



## Quick Installation Guide

**Bridges even long distances. IP66. Up to 30 frames/second 4K image transfer rate.**

With the Long Cable Extender Set, which consists of two compact and weatherproof connection boxes, all sensor modules offered for the S74 (4K, 4MP UltraLowlight, Thermal) and for the function modules MultiSense and IR illuminator can be positioned with additional 30 meters distance from the camera housing.

## 1 Scope of Delivery



- 1x S7A-LCE Camera
- 1x S7A-LCE Sensor
- 4x Dowel S6
- 4x Washer DIN125-ø3,2-A2
- 4x Spax Screws 4x40-A2
- 1x Mini Screwdriver 2x30
- 4x Cable tie
- 1x Spax Bit

## 2 Installation



- 1) Sensor Cable
- 2) Optical Link
- 3) Electrical Link



### 1) Sensor Cable

Connect the sensor module to the "sensor" box of the Long Cable Extender using the Mx-A-S7A-CBL-01 cable. Make sure to align the plug to the right and push into the connector until fully inserted. Connect the "camera" box of the Long Cable Extender using the Mx-A-S7A-CBL-xx cable to the S74. Make sure to align the plug to the right and push into the connector until fully inserted.

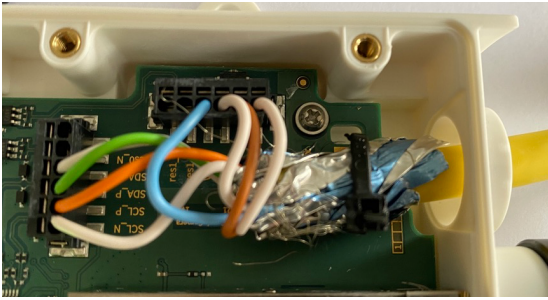


### 2) Optical Link:

Remove the protection caps from the LC connector of the optical fiber cable. Push the plug into the connector until fully inserted. The plug is fully inserted and locked once you hear a "CLICK" sound.

Make sure to push the white rubber seal above the opening of the

Long Cable Extender and fasten the seal using the cable tie.



### 3) Electrical Link:

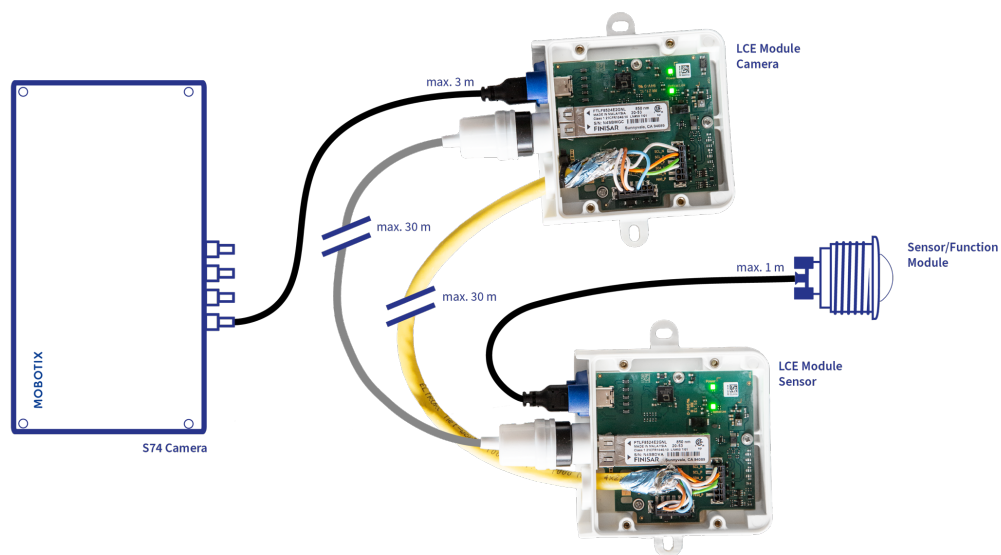
Remove the cover of both Long Cable Extender boxes. Make sure to connect the same wires to each side of the connectors on both Long Cable Extender boxes. Apply the cable shield to the board by using the cable tie.

Use the white rubber plug and cut off as many steps as

necessary to properly fit to the used cable. Make sure the rubber plug is properly sealing the opening of the boxes.

**Please Note: The tightening torque of the Long Cable Extender cover should not exceed 25Ncm.**

### Connection Overview:



### Camera Setup:

**M1 Optical Image Sensor**  
**4K Day/Night DN050**  
Serial Number: 6129795

Select sensor:  

Right sensor

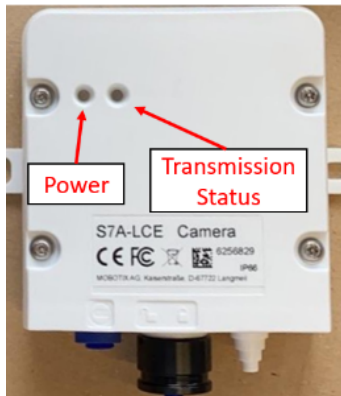
Cable Length:  

Short

✓ Long (> 2 meters)

Go to the Admin Menu - Hardware Configuration - Sensor Module Configuration and set the Cable Length to "Long (>2 meters)" and reboot the camera.

### 3 Trouble Shooting



On both LCE-Boxes, the Power LED can either be **GREEN** or turned OFF.

On both LCE-Boxes, the Transmission-LED can either be **RED**, **GREEN** or turned OFF.

LCE-Box	Power LED	Trans. LED	Meaning	Trouble Shooting
<b>Camera</b>	Off		No power supplied to the LCE	Check connection of the USB-C-Cable between S74-Body and S7A-LCE-Camera.
	Green		power (5 V) supplied to the LCE from S74 Body.	
		Off	No transmission signal could be detected	Check connection of the Optical Fiber on both boxes, it might be, that it is not plugged in correctly.
		Red	Optical Link is active, but transmitted data is corrupted	Check connection of Optical Fiber on both boxes, it might be, that it is not plugged in correctly.  Check USB-C-Cable connection of Sensor module to the Sensor-boxes. It might be, that data transmitted from the Sensor box is corrupted.
		Green	Transmission Line and Data is correct transferred to the Camera module.	
	Green	Green	No live image	Check, whether the USB-C cable is plugged in with the right orientation. Check, whether camera settings are correct.
<b>Sensor</b>	Off		No power supplied to the LCE	Check connection of the electrical link between the two LCE boxes.  If the voltage drop is too high due to the used cable, the Sensor Box can be powered by a separate 5V / 1A DC Power supply.

	Green		power (5 V) supplied to the LCE from S74 Body or separated DC supply.	
		Off		Per design, the right Optical Link indication LED can never be Off. If the right LED is off, the LED might be broken.
		Red	No incoming data from Sensor module, optical link not running.	Check the connection and orientation of the USB-C Cable from Sensor module to LCE-Box.  If LED remains Red, D-Phy might be broken.
		Green	Data from Sensor module are correct, D-Phy is running, and optical link (transmitter side) is active.	

## 4 Technical Specification

Title	Description																		
<b>Order Code</b>	Mx-F-S7A-LCE																		
<b>Connectors (per LCE box)</b>	<p>1x MOBOTIX 7 sensor module connector (USB-C)</p> <p>1x Optical Link:</p> <table> <tr> <td>Model</td><td>A Series</td></tr> <tr> <td>Receptacle</td><td>LC - LC</td></tr> <tr> <td>Cable quality</td><td>OM2 or better</td></tr> <tr> <td>Transmission type</td><td>Simplex</td></tr> <tr> <td>Fiber</td><td>50/125 µm</td></tr> </table> <p>1x Electrical Link:</p> <table> <tr> <td>Power and electrical Interface</td><td>6x2 for I2C (SCL, SDA), Reserved0, Reserved1, VCC, GND</td></tr> <tr> <td>AWG</td><td>24-20</td></tr> <tr> <td>Cable Diameter (rigid)</td><td>0,14-0,5 mm<sup>2</sup></td></tr> <tr> <td>Cable Diameter (flexible)</td><td>0,2-0,5 mm<sup>2</sup> (with ferrule)</td></tr> </table>	Model	A Series	Receptacle	LC - LC	Cable quality	OM2 or better	Transmission type	Simplex	Fiber	50/125 µm	Power and electrical Interface	6x2 for I2C (SCL, SDA), Reserved0, Reserved1, VCC, GND	AWG	24-20	Cable Diameter (rigid)	0,14-0,5 mm <sup>2</sup>	Cable Diameter (flexible)	0,2-0,5 mm <sup>2</sup> (with ferrule)
Model	A Series																		
Receptacle	LC - LC																		
Cable quality	OM2 or better																		
Transmission type	Simplex																		
Fiber	50/125 µm																		
Power and electrical Interface	6x2 for I2C (SCL, SDA), Reserved0, Reserved1, VCC, GND																		
AWG	24-20																		
Cable Diameter (rigid)	0,14-0,5 mm <sup>2</sup>																		
Cable Diameter (flexible)	0,2-0,5 mm <sup>2</sup> (with ferrule)																		
<b>Recommended cables</b>	<p>Optical Interface:</p> <p>LC-LC OM3</p> <p>Electrical Interface:</p> <p>For electrical link between the two boxes a twisted pair and shielded cable (6x2) needs to be applied. The wires must follow the specification as outlined above.</p>																		

<b>Connectable MOBOTIX Modules</b>	4k, 4MP and Thermal Sensor Modules  Multisense, IR-Light (no optical link necessary)
<b>IP rating</b>	IP66 with MOBOTIX optical fiber: Mx-A-S7A-LCE-OF30
<b>Temperature Range</b>	Installation: -5 - + 50°C / 23 – 122°F Operation: -10 - +65°C / 14 – 149°F
<b>FPS</b>	15 FPS with 4k WDR on/ 30 FPS with 4k WDR off
<b>Max Cable Length</b>	30m
<b>LEDs</b>	2