

## Manual for SM-USB (Level-Converter-Module)

### 1. SM-USB (with all accessories)



### 2. Optional available accessories

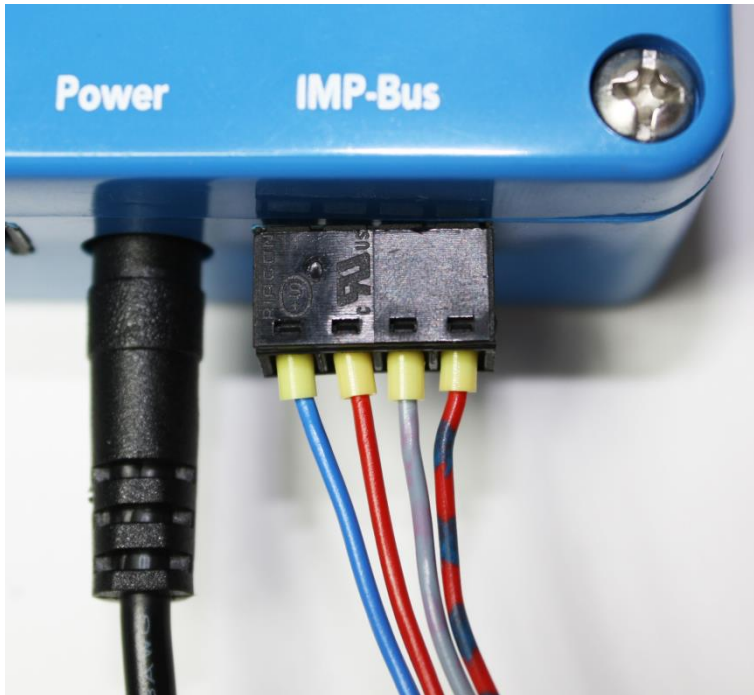


PICO IMP-BUS adapter; Art.No.: 300094



PICO RS485 adapter; Art.No.: 300093

### 3. Wiring SONO-Probes



Detailed wiring for SONO-Probes connection via RS485

Pin No.	Color	Signal
1	Blue	0V
2	Red	+12V/DC
3	Grey/Pink	R/T
4	Blue/Red	COM



Detailed wiring for SONO-Probes connection via RS485

Pin No.	Color	Signal
1	Blue	0V
2	Red	+12V/DC
3	Brown	RS485B
4	White	RS485A

#### 4. Wiring PICO-Probes



Wiring with end splices via RS485



Wiring with end splices via IMP-Bus



Wiring with 4-pin connector via IMP-Bus (adapter required) and 7-pin connector via RS485



Wiring with external power supply (with wall power supply)

## 5. How to start-up with SM-USB-Module?

- Install USB-Driver (from USB-Stick) for Windows XP or older, latest Windows will automatically install the driver, during first connection
- Connect the SM-USB to the PC and the installation will be accomplished automatically
- Install IMKO-Software (SONO-Config or TRIME-Tool) from USB-Stick or [www.imko.de/software](http://www.imko.de/software)
- Check the settings of the COM-Port in the device manager and setup the specific COM-Port in the software (COM1-COM15 possible) or activate "Automatically search the port" in the settings of the software
- Connect your sensor to the SM-USB either via RS485 or via IMP-Bus
- Run software and Scan bus
- The sensor has to be shown in the module list

**Please note, all wiring for power supply is our suggestion for initial testing, in the practical application commonly the sensor is supplied with power out of the PLC, in this case the connection can be established by just connecting the two communication wires!**

## 6. Technical Data:

Power supply:	5V/DC (from USB)
Power consumption (IDLE):	Approx. 50mA @ 5D/DC
Current max. (protected):	500mA
External power (to sensor):	10..24V/DC
Interfaces:	USB 1.1 (2.0 compatible)
	RS485 (to sensor)
	IMP-Bus (to sensor)
Accessories:	USB-Cable (1,8m)
	Wall power supply 12V/DC, 2A
	2x screw terminal plug
	USB-Stick with driver and software
Dimensions (WxDxH)	98x64x37mm
Further specifications:	Power supply out of USB not suitable for SONO-Sensors, <b>thus only operate with wall power supply or supply the sensor with an external power source!</b>

## 7. Contact Information

Should you have any queries please don't hesitate to contact your local distributor or address directly to IMKO:

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