Valstat®

REAL-TIME ELECTROSTATIC CHARGE MONITORING SYSTEM

The **Valstat**[®] **SM20** series real-time electrostatic charge monitoring system continually measures, displays and records surface voltage on charged moving objects. It is an extremely useful safety and preventive maintenance device that finds use in many industrial applications like

- Rotogravure, flexographic and offset printing
- Laminating and coating machines
- Slitting, doctoring, inspection and allied machines
- Bag-making, pouching, labelling lines

- Film and paper sheeters
- Plastic bottle, moulded parts making lines
- FFS, other filling and overwrapping lines



The **Valstat**[®] electrostatic sensor is fixed at the location where the charge level on a moving target is to be monitored. Each sensor is connected to respective Valstat[®] field station controller, which in turn are connected to a common touch panel. Depending on needed sensing points, the application, and requirements of the user, the common touch panel is suitably located for monitoring and control purpose.

The output signal from one to a maximum of eighteen **Valstat[®] SM20** online electrostatic charge sensors can be connected to colour touch panel for remote or local continuous monitoring and analytics.

Data collected from these sensors can be used for raising an alarm when the measured value exceeds the optimal measurement range or a pre-set safety level, etc. In addition, it is possible to store, retrieve and analyse data that is collected.

The discharge or neutralising effect of the installed static charge eliminator may also be efficiently monitored for continual safety, preventive maintenance, etc. Expensive man-hours for inspection, testing and validation are also effectively reduced.

This system is distinct from a handheld static charge meter which is periodically used, and thus variations in measurement due to different operators, location and distance from the charged object are totally eliminated. A real-time, accurate and continuous signal proportional to the electrostatic charge is available for further analytics and diagnostics.

Electrostatic sensor

- Measuring range -20kV to +20kV at 50mm
- Distance range 25 to 75mm, depending on the application
- Compact and easily mountable
- Current consumption < 40mA
- 5m length pre-wired cable
- Operating temperature 0 to 50°C
- Humidity 35 to 85% RH, non condensing

Measuring distance and detection range

The relationship between the electrostatic sensor's installation distance and the detection range is as follows:



| Detection Range Ø (mm) |
|------------------------------|
| 100 |
| 120 |
| 150 |
| 180 |
| 205 |
| 225 |
| 235 |
| |

Field station controller

- Input supply : 240 V AC ±10%, 50/60 Hz
- Operating temperature : 0 to 50°C
- Humidity: 10 to 85% RH, non condensing
- Communication ports : MODBUS RTU
- Relay output for alarm/indications

Touch screen monitor

- Touch screen 4.3" to 10.1" depending on application
- Display of real-time electrostatic charges
- Normal / High static charge level indication
- System calibration
- Alarm display
- Data logging up to 20 MB internal & 32 GB (optional external SD Card)
- Real time and historical trends



Manufactured by VALENCE **Electrons Pvt Ltd** An ISO 9001:2015 Certified Company

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* Product specifications are subject to change