



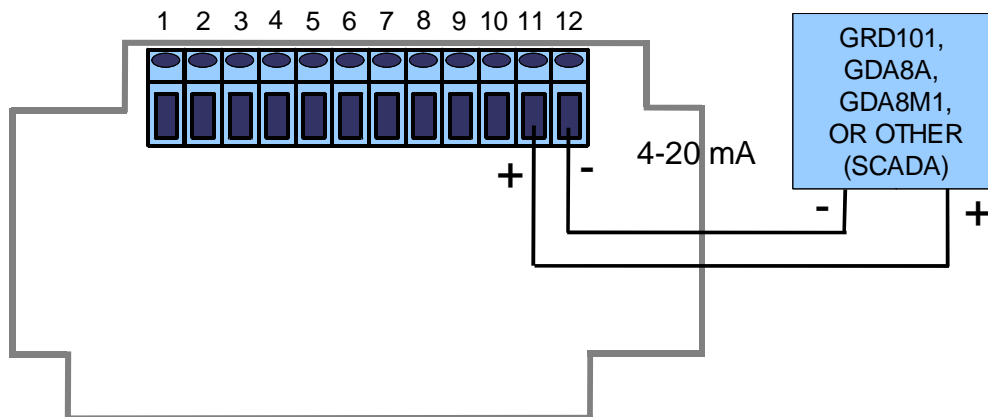
## Connecting the passive 4-20 mA output of our devices

### 1. General

The 4-20 mA analog output of our devices is “**passive**”. This means that it only controls the current flowing through it but does not provide the power. The power has to be provided from outside. It can be either provided by the device that is receiving the 4-20 mA or from a separate power supply.

### 2. Power provided by the receiving device

The receiving device has a power source built-in and provides a voltage high enough for the analog output of our devices which only accurately controls the current to be between 4 and 20 mA. In this case connect the two only wires as on the diagram below: “+” to “+” and “-” to “-”. The input of the receiving device is “**active**”.



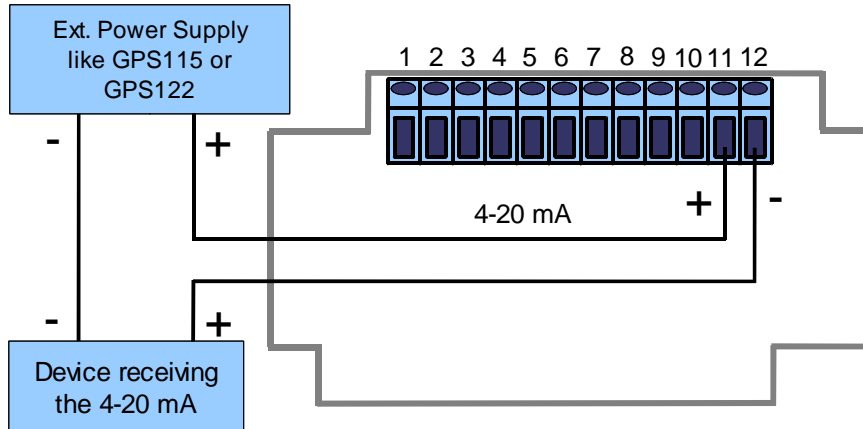
The SCADA device provides the power to the 4-20 mA output over the loop. Connect “+” to “+” and “-” to “-”.



### 3. External power

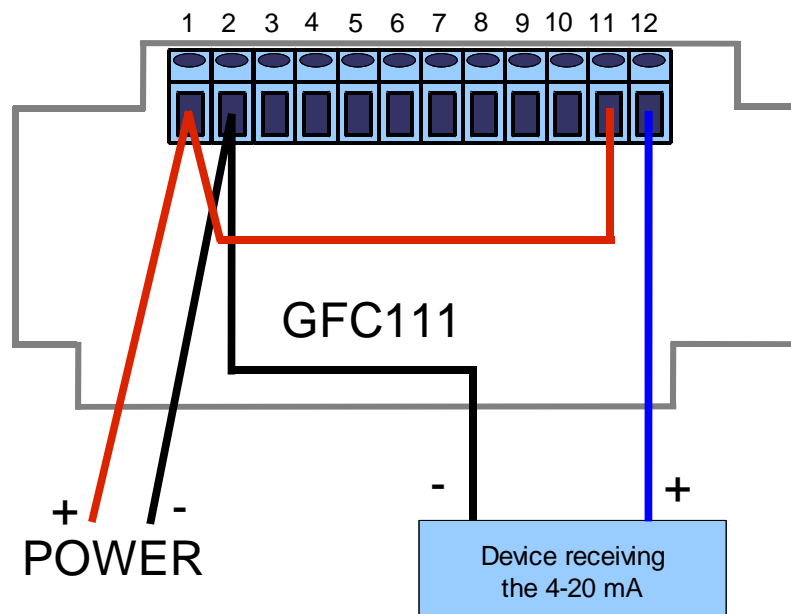
As it was mentioned above the analog 4-20 mA output of our devices is “**passive**”. If the input of the receiving device is also “**passive**” then another device that is “**active**” is required to provide the power for the loop. This can be a regulated or non-regulated but well filtered power supply, 12 V or 24 V battery etc.

In this case the three devices have to be connected as on the diagram below. The power supply provides a high enough voltage which causes a current to flow through the loop of 3 devices. The analog output of our devices accurately controls the current to be between 4 and 20 mA and the receiving device measures that current. Because all 3 devices are in series the current is exactly the same at any place in the loop.



### 4. Same power for the flow computer and the analog output

**Please note that there will be no isolation between the flow computer, the flow meter and the analog output.**





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