

AnTech®



Rig-to-Casing Monitor

A compact, robust and sensitive voltmeter for the detection and identification of stray voltages in oilfield applications with explosives

The RIGVM is a sensitive AC and DC voltmeter intended for continually monitoring the electrical potential between drilling tool casings and surface metalwork for operations where explosives are being used.

Recommended practices for oilfield safety, API (RP 67) requires a stray voltage check to verify that the voltage between the wellhead, rig, and unit does not exceed 0.25 volts.

AnTech's RIGVM is specifically designed for this purpose and since any voltage over 0.25V is potentially hazardous, the RIGVM will measure 0 to 3V FSD DC and 0 to 3V rms AC (sine wave).

By using an ordinary digital multimeter it is possible to measure whether the source of the observed voltage is AC or DC and then to trace the source of any stray voltage with a view to eliminating the problem.

The RIGVM will withstand a continuous overload voltage of 185V AC or DC without permanent damage as it has meter protection components built in. The unit portable, rugged and weatherproof to withstand all conditions.

Any battery powered multimeter with voltage and resistance scales may be used to add extra diagnostic capabilities, if a problem is detected.



Features & Benefits

- **No internal source of power** – Can be used indefinitely in a hazardous area.
- **Robust construction** – Suitable for use in the environment below the rig floor.
- **Strong Clamps** – Essential to make a good contact through painted items.
- **Ancillary equipment** – Can be supplied with a rig to casing grounding cable to add further protection.



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Applications

AnTech's Rig-to-Casing Monitor (RIGVM) is designed specifically for use with explosive devices at the wellsite. The specification makes it suitable for the monitoring and identification of stray voltages in operations such as:

- Electric line conveyed
- Tubing conveyed
- Special operations



Ratings & Specifications

AN- 05171 Rig-to-Casing Monitor		
Max. Continuous Overvoltage *	Volts	185
Meter Full Scale Deflection	Volts	3.0
Weight (RIGVM) Unit)	kg(lb)	2.00 (4.40)
Weight (Cable Assembly)	kg(lb)	3.05 (6.71)
Length	mm(in)	150 (5.9)
Width	mm(in)	150 (5.9)
Height	mm(in)	121 (4.76)
Cable Length	m(ft'in")	10 (32'6")
Environmental Rating		IP66
Operating Temperature Range	°C(°F)	-20 to +100 (-4 to 212)