

# JANUS

## E-Series EN81-20

### Installation Guide

#### E10 Installation

1. Install the detectors using the fixing kits provided (see Fig 1.) Clamps must be ordered separately (E10 803).
2. Position each detector on the doors 5mm above the sill (Fig 2.)
3. Ensure that the detectors are aligned level and straight with each other.
4. Secure the cables with the P-clips and screws provided.
5. E10 can also be fitted statically using the fixing kit E10 802, E10 805 or E10 812 (must be ordered separately).

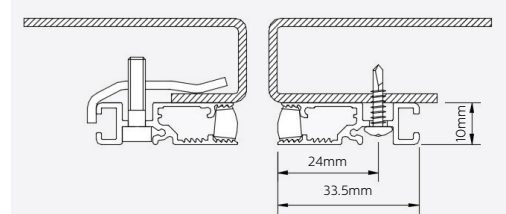


Fig 1: E10 with Fixing Clamp on left (ordered separately) & Self-Tapping Screw on right

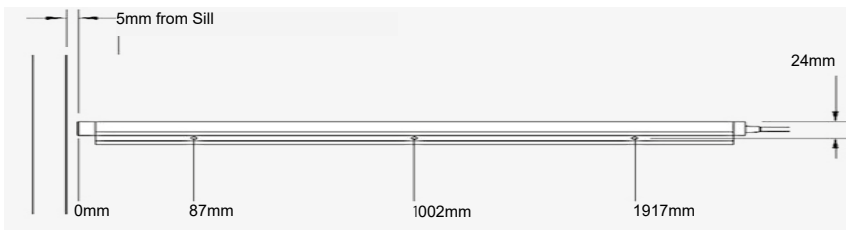


Fig 2: E10 Fixture Holes

#### E32 Installation

1. Install the detectors on the door leading edge / slampost using either the self-tapping screws or the bolts provided (Fig 3).
2. If mounting with the six self-tapping screws:
  - + remove the uPVC cover from the detector, align the detector 12mm above the sill and mark the positions of the six fixing holes (Fig. 4.)
  - + remove the detector from the door before drilling the 2.5mm holes, to avoid swarf from entering the detector
  - + screw the detector in position using the self-tapping screws provided before clipping the uPVC cover back in place.
3. If mounting with the four bolts:
  - + drill four 5.5mm holes all in line with the vertical slot at the back of the detector, then slide the four bolts into the slot and align against the drilled holes
  - + loosely fit the plastic nuts to the bolts to hold the detector in place

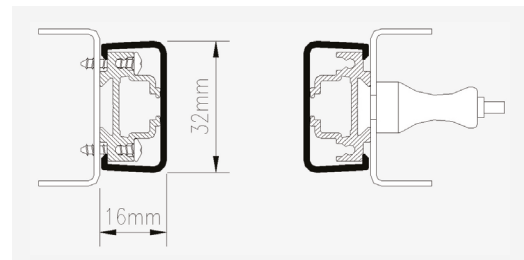


Fig 3: E32 on the door leading edge / slam post with selftapping screws on left and bolts on right

- + once correctly aligned 12mm above the sill, tighten the plastic nuts.
4. Ensure that the detectors are aligned level and straight with each other.
  5. Secure the cables with the P-clips and screws provided.

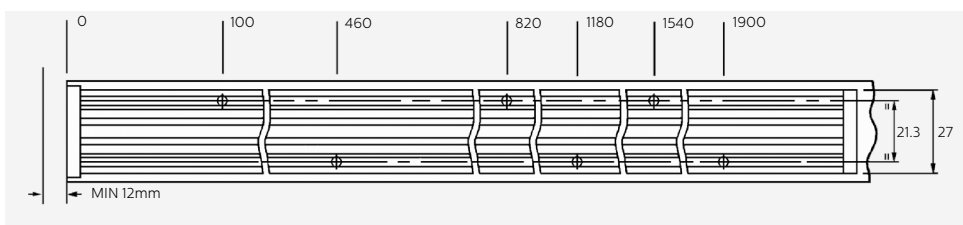
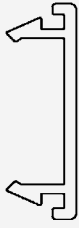


Fig 4: E32 Fixture Holes for mounting with self-tapping screws

## E40 Installation

### Step 1

Use the correct mounting brackets: L for door or flat bracket (shown here) for slam.



### Step 2

Position the bottom of the detector 12mm above the car sill.

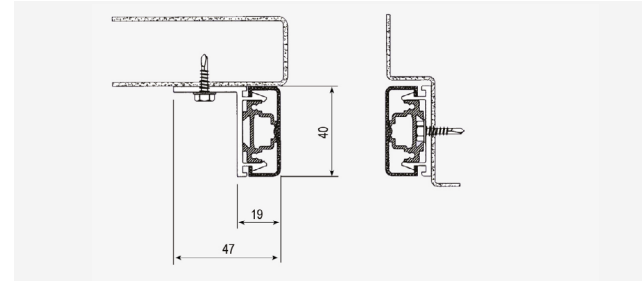
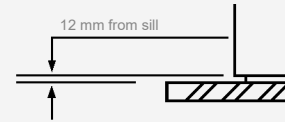


Fig 5: E40 Side-opening doors (use L bracket to attach to door and flat bracket to attach to slampost)

### Step 3

Secure L-Bracket to door using screws provided. Locate screws approximately 75mm from top and bottom of bracket then equally space the remaining screws.

### Step 4

For installing on the slam or to swap the flat bracket for the second L bracket, first remove the uPVC cover, then carefully remove the flat-bracket from the aluminum channel with a flat head screwdriver.

### Step 5

To attach the second L-bracket, fit the top of it flush with the underside of the cable end cap and clip down the length of the detector.

### Step 6

To install on the slam-post: align the flat bracket with the opposite L-bracket. Note that the bottom of the bracket is not equivalent to the bottom of the detector once reattached.

### Step 7

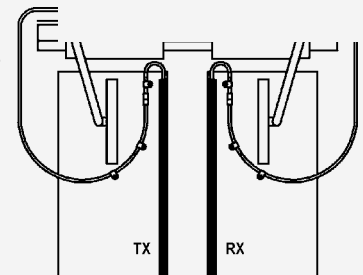
Secure bracket to door using screws provided. Locate screws approximately 75mm from top and bottom of bracket then equally space the remaining screws.

### Step 8

Align the detector and snap into position. Attach the green & yellow ground wire to the slam using a self-tapping screw and washer. Finally, snap on the uPVC cover.

### Step 9

Attach cable securely with the P-clips and screws provided. Avoid tight bends and provide enough slack so that cables are not stressed or stretched as the doors move.



## Diagnostic Output

A diagnostic output is an optional extra for customers who require a signal telling them that the detector is operating in timeout mode. If a diode is timed out then there will be a small area in the detection area that will not pick up a 50mm target. Some customers may interpret the standards in such a way that they need to reduce the closing force on the doors if this happens.

For units with this feature, there are two additional wires in the RX cable (orange and purple).

## Direct Communication to Elevator Controller

**Warning:** Direct connection requires a good understanding of both Lift & Detector electronics. Any incompatibility between the two systems may cause permanent damage to either. Do not short circuit voltage across the Opto-Relay as this will result in damage. If you have any doubts then its recommended you use a Memco 280/281/283 Power Supply – See below for 280/281/283 connections.

1. Input Voltage – The voltage must be at least 11V & never exceed 42V DC, average under any circumstances.
2. Use a smooth or regulated supply. Do not use an unsmoothed supply on AC supply.
3. Use a Negative Ground - Do not use a 'Positive Ground' supply [since the Black 0V Wire is connected to the earthed metalwork].
4. Peak Ripple Voltage should not exceed 44V & the average voltage not exceed 42V.
5. Sufficient Power – The supply must be capable of supplying at least 100mA plus whatever current is needed to drive the 'Door Re-open' circuit on the lift.

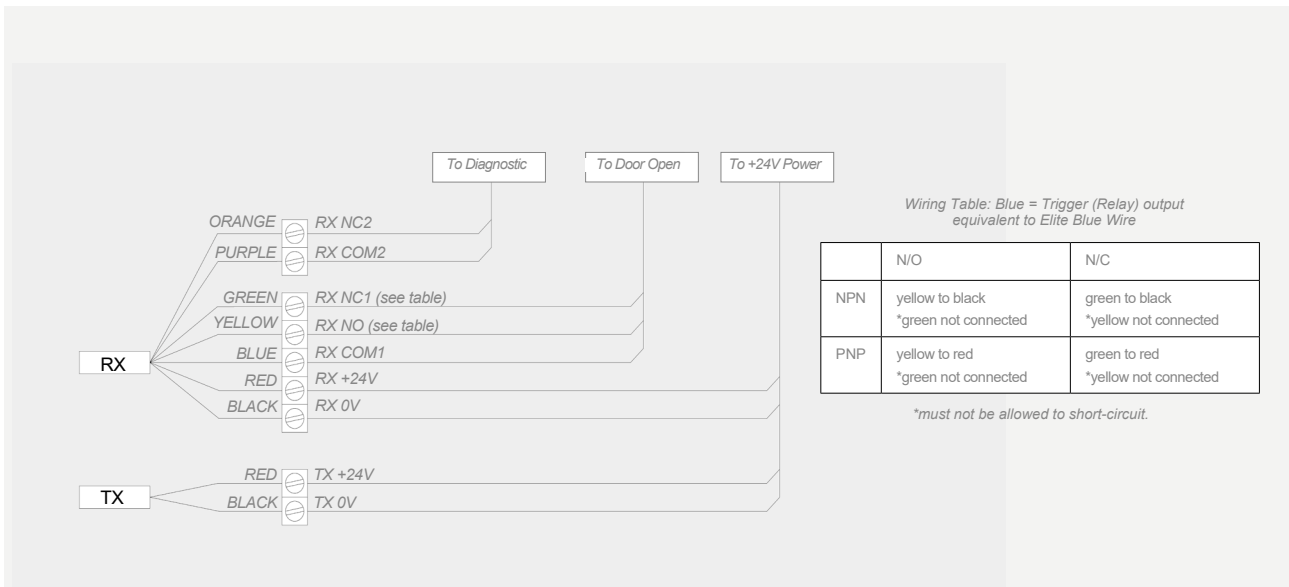


Fig. 6 : Electrical Connection to Door Controller

## System Connection with Model 280/281/283

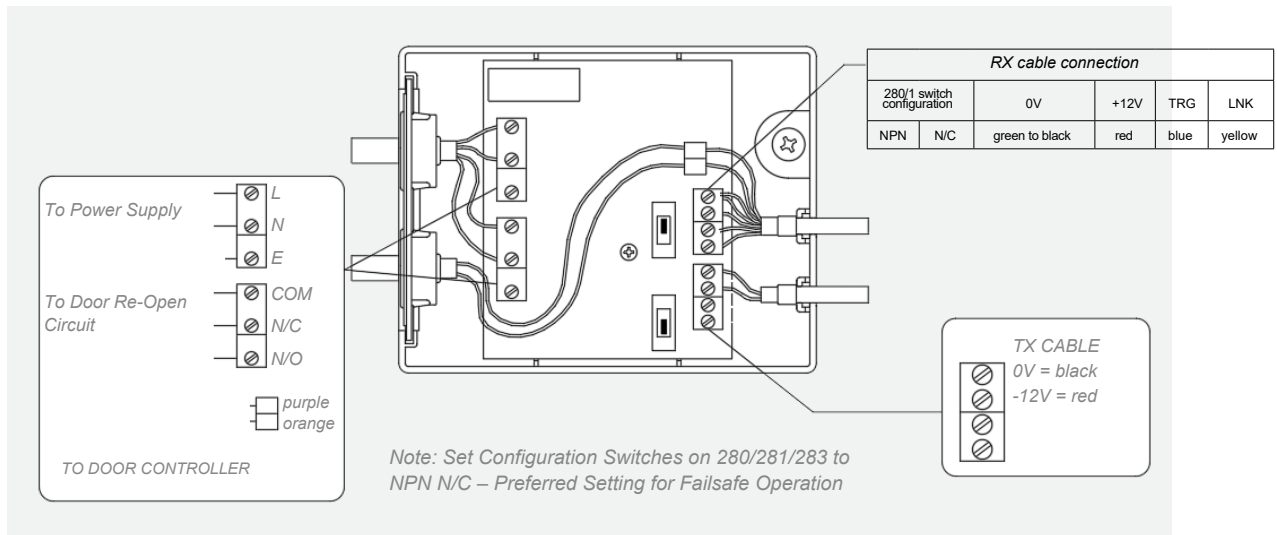


Fig 7: Electrical Connection to 280/281 Power Supply

## LED Operation

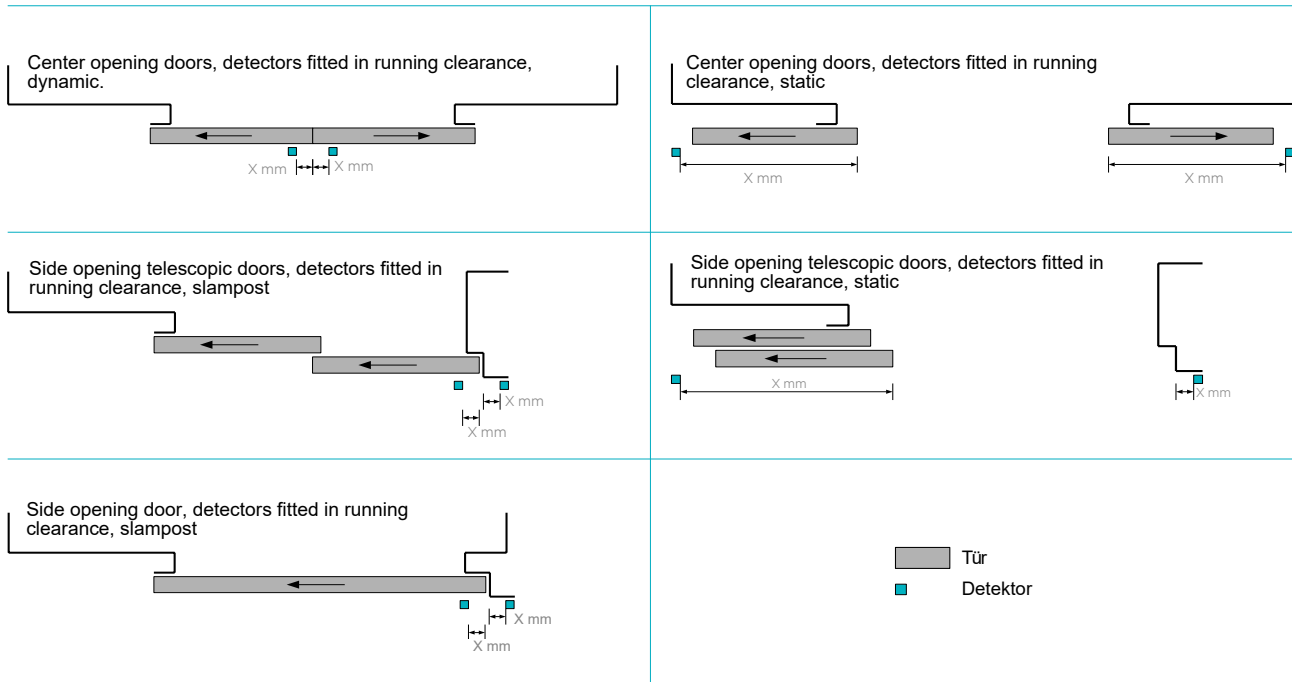
### STATUS

Normal, Untriggered	0.5 sec ON	2 sec OFF	Repeating
Triggered	ON for duration of trigger		(Obstruction between Detectors)
Timed-Out Beams	1 sec ON followed by x short flashes		Repeating: x is number of timed out beams
No Signal	0.5 sec ON	0.5 sec OFF	(Detectors not synchronized. TX not powered All beams blocked)

## Troubleshooting Guide

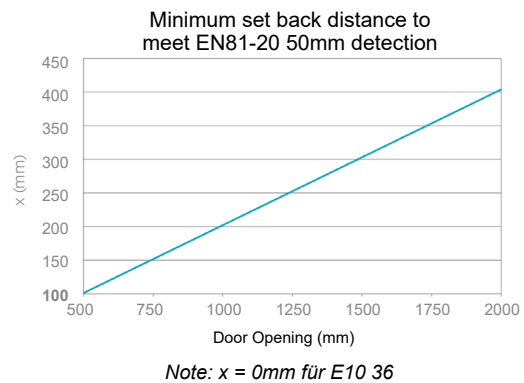
Fault:	Suggested action:
Red LED on continuously (Triggered) with no obstruction	Check both covers are clean, remove any floor wax, dirt
Red LED flashes fast	TX is not connected – Verify TX detector is wired correctly & check both covers are clean, especially between 1500mm and 1600mm (communication diodes)

# EN81-20 Installation Guidelines for E10 20



Light curtains with diode spacing greater than 50mm can still comply with EN81-20 when installed at some set back distance from the edge of the elevator door. This guide shows how E10 20 can comply with EN81-20 in specific installations.

E10 36 is compliant in all installations.



## Cleaning of Light Curtains

Light curtains are not waterproof and their performance can deteriorate or result in complete failure if scratched or damaged. This can be caused by using abrasive cloths or inappropriate solvents. Light curtains may be wiped down using a lightly dampened cloth.

*This product is designed for use in elevators with powered automatic doors where the closing energy is less than 10J in normal operation and less than 4J during de-activation of the light curtains or less as per EN81 requirements. It should be installed by qualified personnel only, therefore any use outside of this application is at the installer's own risk and should be assessed appropriately.*

*If you wish to include more than one set of detectors in the same installation, please contact our Technical Support team for guidance..*

*As a result of our policy of continual improvement, the information in this document is subject to change without notice and it is intended only as general guidance on product performance and suitability. This information shall not form part of any contract.*