



## Specification

**Supply** ..... 10-30v dc at 20mA max

**Storage Temp** ..... -10 +70°C

**Operating Temp** ..... -10 +70°C

**Protection** ..... IP54

**Weight** ..... 100g (*LRC25*)  
250g (*LRC50*)

**Cable** ..... 2 metre 4 core  
PVC sheathed

**Enclosure** ..... Matt black aluminium

**Min Object Detection** ... 1.5mm (*LRC25*)  
2mm (*LRC50*)

**Aperture Size** ..... 25mm (*LRC25*)  
50mm (*LRC50*)

**Output** ..... Opto isolator  
rated 30v 100mA  
fully protected

**Output State** ..... Selectable by supply  
reversal

**Operating Speed** ..... Will detect a 1.5mm  
diameter object travelling at  
1.5 metres/sec, max 200  
objects/min

**Output Duration** ..... Dependent upon object size  
& speed. 4.5 msec. min

## Guarantee

The equipment is covered by a 12 months guarantee from the date of shipment. Any faults arising due to faulty materials or workmanship, within the guarantee period, will be corrected free of charge providing the equipment is returned to us carriage paid.

## Certificate of Conformity

The equipment covered by these instructions has been manufactured and tested in accordance with our quality assurance procedures and conforms fully with our published specification.

## Health and Safety

Provided that the equipment covered by these instructions is installed and operated as directed, it presents no hazard and conforms fully to health and safety regulations.



When this product is incorporated into other machinery or apparatus, that apparatus must not then be put into service (in the E.C) until it has been declared in conformity with the appropriate E.C Directive/s.



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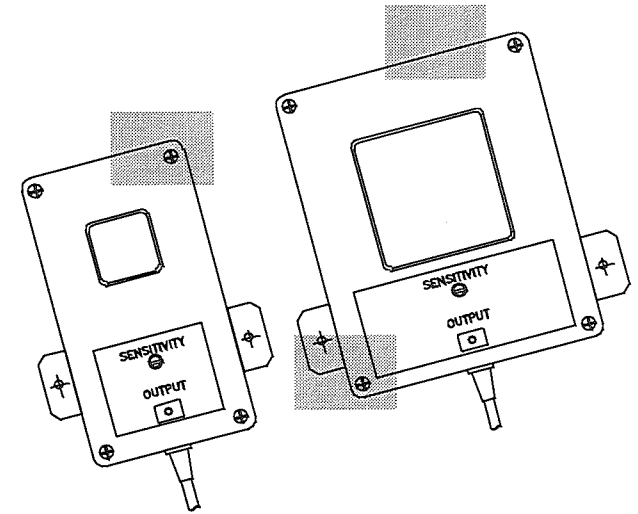
641-012C

>: LRC25-50(16)



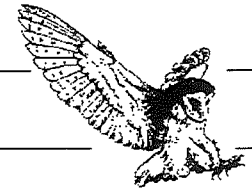
# SYNATEL

INSTRUMENTATION LTD



## LIGHT RING SENSORS LRC25 & LRC50

### OPERATING INSTRUCTIONS



## General

The LRC 25 and 50 are light screens designated to detect objects falling through the central aperture.

Primarily designed as object counters, they may also be used for numerous other applications where reliable object detection is required.

The units operate on 10-30v dc supplies and provide an opto isolated output, rated at 30V dc 100mA max, to feed counters or other electronic controllers.

## Installation

The unit should be rigidly mounted, using the holes in the mounting bracket, in a position which allows unimpeded flow of objects through the aperture. Reliable operation for counting purposes can only be achieved if object flow is controlled, to ensure that a gap exists between objects, and that they arrive and leave the screen individually. The unit should be screened from direct sunlight or high intensity ambient lighting.

## Wiring

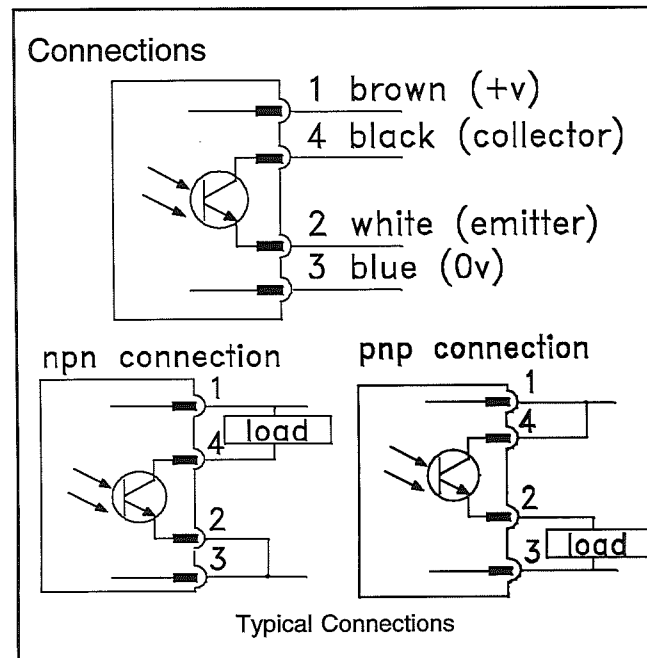
The connections are as shown. The output can be configured as PNP or NPN, (see typical connections) or the fully isolated four wire output may be used. Note that with the unit wired in one of the configurations shown, the output will be on when detecting an object. If the supply wires are reversed, the output state will also reverse, i.e. output off with object present.

Ensure that cables are separated from high voltage or high current cables.

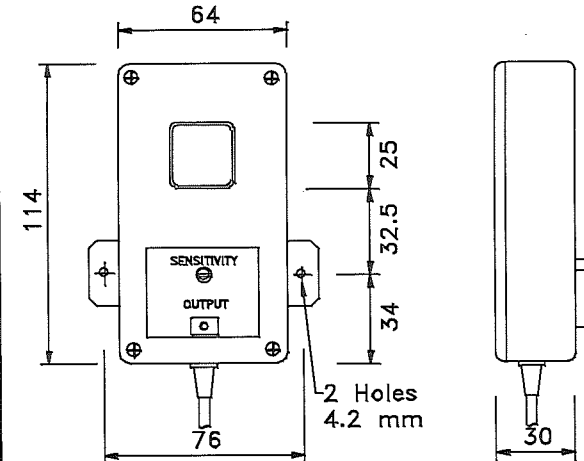
## Setting Up

Allow components to pass through the aperture. Rotate the sensitivity control fully anticlockwise (DO NOT use excessive force), and then slowly rotate clockwise until the LED operates reliably each time an object passes, regardless of object orientation.

Do not set the unit to be oversensitive otherwise double pulsing may occur.



## Dimensions: LRC25



## Dimensions: LRC50

