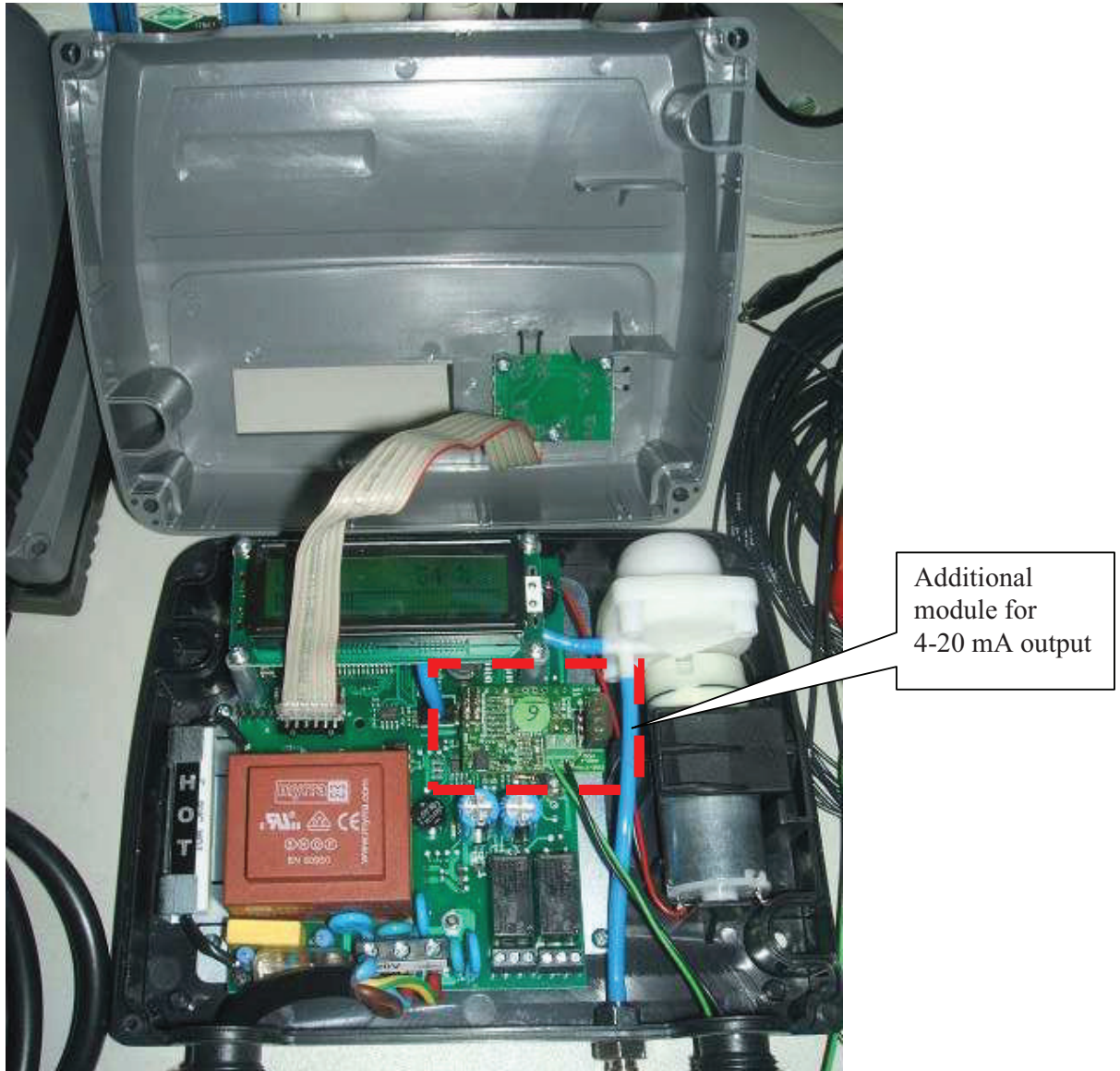


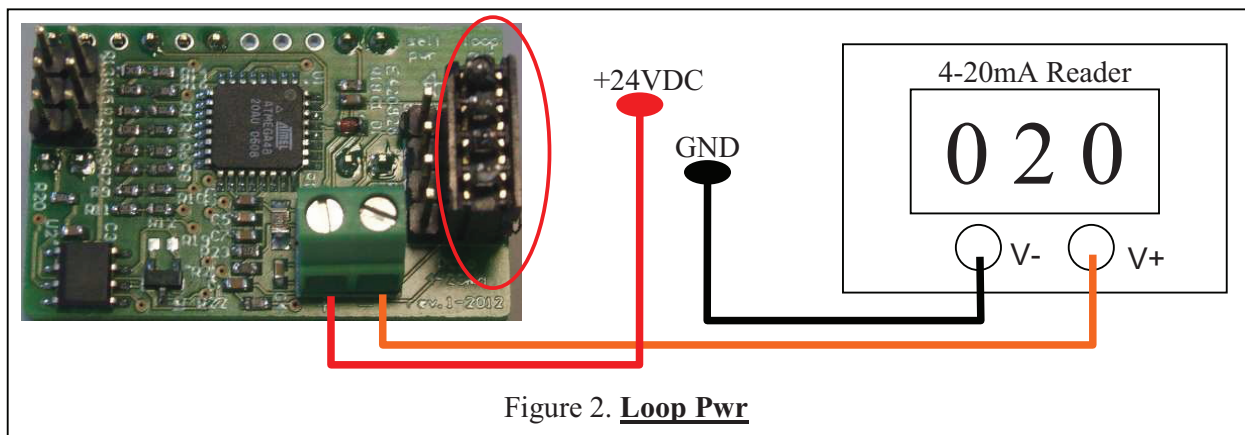
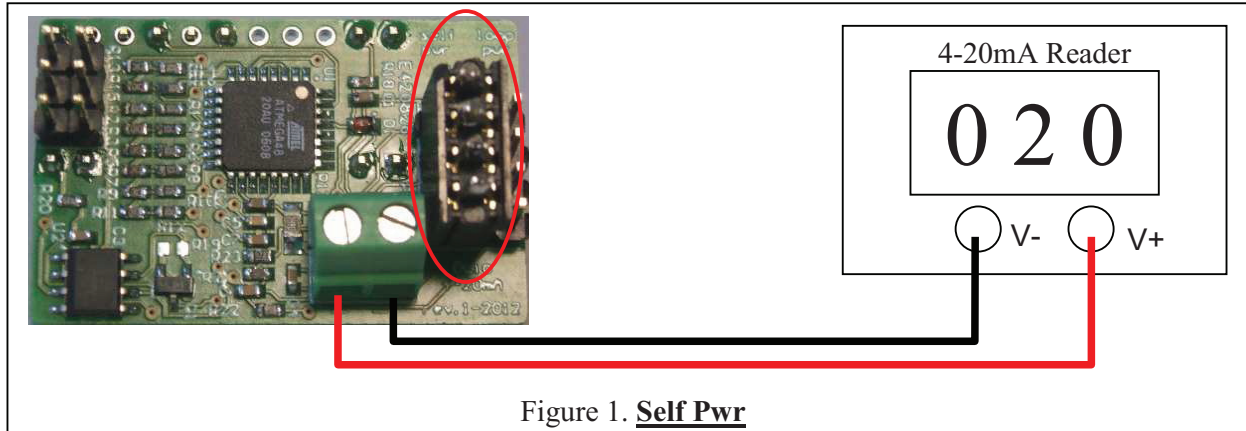
4-20mA Module for Ocio Use and Configuration Manual

The 4-20mA module provides Ocio of industrial 4-20mA output. The module is inserted in a connector mounted on the Ocio board.
To bring the 4-20mA signal from the board to an external device, a screw connector is mounted on the module.



It is possible to choose between active functioning mode (**self pwr**) and passive functioning mode (**loop pwr**) through the connector shown in the pictures.

In **self pwr** mode, current is provided by the module itself; in **loop pwr** the module has to be powered by an external power supply.



Functioning:

When Ocio is switched on, the microcontroller mounted on the 4-20mA module:

- verifies what is the chosen functioning mode (active or passive);
- verifies configuration of Ocio:
 - if Ocio has been configured with a tank, of any shape, the module provides a 4-20mA signal that is proportional to the percentage of liquid in the tank;
 - if Ocio has been configured without any tank, the module provides a 4-20mA signal proportional to the level of liquid parameterized to the maximum measurable height, that is 4 meters.

WARNING: after configuration of Ocio, switch it off and on. In this way the microcontroller of 4-20mA module will read the new configuration.

In 4-20mA module there is an 8-bit DAC converter, so the resolution of the output signal is $20\text{mA}/256$, that is $78,125\mu\text{A}$.