

# Magnetic Proximity Switch

## Type EM21

**Publication Number: LS007/0491**

### Application

The EM21 is designed to provide car position signals in the control of electric and hydraulic lifts and elevators. It is a rugged and heavy duty switch, small enough to fit within the overall depth of standard T guides. The EM21 is rated to IP32.

### Operation

The enclosed switch is operated by the passage of a steel vane between the arms of the U. For greater accuracy it is recommended that the circuit is switched by the leading edge of the vane as it enters the U.

### Installation

The switch is installed on a non magnetic bracket mounted on the car. The steel operating vanes, supplied by the user, are positioned in the lift well to pass through the arms of the switch as indicated on the switch label. Alternatively the switch may be mounted in the shaft and the vane on the car.

A vane thickness of 1.5 to 3mm is recommended, with a minimum vane length of 230mm. The unit may be mounted as close as 50mm to a ferrous metal structure without affecting performance.

When grouped together vertically, the switches may be installed with a minimum separation of 22mm and horizontally with a minimum separation of 60mm, between switches without performance loss.

**The EM21 is a direct replacement for the Dewhurst EM20 Proximity Switch, with the advantage of more clearance for the vane during travel.**

### Switch Rating

10 Watts d.c. at 250V Non-Inductive; 10VA a.c. at 240V RMS. Maximum current: 1 amp; maximum voltage 250V.

### Life Expectancy

More than twenty million operations.

### Repeat Accuracy

1.6mm in ten million operations.

### Reset Distance

19mm.

### Speed Range

Normally supplied for operating speeds of 0.01m/sec - 2.5m/sec (2ft/min - 500ft/min).

### Connections

3 flying leads 450mm long, for normally open, normally closed and common connections.

### Weight

170 grammes.

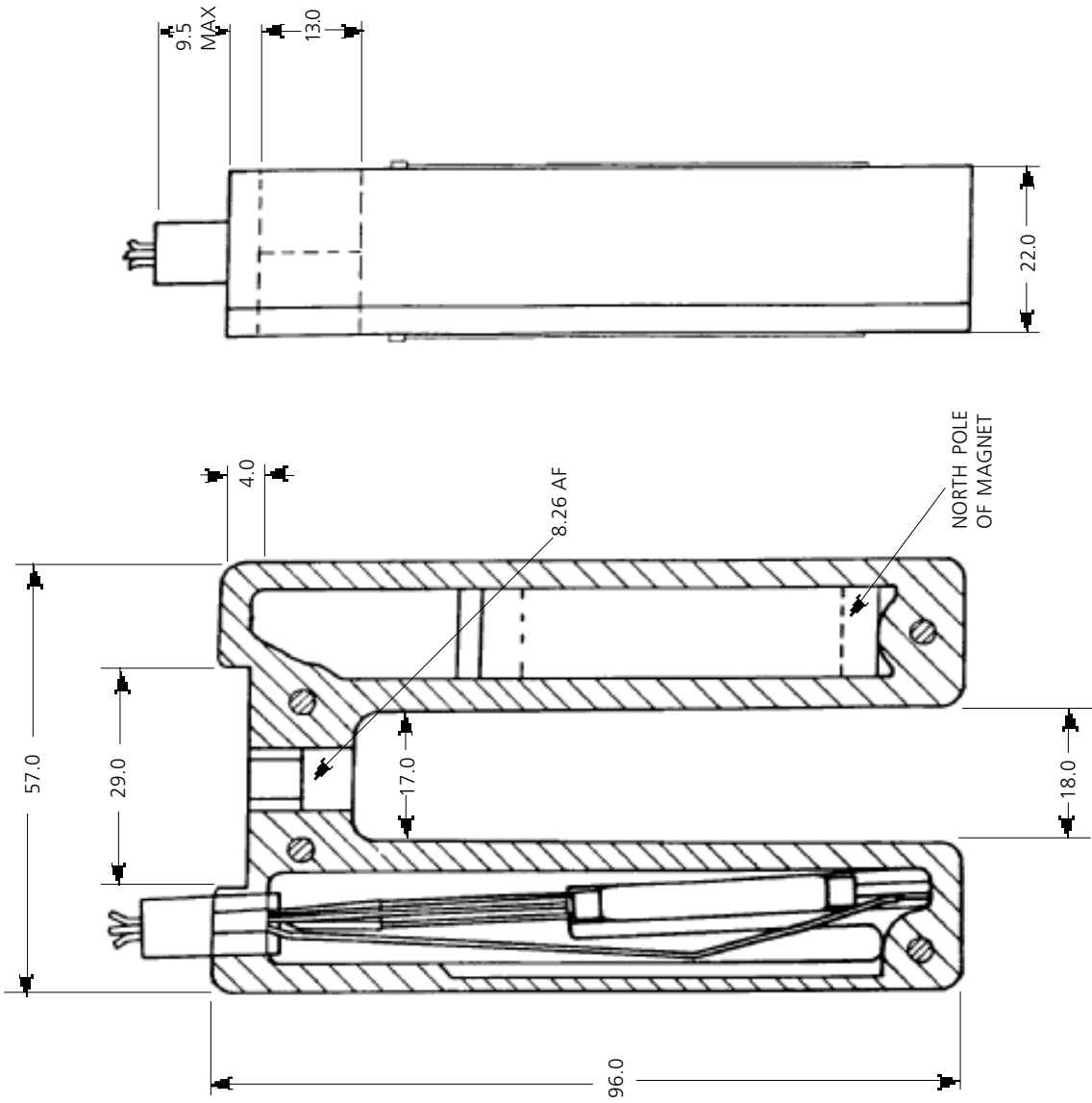
### Dimensions

See overleaf.

This information is for guidance only and is not intended to form the basis for contract. All dimensions in mm.

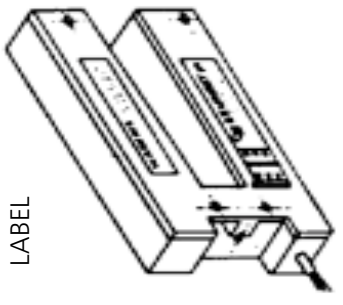
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WIRING	
Red lead	N/C Contact
Blue lead	N/O Contact
Yellow lead	Common

VIEW SHOWING POSITIONS OF 'WARNING' LABEL AND 'LIMIT OF VANE ENTRY' LABEL



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All dimensions in mm