Rotor Earth Fault Detector

Model no: A1032-N103206M02

Data Sheet v.2.3

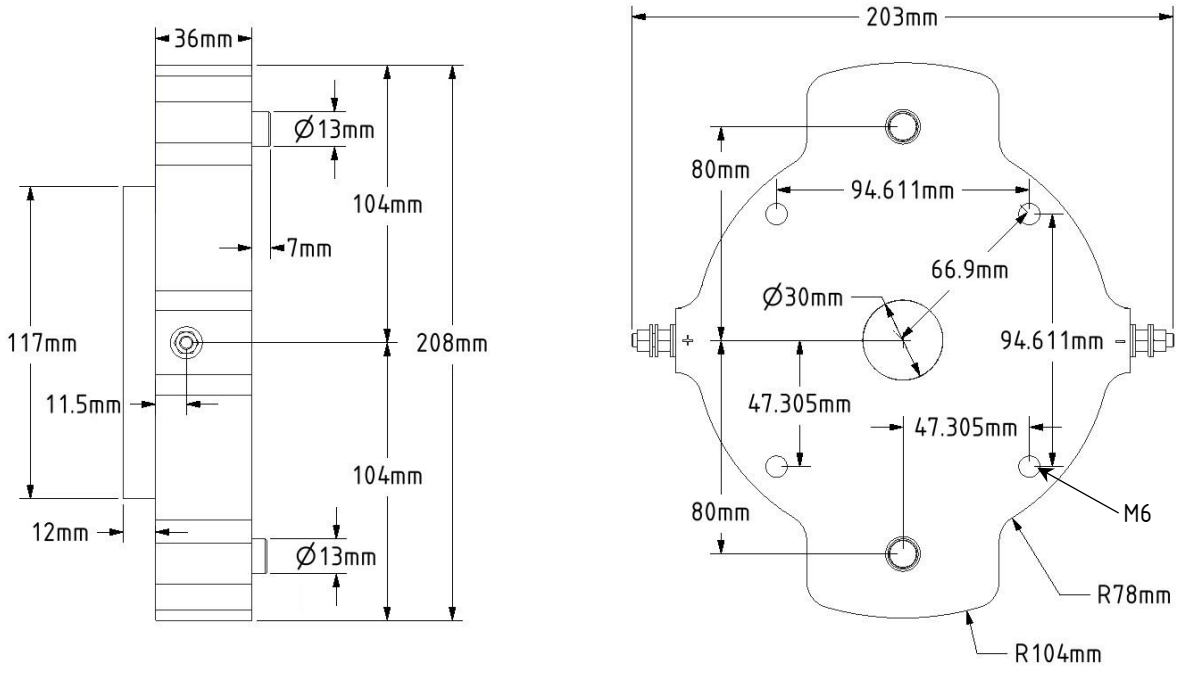
Transmitter Unit - A1032

The Transmitter Unit is mounted onto a shaft flange at the exciter-end of the machine. The centre hole is provided for the shaft to extend to an oil pump, speed sensor, etc. An IR signal is transmitted to the PT unit in the axial direction.

Specifications	
Supply Voltage (Rotor Field)	58VDC – 250VDC
Max current consumption	70 mA
Max power consumption	12 W (250V)
External dimensions (W x H x D)	203mm x 208mm x 43mm
Weight	2kg
Rotor Insulation Threshold	< 6kΩ
Operating Temperatures	-40°C to +90°C
Ingress Protection	Protected by machine IP rating
Enclosure Material	Aluminium
Mounting	Shaft face mounted
Shaft size extension diameter	30mm
Speed limit	3600rpm (4320rpm over speed, 2min)
Maximum Transmission Distance	100mm
Infra-red Dispersion Angle @ 66mm	±10°

Features	
Calibration	No calibration required
Testing	Any earth short-circuit applied
Durability	Robust epoxy resin filled unit

Dimensions



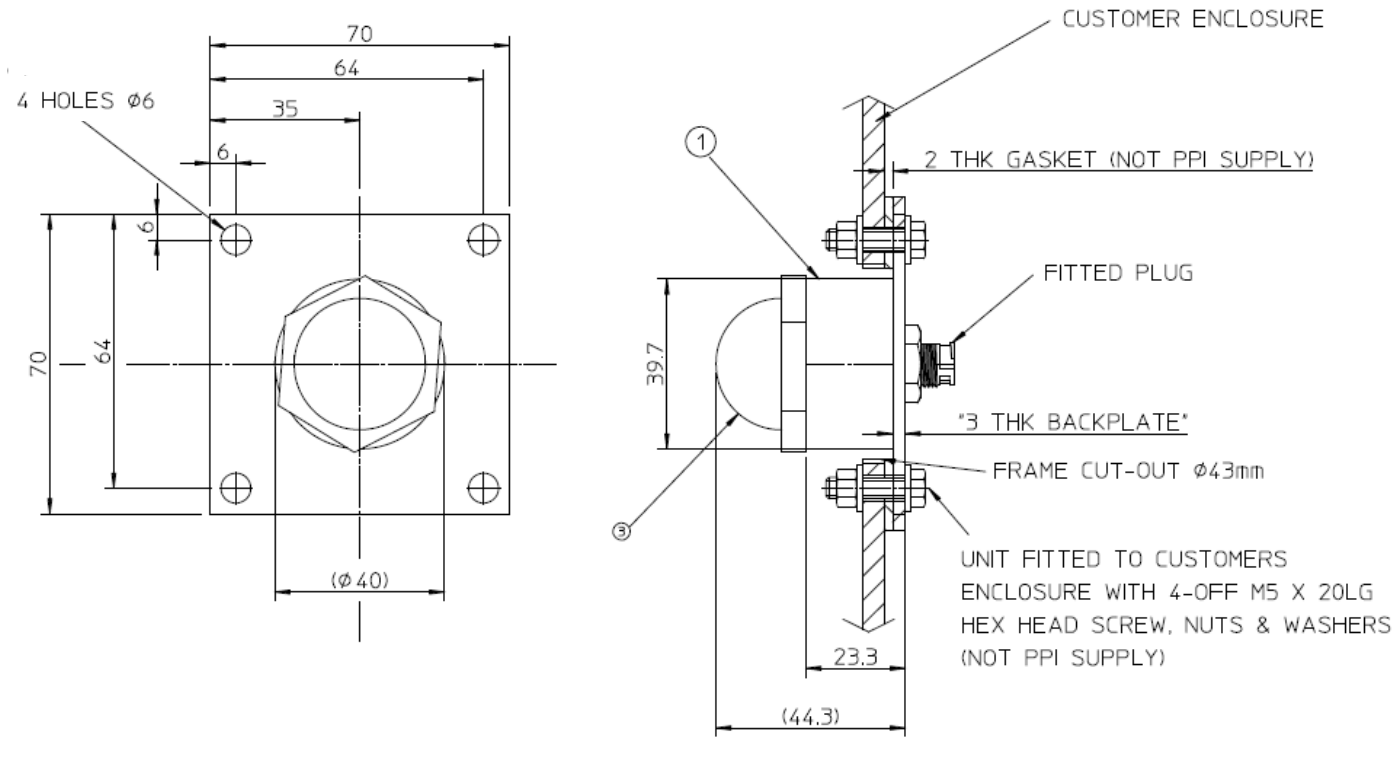
PT Unit

The PT Unit is mounted onto the exciter frame where it reads the IR signal sent by the Transmitter Unit and sends a modulated signal to the Receiver Unit.

Specifications	
Supply Voltage (Powered by Receiver)	5VDC
External dimensions (W x H x D)	70mm x 70mm x 44.3mm
Weight	0.2kg
Material	Stainless Steel
Operating Temperatures	-40 to +90 °C
Vibration Resistance	10 to 150 Hz, 1.5-mm double amplitude
Shock Resistance	98 m/s² (approx. 10G)
Ingress Protection	IP68/NEMA4X

Features	
Calibration	No calibration required
Inputs	Receives IR signal from Transmitter
Outputs	Sends modulated signal to Receiver
Features	BNC connector to Receiver Unit
	2m cable supplied by PPI (10m max if specified)

Dimensions



Receiver Unit - N103206M02

The Receiver Unit receives the modulated PT Unit signal, where it is processed to indicate either a healthy rotor or an earth fault between the rotor field and earth. The signal is then indicated via on board LEDs or relay dry contacts.

Specifications	
Supply Voltage	24VDC
Max current consumption	40mA
Max power consumption	1W
External dimensions (W x H x D)	147mm x 167mm x 116mm
Weight	2kg
Material	Aluminium Pressure Die-Casting
Operating Temperatures	-40 to +60 °C
Vibration Resistance	10 to 150 Hz, 1.5-mm double amplitude
Shock Resistance	98 m/s² (approx. 10G)
Ingress Protection	IP68/NEMA4X

Contact ratings	
Contact type	Volt-free contacts DPDT (2-FORM C)
Outputs	2 x REF Active NO/NC (optional – not standard)
	2 x REF Alarm NO/NC
Contact rated load	2 A, 60V (1.5 A, 30V for 12-pin output)
Impulse Voltage	800V

Features	
Calibration	No calibration required
Inputs	Reset & Test button for commissioning
Outputs	Internal LED indication and volt-free contacts
Auxiliary equipment	Remote Receiver mounted to machine frame
Cabling	Power supply, PT signal and Alarm cables can either be terminated inside via cable glands or connected externally via M12 industrial connectors.

Dimensions