










## CONTINUOUS MONITOR SELECTION CHART

This chart has been provided to help you determine the monitor that best fits your needs.  
 If you have further questions or would like a unit to evaluate, contact Vermason  
 Customer Service Department: Phone: +44 (0) 1462 672005 E-mail: [Service@Vermason.co.uk](mailto:Service@Vermason.co.uk)

	<u>222603</u> 	<u>222608</u> 	<u>222743</u> 	<u>222744</u> 	<u>50515</u> 	<u>50537</u> 	<u>50579</u> 
Technology					Resistance	Resistance	Resistance
Single-Wire Wrist Strap	✓	✓	✓	✓			
Dual-Wire Wrist Strap					✓	✓	✓
4mm Parking Stud	✓	✓	✓				
10mm Parking Stud	✓	✓		✓			
Operator(s) Monitored	1	1	2	2	2	2	1
Working Surface(s) Monitored	1	1	2	2	2	2	1
Zero Volt Technology						✓	✓
Operator Charge Detection						✓	✓
Metal Fixture Monitoring							✓
Software Compatible					✓	✓	✓
Response Time	< 1 s	< 1 s	< 1 s	< 1 s	< 2 s	< 1 s	< 0.1 s
Made In	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America
Value	Good	Good	Good	Good	Good	Better	Best

## Vermason Uses Superior Wave Distortion Technology. Our Continuous Monitors Pay For Themselves.



Touch testing may occur once or twice a day, but how is one confident that the workstation is an ESD protected area all the time? Particularly problematic, is when a worker passes a touch test then works for four hours and then fails the touch test. Expensive testing of all ESD sensitive product that was worked on during those four hours is typically required.

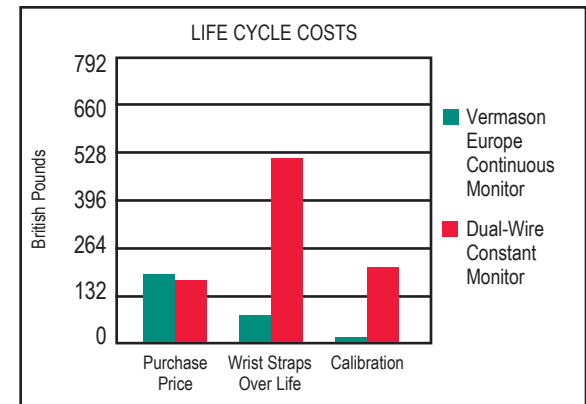
The solution is to equip each ESD protected workstation with a Vermason Workstation Continuous Monitor. The Monitor continuously verifies that the working surface and worker's wrist strap are properly grounded, removing all generated electrostatic charges. Per A.5.2 of EN 61340-4-1, "Where continuous monitoring is used, no additional testing is required."

Those responsible to see that the written ESD control programme is being followed, can stroll down aisles glancing at the illuminated green LEDs. Otherwise, they have the demanding task verifying that all grounding cords are electrically connected, that all wristbands are sufficiently snug, and that no highly charged insulators are on the working surface. By their function, Vermason Continuous Monitors satisfy the EN 61340-5 and ISO 9000 test logging requirement.

From all the technical alternatives available, Vermason has chosen wave distortion technology for all its continuous monitor product offerings. Wave distortion circuitry monitors current/voltage phase shifts and provides true 100% continuous monitoring. Electrical current will lead voltage at various points due to the combinations of resistance and capacitive reactance. By monitoring these "distortions" or phase shifts, the wave distortion Workstation Continuous Monitor will reliably determine if the circuit is complete.

Vermason Continuous Monitors more than pay for themselves. Improvement in quality and reduction in product defects should produce the most substantial cost savings. However, just the labour savings can be considerable. Our analysis of the typical savings of a single Workstation Continuous Monitor is £395.18 annually, providing a Payback Period of 100 days! The calculation demonstrates that the Net Present Value of your decision to buy a single Workstation Continuous Monitor is £986.75. For a copy of this Excel® spreadsheet, just request by emailing [techinfo@Vermason.co.uk](mailto:techinfo@Vermason.co.uk).

Vermason Workstation Continuous Monitors allow the use of any standard, single-wire wrist strap, and coil cord. The monitor/wrist strap/cord system life-cycle costs are by far lower than alternative systems, which require expensive & fragile dual-wire cords and special wrist straps. As the most likely component to need replacement, the dual-wire cords are the weak link of the system. Although the monitor may be comparatively priced, with much higher calibration costs and higher wrist strap costs, the dual-wire system is up to four times as expensive over a five year period.



### FEATURES AND BENEFITS OF Vermason WAVE DISTORTION TECHNOLOGY

- Real-time monitoring of ESD workstation including wrist strap, mat, and cords. Pays for itself - ensures ESD protected workstation, reducing catastrophic and latent defects.
- Utilizes reliable wave distortion technology. Provides true 100% continuous monitoring. Cannot be fooled; no false alarms. Not pulsed current which is off over 90% of the time.
- Can be used with any brand of single-wire wrist strap and cord. With less expensive, more durable single-wire components, life-cycle costs of monitor/wrist strap/cord are up to 66% lower than dual-wire approach.
- Miniscule electrical current required to generate waveform. No reported case of skin irritation.
- Designed for use by 1.5 m tall 40.8 kg person to 1.83 m 113.8 kg person. Individual adjustment for each operator is almost never necessary.
- Provided with calibration to European standards. Simple means to assure accurate performance. Lower calibration life cycle costs.

"A properly grounded wrist strap will keep a person's body voltage to approximately + 10 V. The main advantage to a constant [or continuous] monitor is the immediate indication that the employee receives if the wrist strap falls open. With an unmonitored system, the employee will not be aware of a wrist strap failure until the start of the next shift. This has reliability benefits for an ESD program as it might help reduce or eliminate ESD damage.

There are also other process benefits from using constant monitors such as the elimination of the need to maintain daily test logs and a reduction in the time for employees to make the daily test. For units that also monitor the connection of a work surface to protective earth, it is also possible to reduce or eliminate the checking of the work surface as part of the periodic audit of the process. Constant monitors might be implemented by an organization due to high reliability requirements imposed by customers." [CLC/TR 61340-5-2:2008 User guide Annex B.1.3 Constant monitors]