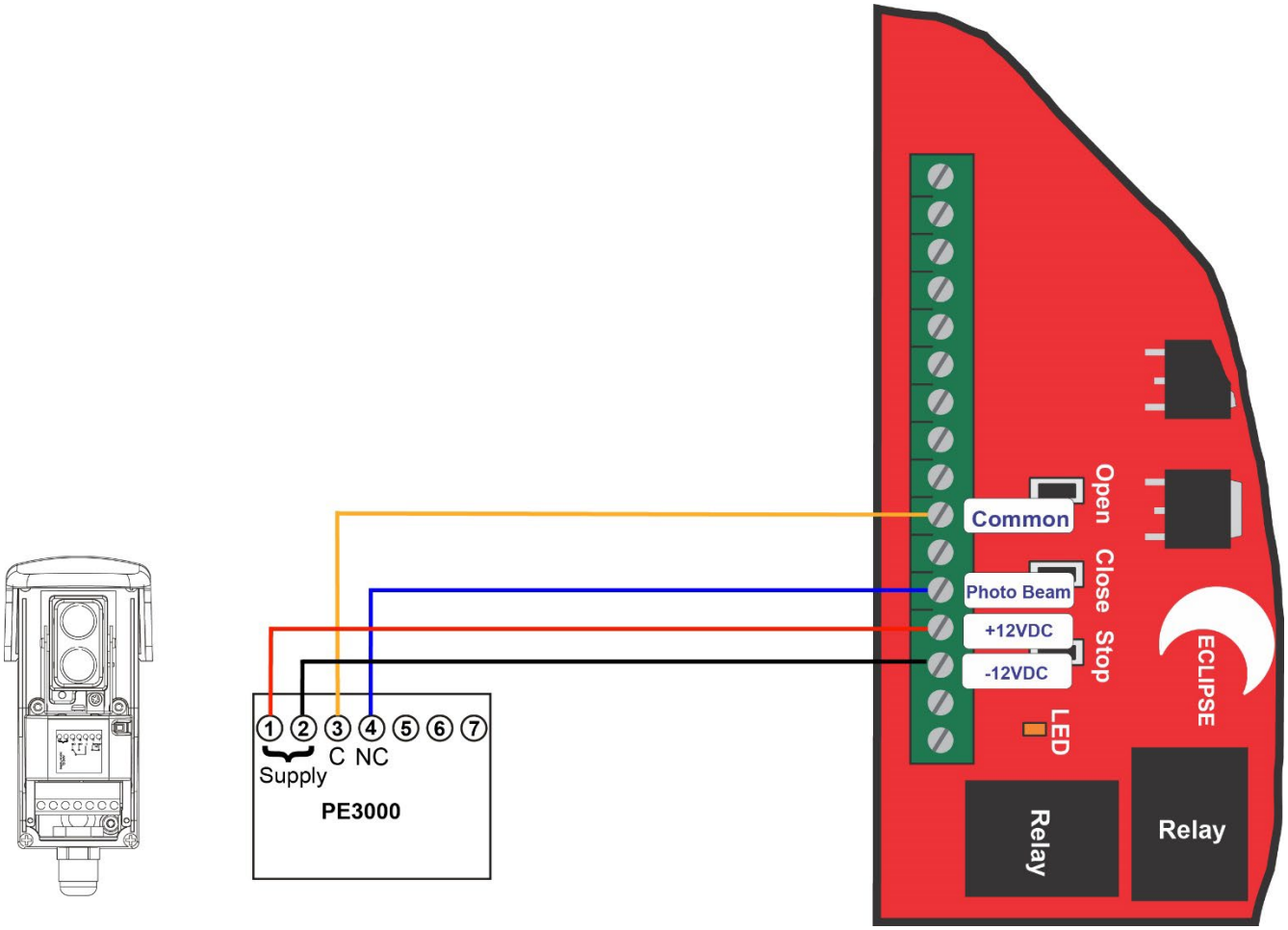
Once the transmitter and receiver are installed and aligned, the signal quality can be fine tuned using a multimeter.

Set the multimeter to DC volts and measure the voltage on the receiver side as shown in the diagram below. Adjust the horizontal and vertical adjustment screws until you get the highest voltage. See table below.

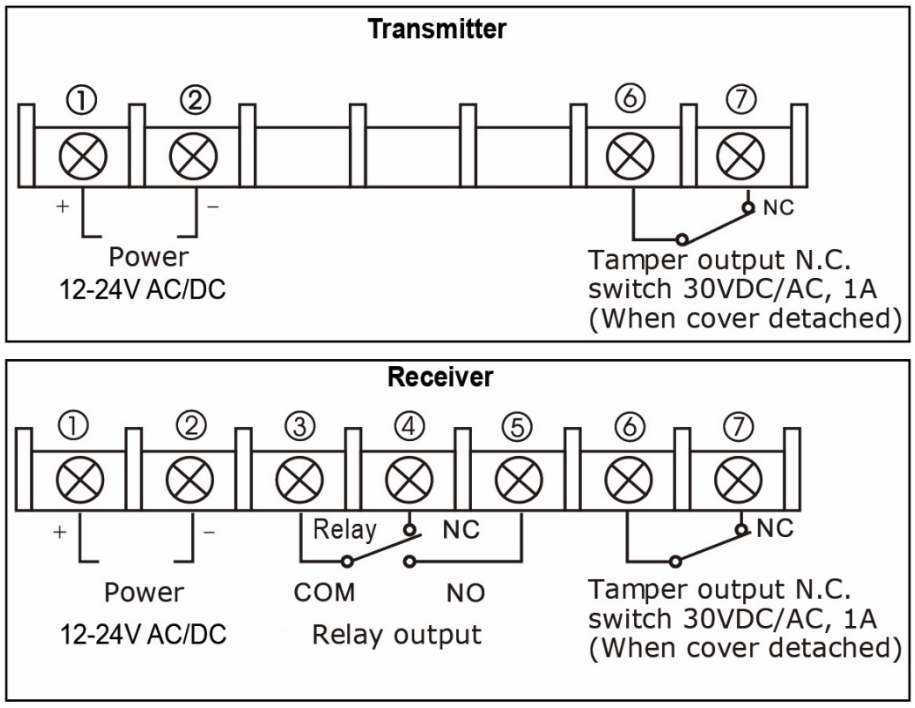
Voltage Output	Alignment
>3.1V	Excellent
2.1 - 3.0V	Good
1.3 - 2.0V	Fair
<1.2V	Re-adjust



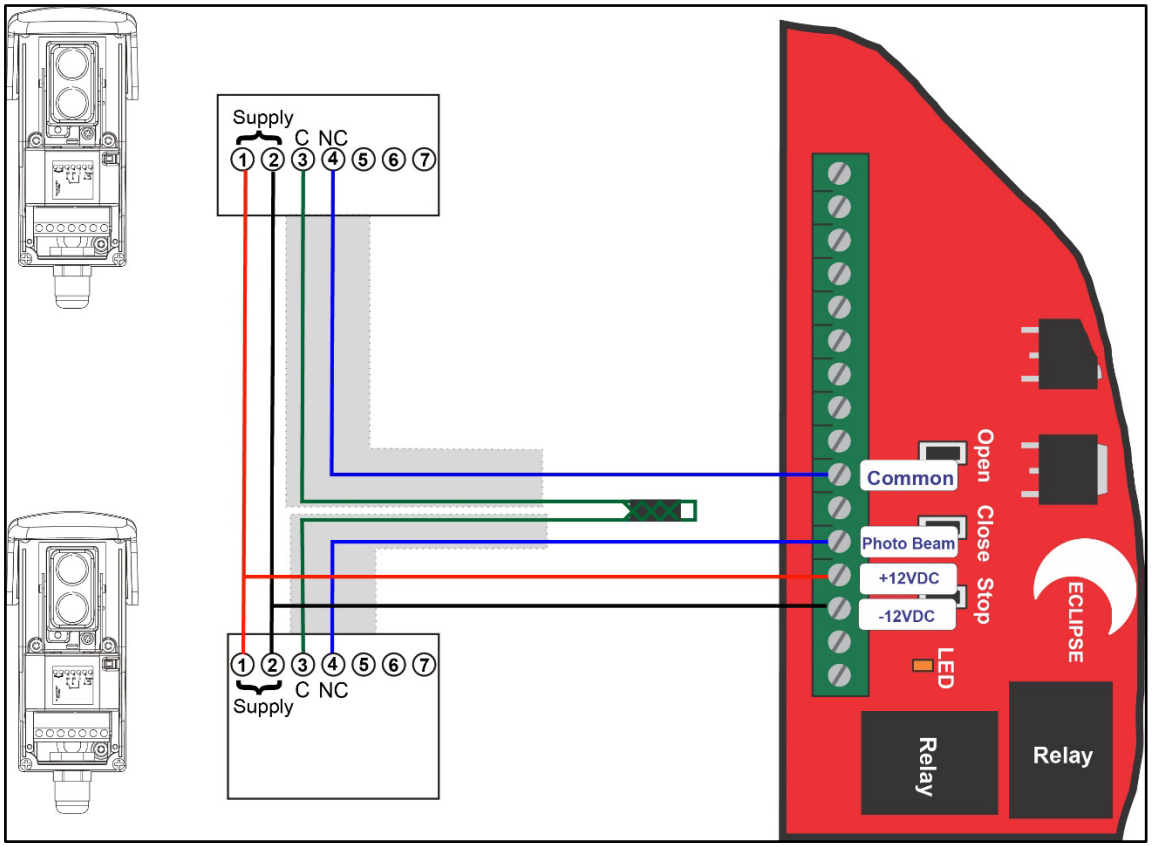
PE3000 Wiring Diagram



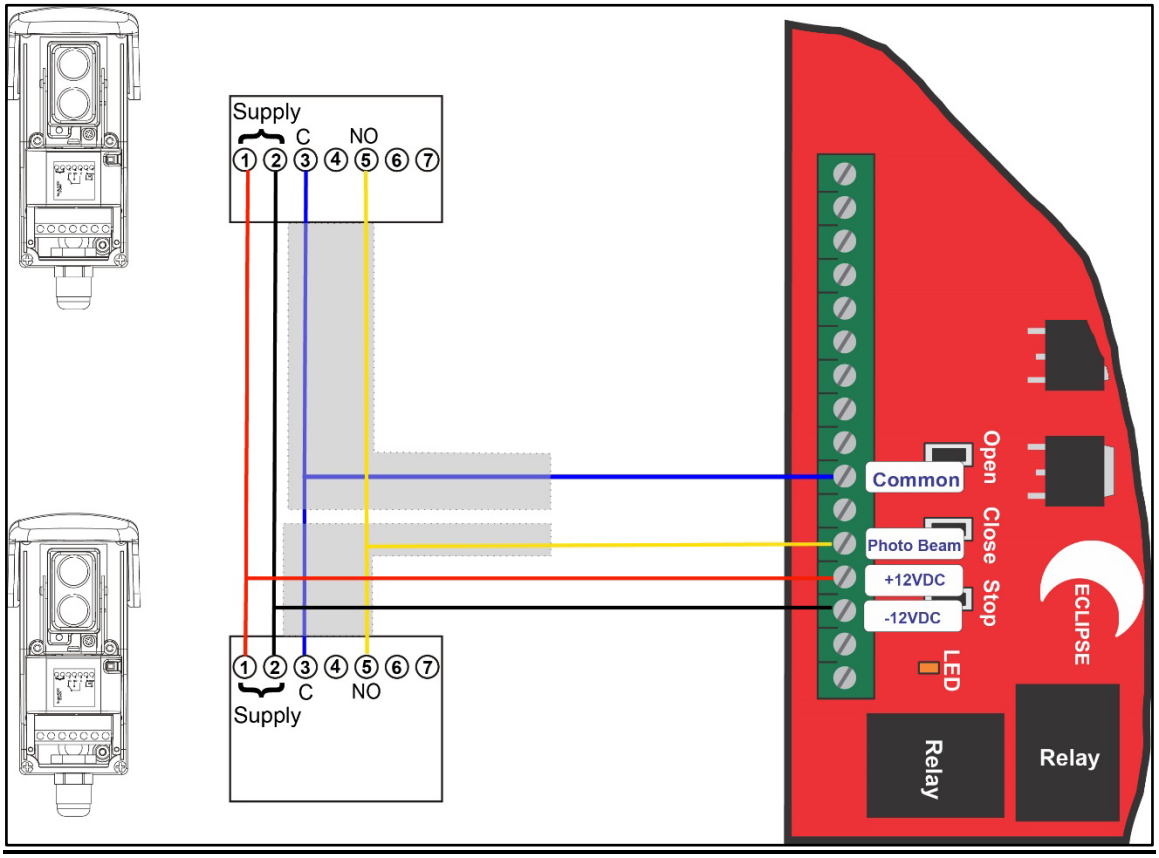
PR3000 Terminal Strip



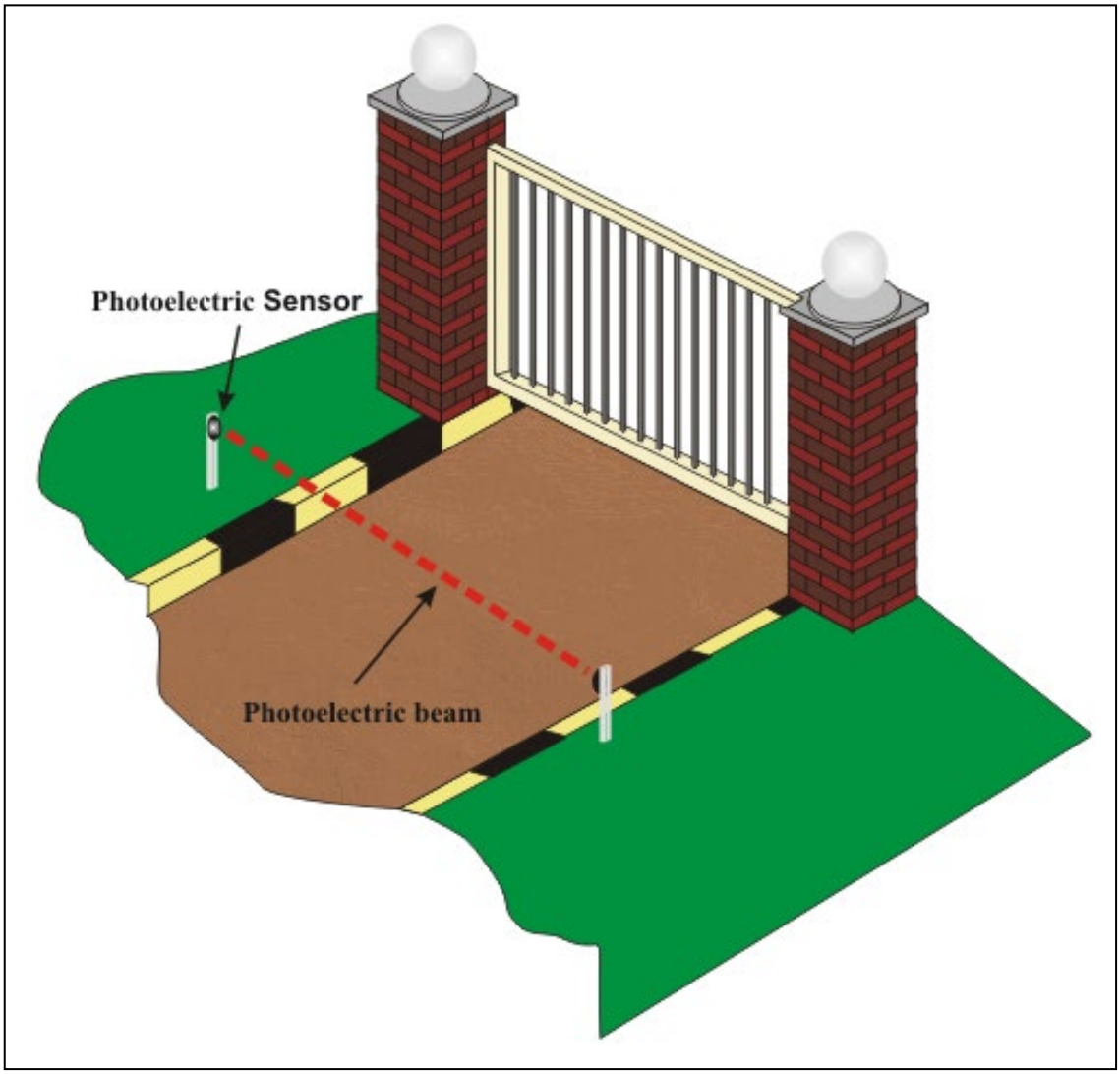
PE3000 Series Wiring Diagram *(Normally Close)*



PE3000 Parallel Wiring Diagram *(Normally Open)*



PE3000 Application



Manufactured by

Elsema Pty Ltd
31 Tarlington Place, Smithfield
NSW 2164, Australia
Ph: 02 9609 4668
Website: http://www.elsema.com

Distributed by