

Using T8 on the EM50

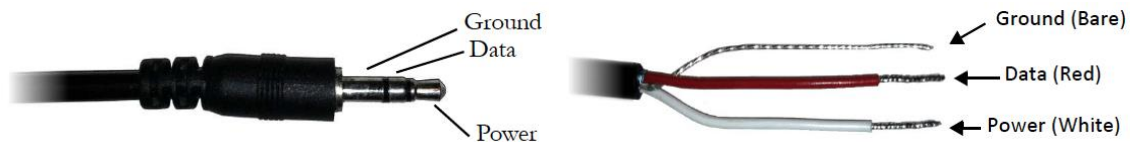
configuration and setup

1. Connection

The EM50 uses the SDI-12 bus to communicate with the T8. To connect the T8 to the EM50 an adapter cable with stereo jack and 8pol female M12 connector is available from Decagon.

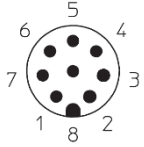
Wiring:

EM50:



T8:

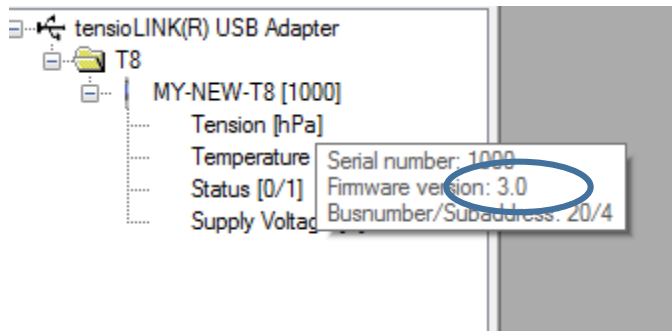
Sensor connector wiring			
Signal	Color	Pin	Funktion
V _{in}	White	1	Power VDC+
GND	Brown	2	Ground
A-OUT+1	Grün	3	Analog output+ (pressure)
A-OUT-	Gelb	4	Analog ground
digital OUT	Grau	5	Status
RS485-A	Rosa	6	RS485-A Zweidraht
RS485-B	Blau	7	RS485-B Zweidraht
A-OUT+2 / SDI12	Red	8	SDI12 (Data)



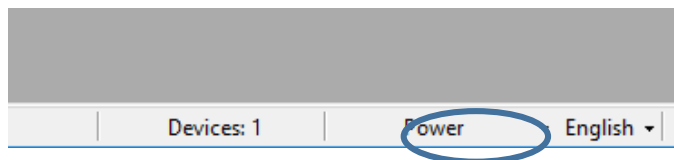
2. T8 configuration settings

In order to use the T8 with the EM50 some configurations have to be changed different to the default settings. If the T8 is shipped together with the EM50 this is already done.

Use tensioVIEW (Version 1.30 or higher) and the tensioLINK USB-Converter to change the settings of the T8. The T8 needs to run FW 3.0 or higher.



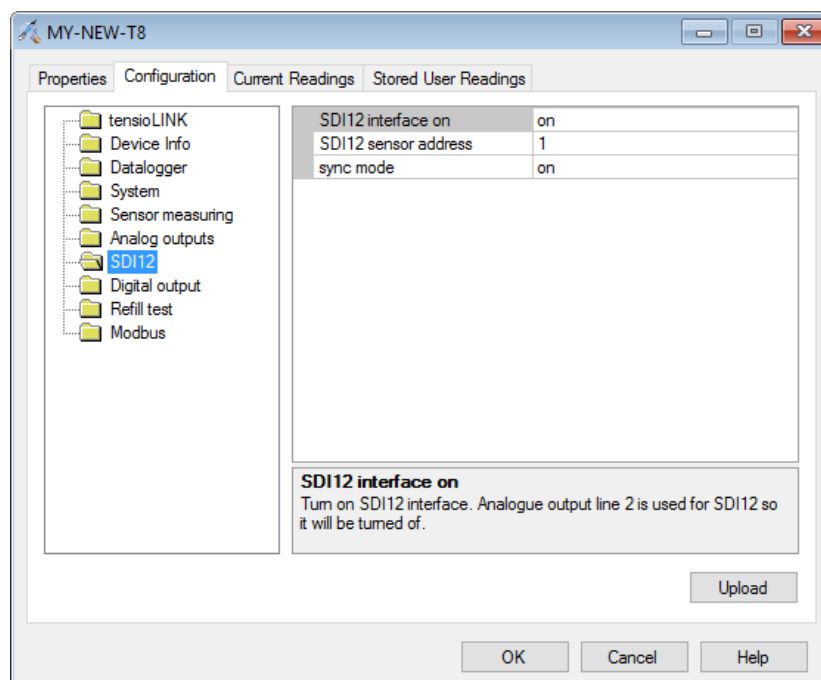
You'll need to set to Power access mode to change these settings.



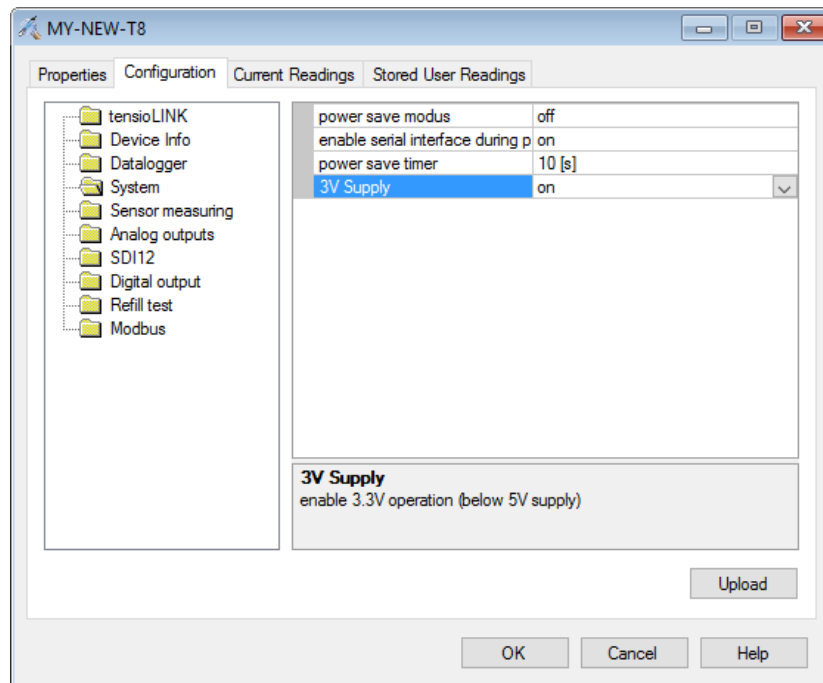
Change the following settings to "on":

SDI/SDI12 Interface on → on

System/3V Supply → on



The sensor address and the sync mode has no influence on the behavior since the EM50 power the T8 only on request and uses a broadcast address.



All other settings are not important for the EM50 usage

3. EM50 Setup

The EM50 needs to run FW 2.23 or higher. Use the latest ECHO20 Utility for the setup. You can use any of the 5 ports to connect a T8. Choose “UMS T8 Tensiometer” for the port you connected the T8. If you run a scan it should deliver water tension and temperature as values.

The screenshot shows the ECHO20 Utility software interface. The main window displays connection status for EM20291, device identity (EM20291, FW 2.23), and sensor measurement settings. A dropdown menu for Port 1 Sensor is open, showing various options including 'UMS T8 Tensiometer'. An 'Em50 Port Scan' window is overlaid, showing the results for Port 1: 'UMS T8 Tensiometer' with a reading of '-38,11 kPa; 23,7 °C'. Ports 2 through 5 are currently set to 'None Selected'.