

### SPARTAN TWO Constant Monitor

Model CM310 - One Operator & One Worksurface

#### Ensure Your ESD Workstation is Static-Safe with a Single Wire Constant Monitor.

The Spartan Series Constant monitors provide ongoing testing of single wire wrist straps and ESD worksurfaces. The CM310 not only eliminates time consuming wrist strap testing, it removes the danger of wrist straps failing in the field and possibly exposing highly sensitive materials to static. Both audible and visual alarms signal when the wrist straps or worksurface fail. Enclosed in a durable metal case with built in mounting brackets, the monitors can be installed underneath table tops to save work space. The CM310 monitors meet or exceed the recommendations of ANSI ESD S20.20.

#### Why Use Constant Monitors?

The first and best line of defense against static damage is wrist strap grounding, but these wrist straps wear over time and must be tested to ensure they are working properly. ESD Constant monitors reduce production costs by eliminating the time spent on testing wrist straps before each shift. Further savings may be realized by reduced ESD damage from broken wrist straps.

#### Capacitance Technology

The CM310 sends out a signal through the wrist strap that detects the capacitance of the person and ground. When both are present, the monitor goes into an unalarmed state. If the electrical connection to the person or to ground should fail, the circuit will go into the alarm state to signal there is a problem.

#### Calibration / Verification

The CM310 monitors are designed to be adjustment free. Annual calibration is not necessary because the devices are a fixed system. If, however, your quality program requires testing, a verification tool is available to verify that the monitor is functional.



### Features

- Continuously Checks One Wrist Strap and One ESD Worksurface Mat
- Audible and Visual Alarms
- Compatible with Standard Single Wire Wrist Straps & Most ESD Mats
- Easy To Use: Simply Plug In Wrist Strap
- Factory Calibrated; No Adjustments or

#### Applications:

ESD constant monitors reduce production costs by eliminating the time spent on testing wrist straps. Further savings may be realized by reduced ESD damage from broken wrist straps.

#### Specifications:

|                            |                                      |                   |                              |
|----------------------------|--------------------------------------|-------------------|------------------------------|
| Wrist open circuit voltage | 0.7 VDC, +0.1VDC @ < 2mA             | Verification Tool | CM410 PV                     |
| Mat open circuit voltage   | 5.0—7.5 VDC                          | Dimensions        | 1.125" H x 4.00" W x 2.25" D |
| Alarm indicators           | Alarm/LED (green: safe, red: unsafe) | Weight            | 7.4 oz                       |
| Alarm set point :          | 6.5 megohm                           | Power Input       | 120VAC—60hz                  |
| Audible Alarm              | 10 beeps (max); 5 seconds            | Power Output:     | 12VDC, 200mA                 |
| Monitoring capabilities    | One wrist strap/person               | Adjustment        | No adjustments required      |

#### Part Numbers:

|         |                              |
|---------|------------------------------|
| CM310   | Single Wire Constant Monitor |
| CM410PV | Periodic Verification Unit   |

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