Download the CMT Installer

You will find the latest PC version for the operating system Microsoft Windows at:
http://www.optronic.ch/downloads/sensors/lvmc/cmt/lvmc_cmt_a2_latest_setup.exe

Installing CMT

Run the downloaded installer.
During installation, an icon is created on your desktop.

lvmc_cmt_a2_latest_setup.exe

Power Supply

There are two possibilities to power the LVMC::

- via the D-Sub connector: see the pin assignment in the user manual

- via the Ethernet jack: Power over Ethernet (PoE) standard

Connection via USB

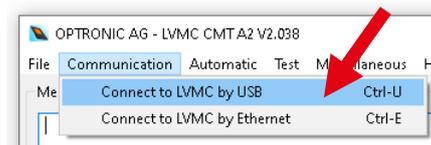Connect your LVMC to your PC using a USB 2.0 cable.

Start CMT

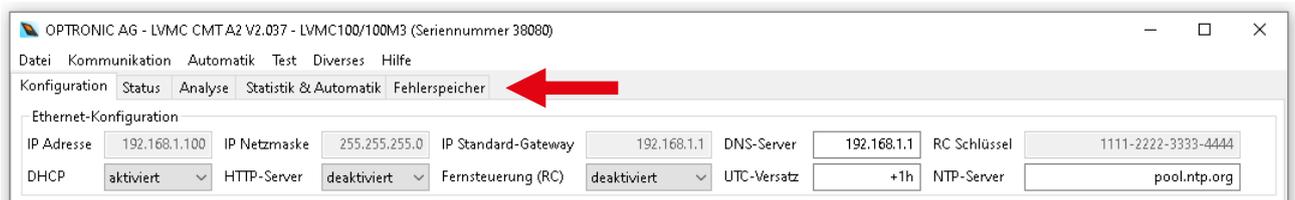Start the software by double-clicking on the newly created icon on the desktop.

LVMC CMT A2
V2.037

Connecting with LVMC

Select entry „Connect to LVMC by USB" in the
CMT menu „Communication".
The connection to the LVMC will be established.

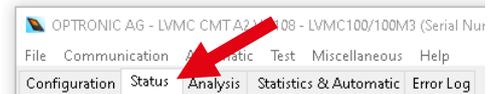
Explore CMT

Five pages are available to you:

- Configuration: Information about the connected LVMC and all configuration settings

- Status: Information about the device status

- Analysis: Visualize and analyze detected objects

- Statistics & Automatic: Collected statistical data and information for automatic configuration

- Error Log: Overview of all logged errors

Counting Objects

Each light curtain is already preconfigured and is immediately ready for use. Change to the status page. Hold an object in the sensing area for less than a second.

The counter readings of the four counting channels are increased individually.

Channel Status

	Detection Size	Count	Covered	Passing Time: Last	Minimum	Maximum
Channel 1:	0.5mm	21	NO	79ms980us	23ms340us	129ms660us
Channel 2:	1.4mm	19	NO	79ms260us	12ms960us	128ms910us
Channel 3:	4.2mm	15	NO	63ms570us	24ms840us	127ms290us
Channel 4:	8.8mm	10	NO	62ms160us	22ms290us	123ms540us

Observe the states of the output signals 1 to 3 *: They switch to "ON" or remain "OFF", depending on the size of the object.   (*)Your device may has only one output signal.)

General Status Information

State	Run	Uptime	Last Start Before	Date	Time
running	2	2h19min10.8s	2min22.0s	10/25/21	10:30:34

| Output 1 (Monitoring 2): State	Output 2: State	Output 3: State	I/O 1 (Output 4): State	I/O 2 (Output 5): State
ON	ON	ON	ON	ON

Change Settings

Switch to the Administrator Access Level: In the "Miscellaneous" menu, select entry "Switch to Administrator Access Level".
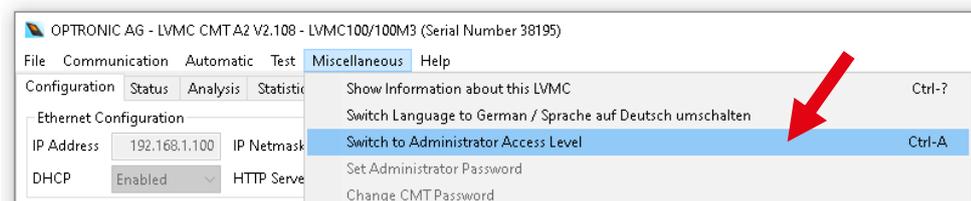
Stop the LVMC: Therefore, press button "Stop".
Changes to the settings are now possible.
Restart the LVMC by pressing button „Start"
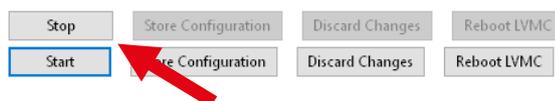
Configure Counting Channels

The light curtain offers four configurable counting channels for the simultaneous detection of different objects: Use the gap suppression function to prevent multiple counts of translucent or complex shaped objects. Suppress the counting of unwanted small objects by specifying the minimum size, the minimum passing time, or the minimum area.

Channel Configuration

	Min. Size	Min. Passing Time	Min. Area	Gap Suppression Time	Min. Expected Passing Time
Channel 1:	1.0mm	0us	0us*mm	0us	0.0ms
Channel 2:	2.0mm	0us	0us*mm	0us	0.0ms
Channel 3:	5.0mm	0us	0us*mm	0us	0.0ms
Channel 4:	10.0mm	0us	0us*mm	0us	0.0ms

The use of the area offers great advantages. On the analysis page, you will find many values useful for parameterization, e.g. the minimum area of all captured objects.
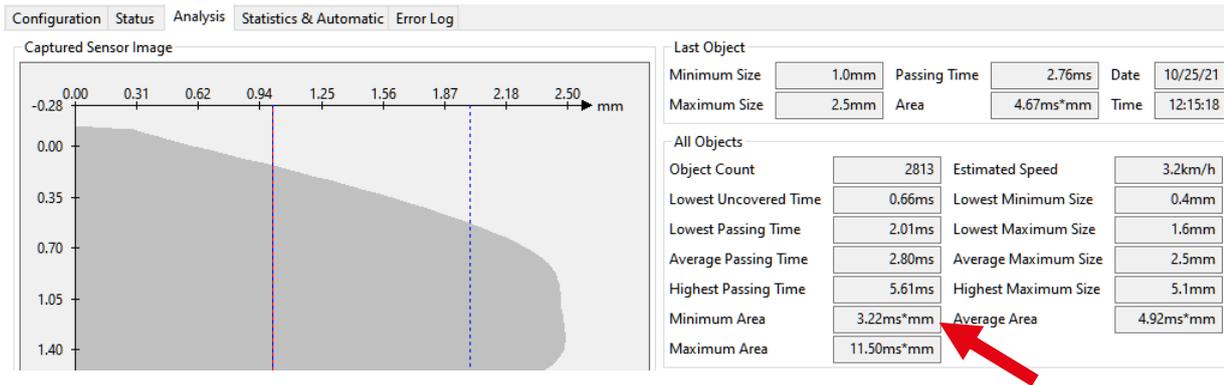
Each object is captured and analyzed in detail by the sensor in high resolution. It is displayed graphically on the analysis page.

Selection of the Object Detection Method

Select the object detection method that is best for you: In mode "separately", each channel works independently, just like in the LV..M light curtain, the predecessor of the LVMC. In mode "combined", an object is assigned to only one channel. The LVMC thus offers the possibility to classify objects, even self-learning in automatic mode.

Automatic Parameterization in Automatic Mode

Test the integrated automatic mode! The LVMC parameterizes itself independently by continuously analyzing the passing objects. The minimum areas and the gap suppression times of the channels are determined automatically. They are shown to you on the configuration page.

On the status page you can follow the counter readings of the channels. Channel 2 counts objects with the correct size, channel 1 too small ones. Channels 3 and 4 count objects that are too large, or those of the correct size that have passed the sensing are too closely.

| Channel Status												
Channel 1: Detection Size	0.5mm	Count	4	Covered	NO	Last Passing Time	2ms190us	Minimum	2ms190us	Maximum	2ms190us
Channel 2: Detection Size	0.5mm	Count	1744	red	NO	Last Passing Time	2ms550us	Minimum	2ms70us	Maximum	3ms420us
Channel 3: Detection Size	0.5mm	Count	16	Covered	NO	Last Passing Time	3ms630us	Minimum	3ms120us	Maximum	6ms150us
Channel 4: Detection Size	0.5mm	Count	1	Covered	NO	Last Passing Time	4ms110us	Minimum	4ms110us	Maximum	4ms110us

On the "Statistics & Automatic" page, a histogram gives you information about the measured object areas. In addition, statistical data is displayed.
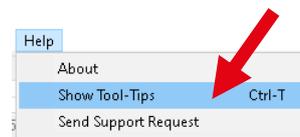

Statistics Data									
Object Count	1324	Area:	Minimum	2.80ms*mm	Average	4.79ms*mm	Maximum	11.49ms*mm	Standard Deviation	789us*mm
Viewable Areas	0-11.06us*mm	Passing Time:	Minimum	2.07ms	Average	2.81ms	Maximum	6.15ms	Standard Deviation	0.38ms

Automatic Mode Data							
Object Count	1000	Area: Average	4.77ms*mm	Standard Deviation	744us*mm	Passing Time: Average	2.79ms	Standard Deviation	0.34ms

Loading a Default Configuration

Four default configurations are available to choose from. Select entry "Restore Default Configuration" in menu „File". The easiest way to start is with the one that best suits your needs.
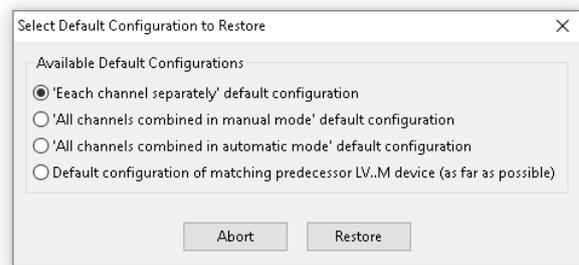
Using Tool-Tipps

Activate showing Tool-Tips in menu "Help".
Hold the mouse pointer briefly on a display element:
Explanations of how it works are displayed.

Download the User Manual

You will find the latest user manual at:
http://www.optronic.ch/downloads/sensors/lvmc/doc/LVMC_User_Manual.pdf