



ROTOR TACHOMETER Diameter 57mm. IM-130

Preface

The IM-130 instruments have been designed especially to measure the Rotor RPM .

The IM-130 is available in 57 mm size.

General Information

ATTENTION : The IM-130 has not undergone any safety or durability examination to Civil Aviation standards but does incorporate the latest technical development and has been thoroughly tested. Despite the Rotor RPM being a precision instrument, false indication or misinterpretation of data could occur. By utilizing this instrument the user acknowledges the possible danger and responsibility for all risks.

State of receipt

- Instruments packed in a plastic bag
- 4 attachment screws
- 3 Loose plugs



Technical data

Case:	Plastic
Weight:	220g
Suitable for:	Hall Sensor
Power Supply:	10..35VDC
Power Current:	0.1 Amp. Max.
Scale:	0..500 RPM
Subdivision scale:	10 RPM
Max. Deviation:	1%
Dimensions:	See sketch
Calibration:	Calibrated by the manufacturer prior to shipment.

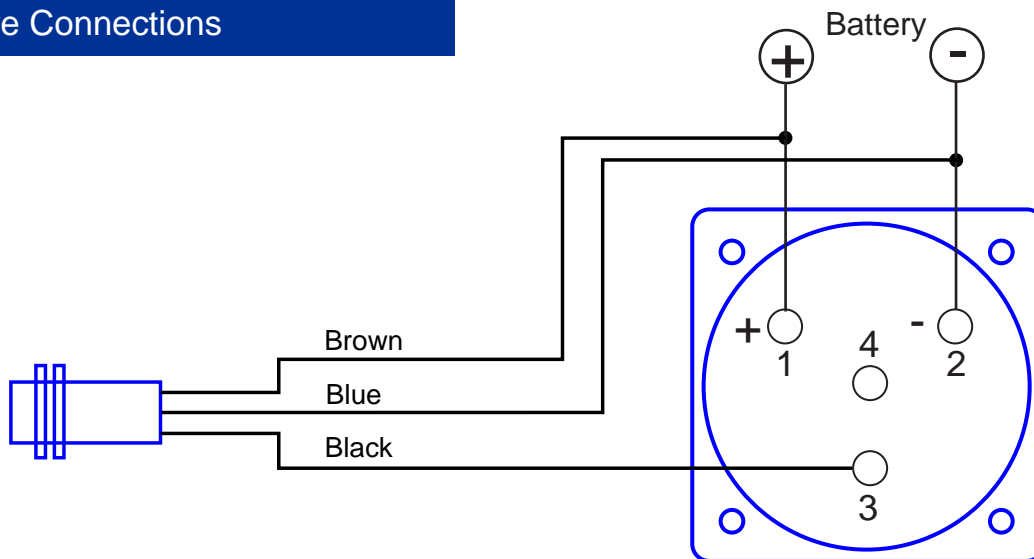
Installation Instructions

- Install instruments in pilot's field of vision, free from vibration and glare.
- Protect the instruments against dampness and any kind of gasoline or acid.
- Pay attention to installation dimensions
- Wiring has to be carried out with good quality plastic-sheathed cable.
- When routing cables, prevent possible damage to cables from heat, vibration, shearing or crushing.
- Install a breaker or fuse of 1 Amp.

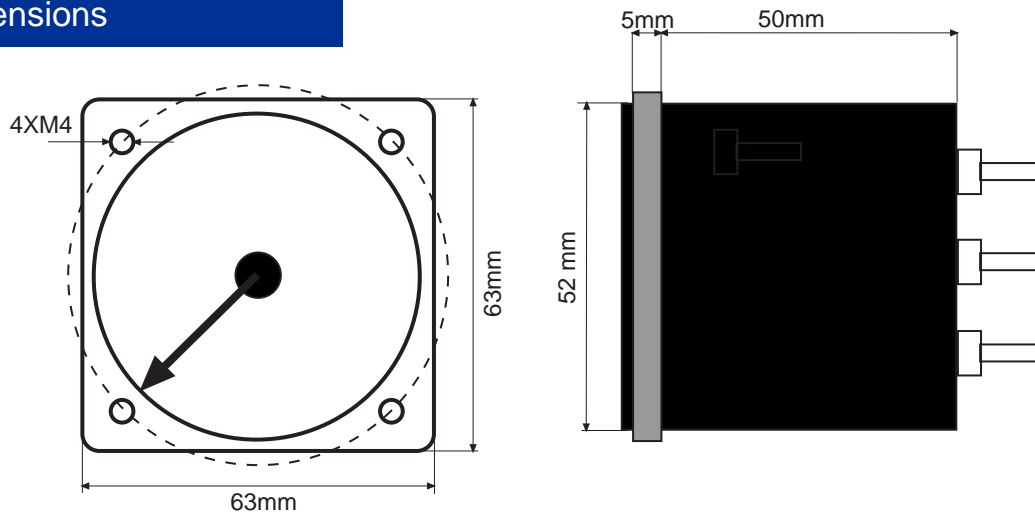
Instruments Terminals

- 1) (+) Red wire to positive terminal of battery.
- 2) (-) Black wire to negative terminal of battery.
- 3) Input to the Sender.
- 4) Factory calibration input.

Wire Connections



Dimensions



Sender

The IM-423 is inductive sensor that is activated when a piece of iron passes near, without touching them.

Only works with alloys high in iron.

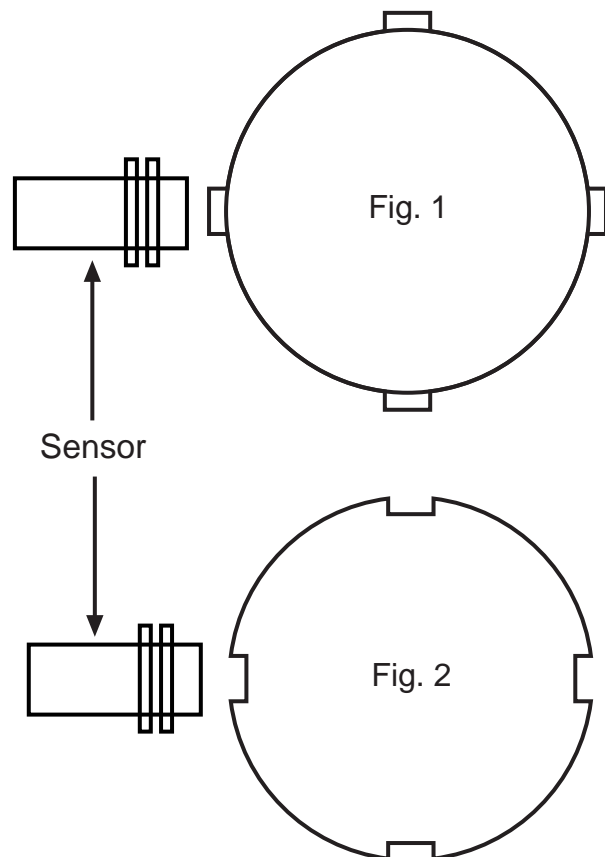
The sensor can work in two ways, with cam (Figure 1) or slot (Figure 2). In both cases the number of cams or slots have to be four.

The sensor has a LED on the back, for easy adjustment.

The setting is very simple and consists of tightening or loosening the two nuts sensor, towards or away from the cam sensor until the LED comes on when the cam pass and shut itself off when the cam has passed.

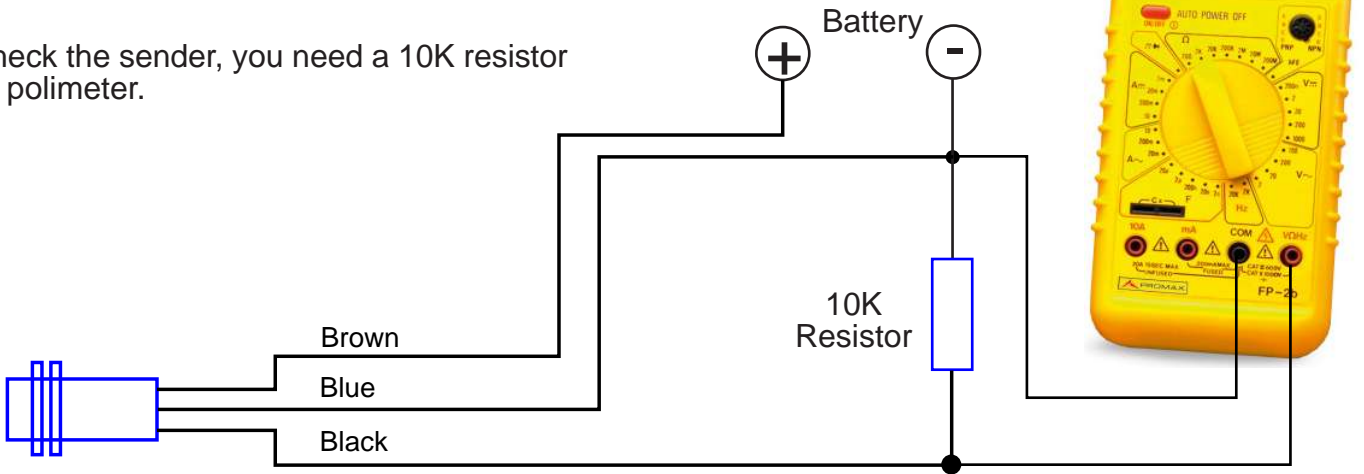
When using slots to do otherwise.

Logically for the LED lights you need to apply voltage.



Checks

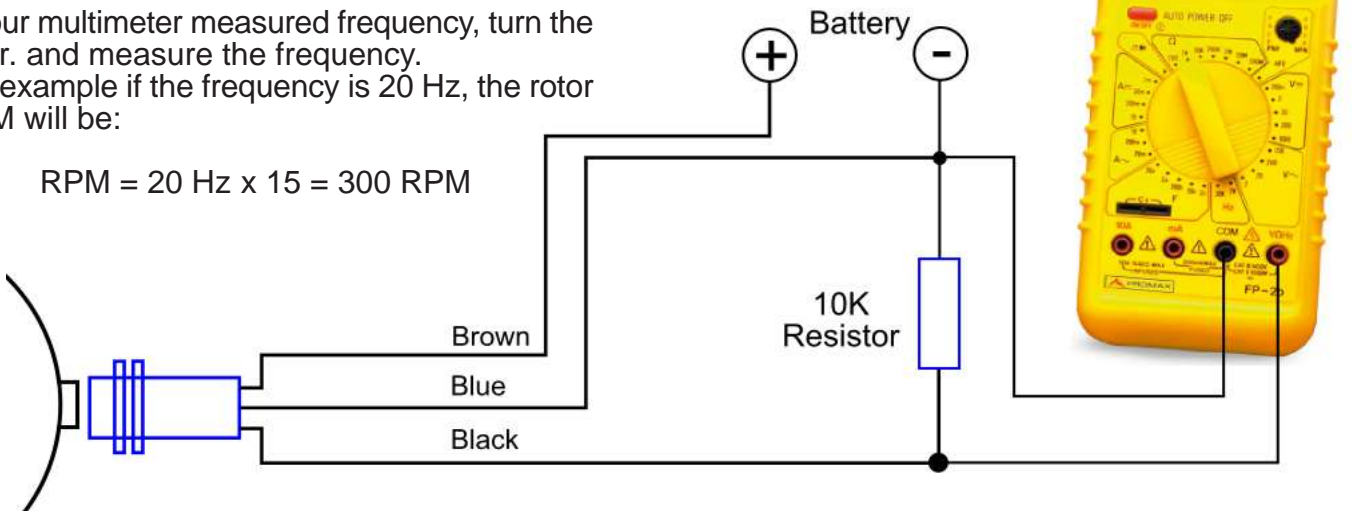
For check the sender, you need a 10K resistor and a polimeter.



Place a 10K resistor between the blue and black wires. Measure the voltage between the two terminals of the resistor. Place a piece of iron in front of the sensor. Measure the voltage again. One of the measures must be greater than 5V and the other less than 2V.

If your multimeter measured frequency, turn the rotor. and measure the frequency. For example if the frequency is 20 Hz, the rotor RPM will be:

$$\text{RPM} = 20 \text{ Hz} \times 15 = 300 \text{ RPM}$$



You can use the polimeter in frequency mode to check the gauge. Do not place the resistance as is buid-in the gauge.

