



SIM1012 OEE Monitor
Standalone performance monitoring

SICK
Sensor Intelligence.

WHAT IS OVERALL EQUIPMENT EFFECTIVENESS?

OEE (Overall Equipment Effectiveness) is the gold standard for measuring manufacturing productivity. Simply put – it identifies the percentage of manufacturing time that is truly productive. An OEE score of 100% means you are manufacturing only Good Parts, as fast as possible, with no Stop Time. In the language of OEE that means 100% Quality (only Good Parts), 100% Performance (as fast as possible), and 100% Availability (no Stop Time).

Measuring OEE is a manufacturing best practice. By measuring OEE and the underlying losses, you will gain important insights on how to systematically improve single best metric

for identifying losses, benchmarking progress, and improving the productivity of manufacturing equipment (i.e. eliminating waste).



Availability = Run Time / Planned Production Time

Performance = (Ideal Cycle Time x Total Count) / Run Time

Quality = QA Passed Count / Total Count

OEE = Availability x Performance x Quality

Source: <https://www.oeec.com>

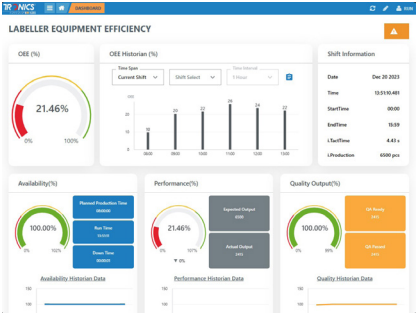
WHAT IS THE SICK SOLUTION?

SICK Standalone solution provides real-time monitoring of OEE. This is achieved by monitoring three independent digital inputs which represent the three parameters of OEE, namely Performance, Availability and Quality. The digital input source can be provided from dedicated photoelectric cells or other means such as machine fault output (availability), trigger output (performance) and quality inspection output (quality). Measurements can be segregated into three shifts across the day for comparison and analysis.

In addition to monitoring OEE, the solution also provides opportunities for operators to input comments when OEE parameters fall below a set threshold allowing for future analysis. This data can be downloaded along with trend data directly from the device.

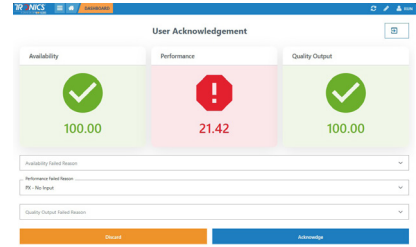
FEATURES AT A GLANCE

- Simple implementation
- Real-time measurement of OEE throughout the shift
- Standalone solution
- Configurable operator responses
- Ability to download OEE logged data and event log to connected PC
- Shift management for three shifts per day
- Digital input accepts both PNP and NPN signal types
- Data storage for up to one year (on local SD card)



OPERATOR INPUT

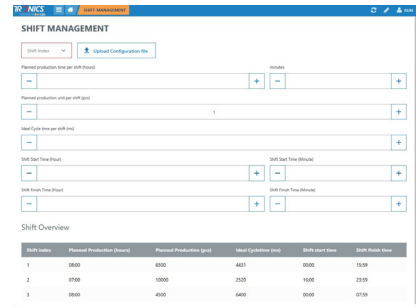
During a shift, operators will be prompted to provide input when any of the three OEE parameters drop below a set threshold. The operator can select from up to 10 user defined inputs indicating the reason(s) for the decrease in Availability, Performance or Quality.



SHIFT MANAGEMENT

Data is recorded and calculated based on settings defined by shifts. The system works on a three shifts per day basis and the following is defined for each shift:

- Start and finish time
- Planned production time
- Ideal production quantity and cycle time



SICK SOLUTION ARCHITECTURE



1	Sensor integration machine
2	Digital input source to indicate Availability
3	Digital input source to indicate Performance
4	Digital input source to indicate Quality
5	Local web browser display
6	Connection to customer network for remote viewing and file download
7	Onboard SD card for local trend and event recording

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