

D-Series – Firmware update



Overview & Instructions

V0.12

09/30/2019



Table of content

1 Introduction	3
2 Update policy	3
3 Update procedure	3
3.1 Interface & module firmware.....	3
3.2 Exchangeable cover with Industrial Ethernet.....	4
3.3 Laser Sensor Utility software.....	5
3.4 Troubleshoot.....	5



1 Introduction

The D-Series laser sensors give the possibility to update the interface board, measurement module and Industrial Ethernet firmware to enhance the sensor functionality. It also allow us to do some bug fixes and some other correction in the sensor behavior during the market launch.

2 Update policy

It's not needed to generally update all sensors. For standard applications a firmware update is often not necessary and the effort to do an update can be saved. Recommended updates are distributed by Dimetix. For more details please contact us.

3 Update procedure

3.1 Interface & module firmware

The firmware update of the interface board and module can be done with the Dimetix "Laser Sensor Utility" software (free of charge).



Never disconnect an Industrial Ethernet interface under voltage. This may damage the sensor and / or interface. No warranty will be granted on improper handling.

Steps	Instructions
1	Download and install the latest "Laser Sensor Utility" software (www.dimetix.com/UtilitySW). Start the Utility software.
2	Disconnect at the very beginning the power supply of the D-Series laser sensor.
3	Connect the D-Series laser sensor over RS-232 or USB interface to the PC with running Utility software. Disconnect other interfaces e.g. Industrial Ethernet, SSI or others. Remark: Firmware update over USB is only possible for new devices. Bootloader version has to be V0.08 or higher. Check with command sNbv to read bootloader version.
4	Reconnect the power supply of the laser sensor. Check the green power LED of the sensor.
5	Check the connection with the Utility software. Remark: Select the communication parameters according the sensor configuration. Factory / Reset default: 19200 Baud, 7E1
6	The serial number and the firmware versions are now available. Please check the firmware version of the interface and module against the version of the firmware download file sent by Dimetix. See Picture 1 in chapter 3.3 for where to find the firmware versions.
7	Decide if a firmware download is mandatory. For example to support new sensor features or to fix some disturbing bugs. → No firmware download mandatory, finish the update procedure. → New firmware needed, go to next step.
8	Run the firmware download. "Laser Sensor Utility" → "Tools" → "Firmware download" and press interface board or module firmware download. Select corresponding firmware file and start download. See Picture 2 in chapter 3.3 for where to select the corresponding firmware file. Generally: First run the firmware download of the interface board if an update is available.
9	Check download state: → Error during or after download, write down the error code and return to step 2. → Successful download without errors, go to next step.
10	Do a power cycle (Power off / on). Reconnect to the Utility software and check the firmware version again. → Firmware version correct, finish the update procedure. → Firmware version incorrect, return to step 2.



3.2 Exchangeable cover with Industrial Ethernet

The firmware update of the Industrial Ethernet can be done with the Dimetix "Laser Sensor Utility" software (free of charge).



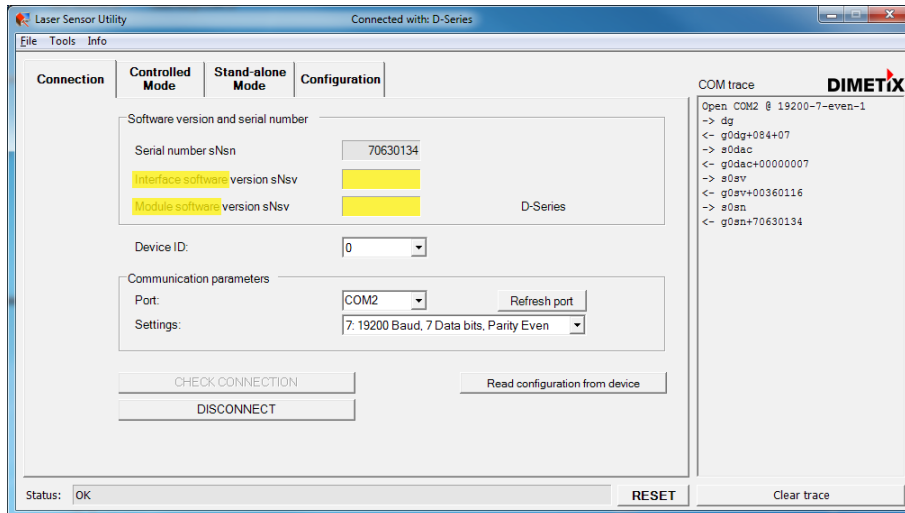
Never connect or disconnect an Industrial Ethernet interface under voltage. This may damage the sensor and / or interface. No warranty will be granted on improper handling.

Steps	Instructions
1	Decide if a firmware download is mandatory. For example to support new sensor features or to fix some disturbing bugs. Please check the stack version of the exchangeable cover with Industrial Ethernet (Read acyclic parameter "FW Version RTE Stack") against the version of the firmware download file sent by Dimetix..
2	Disconnect at the very beginning the power supply and the Industrial Ethernet cables from the ports of the exchangeable cover.
3	Open the D-Series laser sensor with Industrial Ethernet. Do not disconnect the ribbon cable between exchangeable cover and D-Series sensor.
4	Connect the D-Series laser sensor over USB interface to the PC. Remark: Firmware update of Industrial Ethernet only possible over USB interface.
5	Reconnect the power supply of the exchangeable cover with Industrial Ethernet. Check the green power LED of the sensor.
6	Download and install the latest "Laser Sensor Utility" software (www.dimetix.com/UtilitySW). Start the Utility software.
7	Check the connection with the Utility software. Remark: Select the communication parameters according the sensor configuration. Factory / Reset default: 19200 Baud, 7E1
8	Run the firmware download. "Laser Sensor Utility" → "Tools" → "Firmware download" and press Industrial Ethernet firmware download. Select corresponding firmware file and start download. See Picture 2 in chapter 3.3 for where to select the corresponding firmware file.
9	Check download state: → Error during download, go to step 2 and try again. → Successful download go to next step.
10	Disconnect the USB interface and the power supply of the D-Series laser sensor with Industrial Ethernet.
11	Reassemble the exchangeable cover and the D-Series sensor carefully.
12	Reconnect the power supply and the Industrial Ethernet ports.

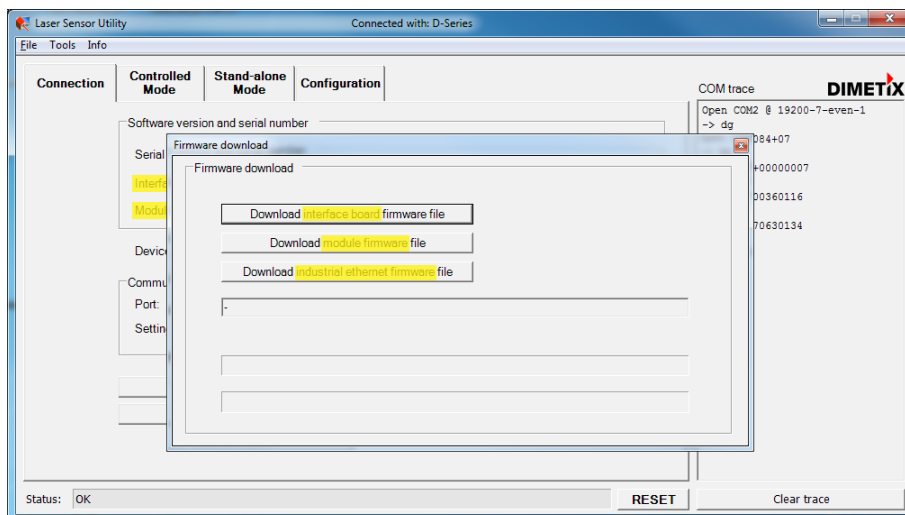


3.3 Laser Sensor Utility software

The following screen shots will be used to help you during the firmware update procedure of the interface & module firmware (see chapter 3.1) and the exchangeable cover with Industrial Ethernet (see chapter 3.2).



Picture 1: Screen shot "Laser Sensor Utility" software – Where to find the firmware versions of the interface and module.



Picture 2: Screen shot "Laser Sensor Utility" software – Where to select the corresponding firmware download file.

3.4 Troubleshoot

For any errors during the firmware update procedure please check the following points:

- Do a power cycle (Power off / on). Reconnect to the Utility software and try again.
- Check the status LED's of the sensor. For details about the status LED's, see the Technical Reference Manual of the D-Series laser sensor. Remember the status LED's.
- For Industrial Ethernet, check the status LED's of the Industrial Ethernet. For details about the status LED's, see the Technical Reference Manual of the Industrial Ethernet. Remember the status LED's.
- Contact us and give us the following information:
 - Software version of the "Laser Sensor Utility" and error message during firmware update procedure
 - Serial number of the D-Series laser sensor
 - Current firmware versions (Interface board and module) of the D-Series laser sensor
 - Status LED of the D-Series laser sensor and Industrial Ethernet (if used)



Important Notice

Dimetix reserves the right to make corrections, modifications, enhancements, improvements and other changes to its products, documentation and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is up to date and complete. All products are sold subject to Dimetix terms and conditions of sale supplied at the time of order acknowledgment.

© Copyright by Dimetix

Dimetix AG
Degersheimerstr. 14
CH-9100 Herisau
Switzerland

Tel. +41 71 353 00 00
Fax +41 71 353 00 01
info@dimetix.com
www.dimetix.com

