InSystems automation

Tinsor

Tinsor+

TinsOr

Datasheet • The tin side detector for float glass

Product description

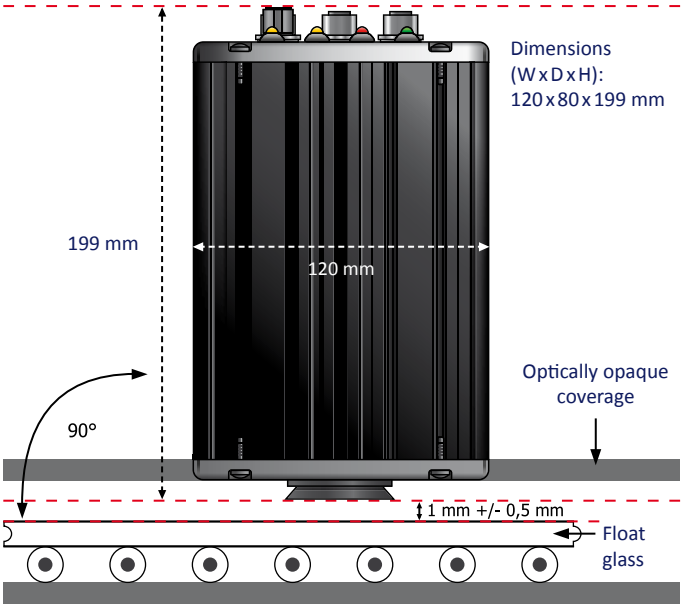
In many production processes which use float glass, it is important to know which side of the glass has had contact with molten tin during its manufacture.

InSystems Automation has developed two tin side detectors which perform the automatic identification of the tin side of float glass: Tinsor and Tinsor+.

Tinsor employs a digital interface used for teaching and to communicate the detection results via a PLC or control computer. By using a teaching process, the detector can be adjusted to work with different types of glass, for example differing by thickness or coating.

Tinsor+ is a further development of Tinsor and has an additional function: As well as having a digital interface it offers a select socket which allows the user to save up to eight different teach-combinations. After a successful teaching process, the established values for each glass type configuration can be filed in the internal memory of the detector under a chosen number. The tin side identification process can then begin immediately. This means that if small batches of different glass types are processed, or if there is a modification to the production process, it is not necessary to reteach the detector each time. The relevant glass type is simply chosen using the PLC and the Tinsor+ quickly adjusts to the change.

Assembly and Dimensions



Example of a tin side detector mounted above a float glass conveyor belt.

Advantages and Features

- Easy and custom integration into existing float glass production facilities.
- Optimal detection results can be achieved regardless of environment lighting by using an opaque cover.
- Straightforward teaching of the tin side detector.
- Rapid recognition of the tin side (< 1 second).
- Contactless and non-damaging.
- Scan is automatically triggered by the PLC or manually by a start button on an external control module.
- Optionally, an external, capacitive sensor can be installed into the conveyor system alongside the tin detector in order to recognise a Low-E coating on the glass.
- Maintenance-free, personnel-safe installation of the UVC LED without a long warm-up time after switching on, achieved through the newest LED technology.
- CE-conformity according to the EMC guidelines.

Technical Solution

The tin side detector is mounted onto the material handling system along which the float glass is transported.
As the float glass moves past the detector, the detector identifies the presented surface of the glass as “tin side” or “air side”.

The successful identification will be expressed through the corresponding signal lights “Tin” and “Air”.

The following components are integrated into the tin side detector:

- UVC LED
- Programmed, smart vision sensor.
- Four signal lights for status and result display.
- Interface connectors (for the start signal and the output of the measurement result).
- Tinsor+: Additional select socket for the saving of configuration values for up to eight different glass types.

Mounting example of the Tinsor under a float glass conveyor belt.

More Tinsor and Tinsor+ Information on **www.tinsor.com** or on request to **info@insystems.de**

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