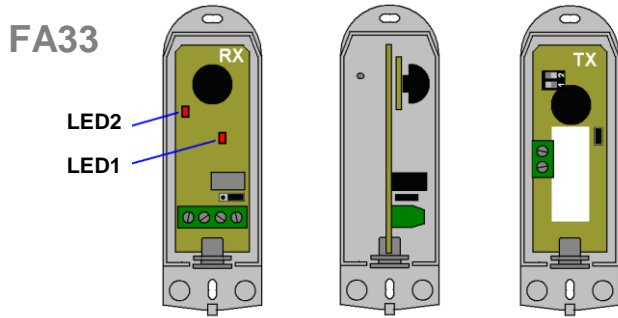


Functional description

FA33 is a single relay IR photobeam. Transmitters may run on battery or 12Vdc, **but not both!** Receivers need external power. Transmitters have power settings for 5m or 10m range. The battery's life depends on power setting. The slim body ensures the beam can be placed at the very edge of the opening. The PCB can be set at 0° or 90° angle.

Tx and Rx both have a red flashing LEDs. When the beam is blocked, an LED on RX flashes every 3 secs. When unblocked LED flashes 4 times then pauses. Receiver also has a red LED that is on when the photo beam is not interrupted.



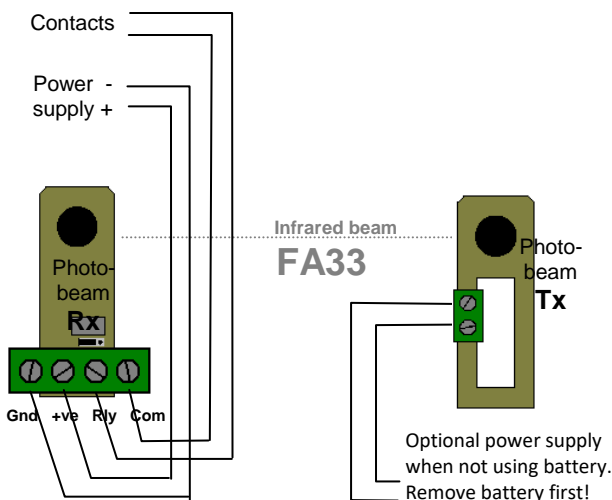
Installation

Single infrared beams should be 50 to 60cm above ground. Screw the removable back plate to a flat surface. Pull the cable through the wall and connect by screw terminals. Cables should be sealed into the case back plate with electrician's putty or the grommet supplied.

It is a good precaution to spray a conformal coating on the PCB before closing. This dispels moisture that can reduce range. WD40 also is a good insect repellent. Clip the covers on and secure with the two screws provided.

Connections

The volt free relay contact can be set NO/NC by jumper. Relay response time is suitable for being driven from a Cat.2 switched supply. Receiver supply is polarity dependant, negative to Gnd.



| FA33 specification | |
|--------------------|-----------------------|
| Rx power | 12-24V ac/dc |
| Range | 5m or 10m |
| Dimensions | 37.5 x 36 x 108mm |
| Rx current | 40mA @ 12V |
| TX current | Hi = 60µA, lo = 30 µA |
| Battery | CR123A 3V 1.4-1.6Ahr |
| Relay | 150mA @ 27Vac SPCO |
| IP rating | IP55 |
| Angle | -90° or 0° or +90° |
| Beam splay | -10db @ ±5° |



| Adjustments | off | on |
|-------------|----------|----------|
| TX - DIP1 | not used | not used |
| TX - DIP2 | enabled | Disabled |
| TX - JP1 | 5m | 10m |

LED1 is power

LED2 diagnostics

| | |
|-------------------------------------|---------------------|
| 4 flashes - stop - 4 flashes - stop | Correct operation |
| 1 flashes every 3 secs | Beam blocked |
| 3 flashes or 2 flashes every 3 secs | Poor signal from Tx |

