PTP

Visual Alarm Device Evaluation Rig (VADER)

VADER

Testing Visual Alarm Devices to EN54-23 and UL1971

VADER Overview

Watch VADER Demo

The Visual Alarm Device Evaluation Rig or VADER and the associated software have been developed for measuring the light distribution from Visual Alarm Devices (VADs), according to the method described in sections 5.3.1, 5.3.2, 5.3.5 and Annex A of the EN54-23 standard.

The measurements and derived results are logged on the computer in a way that is easily accessible using standard data analysis and visualisation software (e.g. Microsoft Excel).

The eqipment comprises of an electro-mechanical assembly and a supervisory PC which provides the main user interface to the system. The PC communicates with a programmable motion controller and a data acquisition device which provides complete control functionality of the system.

Both systems are supplied with a laser pointer which, when mounted on the turntable, allows the sensor to be correctly aligned with the device under test.

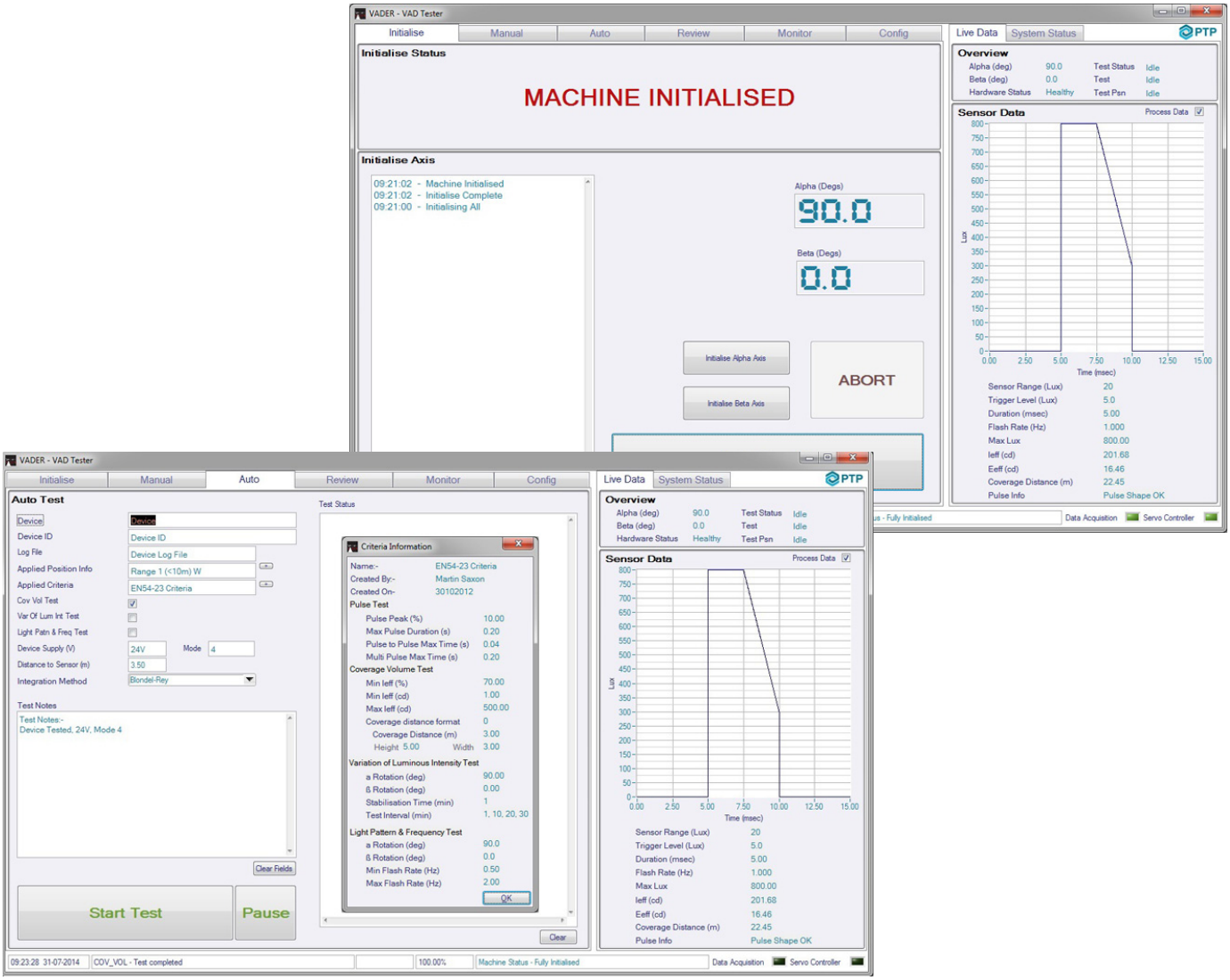
Two systems are available:

Research VADER. As used by all major UK test houses. The system includes analysis software, DAQ, sensor, control PC and automated floor-standing turntable with the ability to handle VAD's of up to 8kg in weight.

MiniVADER. Designed for manufacturers of Visual Alarm Devices. The system includes analysis software, DAQ, sensor, control PC and automated bench-top turntable with the ability to handle VAD's of up to 3kg in weight.

VADER Software

- > Software is identical in both systems
- > Files are also interchangeable
- > Easy to use, allowing creation of customised tests
- > Optional remote control software interface



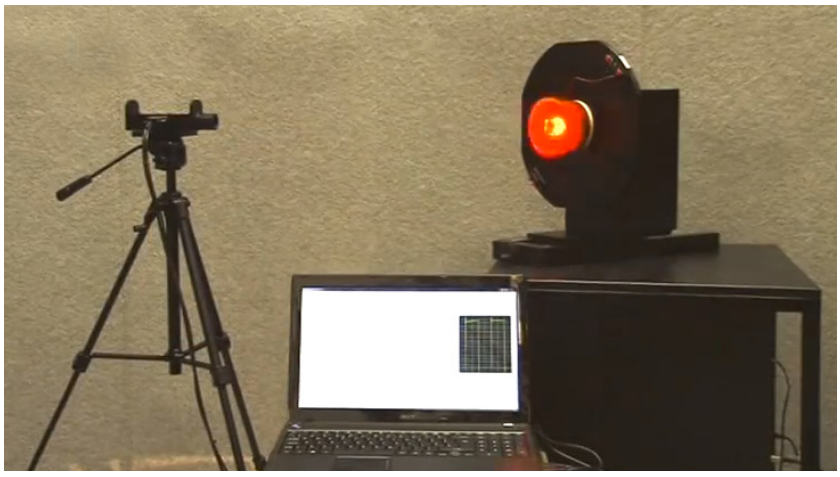
Additional Software Packages

- > UL1971 capability
- > Static Beacon testing
- > Emergency Lighting testing

Research VADER

The Research VADER was developed in conjunction with the Loss Prevention Certification Board (LPCB), part of BRE Global. Initially it was designed to allow testing and certification of Visual Alarm Devices to the now mandatory EN54-23 standard with software subsequently being developed to allow testing to UL1971. The technology has been adopted by all the major UK test houses and many international testing establishments are now following suit. The Research VADER is designed for fixed installations where portability is not needed. Onsite commissioning by the manufacturer is required. The Research VADER is capable of testing very large Visual Alarm Devices and Static Beacons.

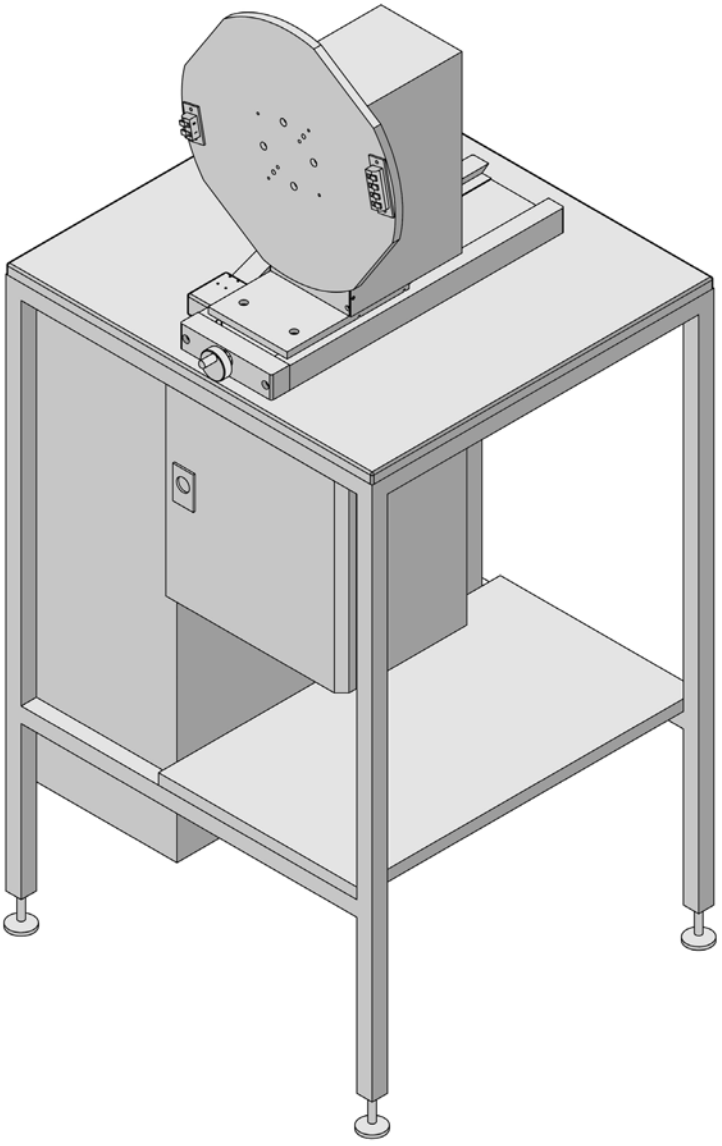
- Capable of handling VADs of all weights (up to 8kg) and sizes (up to 420mm diameter)
- High weight handling allows optional testing of Static Beacons
- Designed for fixed installation
- Floor standing unit with integrated cabinet
- Onsite commissioning by the manufacturer required

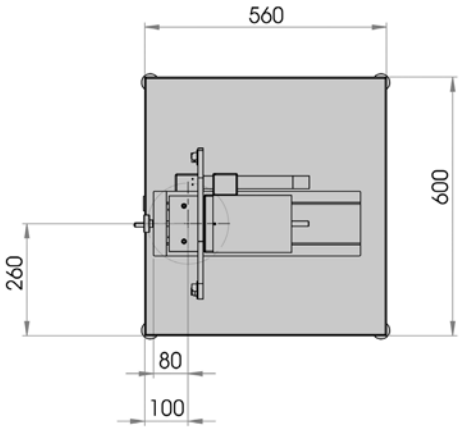


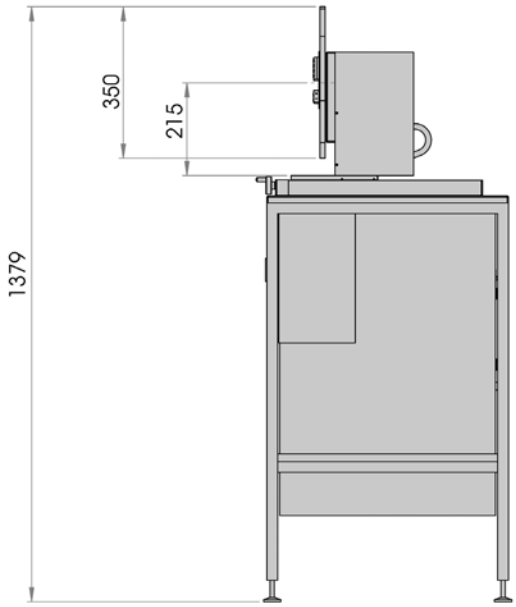
Research VADER: What is in the box?

- Analysis Software
- Data Acquisition Unit
- Control PC
- All cabling
- Fully automated turntable with integrated cabinet
- Tripod for mounting sensor
- Full professional installation and training anywhere in the world

Dimensions (mm)







MiniVADER

MiniVADER is a smaller, portable version of the Research VADER and is designed to allow development testing to EN54-23 at a lower price point.

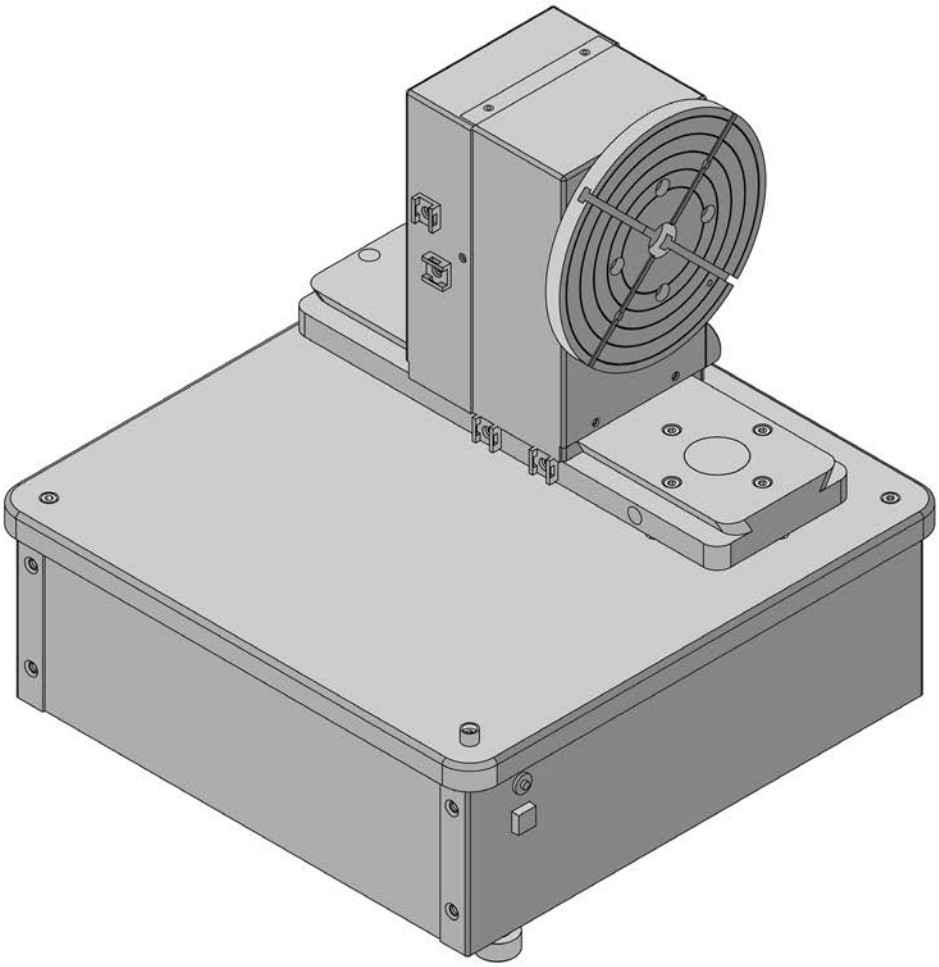
The MiniVADER equipment range is ideal for manufacturers of VADs who wish to ensure that their devices meet the relevant standards before submitting them to regulatory testing houses. By doing development and production testing using the MiniVADER range, it is possible to minimise the chances of a device failing the test for EN54-23 compliance thus eliminating the waiting time and cost associated with re-testing.

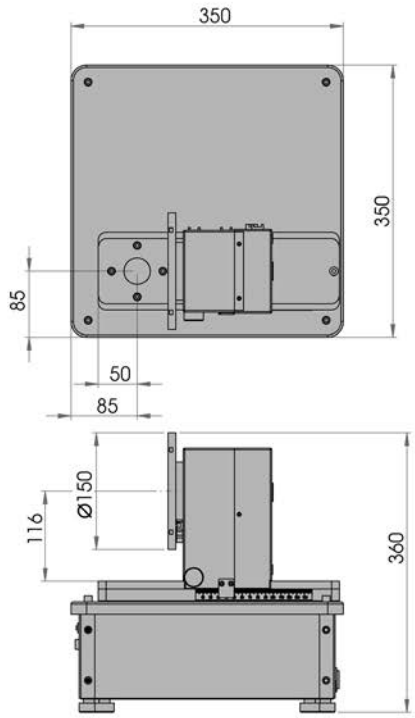
- > Ultra-portable design for easy transportation and multi-site flexibility
- > Table top design
- > Supplied with ultra-durable flight cases for easy shipping
- > Installation and training optional

MiniVADER: What is in the box?

- Analysis Software
- Data Acquisition unit
- Control PC
- All cabling
- Tripod for mounting sensor
- Flight case
- Fully automated turntable*

Dimensions (mm)





*Can be supplied with manual turntable or no turntable as required.

Research VADER and MiniVADER Comparison

	MiniVADER	Research VADER
Software Options		
EN54-23 Annex A VAD Testing	✓	✓
Emergency Lighting Test	Optional	✓
Static Beacon Testing	Optional	Optional
UL 1971 Standard Software	Optional	Optional
Turntable Options		
Standalone (no turntable)	Optional	×
Manual turntable	Optional	×
Automatic	✓	✓
VAD Weight Handling (kg)	3	8
Weights & Dimensions		
Net weight (inc turntable) (kg)	13	35
Packed weight (kg)	40	150
Dimensions (wdh, mm)	350x350x360	600x560x1380
Acquisition Rate		
Samples per Second	1 million	2 million
Data Sample	1 microsecond	0.5 microsecond
Remote Operation Pendant	×	✓
Installation	Optional	Required

Technical notes

1. Warranty as standard is 12 months but can be extended at additional cost
2. MiniVADER is available for rental. Please contact PTP for pricing
3. PTP are able to advise on room requirements for either system. Please contact us for further details
4. Training and installation are included in the cost for a Research VADER and can be quoted for a MiniVADER

Contact us