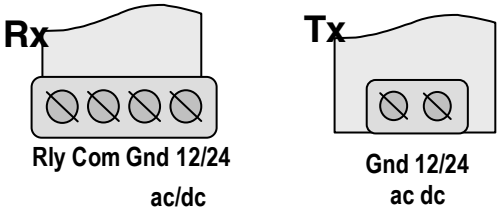
Functional description

FA31 is a single relay infrared photobeam working from 12V or 24V ac/dc. The slim body ensures the beam can be placed at the very edge of the opening. The circuit boards inside can be set for -90° or 0° or +90° angle.

Both Tx and the Rx have a red power LED on all the time. The Rx also has a red LED that is on when the photobeam is not interrupted. Both are visible through the case.



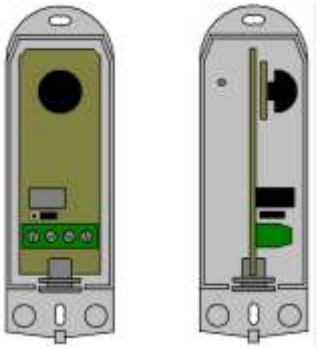
Installation

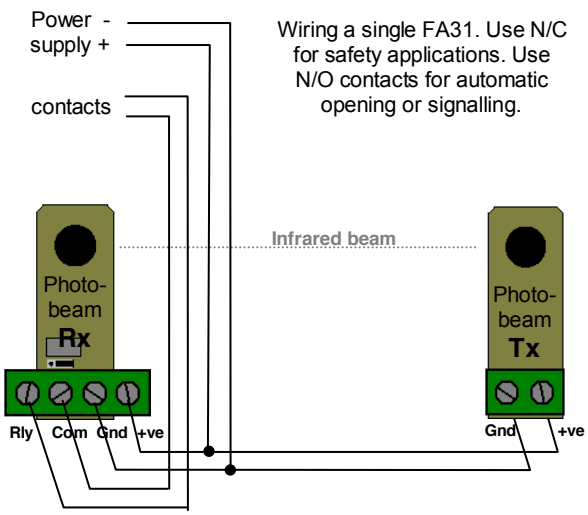
Infrared elements should be 500mm to 600mm from ground level. Screw the case back plates flat mounting. Connections are by screw terminals. Cables should be sealed into the case back plate with electricians putty or grommet supplied.

It is a good precaution to spray a conformal coating on the PCB before closing. WD40 also is a good insert repellent.

Orientation

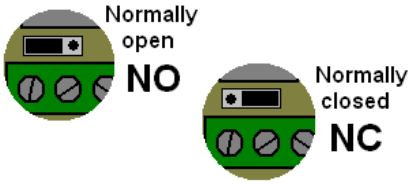
The circuit board in Tx and Rx can be rotated 90° to face in either direction. This helps to mount the beam on extreme of the opening.





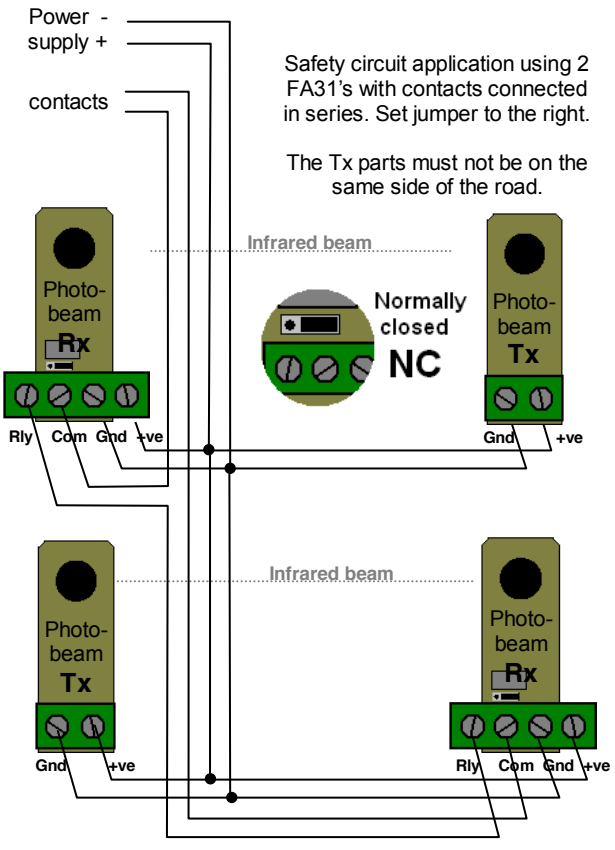
Wiring a single FA31. Use N/C for safety applications. Use N/O contacts for automatic opening or signalling.

FA31 specification	
Power	12/24V ac/dc
Range	12m
Dimensions	37.5 x 36 x 108mm
Rx current	40mA @ 12V
TX current	50mA @ 12V
Wavelength	940nm
Modulation	2.5kHz
Relay	150mA @ 27Vac SPCO
IP rating	IP55
Angle	-90° or 0° or +90°
Beam splay	-10db @ ±5°



Connections

The relay contact is volt free. A jumper on the Rx board allows the user to choose NO or NC contacts. Relay response time is suitable for being driven from a Cat.2 switched power supply. FA30 runs from 12V or 24V without needing to be set. When running from a dc supply the photobeam is polarity sensitive, where Gnd terminal is negative.



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