

# Gobius® Pro

## Connecting Gobius Pro level sensors to Cerbo GX, Victron Energy





This document shows how one to five sensors can be connected to the Cerbo GX.

- When only one sensor is used, it can be connected directly to the Cerbo GX
- If more than one sensor/tank is used, the connection is performed via the Hub
- Three different connection examples are shown:
  - A) Level alarm, with one sensor
  - B) Tank levels with multiple sensors where the sensors (including the Hub) and the Cerbo GX can be powered from separate supplies
  - C) Tank levels and level alarms with multiple sensors via the Hub that can send tank data to the Cerbo GX. The sensors, Hub and Cerbo GX must have a common ground (negative) connection

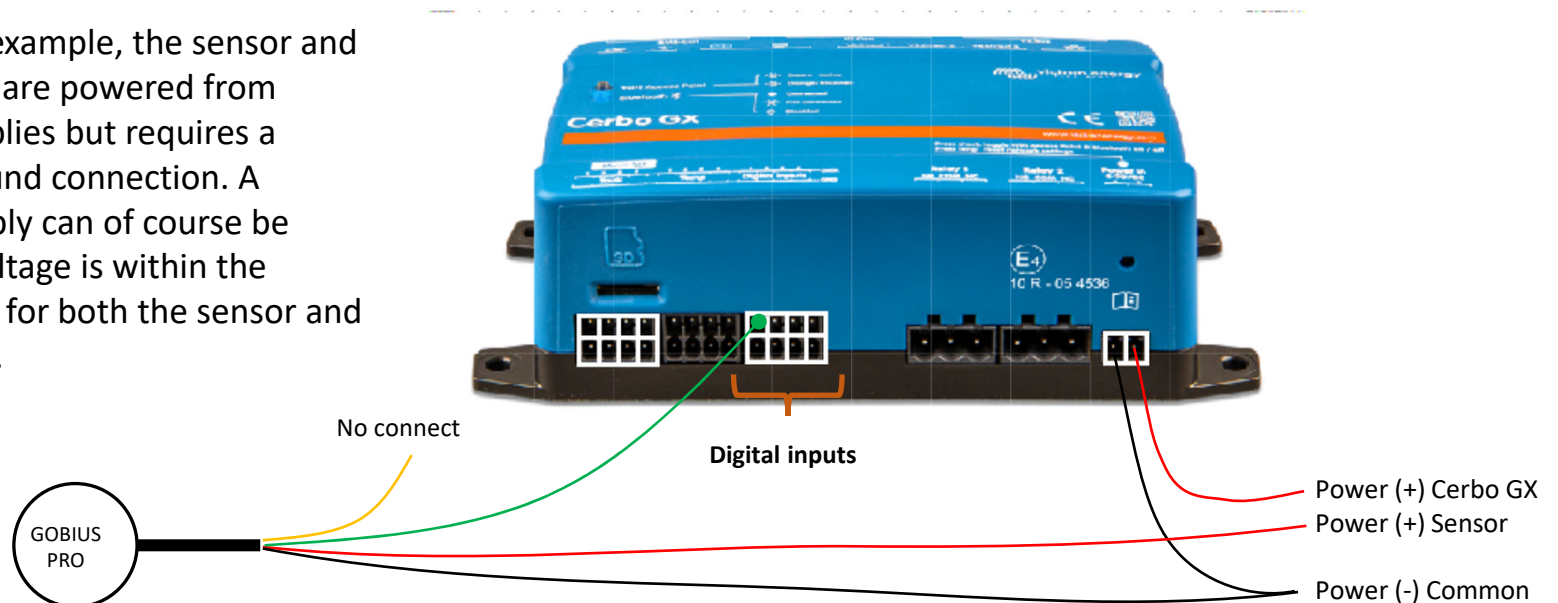
Notes: You can connect max. five sensors (six levels/tank) and Cerbo GX can read max. four tanks. This document does not include how to setup the Cerbo GX or the Hub. Please read more at [www.victronenergy.com](http://www.victronenergy.com), Cerbo GX and at [www.gobiuspro.com](http://www.gobiuspro.com), Documentation.

# Gobius<sup>®</sup> Pro

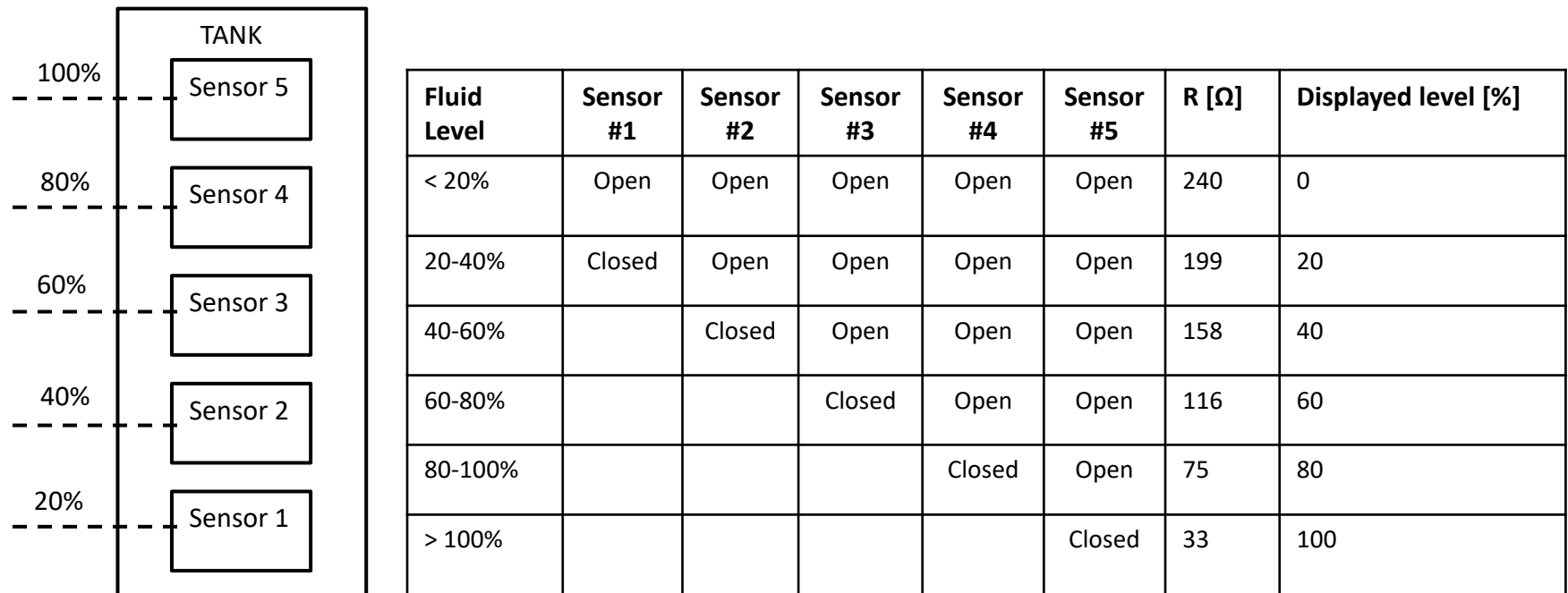
## Level alarm with one sensor (Example A)

1. The sensor output #1 (green cable) is connected to Cerbo GX digital input #1.
2. The Cerbo GX can be set up to generate an alarm when digital input #1 is activated.
3. **For a overfill alarm**, the sensor shall be programmed (in the App) to activate output #1 when the fluid level is below the sensor. (Yes it's correct, due to an active low output)
4. **For a low level alarm**, the sensor shall be programmed (in the App) to activate output #1 when the fluid level is above the sensor. (Yes it's correct, due to an active low output)

Note: In this example, the sensor and the Cerbo GX are powered from separate supplies but requires a common ground connection. A common supply can of course be used if the voltage is within the requirements for both the sensor and the Cerbo GX.



1. It is recommended to use the 240-33  $\Omega$  connection
2. The Cerbo GX tank input shall be set up for 240-30  $\Omega$
3. The sensors shall be programmed (in the App) to activate output #1 when the fluid level is above the sensor
4. The Hub resistance value versus fluid level is shown in the table below



Note: Please read about setup the Hub at [www.gobiuspro.com](http://www.gobiuspro.com), Documentation.



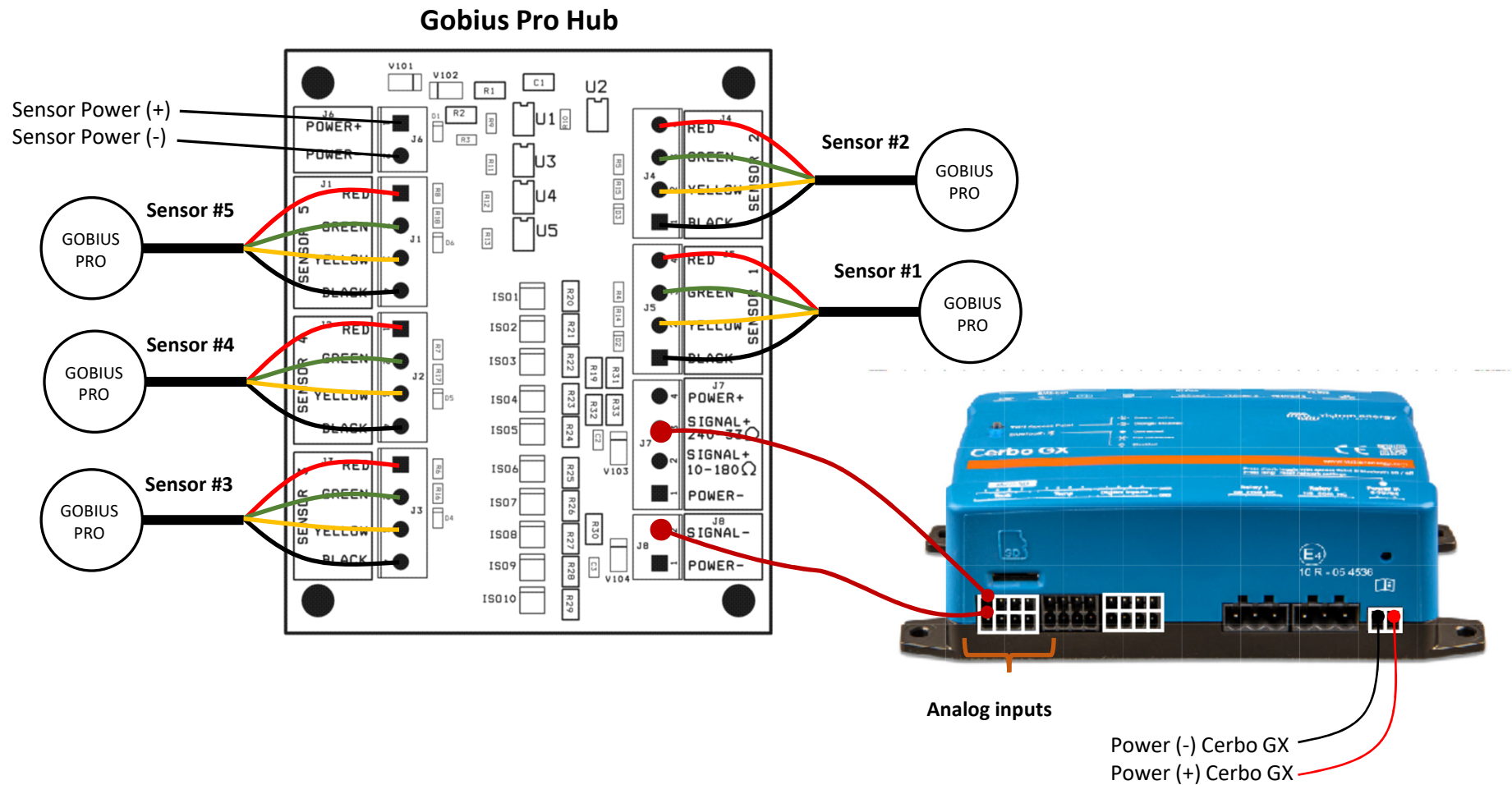
## Connection example for getting several tank levels with multiple sensors (Example B)

1. The Hub is setup for 240-33  $\Omega$ .
2. The Cerbo GX tank input #1 shall be set up for 240-30  $\Omega$ .
3. The sensors shall be programmed (in the App) to activate output #1 when the fluid level is above the sensor. An empty tank corresponds to 240  $\Omega$  and a full tank corresponds to 33  $\Omega$ .

Notes: In this case the Hub and the Cerbo GX can be powered from separate sources as the Hub provides galvanic isolation. See also next page illustration.

# Gobius<sup>®</sup> Pro

Illustration, five sensors via the Hub to the Cerbo GX  
(Example B)



Note: The connections show a 240-33 Ohms signal from the Hub connected to Cerbo GX input tank #1.



## Connection example, five sensors for both levels and alarms to the Cerbo GX ( Example C)

1. The Hub is connected for 240-33  $\Omega$
2. The Cerbo GX tank input #1 shall be set up for 240-30  $\Omega$
3. The Cerbo GX digital input #1 can be set up for tank empty alarm
4. The Cerbo GX digital input #2 can be set up for tank full alarm
5. The sensors shall be programmed to activate output #1 when the fluid level is above the sensor.
6. Sensor #5 shall be programmed to activate digital output #2 when the fluid level is below the sensor. (Yes, it's correct, due to an active low output)
7. Sensor #1 shall be programmed to activate digital output #2 when the fluid level is above the sensor. (Yes it's correct, due to an active low output)

### Notes:

In this case the Hub and the Cerbo GX can be powered from separate sources but they must have a common ground connection (Power(-)).

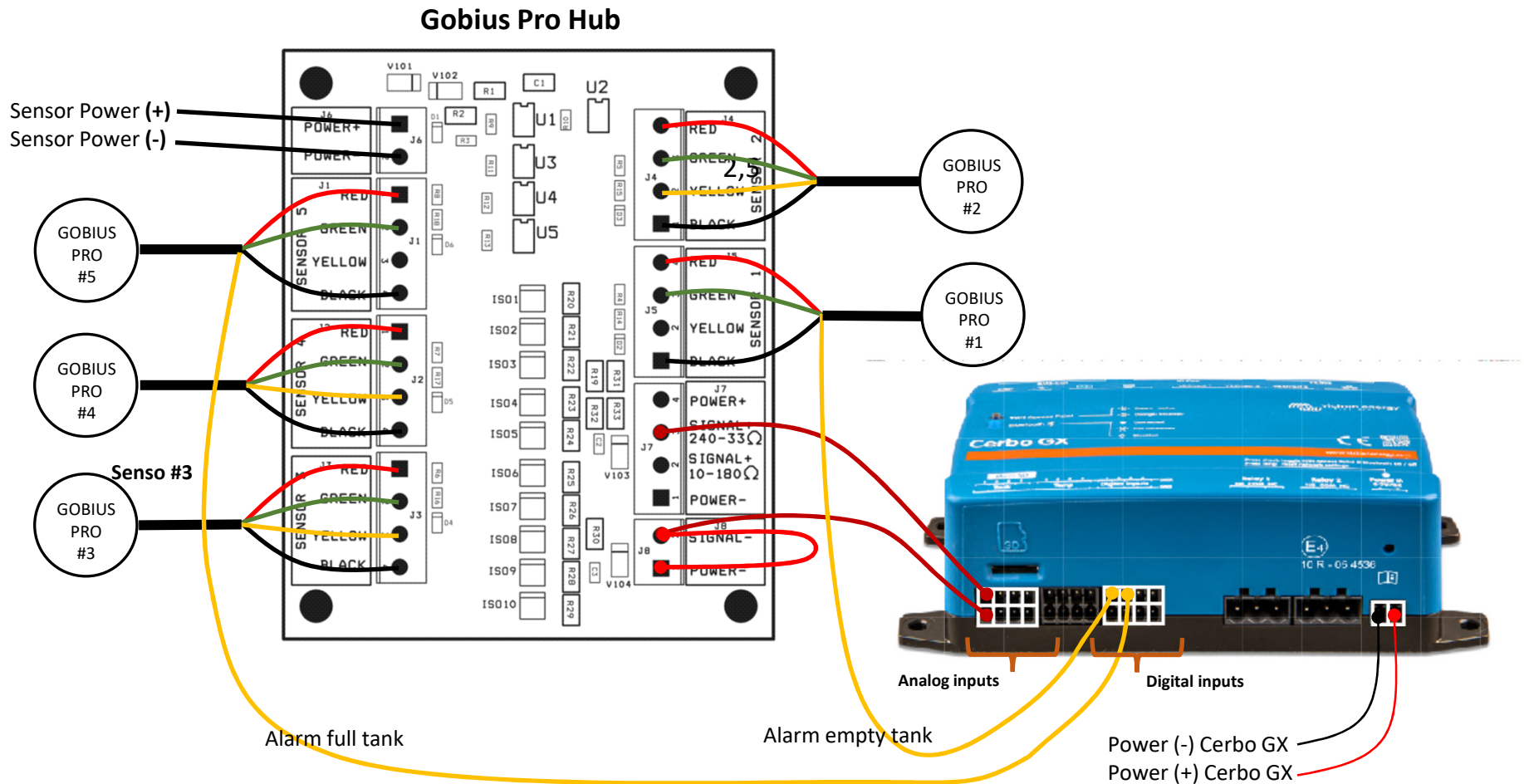
A low level corresponds to 240  $\Omega$  and a high level alarm corresponds to 33  $\Omega$ . See also next page illustration.



# Gobius<sup>®</sup> Pro

Illustration example, five sensors giving six levels and two level alarms

(Example C)



Notes: The connections show a 240-33 Ohms Hub connected to Cerbo GX and connections for tank full/empty alarms. The Hub doesn't provide galvanic isolation. The Hub and Cerbo GX have a common ground via the Cerbo GX.