



PRODUCT
INFORMATION
SHEET



INFRA-RED LIGHT CURTAIN

MODEL 740 SERIES DETECTOR

- Available in Standard, Leading Edge, Slimline, Ultraslim and Slampost profiles
- Surface Mount diodes for improved performance and quality
- Custom-designed lens optimises beam profile
- Vandal resistant fixtures designed for fast installation with no alignment problem
- Infra-red beams offer protection up to a height of 1.8m as standard
- Diagnostic LED to aid Service Engineers and reduce call-out times
- RX has enhanced light immunity for installations exposed to bright light
- Conforms to CE EMC Lift Industry Specifications EN12015-1998 & EN12016-2004

INTRODUCTION

The Model 740 Series Detectors generate a curtain of infra-red beams between the lift car doors and are driven by the Model 840/841/843 Series Controllers. The Model 740 Series of Detectors can be used with either the Pana40 Plus or Pana194 Plus Controllers to generate a 40-beam or 194-beam pattern respectively.

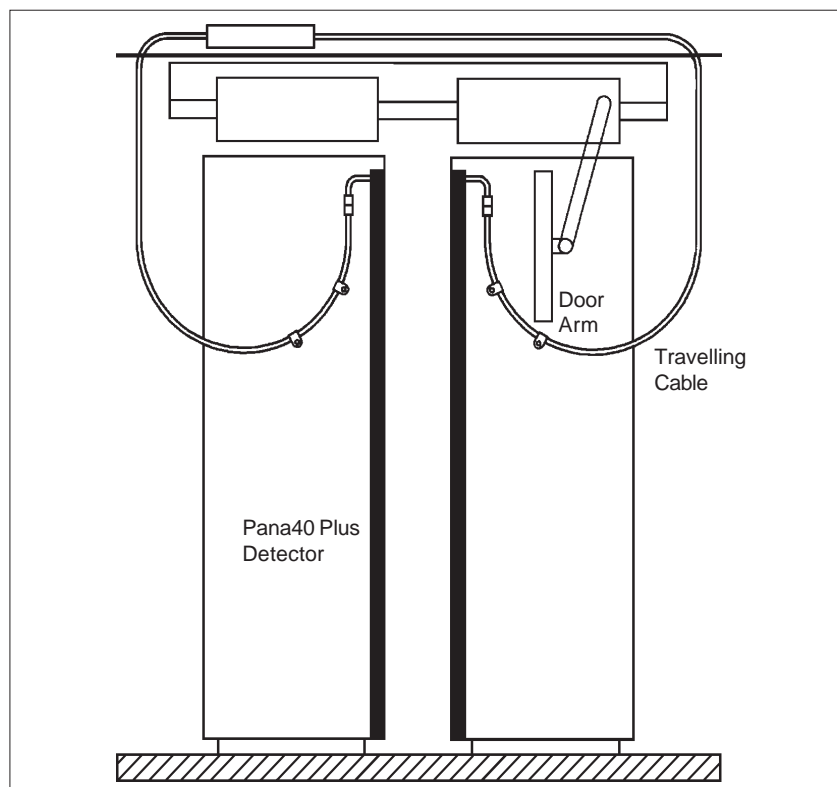
The TX diodes are manufactured by a technique which gives consistently high output power and extremely low degradation. RX diodes are custom-designed for Memco to offer excellent sensitivity and a wide diagonal-beam reception angle. This is also coupled with a secure surface-mount placement capability.

Note that sightguards should not be used on the Model 740 Series Detectors with the Pana194 Plus.

The mechanical design of the profiles ensure simple installation methods, high impact strength and ingress protection against dust and water. All Model 740 Series Detectors come with a Fixing Kit to accommodate various installation methods, a Transmitter (TX) and Receiver (RX).

The printed circuit boards (PCBs) housed inside the Detectors have been designed using SMT electronic devices and are produced on the latest surface mount production equipment. Each Detector houses five PCBs, four of which are the same. The PCBs are plugged together and can be easily replaced.

Fig 1 Typical Pana40 Plus installation on moving doors



Model 740 000

Standard Detectors

The Standard Detectors are 43mm ($1\frac{11}{16}$ ") wide and are designed to fit on the side of the door, flush with the door edge. Refer to Fig 1. Both Transmitter and Receiver are fixed by self-tapping screws through height adjustable mounting brackets. The Detectors require no special alignment. A vandal resistant cover is then fitted over the mounting brackets and secured to the door.

The Standard Detectors are particularly suitable for centre-opening doors with a wide clearance between the lift door and the edge of the car sill; the Detector also doubles as a sightguard. The P-clips provided in the fixing kit secure the cable to the lift door.

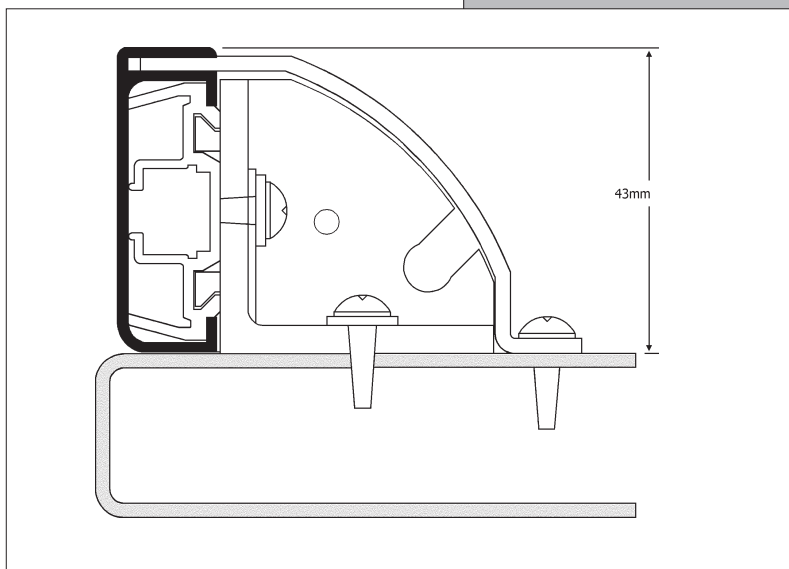


Fig 2 Model 740 000 - Standard Detectors

Model 740 010

Leading Edge Detectors

The Leading Edge Detectors are 39.5mm ($1\frac{9}{16}$ ") wide to allow them to be fitted onto the leading edge of the door or slampost. This version of Detector is particularly suitable for installation on side-opening or centre-opening doors. The door edges or slampost are firstly drilled and the Detectors fitted by means of bolts, sliding in tracks on the back of the Detectors. This fixing is particularly convenient when there is access to the rear of the door edge. Alternatively, the Detectors may be screwed through the Detector housing onto the door's leading edge using the self-tapping screws provided. Fixing materials for both methods are included in the Fixing Kit provided.

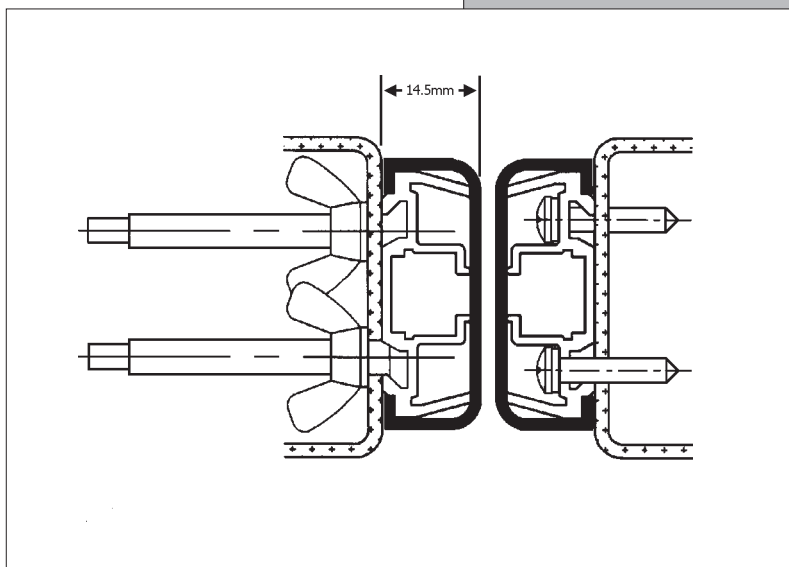


Fig 3 Model 740 010 - Leading Edge Detectors

Model 740 020

Mixed Detectors

For some side-opening door installations, it is convenient to mount a Standard Detector on the side of the lift door and a Leading Edge Detector on the slampost.

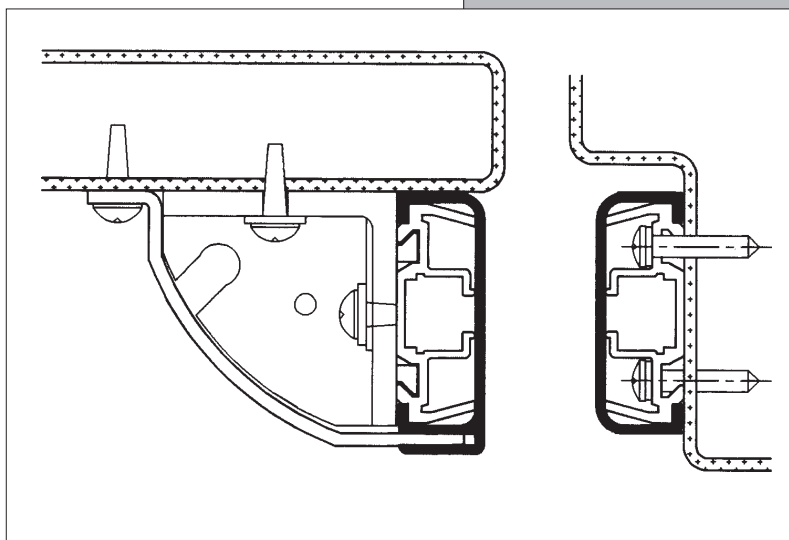


Fig 4 Model 740 020 - Mixed Detectors

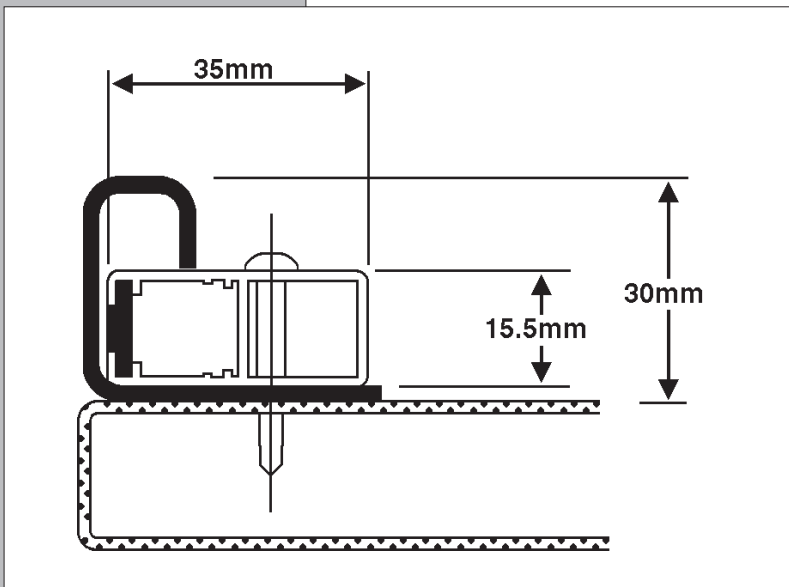


Fig 5 Model 741 000 - Slimline Detector showing optional sightguard

**Model 741 000
Slimline Detectors**

The Slimline Detectors are 15.5mm ($\frac{5}{8}$ ") wide and designed to fit centre-opening doors with a narrow running clearance. The Detectors may be mounted flush with the door edges or slightly recessed behind a sightguard. The sightguard is 30mm ($1\frac{3}{16}$ ") wide and is supplied as an option. Refer to the Ordering Information Sheet. The Detectors are screwed to the side of the lift doors using self-tapping screws from the Fixing Kit. Location holes are provided on the Detectors to locate the fixing screws.

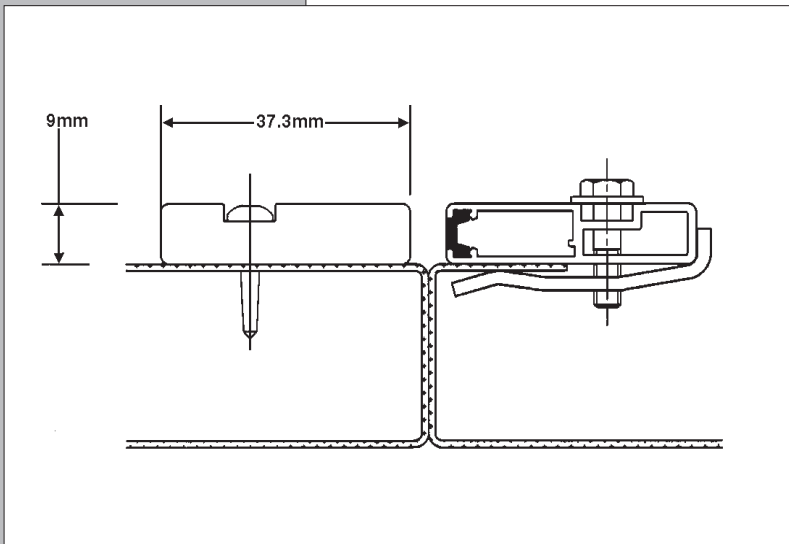


Fig 6 Model 743 000 - Ultraslim Detectors showing optional fixing clamp plate (5 included in kit Part No 743 803)

**Model 743 000
Ultraslim Detectors**

The Ultraslim Detectors are just 9mm ($\frac{3}{8}$ ") wide which allows them to be fitted to virtually all lifts. They are especially suited to lifts with very narrow running clearances. The aluminium profile of the detector has been especially designed for improved rigidity. The Detectors are mounted using pan-head self-tapping screws provided in the Fixing Kit. If the transmitter and receiver positions are reversed, counter-sunk self-tapping screws are also provided and can be used to mount the Detectors. **Note:** If these Detectors are used with a Pana194 Plus Controller they should be set back by 12mm ($\frac{1}{2}$ "). A special kit of five fixing clamp plates is available, (Part No.743 803), for installations where the door skin is not long enough for mounting the Ultraslim using the screws provided in the Fixing Kit.

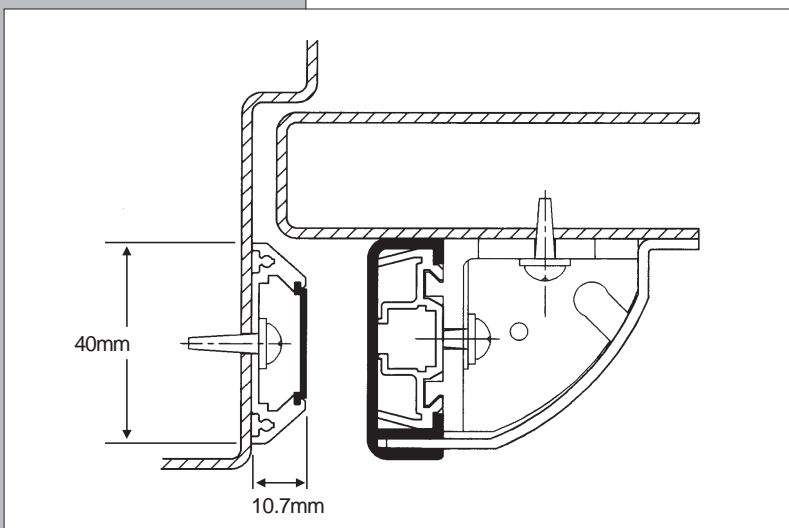


Fig 7 Model 744 020 - Slampost Receiver and Standard Transmitter Detectors




**Model 744 020
Slampost Receiver with Standard
Transmitter Detector**

The Slampost Receiver Detector is supplied with a Standard Transmitter Detector and Fixing Kits. The Slampost Receiver is suitable for lifts with side-opening doors. It is mounted directly on the slampost and has been designed to withstand routine impact from trolleys and other objects.

MODEL 740 SERIES DETECTOR SPECIFICATIONS	
Detector Size and Packed Weight:	
Model 740 000 - <i>Standard</i>	43mm (1 ¹¹ / ₁₆ ") x 63mm (2 ¹ / ₂ ") x 2100mm (6' 10 ¹¹ / ₁₆ ")
Model 740 010 - <i>Leading Edge</i>	39.5mm (1 ⁹ / ₁₆ ") x 14mm (9/ ₁₆ ") x 2100mm (6' 10 ¹¹ / ₁₆ ")
Model 740 020 - <i>Mixed Detectors</i>	(same as Standard and Leading Edge above)
Model 741 000 - <i>Slimline</i>	15.5mm (5/ ₈ ") x 35mm (1 ³ / ₈ ") x 2000mm (6' 6 ³ / ₄ "), 3.7kg
Model 743 000 - <i>Ultraslim</i>	9mm (3/ ₈ ") x 37.3mm (1 ⁷ / ₁₆ ") x 2000mm (6' 6 ³ / ₄ "), 2.4kg
Model 744 020 - <i>Slampost</i>	40mm (1 ⁹ / ₁₆ ") x 10.7mm (3/ ₈ ") x 2100mm (6' 10 ¹¹ / ₁₆ ") or 2300mm (7' 6 ⁹ / ₁₆ "), 3700g or 4000g
Detector Cable:	750mm (2' 5 ¹ / ₂ ") nominal; Slampost 1880mm (6' 2")
Fixing Kit:	
Model 740 000 - <i>Standard</i>	2 Kits each including, 1 PCV Guard, 5 Fixing Brackets, 1 End Plate, 5 6mm 'P' clips, 1 Drilling Template, 15 M4 plain washers, 5 M4 Crinkle washers, 15 No.8x12mm S/T screws, 5 M4x6mm Taprite screws
Model 740 010 - <i>Leading Edge</i>	2 Kits each including, 4 brass 'L' bolts, 4 M5 Wing nuts, 4 M5 crinkle washers, 5 6mm 'P' clips, 5 No.8x12mm S/T screws, 4 No.6x12mm S/T screws.
Model 740 020 - <i>Mixed Detectors</i>	1 Standard fixing kit & 1 Leading Edge fixing kit, as above.
Model 741 000 - <i>Slimline</i>	2 Kits each including, 8 3mm Spacers, 5 6mm 'P' clips, 5 No.8x32mm S/T screws, 5 No 8x12mm S/T screws, 5 M4 shakeproof washers
Model 743 000 - <i>Ultraslim</i>	1 Kit including, 10 6mm 'P' clips, 10 No.6x20mm CS'K screws, 12 No.8x12mm S/T screws, 10 No.6x16mm S/T pan head screws, 10 M3.5 shakeproof washers, 2 M4 shakeproof washers
Model 744 020 - <i>Mixed Slampost</i>	1 standard fixing kit & 1 slampost fixing kit as above
Diode spacing	45.7mm (1 ¹³ / ₁₆ ")
Distance between bottom beam & bottom of housing	18mm (1 ¹ / ₁₆ ") nominal on all detectors -
Distance between top beam & bottom of housing	1800mm (5' 11") minimum on all detectors -
	} meets the requirements of EN81-70:2003 Pt 5.2.4
Range	6.0m (19' 8 ¹ / ₄ ")
No of Diodes per Detector	40 (RX), 40 (TX)
No of Beams per Detector	40 with Pana40 Plus Controller or 194 with Pana194 Plus Controller
Maximum Voltage in Detector	6V DC
Maximum Power Consumption TX	0.3W
Light Immunity	100,000 lux
Operating Temperature Range	-10°C to 65°C as per BS201 1 Pt.2.1. Ab and BS2011 Pt.2.2 Bb
High Temperature/High Humidity	+55°C 6 x 24 cycles as per BS201 1 Pt.2 Db:1981 variant 2
EMC compliance to	Emissions to EN 12015.1998, immunity to EN12016.2004
IP Rating	IP54 as per EN 60529:1991
Vibration	20-500Hz 1.0g rms 4hrs 3 axis BS2011 Pt.2.1 Fd

■ Diagnostic LED

An LED is available on both TX and RX Detectors to assist Service Engineers. It is particularly useful for checking cable continuity. The status of the LED indicates the following possible conditions:

	LED Flashing	Normal operation
	LED Continuously On	No modulation/control signal or cable fault if the Controller is scanning
	LED Continuously Off	No power at Controller or cable fault if the Controller is scanning

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