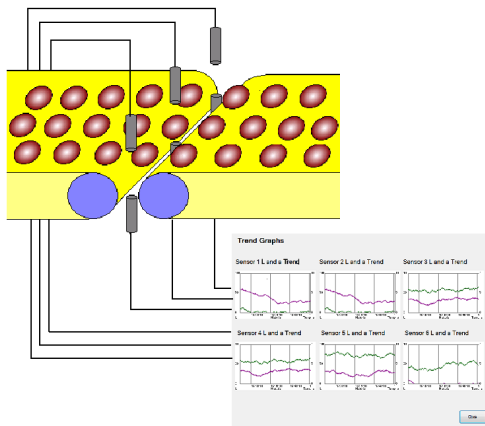


# Application Sheet - Biscuits

## Colour Measurement Results

### Application

The application is to measure the colour of biscuits , typically at three points across the production line. The underside is also possible looking up between rollers or through a small whole made in metal slides , typically at changeover points in the line.



### Method

The Senware colour system typically reads colour in the widely accepted CIE L\* a\* b\* standard (other scales possible). Each measurement point determines when a biscuit is under the sensor . The small spot from the sensor , and fast measurement speed means that depending on line speeds the sensor will typically measure 20 points across each biscuit . So for a biscuit with multiple colours an average value is produced .

Due to fast line speeds , typically the systems calculates a running average based on the average of 20 - 30 results. These results can be converted to 4 - 20 mA signals for each of the L, a and b signals for each sensor , or read across an industrial bus solution such as Ethernet/IP etc.

Graphical representation of the data is also available as an option.

### Typical Colour System Sensor Installation :-



### Reasons for Senware 's Colour System

- 1) The Senware colour system uses fast automatic gating that calculates the average colour of each biscuit.
- 2) The system typically updates on a running average of user selectable multiple biscuits.
- 3) The system is easy to use and set up
- 4) Multiple measurement points means typically the colour from both sides of the line and middle can be measured.
- 5) Underside measurement is possible.

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