



GROUND MONITORING DEVICE

Accurate ground fault sensing for **Automation & SCADA** applications.

Protect human lives and ensure the safety of electrical devices.

Maintain constant voltage in healthy phases during faults.

Protect electric systems/buildings from lightning.

- Earth pits guard against electrical accidents and damage by offering a low-resistance route to the ground for people and equipment. Regular monitoring of ground resistance ensures the earth pit is functioning correctly, reducing the risk of electric shocks, fires, and equipment failures.
- **Electrical Accidents:** Regular earth pit monitoring prevents electrical accidents.
- **Frequency of Earth Pit Testing:** Irregular testing impacts electrical safety.
- **Compliance:** Required by law or standards.
- **Load efficiency** with 5 different programmable slots for Watts/Current.
- **Impact on Equipment Performance:** Reduces downtime by ensuring proper grounding.
- Provides early detection of ground resistance faults, keeping critical systems online while faults are resolved.
- **Display:** Shows earth resistance value (0–100 Ohms).
- Continuous monitoring of ground resistance, offering early indications of both immediate and trending faults.
- Alerts when grounding deteriorates beyond the set threshold and end-of-life due to surge over voltage.
- **Arm/Disarm Alarms:** Option to enable or disable alarms.
- **Remote Communication:** Allows remote logging and integration with BEMS or SCADA systems.

Technical Specification

Parameters	Specification details
GENERAL CHARACTERISTICS	
Model	EMR-ARYA
Range	0 to 100 Ω
Accuracy	± 10%
Input Voltage	240V AC ± 20%
Frequency	50/60 Hz
Response Time	≤ 180 Sec
Initial Settling Time	1 Sec
Surge Capacity	1.2/50 μs,Current 8/20 μs 10 Pulses. 8KV/5KA max
Open Earth Indication	50 Ω (Programmable)
Hysteresis	2%
Alarm Output	230V (70VA max)
COMMUNICATION (OPTIONAL)	
Device ID & Parity	1 to 247 & Odd, Even, None Parity (Preferred Even)
Protocol & Interface	Modbus RTU & RS485 Baud rate: 4800 bps to 38.4kbps (Preferred 9600). Isolation: 2000 volts AC isolation for 1 minute between communication and other circuits
ENVIRONMENTAL CHARACTERISTICS	
Measurement Category	CAT III (As per IEC 61010)
Humidity	5% to 95% non-condensing
Pollution Degree	2
Altitude	Below 2000m
Insulation	Double Insulation
Ingress Protection	Below 2000m
Operating Temperature	-10°C to + 55°C (14°F–131°F)
Storage Temperature	-25°C to +70°C (-13°F–158°F)
SAFETY AND STANDARDS	
Construction	IEC/EN 61010-1 edition 3, CAT III, 300V LN / 600V LL, Protection class II
Standards	UL 61010-1, IEC/EN 62052-11

Mechanical Specification

MECHANICAL CHARACTERISTICS	
Wire Gauge (Connecting wires)	6 Min–25 mm² (max)
Container material	Polycarbonate with V0 grade
Dimension	6 Min–25 mm² (max)
Mounting	DIN rail mount
Weight	200g (without packing)
	350g (packed)

