



INJECTION MOLDING MACHINE

MARKET READY KIT

Measure all aspects of your Injection Molding Machine to optimize settings, track production profile deviations in real-time, compare machine performance, reduce energy consumption and implement preventative maintenance.

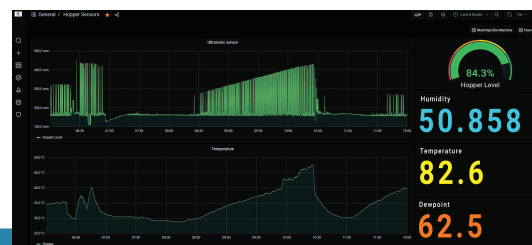


Ectron's Market Ready Kit is plug-and-play. Start measuring data and get analytics to optimize production and save costs. Make your operation more efficient and product quality more consistent.

- ✓ Job Duration
- ✓ Material Used
- ✓ Material Dew Point
- ✓ Material Flow Rate
- ✓ Material Level in Hopper
- ✓ Thermolator Flow Rate
- ✓ Average Manifold Temperature
- ✓ Fluid Temperature (to/from Manifold)
- ✓ Average Hopper Temperature/Humidity
- ✓ Set-Up, Hold, Cool Down Times
- ✓ Amount of Material Per Job, Hour, Minute
- ✓ Number of Units Yielded Per Job
- ✓ Cost Per Unit, Cost Per Run (Material and Energy)
- ✓ Environmental Factors (Temperature, Humidity)
- ✓ Machine Utilization/Uptime

- ✓ Monitor machine characteristics for anomalies during production run.
- ✓ Adjust machine settings in real-time to keep desired manifold and hopper temperature maintained.
- ✓ Compare output and product quality based on material used.
- ✓ Compare output and product quality of various machines.
- ✓ Root cause product nonconformance caused by equipment deviations.
- ✓ Pinpoint equipment deviations for predictive maintenance and repairs.
- ✓ Monitor usage for production scheduling and energy efficiency.
- ✓ Forecast and track per run production cost (including energy cost)
- ✓ Track environmental effects on product quality and machine performance.
- ✓ Check machine usage hours to trigger notification for routine maintenance.
- ✓ Run simulations to see what changes in the process yield efficiencies.
- ✓ Get OEE numbers for each machine.
- ✓ Utilize energy data to support a Sustainability Program.

The entire kit is built around Ectron's Edge Node (for Cloud data analytics) or Intelligent Edge Node (for Edge data analytics). Both aggregate and interpret sensor data. The data can be viewed on a customized dashboard or sent directly to your existing ERP solution or other business intelligence software.

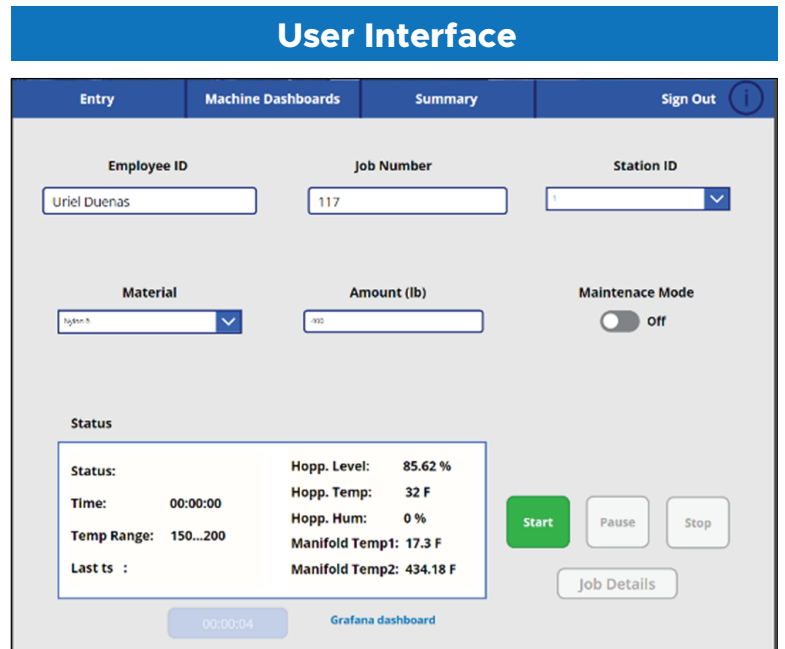
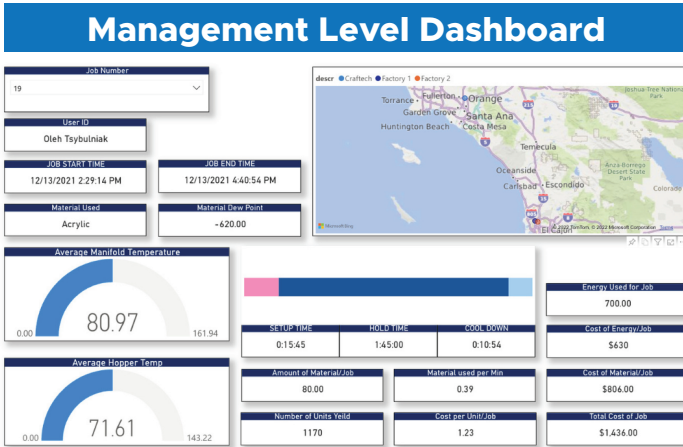
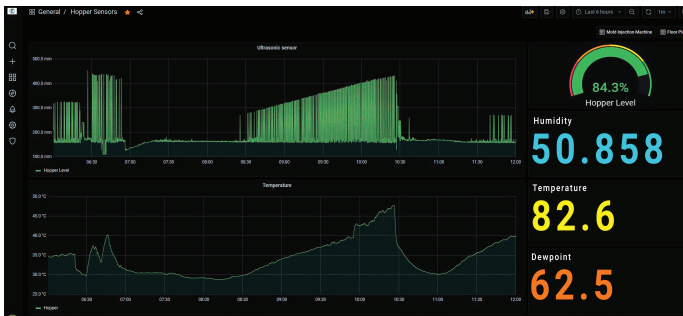


Standard Configuration of the Market Ready Kit is:

- ✓ 1 Edge Node or Intelligent Edge Node
- ✓ 1 Hopper Temperature, Humidity Sensor
- ✓ 1 Hopper Material Level Sensor
- ✓ 1 Manifold Thermocouple Data Converter
- ✓ 1 Environmental Sensor
- ✓ 8 Flow Meters for Thermolators
- ✓ 1 Power Sensor Module
- ✓ 1 Computer Tablet for Operator Data Entry

- ✓ Plug-and-Play
- ✓ Installed in 1 Day
- ✓ No Changes to Equipment
- ✓ No Engineering or IT Staff Required
- ✓ Instant Access
- ✓ Installation Assistance Available

Multiple Variables Available For Edge And Cloud Analytics



This Market-Ready Kit is offered by Ectron and its partner Balluff

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