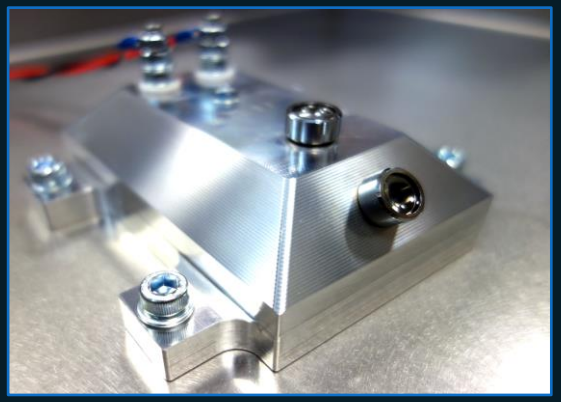


*Rotor Earth Fault Transmitter Unit*

# Features & Specs

## Transmitter Unit

- 58VDC – 250VDC field supply
- 70mA max consumption
- 100mm transmission distance
- Resin filled, aluminium casing
- No calibration required
- Max speed: 3600rpm
- <6kΩ Rotor insulation limit
- -40°C – +90°C operating temperature

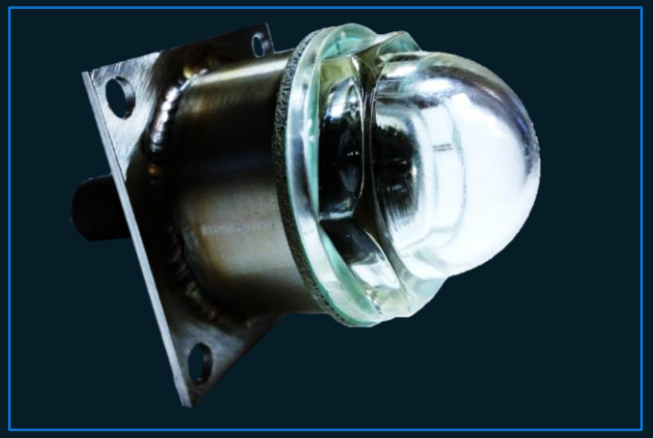
## Receiver Unit

- 24VDC customer supply
- 40mA max consumption
- 'Comm OK' Output contacts
- 'REF Alarm' Output contacts
- Output contacts available in NO & NC
- No calibration required
- Reset & Test button for commissioning
- -40°C – +60°C operating temperature
- Hazardous Cert. available on request


*Machine Mount Receiver Unit*

## Photo-Transistor (PT) Unit

The PT Unit is mounted on the diode assembly frame and is positioned the end-shield to receive an IR signal in the axial direction. This signal is then electrically transmitted to the Receiver Unit. It is important to align the PT Unit in the correct position to ensure line-of-sight with the transmitter.



*Frame Mount PT Unit*

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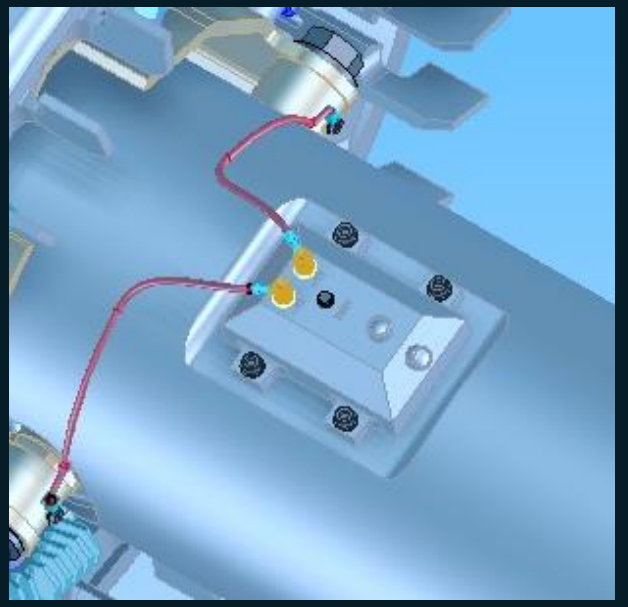
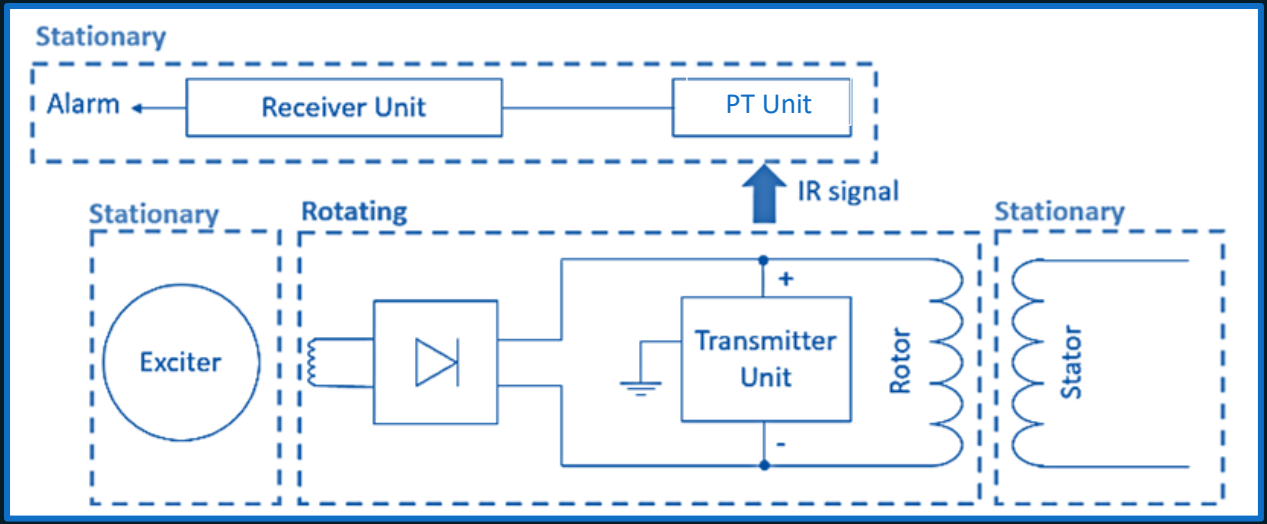


# ROTOR EARTH FAULT DETECTOR




# Operating principle

## Transmitter Unit

The Transmitter Unit is mounted onto the rotor shaft at the exciter-end. It receives its power from the field voltage and continuously measures for any leakage currents between field and earth. In a healthy system, a signal is sent to the PT Unit (mounted on the end-frame), indicating sufficient rotor voltage and satisfactory communication. During a failure in the rotor insulation, a modulated signal is sent to the PT Unit and an alarm is activated on the Receiver Unit.

## Receiver Unit

The Receiver Unit can be mounted anywhere on the machine. Three LEDs indicate Receiver Power, Transmitter Power and a Rotor Earth Fault. During healthy operation the first two LEDs are active. Four dry contact outputs are available; two 'Communication OK' and two 'REF Alarm'. These outputs indicate Transmitter Unit power and a Rotor Earth Fault Alarm, respectively.

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*The Rotor Earth Fault Detector is designed to pick up fault currents between the rotor field winding and earth using infra-red communication.*

Oct 2018 – Rad. v1.3

# Who We Are

## About Us

PPI specialises in the provision of site-based Engineering Services and the majority of the staff are qualified engineers.

PPI has its head office in England and has sales organisations in the United Kingdom, Middle East (Dubai) and Australasia.

Our goal is to provide 'round the clock' support and a complete technical and commercial solution to the customer.

The company specialises in the supply and support of rotating electrical machines and associated switchgear and transformers offering Engineering Services such as

- Diagnostics, Re-Engineering, Repair and
- On-Site Support/Commissioning of Electromechanical Equipment.
- Operation/Maintenance Support, Specification and Procurement,
- Expediting and Inspection Services

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