



**PRODUCT
INFORMATION
SHEET**

Memco E-Series

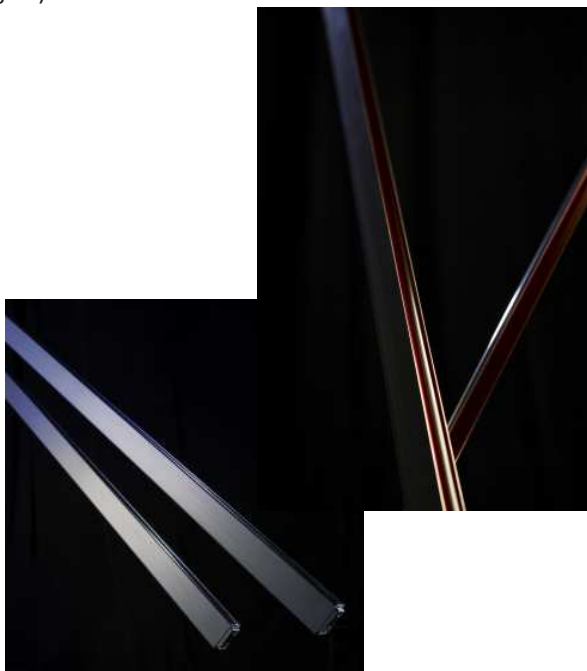
Elevator Light Curtain Range

- Designed for new & existing installation
- Suitable for static or dynamic fixing
- Reduced installation time
 - No setting-up required
 - No communication wire
 - No configuration needed
- Extended range of input voltages 11-42V to suit all applications
- Robust electronics - improved immunity to conducted interference
- All E-Series products supplied with the following standard features
 - Timeout software
 - Diagnostic LEDs
 - Auto Beam Disabling (ABD)

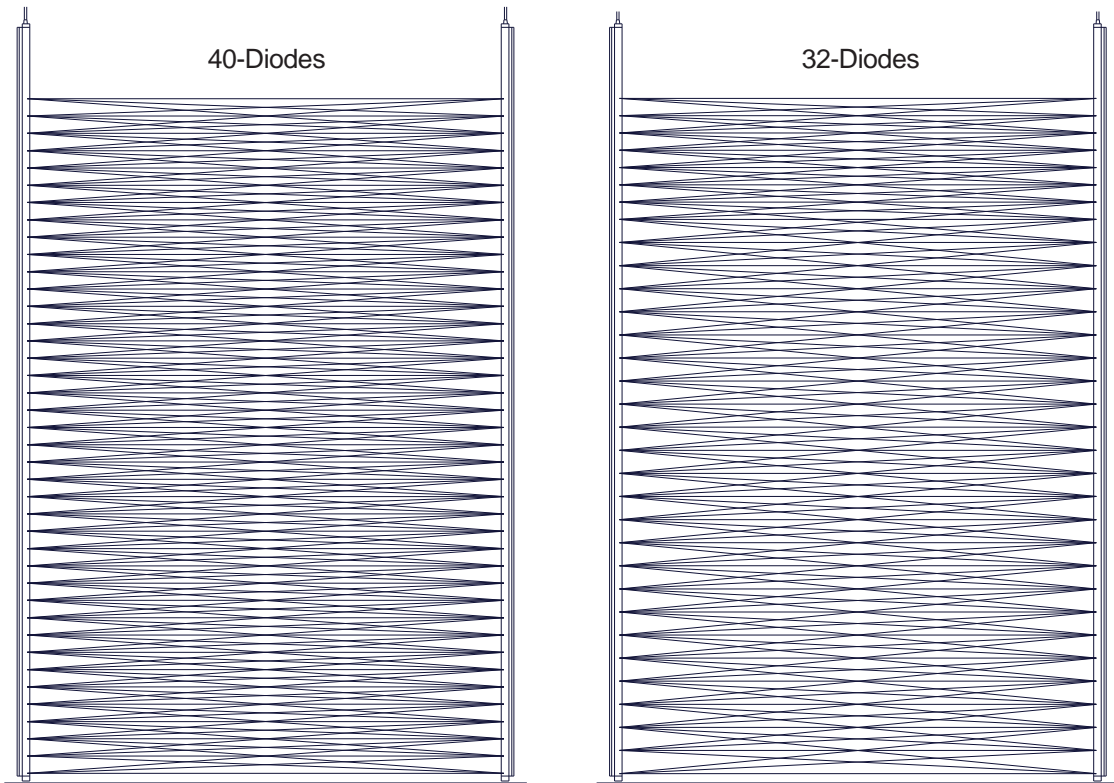
Memco's E-Series elevator light curtains is a versatile range with up to 40-diode versions, supporting up to 194 criss-cross beams for premium safety. The flexibility of different numbers of diodes enables a wide range in detection capabilities (page 2). The 32 and 40-diode systems have a dense beam pattern that will pick up even small objects between the doors. Interruption to the infra-red beams across the door opening causes the high reliability opto-relay to switch state.

The specially developed filters, unique to Memco, incorporate bespoke lens designs that are used with the surface mount transmit and receive diodes. This optimises the safety performance allowing diagonal beams to close. Improved circuit protection has been added which guards against common wiring errors during installation. Communication between the TX and RX diodes is now delivered optically, there is no communication wire required.

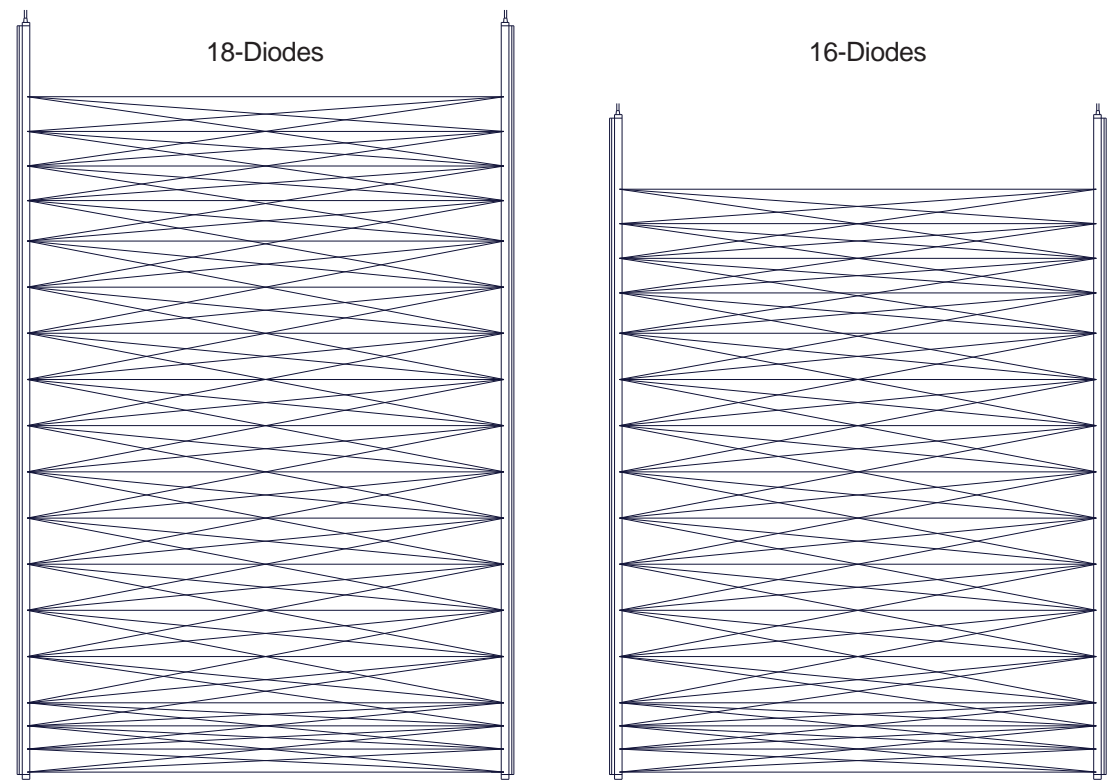
The RX has a diagnostics LED that is visible through the lens and provides an indication of a trigger or a possible system fault. The system has been designed to be tolerant to the infra-red content equivalent to 100k lux. This results in very high levels of light immunity and outstanding reliability. The Detectors are housed in a robust 10mm slim profile or 40mm standard profile (page 3).



BEAM PATTERN DIAGRAMS



Detector 5mm from sill



Detector 5mm from sill

		16Diodes	18Diodes	32Diodes	40Diodes
Bottom diode from sill	Mounted 5mm above sill	25mm	25mm	25mm	25mm
Top diode from sill	Mounted 5mm above sill	1564mm	1807mm	1807mm	1807mm
Detector height from sill	Mounted 5mm above sill	1763mm	2005mm	2005mm	2005mm

STANDARD FEATURES

Timeout:

This software allows up to 5 non-adjacent infra-red TX or RX diodes to be ignored if they are permanently obstructed. This service feature enables any diodes damaged by vandalism to be ignored, pending replacement and allowing continued door operation.

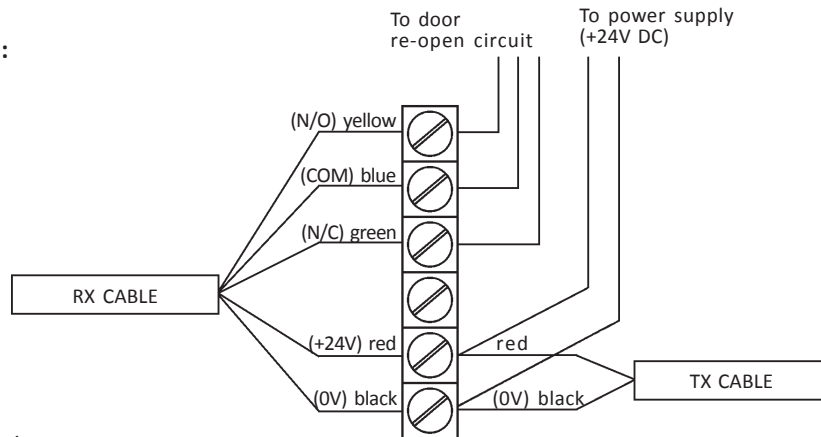
Auto Beam Disabling (ABD):

Designed for static installation where the top beams may be obstructed by the elevator door mechanism. The detector enters a special set-up program when the power is switched on for the first time and within 20 secs can eliminate up to seven obstructed diodes from the detection pattern. If a power failure occurs, when the power returns the detector will recall the saved detection pattern and will start scanning normally. This feature reduces initial installation time.

Diagnostic LEDs:

STATUS	LED ON	LED OFF	POSSIBLE CAUSE
Normal, Untriggered	½ sec	2 secs	Normal operation
Triggered	Always	-	Obstruction between detectors
Timed-out beam(s)	1 sec	1 sec	One or more diodes timed out
No signal	1/2 sec	1/2 sec	Detectors not synchronised TX not powered; All beams blocked

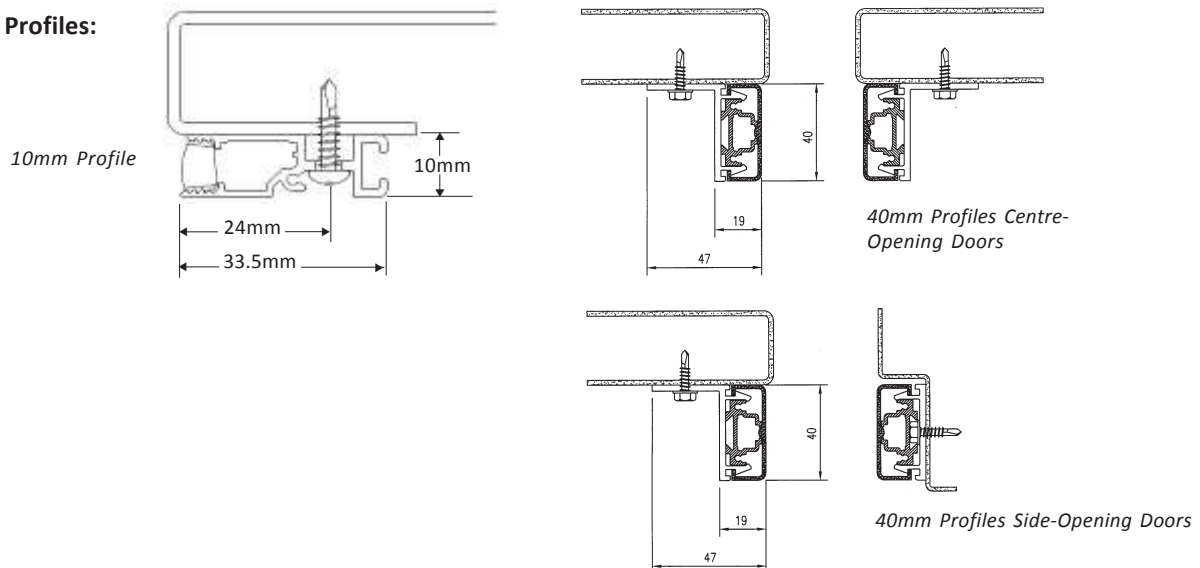
Connector Diagram:



Relay Rating 45V AC/DC
at 0.35A maximum

Warning: Do not apply 24V directly across the opto-relay. This will result in damage. The maximum opto-relay switching current is 300mA

Profiles:



SPECIFICATION AND PART NUMBERS

Part Nos: 10mm Profile	E10 16	E10 18	E10 32	E10 40
No. of Diodes	16	18	32	40
Total No. of Beams	74 46 16	84 52 18	154 94	194 118
Separation (mm)	>500 <500 & >200 <200	>500 <500 & >200 <200	>500 <500	>500 <500
IP Rating	IP65	IP65	IP65	IP65
Max. Range	3m	3m	3m	3m
Max. Response Time	100ms	100ms	100ms	100ms
Scan Time	30ms	40ms	60ms	75ms

Part Nos: 40mm Profile	E40 16	E40 18	E40 32	E40 40
No. of Diodes	16	18	32	40
Total No. of Beams	74 46 16	84 50 18	154 92	194 118
Separation (mm)	>500 <500 & >200 <200	>500 <500 & >200 <200	>500 <500	>500 <500
IP Rating	IP54	IP54	IP54	IP54
Max. Range	4m	4m	4m	4m
Max. Response Time	100ms	100ms	100ms	100ms
Scan Time	30ms	40ms	60ms	75ms

Input

- +11VDC to +42VDC continuous 44V (max) peak
- Current average <100mA
- Peak current < 100mA

Output

- Maximum switching voltage = 45V DC/30V AC
- Maximum switching current = 350mA
- Maximum on state resistance 2 Ohm

Cables

TX = 2 cores, RX = 5 cores
2.7m length

Environmental

Operating Temperature Range: -10°C to 60°C as per BS2011 Part2.1 Ab and Part2.2 Bb
 Storage Temperature: -25°C to 60°C
 Sunlight Immunity: >100,000 lux
 EMC Emissions: EN12015:2004, Immunity 12016:2004
 Random Vibration: 20-500Hz 0.002g² / Hz, 4 hours per axis.
 Sinusoidal Vibration: 30Hz 3.6g RMS 30mins per axis.
 Protection Rating: IP65 (E10), IP54 (E40) BS EN60529:1992
 Humidity: 93% BS60068-2-30:2005: Part2.1Db, Variant 2 @ 55C
 Drop Test: 1m onto concrete horizontal orientation(3x), 0.5m on to concrete vertical (dependant on donor detector mechanicals)

This product is designed for use in elevators with powered automatic doors where the closing force is 25N/mm 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.

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