

# 2010P PROXIMITY SENSOR KIT

## INSTALLATION INSTRUCTIONS

AM-2010P



### COMPONENT LIST

| REF | PART No. | DESCRIPTION   | QTY |
|-----|----------|---|-----|
| 1   | AA-2010P | PROXIMITY SWITCH C/W NUTS & WASHERS (M12 x1 THREAD) | 1   |
| 2   | AC-300   | 3 WAY 5 m CONNECTING CABLE                          | 1   |
| 3   | AH-400   | CABLE MOUNTING BRACKET                              | 1   |
| 4   | AM-2010P | PROXIMITY SWITCH INSTRUCTIONS                       | 1   |

### GENERAL INFORMATION

The Proximity sensor is activated when a metal object (Target) is passed within close proximity to the sensor. In this way, the "Prox" can be used on the yoke of a Tailshaft, a Locknut on a shaft bearing, the teeth of a sprocket or any protruding metal object.

If used as a shaft sensor for RPM readings, the sensor must see **one** target per rotation, to give true RPM readings.

When used as a Ground Speed/Area sensor the more targets per rotation the better. ie. For slow moving vehicles a toothed sprocket will give better ground speed response and improved incremental resolution for AREA and DISTANCE measurement.

The Proximity Sensor may be used as a shaft sensor or as a wheel sensor on any Farmscan monitor that operates on a 12 volts DC supply.

### INSTALLATION

The red light on the Proximity Sensor will switch 'ON' when metal is detected. It will switch 'OFF' when metal is absent.

The sensor must switch ON and OFF again to give a pulse output in response to the Target.

For correct operation of proximity switch, it is important to observe the following points.

1. If sensing a sprocket, it is important that the gap **between** the teeth is twice the width of the tooth. The teeth should be 6mm or greater deep and the sprocket should be 12mm or greater in thickness.

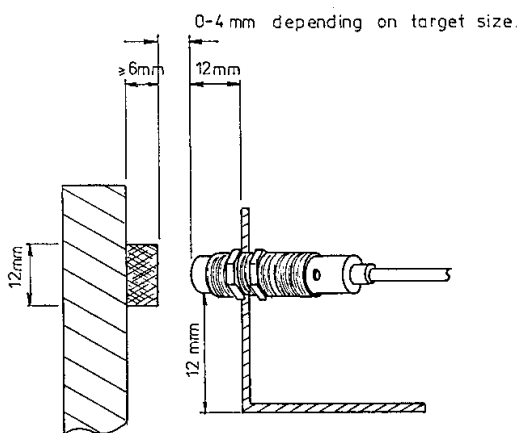
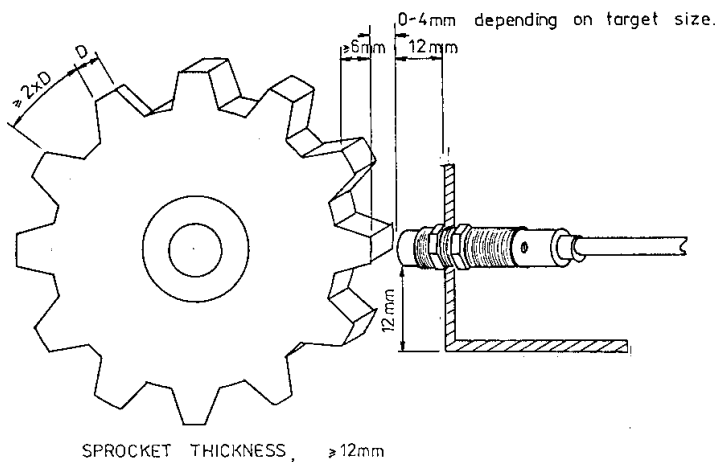
2. If sensing the side of a pulley, it is important that the Target protrudes 6mm or greater from the side of the pulley and be 12mm or greater wide.
3. Mount sensor as shown over page. For reliable operation it is important to observe the measurements outlined.
4. Connect the Proximity Sensor as follows:

| SENSOR COLOURS |    | CABLE COLOURS |    | MONITOR INPUT |
|----------------|----|---------------|----|---------------|
| BLACK          | TO | WHITE         | TO | SIGNAL        |
| BLUE           | TO | BLACK         | TO | GROUND        |
| BROWN          | TO | RED           | TO | +12 VOLTS     |

**NOTE :** If used as a shaft speed sensor, the monitor will expect one pulse per revolution of the shaft. If the shaft gives 4 pulses per revolution, then the RPM reading will read four times the true shaft speed.

When used as a Speed/Area Sensor, the Wheel/Distance Calibration Factor must relate to the distance travelled per pulse from the proximity sensor.

### PROXIMITY SENSOR INSTALLATION



**NOTE:**  
 If the target size is less than 12 mm for best results mount the proximity switch **0.5 mm** away from the target disc. The target disc should not have a wobble in it greater than 1 mm. The maximum gap between the sensor and disc is **2mm**.