Notification of Change:
L-LAS-TB-Scope V5.4.5 to V5.4.6 (only in Manual)

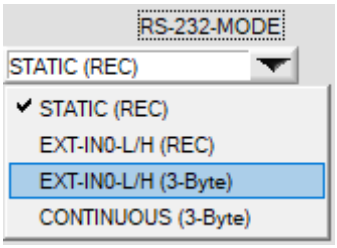
This document summarises the changes that were made only in the software manual of the L-LAS-TB-Scope V5.4.5!

(Documentation of 3-Byte Data-Output was missing)

New chapter 3.7.2 3-Byte RS232 Data-Output:

3.7.2 3-Byte RS232 Data-Output

Fast data transmission of the digital values (pixel value) from the L-LAS-TB sensor to the PLC can be implemented via two RS232-MODE (3-byte) operating modes.



3-Byte Data-Transfer:

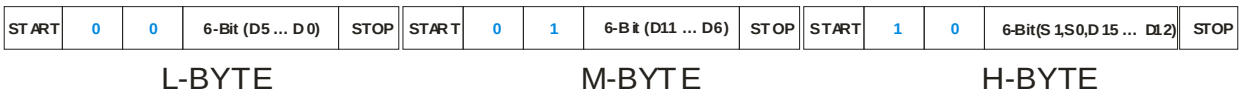
EXT-IN0-L/H (3-Byte):
3-byte data transfer is triggered by a low/high edge at IN0/Pin3/green/ on the 8-pin PLC connection socket.

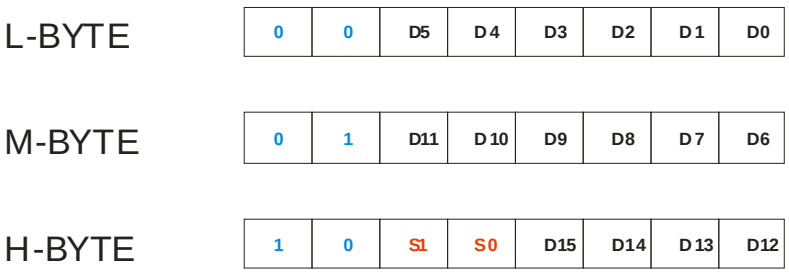
CONTINUOUS (3-Byte):
Continuous 3-byte data transfer from the main program loop.

Settings of the RS232 interface:

- Standard RS232 serial interface, no hardware handshake
- 3-wire-connection: GND, TXD, RXD
- Speed: 9600 baud, 19200 baud, 38400 baud, 57600 baud or 115200 baud
- 8 data-bits, NO parity-bit, 1 stop-bit, binary-mode.

Format of the 3-Byte Data-Transfer:

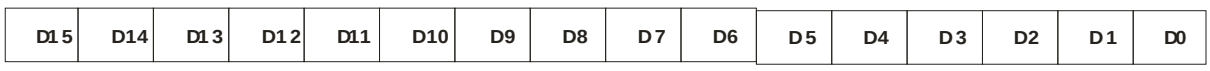


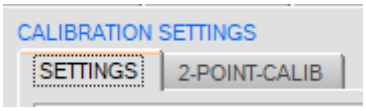


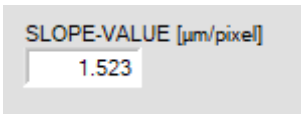
Extrcting the digital value from the data frame (D0 – D15):
The first two bits are used to identify the LOW byte (0|0),
MIDDLE byte (0|1) and
HIGH byte (1|1).

Two status bits (S1|S0) are also transmitted in the high byte.

Digital-value DVal = D0 ... D15







Conversion of digital value into mm value:

The millimeter value can be determined using the digital value ***DVal*** (measured pixel value) and the sensor-specific pixel distance (pixel pitch):
The pixel pitch value can be found in the CALIBRATION SETTINGS window
Example: Hardware L-LAS-TB-F-6-AL
Pixel-Pitch [µm] = 1.523µm

Measurement-value [mm] = DVal * 0.001523mm