CSN210

Dimensioner

CSN210
Quick Guide

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1. Safety Instructions

Safety and General Precautions
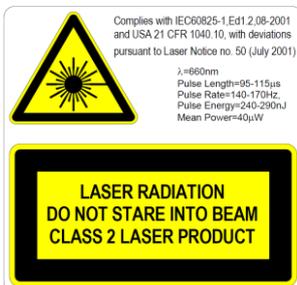
The CSN210 is fitted with a Class 2, visible (red) laser diode at a wavelength of 660nm. The laser warning label on the outside of the unit contains details about the laser emission.

Avoid directly viewing into the laser beam unless absolutely necessary (general recommendation that also applies for Class 1 lasers).
If direct viewing is necessary, reduce the exposure time to a minimum and view from the maximum possible distance.
Never look into the laser beam with any type of optical magnification instrument such as binoculars, magnifying glass, SLR camera view finders or similar (infrared viewers are safe although long-term exposure may degrade the instrument).

To prevent electric shocks, the following recommendations should be observed:
Ensure that the power to the CSN210 is disconnected before performing any service operation.
Check that the voltage has been disconnected using appropriately calibrated instruments before performing any service operation.
Check that the UPS (optional) is disconnected before performing any service operation.

NOTE: Opening the cabinet or removing the front cover shall be done so by trained personnel only. Any warranty or responsibility will be void if work inside the unit is performed by personnel not qualified by Mettler-Toledo.

In conformance with the European Directive 2002/96/ EC on Waste Electrical and Electronic Equipment (WEEE), this device may not be disposed of in domestic waste. This also applies to countries outside the EU, as per their specific requirements.

Please dispose of this product in accordance with local regulations at the collection point specified for electrical and electronic equipment. If you have any questions, please contact the responsible authority or the distributor from which you purchased this device. Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be observed. Thank you for your contribution to environmental protection.

2. Specifications and Configurations

General Information

The CSN210 can be delivered with different configurations, the most frequently used alternatives are:

- Configuration for stand-alone system or for system integrators who make their own integration software

- Configuration with additional software from Mettler-Toledo installed in the dimensioner

- Configuration with additional software from Mettler-Toledo installed on a PC

Pick the appropriate configuration from the Quick Guide and print it out. The following alternatives are available:

Configuration	Dimensioner	Human interface:	Software running in	Software	Comment:
1	CNS210	CS2200LX	-	-	Stand-alone system / Software integration by system integrator
2	CNS210	VGA	CSN210	CXD Dynamic. (Linux)	Integrated system with software
3	CSN210	VGA	CNC4x0	OCTO Dynamic (Linux)	Software integration by Mettler-Toledo Cargoscan run on an external PC (CNC4x0)

CS2200LX can be used on all configurations even though the combination is not shown.

Technical Specifications

Dimensioning accuracy[1]	Object length ≤ 3000 mm (120 in): ± 5 mm (0.2 in) Object length 3000 – 5000 mm (120 – 200 in): ± 10 mm (0.4 in)
Maximum size (L x W x H)	CSN210.2: 3000 x 1200 x 920 mm (120 x 48 x 36 in) CSN210.3: 3000 x 1800 x 920 mm (120 x 72 x 36 in)
Minimum size (L x W x H) [1]	Non-touching objects: 50 x 50 x 25 mm (2 x 2 x 1 in) Touching objects: 100 x 50 x 25 mm (4 x 2 x 1 in)
Belt speed	Up to 1.3 m/s (250 ft./min)
Belt direction	Forward and reverse
Object flow	Singulated or touching (front-to-back, side-by-side)
Shape	Almost all shapes
Surface characteristics	Almost all surfaces
Orientation	Place most stable surface down
Spacing	None required
Operational temperature	0° to 40°C (32° to 104°F)
Power	115V 60Hz or 230V 50Hz
Laser type	Class 2
Interface	RS232 / Ethernet

3. Operating Instructions

CSN210 with CS2200LX

CSN210

CS2200LX

Turning the system:
CSN210: On/Off switch is found close to the right front corner. Boot-up time is approx.10 sec
CS2200LX: Powered by CSN210.

Starting the system:
- After power-on, the display should indicate READY when the system is operational.
- A laser beam will be seen from the CSN210 when it is ready.
- Before each operator shift or power-on, the system should be zeroed:
    1. Check scale alignment (bulb within the ring).
    2. Scale should show 0 g if unloaded. If not, press zero >0<.
    3. Place a test box in the middle of the calibration area.
    4. Press CAL on the display. CS2200LX shows CALIB. If zeroed, it will show CALIB PASS.
    5. After a few seconds, the display will show READY again.

READY

SCAN, start measure
TEST of display
VERsion of software
ZERO

Operating the system:
1. Place one parcel in the middle of the conveyor belt.
2. Press SCAN to start. The display will show SCAN under the scan process for 3 sec.
3. Dimensioner and weight information is sent to the host computer.
4. If the reading is successful, the measurements will be shown on the display.
5. The system is now ready to measure the next package
6. or multi packages if System Integrators Software is being used.

CALIBRATION PASS

MEASUREMENT

Comment: If this system is connected to an System Integrator Software.
           You can start using it as massflow.
           CSN210 can handle many parcels on belt at same time.

Stopping the system
           No system stop is needed.

Alarms and errors:
    NOTE:
- Continuing measuring after a failing zero process may cause incorrect weight and dimensions.
- See also the Operator Guide and Installation Manual for dealing with alarms and errors.

Objects to be measured:
- Legal for trade MID: All shapes. Mass flow. Touching.
- Non-legal for trade: See Reference manual.   .

CSN210 with CXD software and monitor

CSN210

Monitor & keyboard

Turning the system on and off:

CSN210:   On/Off switch is found close to the right front corner.

                       Boot-up time is approximately 10sec.
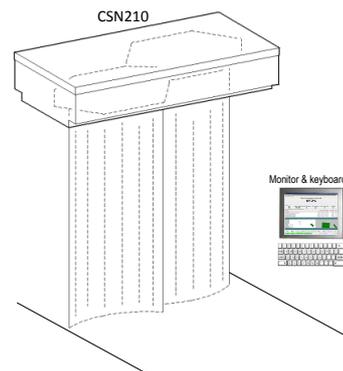
Starting the system:
1. Check scale alignment (bulb within the ring).
2. Scale should show 0 g if unloaded. If not, zero the scale by pressing >0<.
3. The laser beam will be seen from the CSN210 when it is ready.
4. Ready for operation.

Operating the system:
1. Start conveyor belt and place a parcel on the middle of the belt.
2. CSX software will animate the parcel on the belt when the parcel has passed under the CSN210 - dimensioner.
3. The status of dimensioner scan result will be shown with a color code in the animation, statistics and log window. See description later in this document.
4. CSX software sends measurement result to the Host computer.
5. The CSN210 does massflow and can handle many parcels at same time.
6. Ready for next packages to be measured.

Statistics

Log

Animation window

Buttons

Status

CSX software
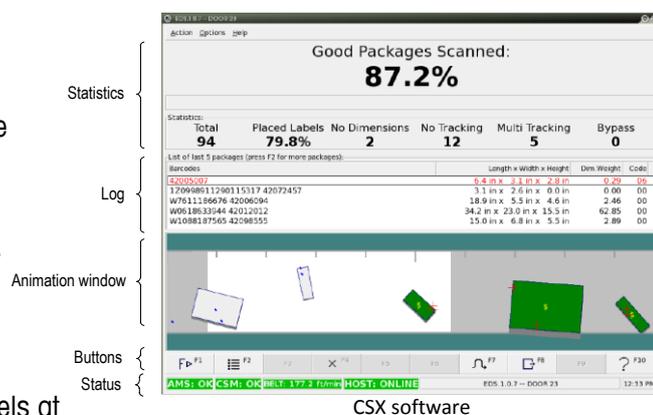
Stopping the system
• No system stop needed.

Objects to be measured:
• Legal for trade: All shapes. Mass flow. Touching.
• Non-legal for trade: See Reference manual.

Alarms and errors:
• NOTE: Continuing measuring after a failing zero process may cause incorrect weight and dimensions.
• Red screen color: System error or measurement error. Operator shall check the screen and take action depending on the error. Either cancel the operation, enter the measurements or confirm current results.

    See also the Operator Guide and Installation Manual for dealing with alarms and errors.

CSN210 with PC and OCTO DYNAMIC software

CSN210

PC, monitor & keyboard

Turning the system on and off:

CSN210:   On/Off switch is found close to the right front corner.

                                Boot-up time is approximately 10 sec.

CNC4x0:   On/Off switch is found on front or backside.
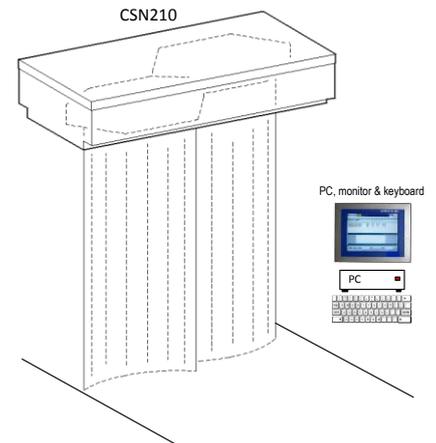
Starting the system:

1. Check scale alignment (bulb within the ring).
2. Scale should show 0 g if unloaded.
   If not, zero the scale by pressing >0<.
3. The laser beam will be seen from the CSN210 when it is ready.
4. Ready for operation.

Operating the system:

7. Start conveyor belt and place a parcel on the middle of the belt.
8. OCTO Dynamic software will animate the parcel on the belt, when the parcel has passed the CSN210 dimensioner.
9. The status of the dimensioner scan result, will be shown with a color code in the animation window.
   See "Animation Color Definition"
   The status will also be shown in the log above the animation window.
10. OCTO Dynamic Software sends the measurement result to the host computer.
11. If all seems to correct. You can start using it as massflow.
    CSN210 can handle many parcels on belt at same time.

OCTO - Dynamic

Stopping the system

- No system stop needed.

Objects to be measured:

- Legal for trade MID: All shapes. Mass flow. Touching.
- Non-legal for trade: See Reference manual.

Alarms and errors:

- NOTE: Continuing measuring after a failing zero process may cause incorrect weight and dimensions.
- Red field on the top of LOG field indicates error.
  System error or measurement error. Operator shall check the screen and take action
  depending on the error. Either cancel the operation, key enter the measurements or confirm current results.

  See also the Operator Guide and Installation Manual for dealing with alarms and
  errors.
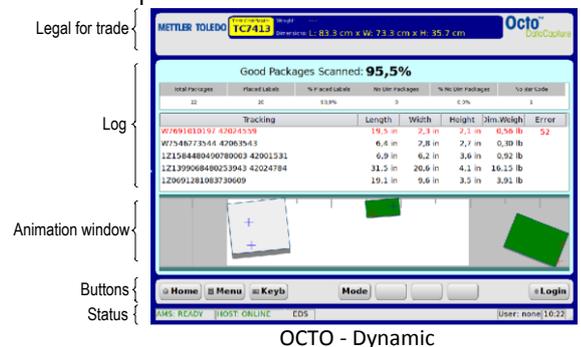
www.mt.com/CSN210

For more information

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