

## Datasheet

### ADA-I911W

#### USB to 1-WIRE Converter



#### APPLICATION

ADA-I911W USB to 1-WIRE converter allows connection of several 1-WIRE's interface systems such as: temperature measurement systems, real time clocks, EPROM memory, A/C transducers etc., to common 1-WIRE bus.

The transition from 1-WIRE interface to USB interface in ADA-I911W provides controller 1-Wire bus and the USB controller. In this way, the user does not need to delve into the quite complicated protocol 1-WIRE. The converter allows monitoring and/or controlling of 1-WIRE circuits via USB interface of computer PC-class, equipped with suitable software.

CEL-MAR company provides an example of software for the visualization of temperature measurement called Lämpömittari taken by Timo Sara-aho. The software supports circuits for measuring the temperature eg. DS18S20. In the configuration settings of Lämpömittari software, in section MicroLAN should be used the DS9097U adapter.

ADA-I911W is equipped with a female USB socket B-type for connection of USB interface and the screw terminal block for twisted-pair connections of 1-WIRE interface. The converter is powered from USB port.

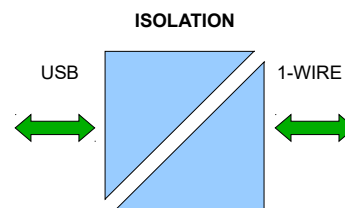
Together with the converter we supply drivers for Windows. Installing this software on Operating System it add the additional COM port about the next free number, witch can be used as standard COM port. It is virtual COM port therefore some software use DOS can work improperly.

#### TECHNICAL DATA

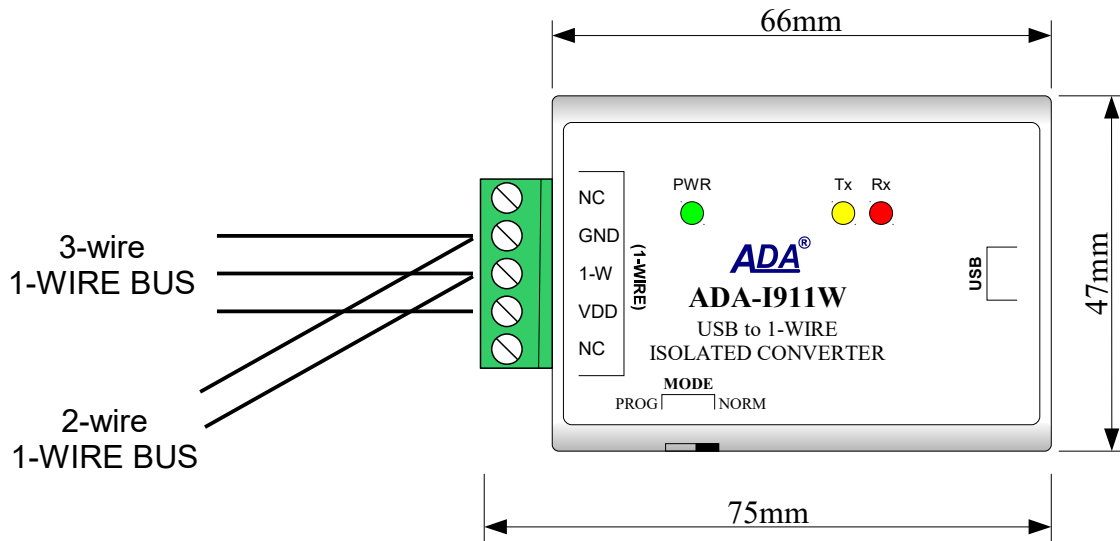
Transmission Parameters		
Interface	USB	1-WIRE
Connector	B-type female	Screw terminal block, max. wire Ø2,5mm <sup>2</sup>
Max. Line length	up to 5 m	up to 300 m – for DS1820 sensors
Max. number of connected device	1	up to 100 of DS18B20 circuits

Transmission line	USB Aw-Bw cable	Twisted cable 1-pair, 2-pair UTP Cat.5e, shield inside large interferences STP Cat. 5e.
Standards	9.6, 19.2, 57.6, 115.2 [kbit/sec]	standard: 0 do 16,3 kbps, overdrive: 0 do 142 kbps,
Max. baud rate	USB1.1, USB2.0	
Transmission type	1-WIRE - half duplex (transmitting and receiving on the same wire)	
Optical Signalization	<ul style="list-style-type: none"> <li>• PWD – green LED power supply,</li> <li>• RX – red LED received data via 1-WIRE interface,</li> <li>• TX – yellow LED transmitted data via 1-WIRE interface.</li> </ul>	
<b>Electrical Parameters</b>		
Power requirements	from USB of Computer	
Power Cable	USB cable	
Power	<1W	
Protection from reverse power polarization	Not applicable	
Galvanic Isolation	1kV DC or 3kV DC – between USB and 1-WIRE interfaces	
Optoisolation	~3kV - between signal line USB and 1-WIRE interfaces	
Electromagnetic compatibility	Resistance to disruptions according to the standard PN-EN 55024. Emission of disruptions according to the standard PN-EN 55022.	
Safety requiring	According to the PN-EN60950 norm.	
Environment	Commercial and light industrial.	
<b>Environmental Parameters</b>		
Operating temperature	0 ÷ 50°C	
Humidity	5 ÷ 95% - non-condensing	
Storage temperature	-20 ÷ 60 °C	
<b>Casing</b>		
Dimensions (W x D x H)	65mm x 50mm x 27mm	
Material	ABS	
Degree of casing protection	IP20	
Weight	< 0,10 kg	
Implementation of Standard	Not applicable	
Location during work	Free	
Mounting method	Not applicable	

#### GALVANIC ISOLATION



## DIMENSIONS AND CONNECTION



## VERSIONS

ADA-I911W - [ ] - [ ]	
<b>Electronics version:</b>	
Without possibility of programming the memory of 1-WIRE interface	1
With possibility of programming the memory of 1-WIRE interface	2
<b>Galvanic isolation:</b>	
1kV=	2
3kV=	3

Order example:

Product symbol: **ADA-I911W-1-2**

- 1 - without possibility of programming the memory of 1-WIRE interface
- 2 - 1kV= galvanic isolation,