

EtherCAT

For Resense 6-Axis F/T Sensor Integration



Resense
A Sense of Touch

Resense offers optional EtherCAT shields as interface to connect to the miniature evaluation electronics (MIE) box.



Power and Signal Connections

USB-A Power Port: The USB-A Port is designated for powering the EtherCAT box.

Connect this port to a standard 5 V USB power supply (e.g., a certified USB wall adapter).

MIE Interface (USB Type-C): The MIE interface must be connected to the evaluation electronics provided by Resense using the USB Type-C cable.

Warning ⚠

- Do **not** exceed the specified 5 V supply voltage, as this may damage the EtherCAT box.
- Only connect the MIE interface to compatible Resense evaluation electronics. Connecting to other devices may result in malfunction or damage.

Note:

- Ensure that all connections are securely plugged in before powering the device.
- Use only high-quality, compliant USB cables to guarantee stable operation.
- If an extension of the cable is needed, please contact Resense for the correct parts.

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System Requirements

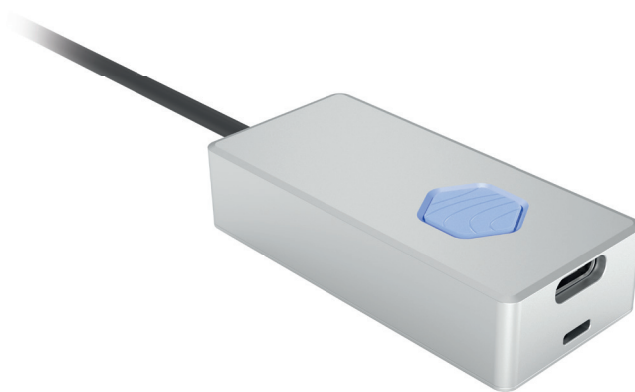
The Easy Navigator works on any Windows PC, from XP onwards, 32 or 64 bits, equipped with a standard Ethernet interface of 100BASE-TX. It accesses the network using UDP sockets and therefore there is no need to install the WinPcap library, or equivalent.

EtherCat on Beckhoff PLC

To detect the box on the Beckhoff system use the provided xml file (Resense_HEX_Ethercat.xml) if the in board ESI is not detected automatically.

Flashing New Firmware

1. Press and hold the **logo button** on the electronics for at least **30 seconds**.
2. Continued holding the button until the indicator color changes to **light blue**. This indicates that the device has entered **bootloader mode**.



3. A new drive labeled with the "RPxxxx" or "RPx-RPy" will appear in your system's file explorer.
4. Copy and paste the provided **firmware file (.uf2)** onto this drive.
5. Once the transfer is complete, **power cycle the device** to finalize the update.