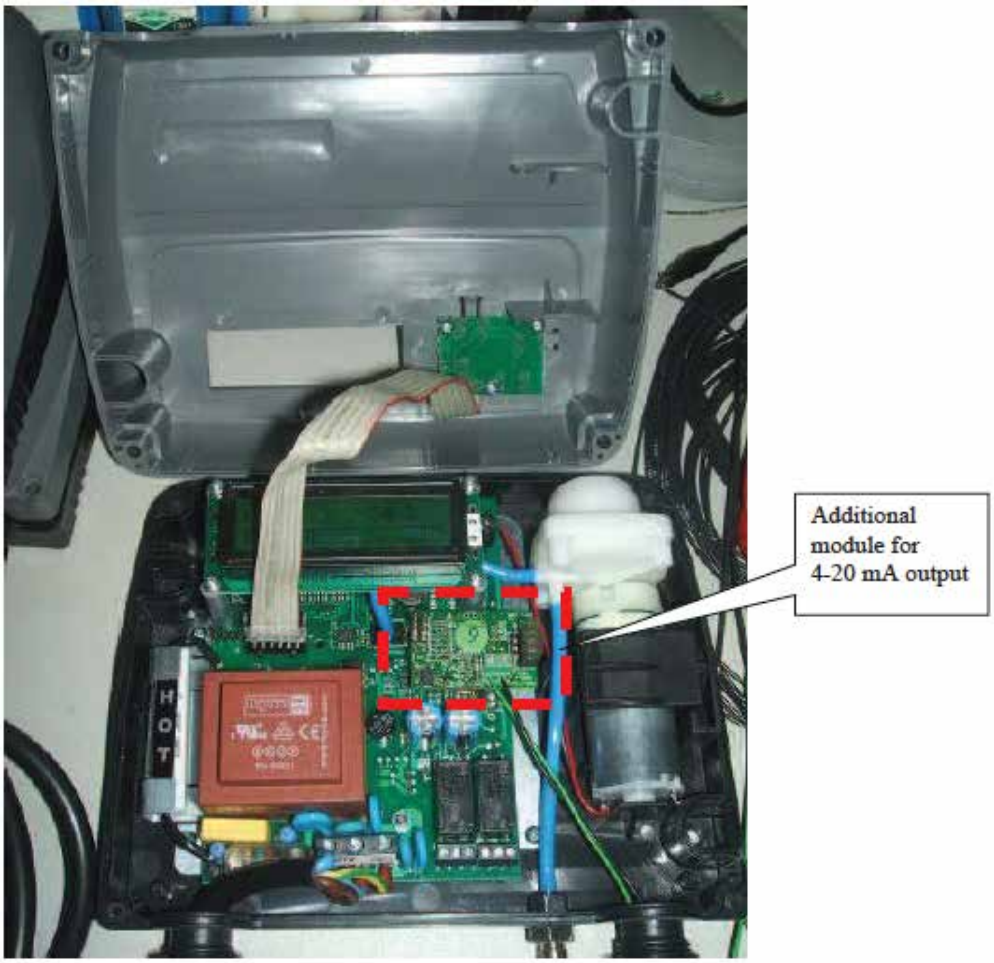
4-20mA Module for Ocio

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 possibile to choose between active functioning mode (self power) and passive functioning mode (loop power) through the connector shown in the pictures.

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

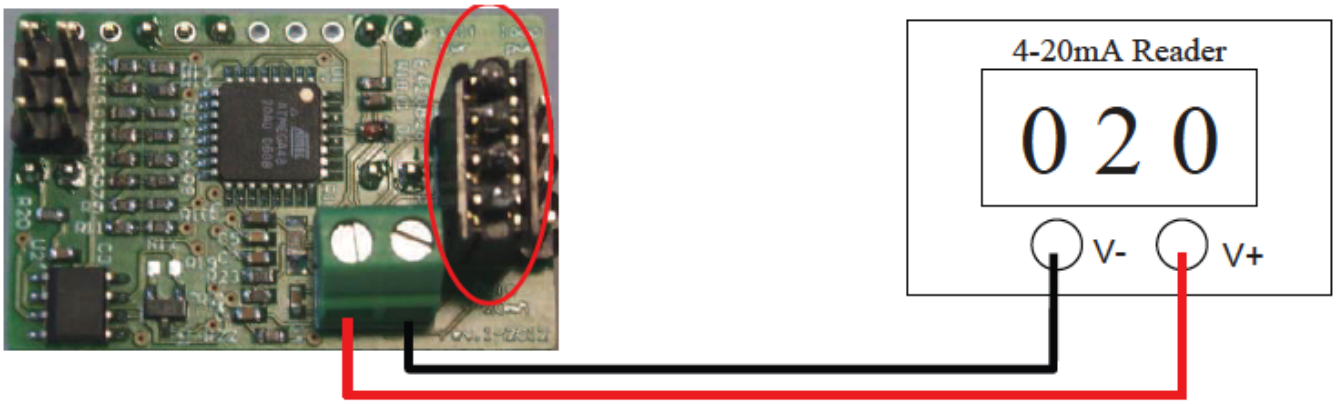


Figure 1. Self Power

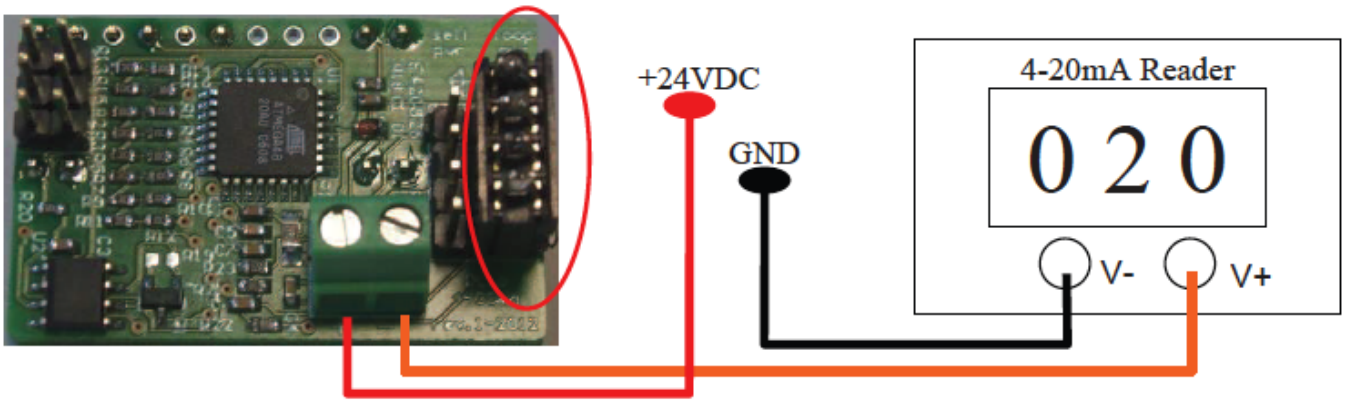


Figure 2. Loop Power

Functioning:

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

- verifies what is the chosen funtioning 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 20mA/256, that is 78,125uA.