

## SERIES 2000 LONG RANGE INDUCTIVE SENSORS

*Base mount onto or embedded into steel surround*

*Coil lengths according to requirements with ranges up to 200mm*

*Most AC Models rated to 750 mA*

- Robust resin-crete encapsulation
- ABS & marine glass fibre casings
- Watertight socket & armoured cable options
- Dual LED indication
- Fully adjustable sensitivity
- Remote coil options



Non - Flush  
Series 2100



### AN INTRODUCTION TO MODULOC SENSORS

Inductive proximity sensors purpose built for installation in the harshest of industrial environments. Ideal devices for mounting flush or slightly below the floorpan of roller tables and other conveyor systems.

The combination of large sensing distances with base mounting onto or embedded in steel surround allows their installation with complete physical protection. Available in a wide variety of configurations, these sensors offer a very practical solution to the detection of metal product, regardless of its shape and size.

The Integral sensors are available with a variety of base plates or fixing bolts to ensure straightforward installation and allow replacement of old line equipment. The Flat pack detectors allow the user to specify the required length of detector to suit the roller bed width whilst remote controllers facilitate safe access.

Available in AC and DC formats for direct feedback to PC systems, whilst at the same time capable of switching large contactor relays.

Semi - Flush  
Series 2300



Flat Pack Series 2240C  
Detector Coils



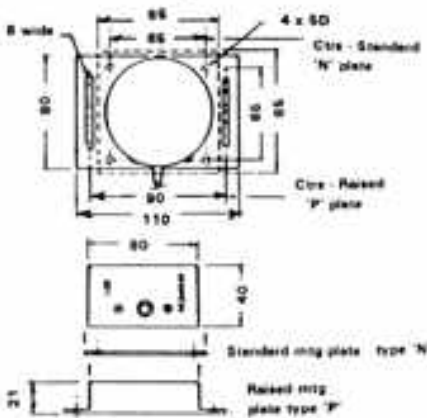
Length to clients requirements

## SELECTION GUIDE

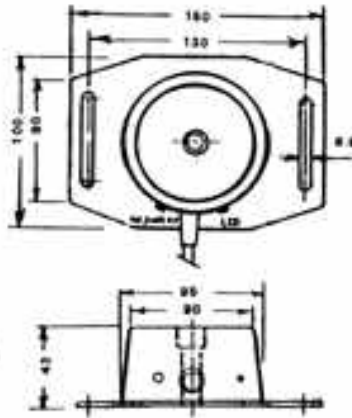
Four mounting styles are available in a variety of sizes & sensing ranges to enable the user to select exactly the correct coil to suit installation requirements. Apart from selecting the correct detector for the roller table width, consideration should be taken as to the effective range relative to product size. See back page graph.

### NON-FLUSH 2100 SERIES (For mounting onto steel)

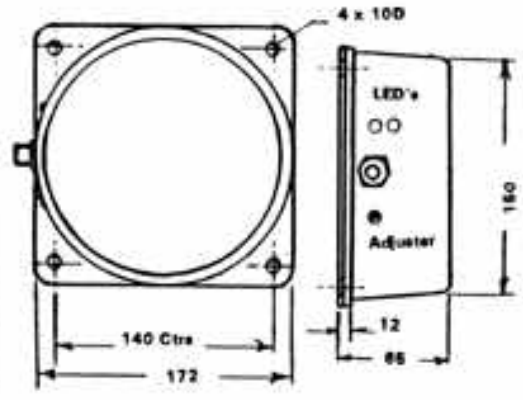
**TYPE MD 2180-50**  
Nominal Range 50mm



**TYPE MD 2195-75**  
Nominal Range 75mm



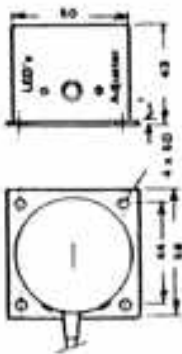
**TYPE MD 21160-130**  
Nominal Range 130mm



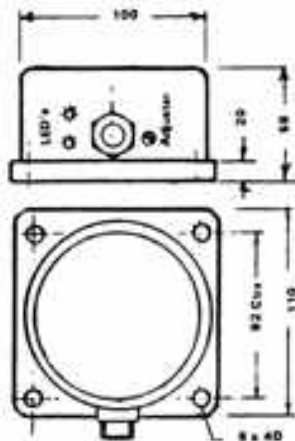
Centre option M12 fixing bolt with nut 'standard'  
Mounting plate is optional

### FLUSH 2200 SERIES (For mounting embedded into steel)

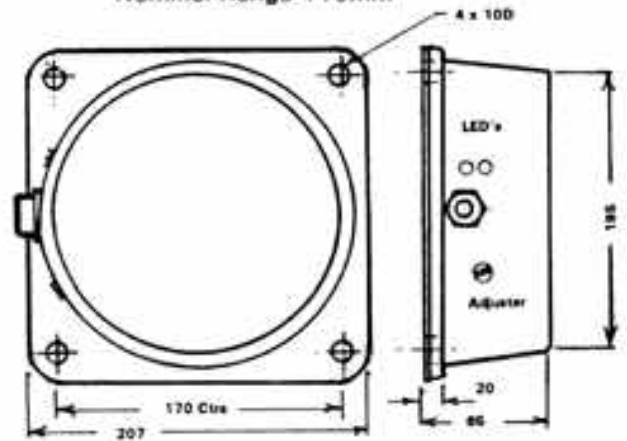
**TYPE MD 22050-20**  
Nominal Range 20mm



**TYPE MD 22100-55**  
Nominal Range 55mm

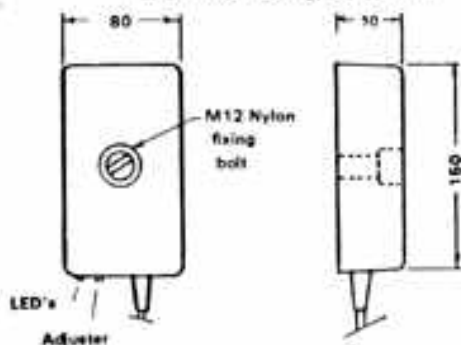


**TYPE MD 22200-110**  
Nominal Range 110mm

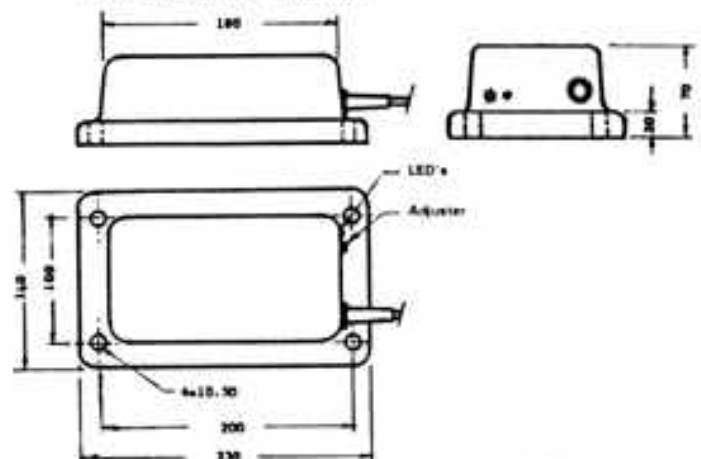


### SEMI-FLUSH 2300 SERIES (For mounting in surrounding metalwork)

**TYPE MD 23150-80**  
Nominal Range 80mm



**TYPE MD 23175-120**  
Nominal Range 120mm



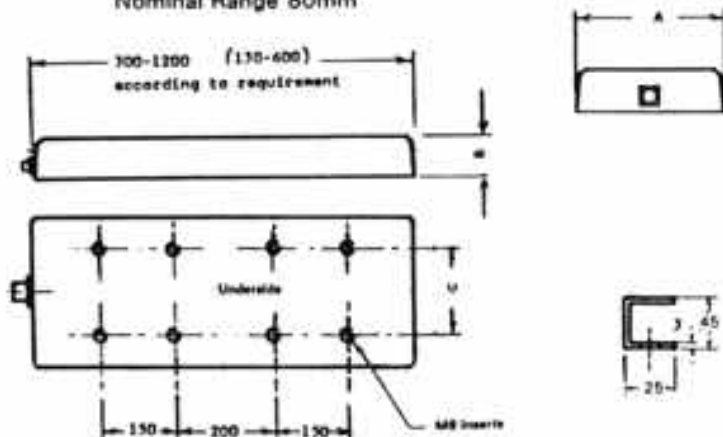
## DETECTORS IN LENGTHS TO SUIT CLIENT

As a general guideline, at least 20% of the coil length should have product passing over it within 70% of the established effective range for product being detected.

For further details refer to graph on back page.

## FLAT PACK DETECTORS

TYPE MD 22400 - 23400 - 24400  
Nominal Range 80mm

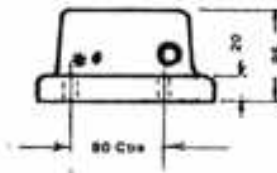
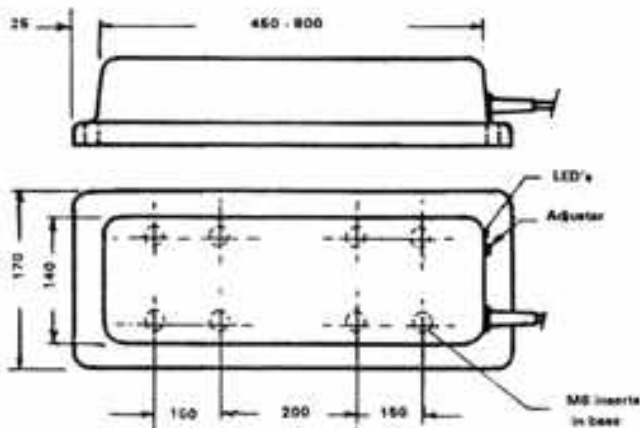


TYPE	NOMINAL RANGE	DIMENSIONS		
		A	B	C
MD22400	100	130	42	80
MD23400	140	180	87	120
MD24400	200	300	82	150

May be supplied with 2 lengths of aluminium 'U' Channel according to mounting framework with 80 holes as base plate centres

## EXTENDED RANGE DETECTOR 26400-150

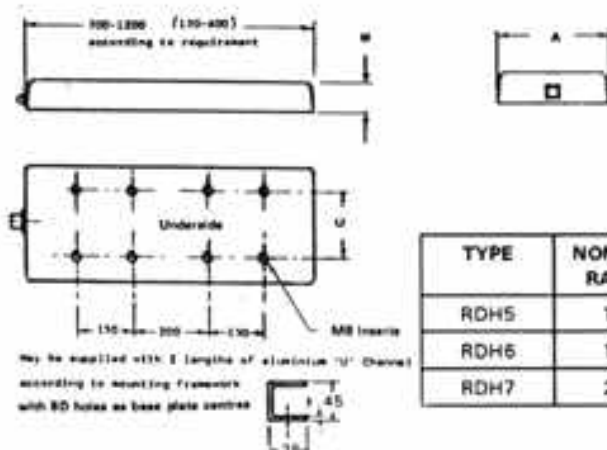
TYPE MD 26400-150



This particular sensor provides the user with a proportionally greater range relative to size of coil and at the same time enables mounting safely within steel metalwork adjacent to the base configuration.

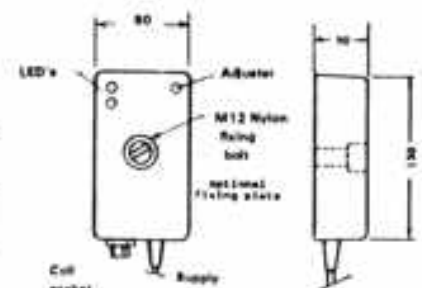
## REMOTE DETECTOR COILS

REMOTE COILS RD 5 - 6 - 7



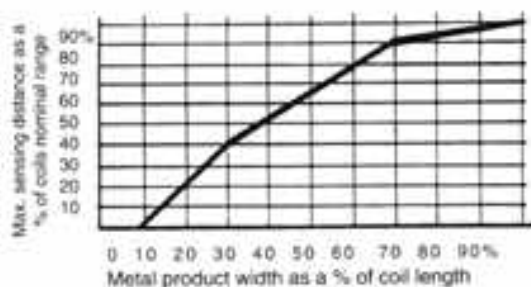
TYPE	NOMINAL RANGE	DIMENSIONS		
		A	B	C
RDH5	100	130	42	80
RDH6	140	180	87	120
RDH7	200	300	82	150

RCA 2/3  
REMOTE CONTROLLERS



# SENSING RANGE PERFORMANCE

## Establishing sensing range relative to product size



As a general guideline, at least 20% of coil length should have product passing over it within 70% of the established effective range for product being detected.

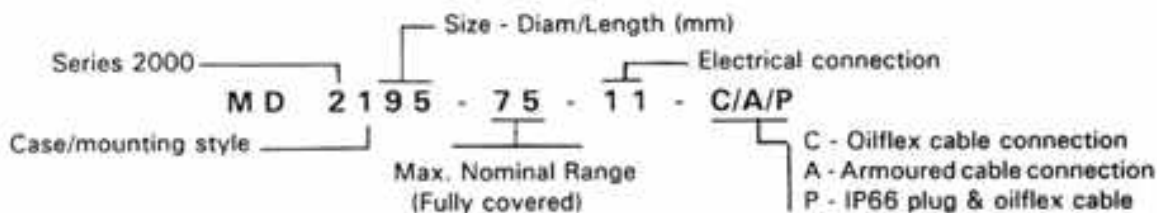
Material correction factors (sensing distance):-  
Fe - 1.0, CrNi - 0.85, Al - 0.5, Cu - 0.46, Brass - 0.54

Where the material is expected to be above 100°C., ceramic insulation should be placed across the top face of the sensor. With guidance, it is practical to protect coils with steel straps across the top of the sensor. Sensors mounted end to end will necessitate the utilisation of alternate frequency units.

## GENERAL SPECIFICATION DATA

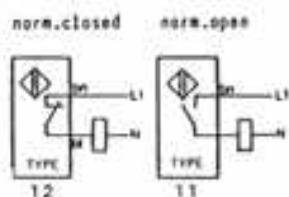
<b>ENCAPSULATION MATERIAL:</b>	Polyurethane resin
<b>SUPPLY VOLTAGE:</b>	12 to 30 VDC / 80 - 250 VAC 50/60 Hz
<b>SWITCHING FREQUENCY:</b>	5 Hz to 40 Hz according to size of detector
<b>SHORT CIRCUIT PROTECTION (AC Types):</b>	2180, 2195 & 22050 - 350 mA Other 2 wire models - 800 mA option available
<b>SHORT CIRCUIT PROTECTION (DC Types):</b>	450 mA
<b>MIN LOAD (2 wire AC types):</b>	2180, 2195 & 22050 - 7 mA Other 2 wire models - 1 mA option available
<b>LEAKAGE CURRENT at 110V AC (2 wire AC):</b>	2180, 2195 & 22050 - 5 mA / Other Models - 2 mA
<b>VOLTAGE DROP at 110V AC (2 wire AC type):</b>	2180, 2195 & 22050 - 30 mA load/16V - 220 mA load/21V Other models - 300 mA load/10V (option type)
<b>VIBRATION &amp; SHOCK RESISTANCE:</b>	Better than DIN 89011 Cat 2
<b>WATERTIGHT SPECIFICATION:</b>	IP66 (Casing & plug option)
<b>OPERATING TEMPERATURE RANGE:</b>	Integral sensors - 10°C + 70°C Remote coils - 40°C + 100°C
<b>SUPPLY CONNECTION CABLE:</b>	1.5 metres oilflex 2/4 x 0.5 mm <sup>2</sup> standard 1.5 metre armoured PVC cable 2/4 x 0.7 mm <sup>2</sup> option
<b>COIL CONNECTION CABLE:</b>	2 metres of coaxial cable

## SPECIFYING THE CORRECT STYLE & SIZE OF SENSORS

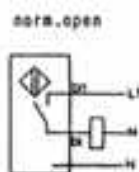


## ELECTRICAL CONNECTION DATA

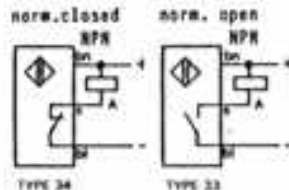
TYPE 11 - 2 WIRE AC (standard)  
TYPE 71 - 2 WIRE AC (Option rated)



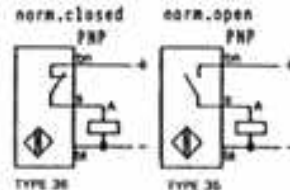
TYPE 13 - 3 WIRE AC



TYPE 33 - 3 WIRE DC



TYPE 35 - 3 WIRE DC



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The information presented herein is, to the best of our knowledge, accurate. However, please ensure that this information has not been amended or superseded.