# PC connection with the Sensapex products

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***Disclaimer***

## 1    General

This document is describes how to connect Sensapex products to PC that is using Windows operating system.

For other operating systems, such as Linux, the physical connections are identical and the connection is typically established automatically without needs for any manual actions.

## 2    Physical connections

*SENSAPEX PRODUCTS ARE CONTROLLED BY LOCAL AREA NETWORK (LAN) ARCHITECTURE THROUGH LOCAL LINK ADDRESS. SENSAPEX PRODUCTS SHOULD BE CONNECTED TO DIFFERENT PHYSICAL ETHERNET CARDS / ADAPTERS / PORTS THAN INTERNET CONNECTION. THE WINDOWS OPERATING SYSTEM MAY OTHERWISE HAVE TROUBLES TO CONFIGURE THE LOCAL LINK ADDRESS.*

### 2.1   uMp system with 1 or 2 micromanipulators

PC can be connected directly to the uMp-TSC touch screen using Ethernet cable as illustrated below.
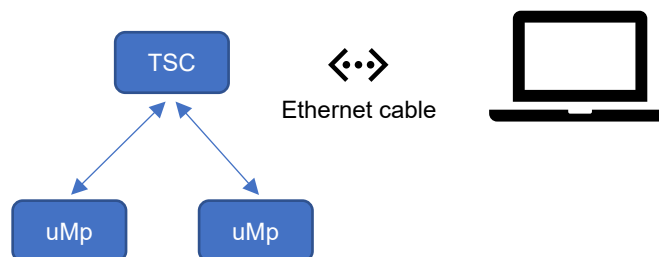


### 2.2   uMp system with more than 2 manipulators, uMs and uMc products

uMp products are first connected to uMp-HUB, which is then connected to the standard unmanaged network switch that is further connected to the PC. uMs and uMc products are connected to the network switch, which is then connected to the PC. **Please note that internet should not be connected to the same switch as used to connect Sensapex products.**
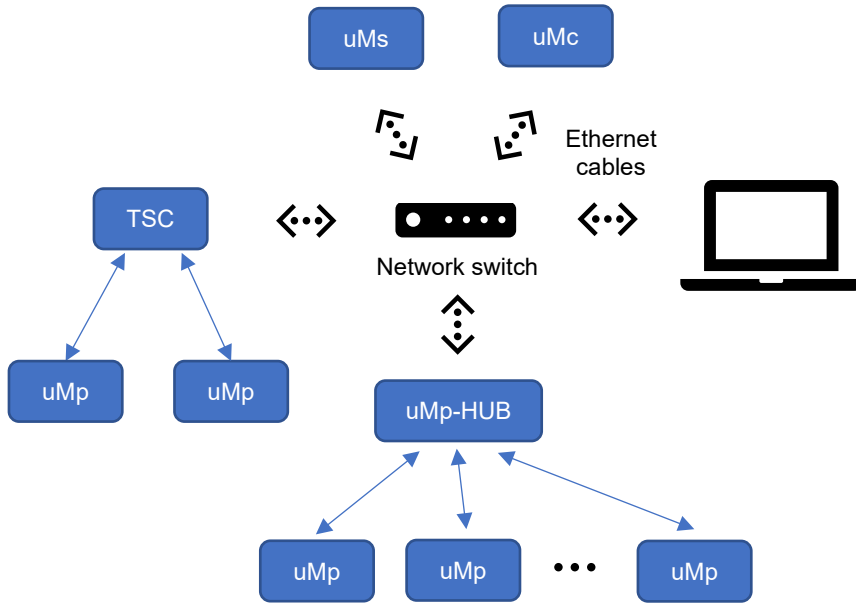
## 3 Troubleshooting connection issues

*PLEASE CONSULT YOUR LOCAL IT SUPPORT BEFORE CHANGING COMPUTER SETTINGS. SENSAPEX ASSUMES NO LIABILITY FOR ANY ISSUES OR DAMAGES FROM IT CONFIGURATION OPTIONS DESCRIBED IN THIS SECTION.*

Please download the latest version of Sensapex PC suite software from Sensapex website, which enables product registrations for extended warranty, firmware updates and provides other maintenance tools for Sensapex products.

PC suite should display all connected uMp, uMs and uMc products after successfully completing the physical connections and after Windows has established the local link connection to the Sensapex products.

In case no devices are found:

1. Please verify that the PC suite is configured for the same communication group as what it set for the products (A / 0 by default). Update the group setting if required and press refresh button to connect to the products. uMp system operating manual provides further instructions on the group settings.
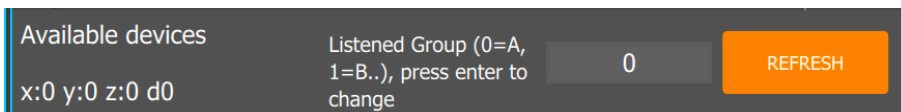


2. In case 1 does not resolve the problem, go to Support menu and select Reset Ethernet link local and follow the further instructions. This will generate new local link ethernet IP address in Windows.
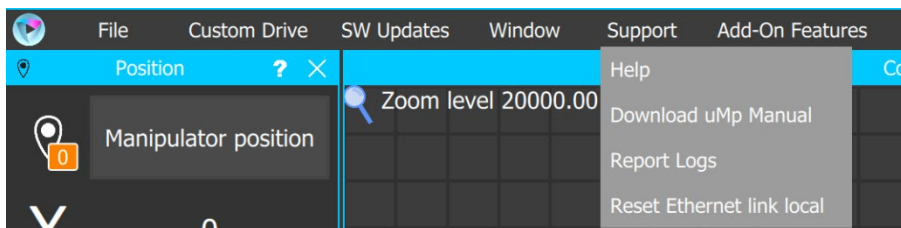


In case devices are still not found, the problem relates to specific IT settings in the computer. We cannot address specific issues that may relate to specific computer settings or organizations IT policy with related

security software, but you may try these steps that often help to attempt resolving the issue. **Please consult your local IT support in case you have any questions or concerns related to this matter.**

1. Please check your Windows firewall settings. The Sensapex PC suite communication should be allowed as shown in the screenshot below.
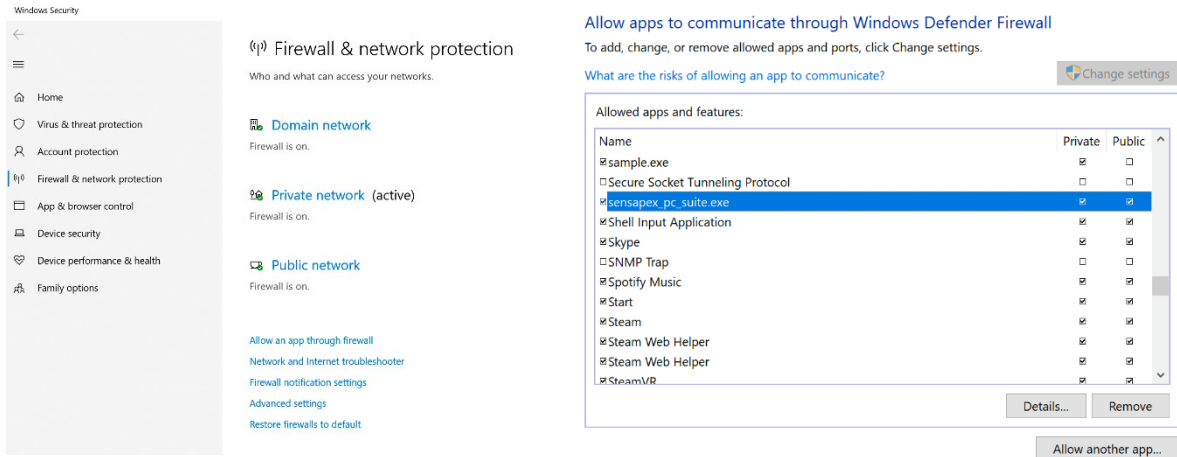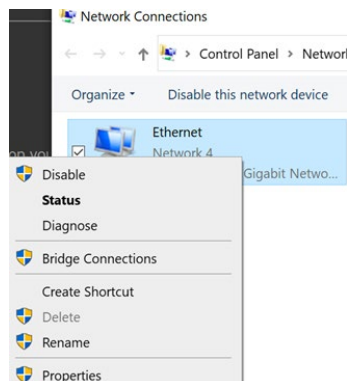


2. In case setting up the local link IP address still fails, it can be set up manually following these steps:
   a) Open Windows control panel
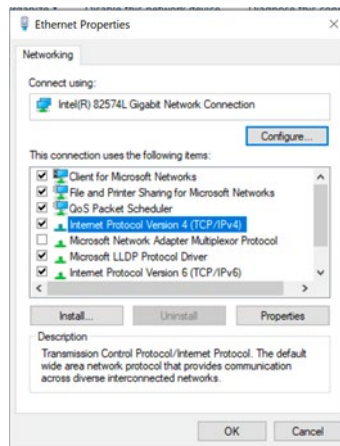   b) Go to Network and internet and then Network and Sharing center
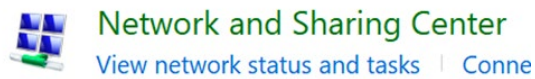


   c) Select Change adapter settings:
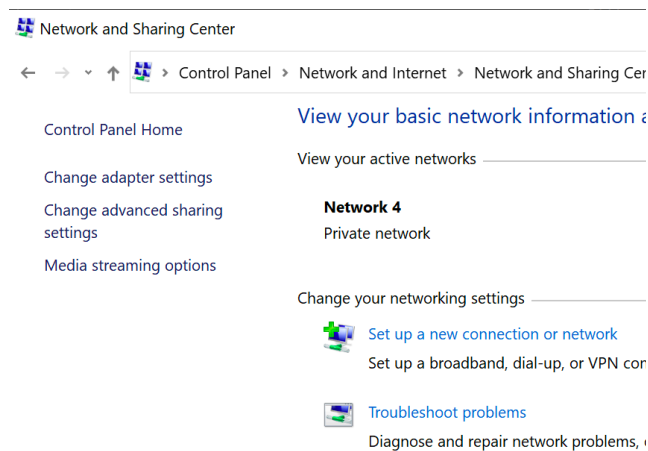


   d) Right click ethernet device and select Properties

e) Select Internet Protocol Version 4 (TCP/IP) and press 'Properties' button



f) Select 'Use the following IP Address' and type in the settings for the IP address and Subnet mask fields as shown in picture below. Then press OK.

*NOTE: IF THIS IS YOUR ONLY NETWORK CARD THIS MEANS YOUR INTERNET CONNECTION WILL BE OFFLINE. TO GET BACK TO INTERNET CHANGE THE SELECTION TO "OBTAIN AN IP ADDRESS AUTOMATICALLY".*