Parabolic Reflector

Handheld Accessory

Parabolic Reflector is an ultrasonic sensor for use when detecting partial discharge activity on exposed insulating surfaces. The reflector increases the sensitivity of the sensor allowing detection to be effective at up to 25m. It is commonly used in outdoor switchyards to detect surface discharge on string and post insulators, sealing ends and other exposed equipment.

Use of Parabolic Reflector

With the Parabolic Reflector connected to the **PD-SGS**, the reflector should be pointed at the HV equipment being inspected.

Look through the view finder with both eyes open and line up the red dot visible through the view finder with the centre of the inspection area.

The PD-SGS instrument should be operated in AE Mode (See PD-SGS Operation Manual) and it will register a dB reading on the user display. It will also generate an audible output according to the level of activity detected.

It is recommended that when using the Parabolic Reflector out of doors, the head phones are worn in order to minimise interference from outside noise sources.

Owing to the nature of acoustic PD detection and natural variations caused by environmental conditions, it is recommended that PD levels identified are appraised according to their relative values when compared with other similar plant and not in absolute terms.

Maintenance and Servicing

- If necessary, clean the equipment with a damp cloth. Do not use solvents as this may damage the surface.
- After use, the equipment should be disassembled and stowed in the carrying case.
- Replace low batteries immediately with a new cell of the type CR2032 3V. The battery box is situated on the lower surface of the red dot sight.

Technical Specification

Parabolic Reflector

The parabolic dish works with the existing electronics used in our PD instruments, so conforms to the same specification. The unit is passive and so the signal processing and interpretation is done by the main units.

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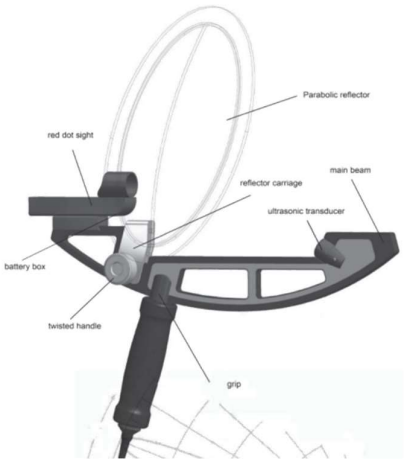
Measurement	
Measurement Distance	25 metres
Measurement Range	-6dBµV to +70dBµV
Measurement Gain	With suitable detection distance, measurement gain is 18 to 20 dB
Resolution	1dB
Accuracy	±1dB
Transducer Center Frequency	40 kHz
Transducer Sensitivity	-65dB min at 40 kHz (0dB = 1 volt/µbar RMS SPL)
Recommended Load Impendence	1MΩ
Transducer Diameter	16 mm
Hardware	
Aiming	Laser pointed heads up display
Laser Power	Yes
Laser Spot Size	2 mm
Dish External Diameter	258 mm
Dish Nominal Diameter	258 mm
Kit Weight	1.56 kg
Operating Temperature	-10 to 55°C
Humidity	0 – 95% RH non-con
IP Rating	54
Output Connector	3.5 mm or 6.35 mm TRS (Stereo Jack)
Coupling	N/A - Hand held instrument
Calibration	The unit is supplied fully calibrated
Designed and manufactured in the United Kingdom	

The Parabolic Reflector can be use with:
PD-SGS
PD Detector



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