



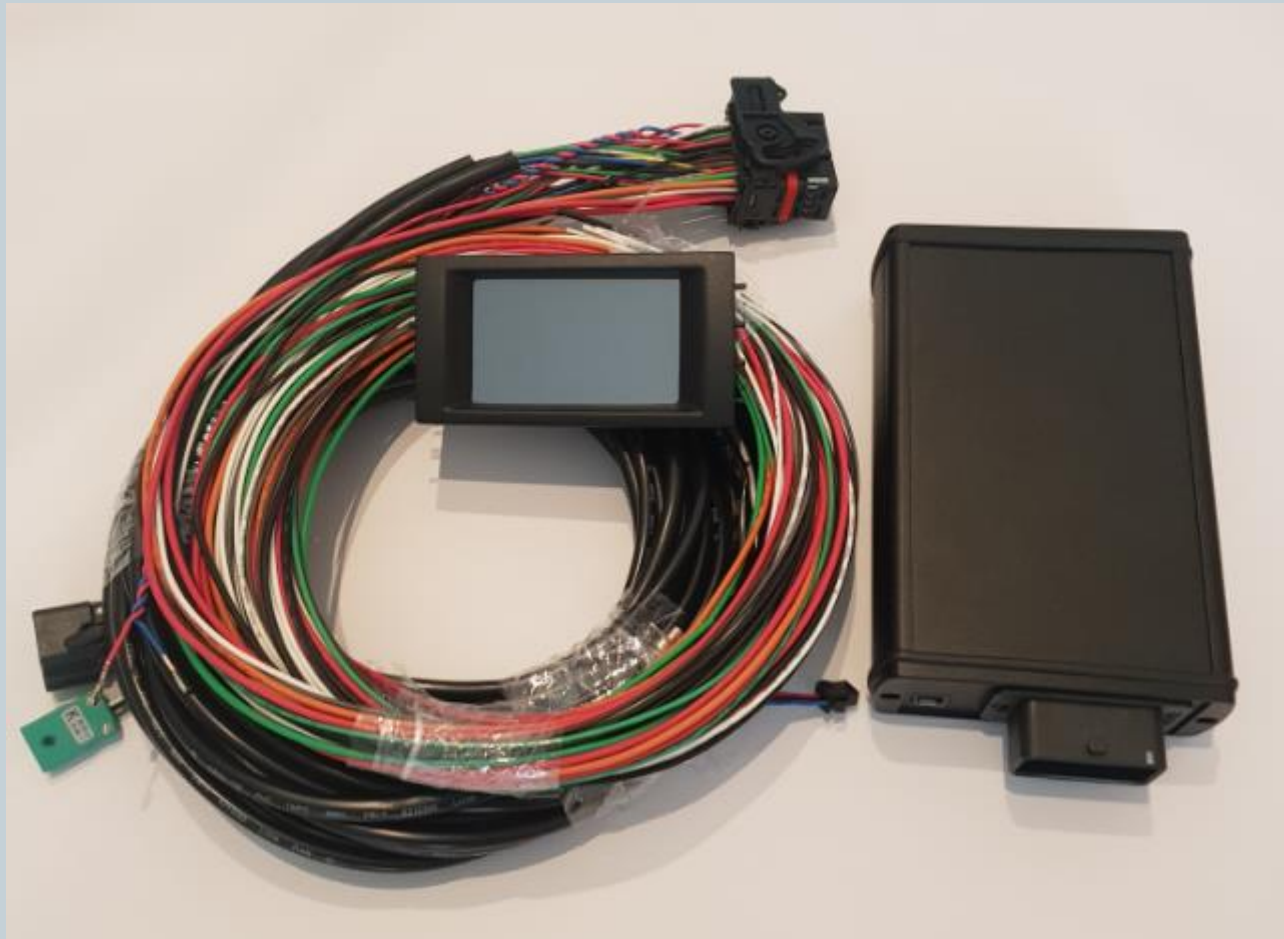
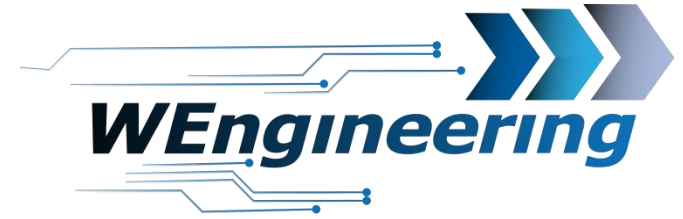
WEngineering



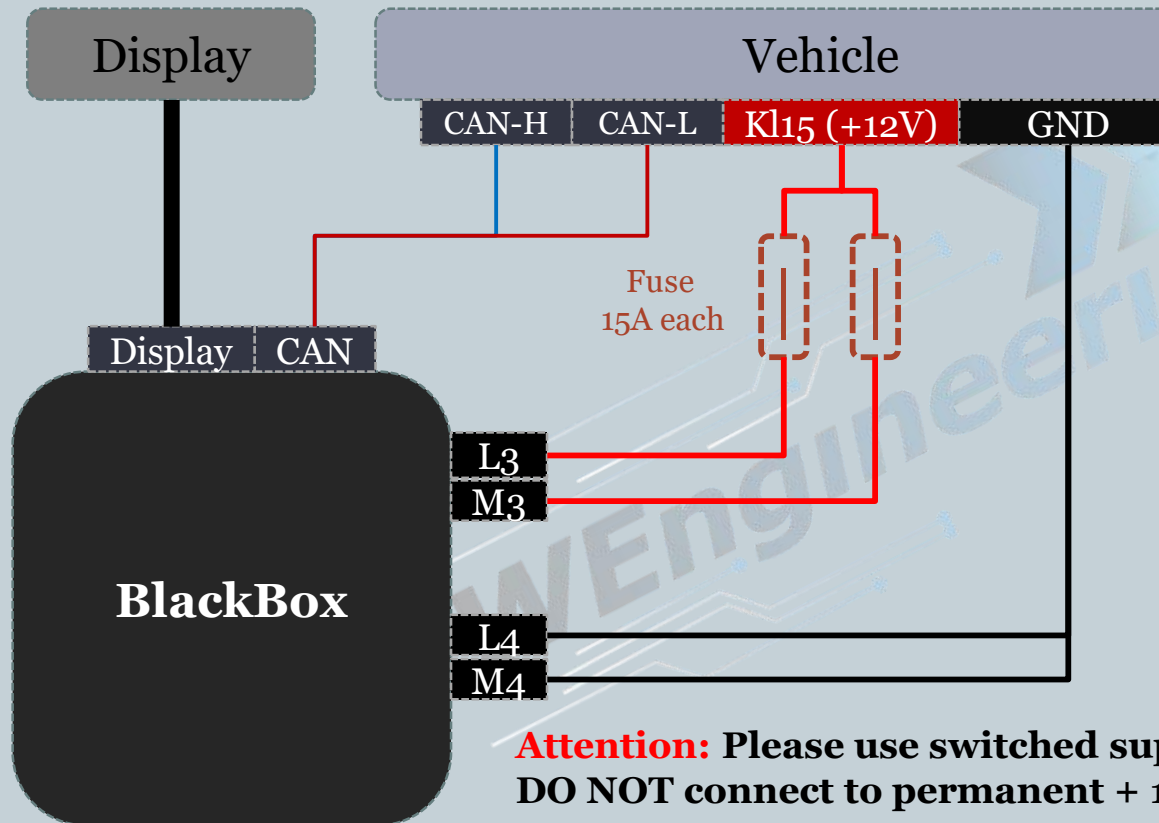
Schematic BlackBox

Version:V1.0

Datum:06.14.2021

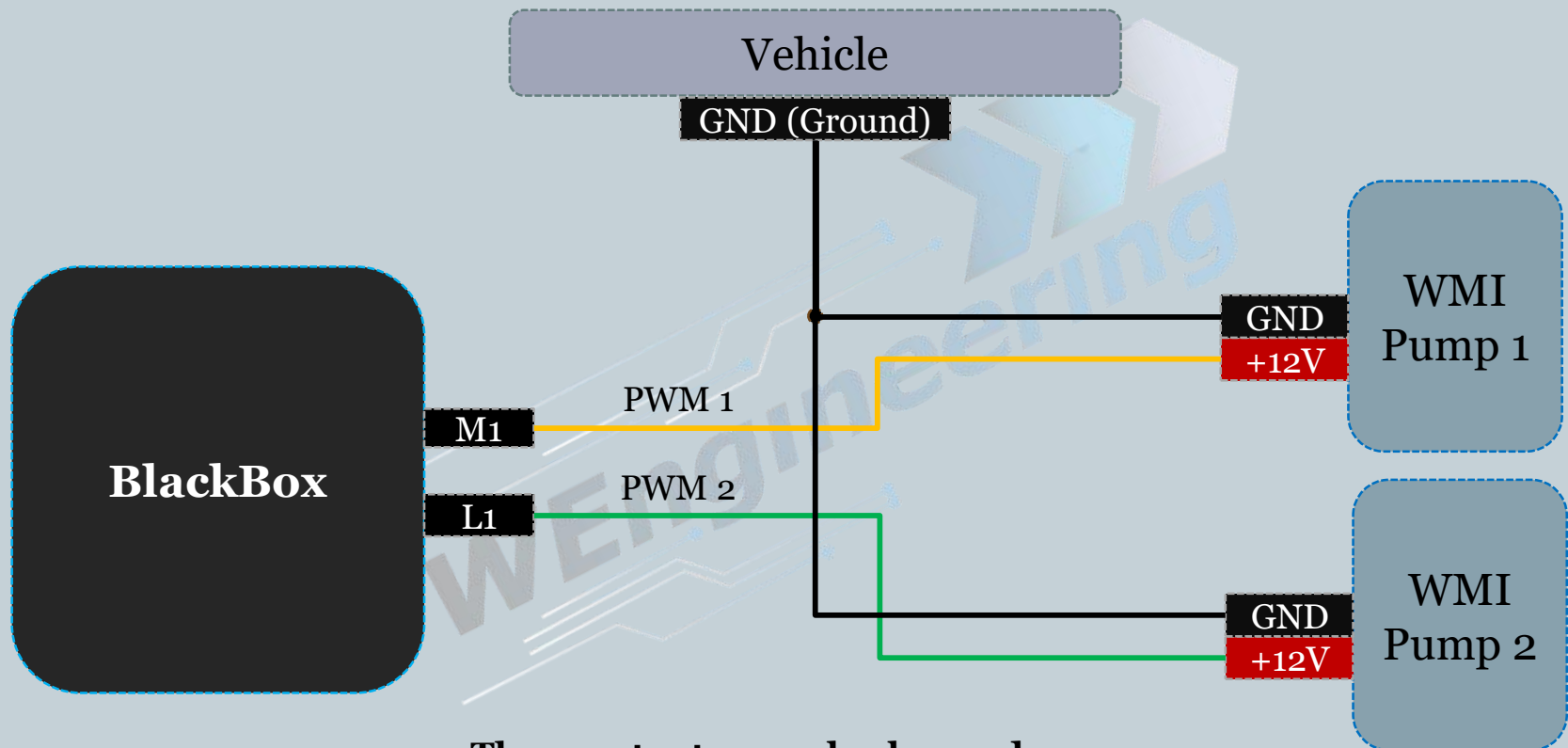


Control unit connection diagram on the vehicle side



Attention: Please use switched supply for the control unit.
DO NOT connect to permanent + 12V!

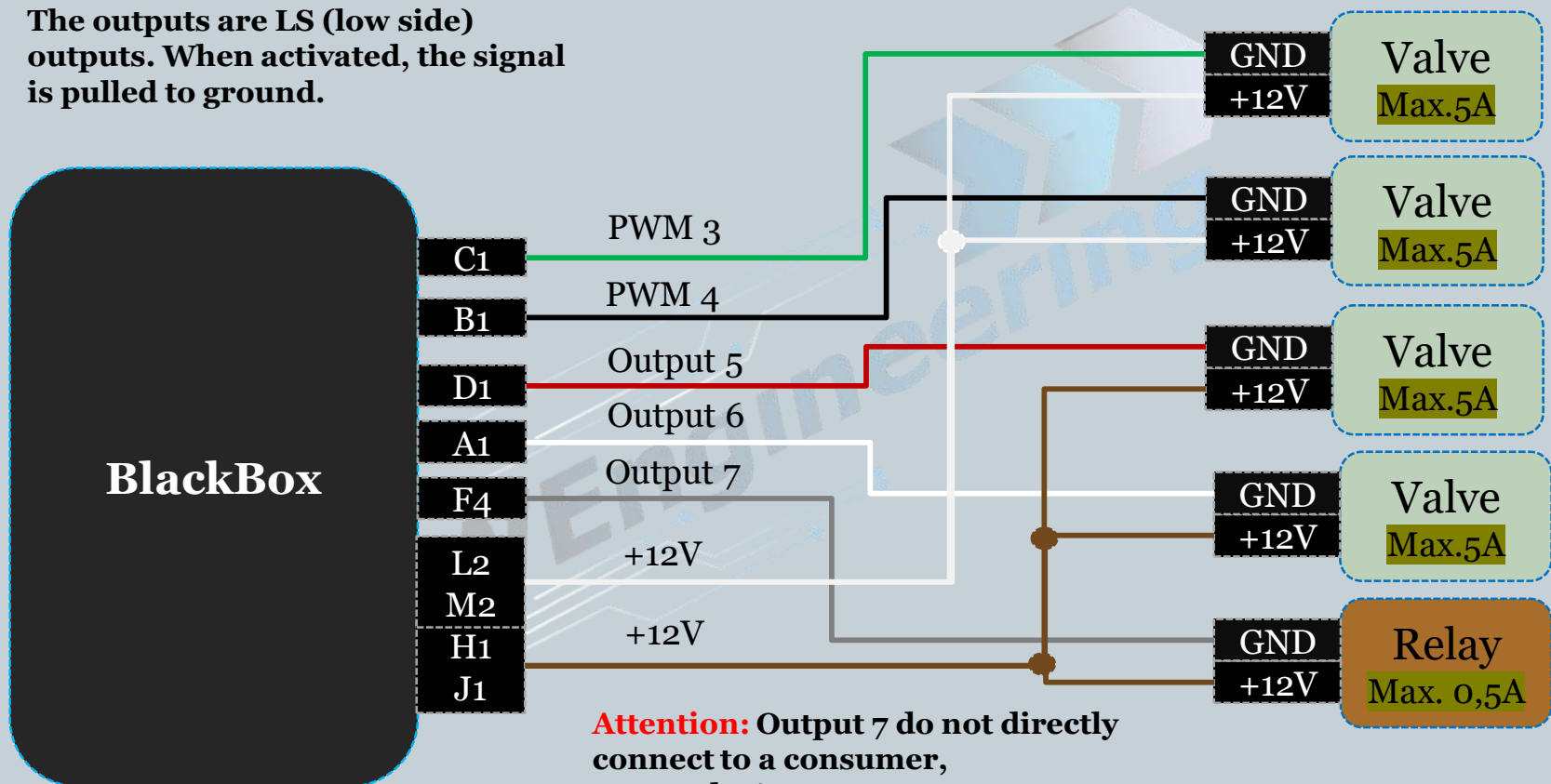
Control unit connection diagram WMI pumps



These outputs can also be used to control electromagnetic/solenoid valves. Max. 12A

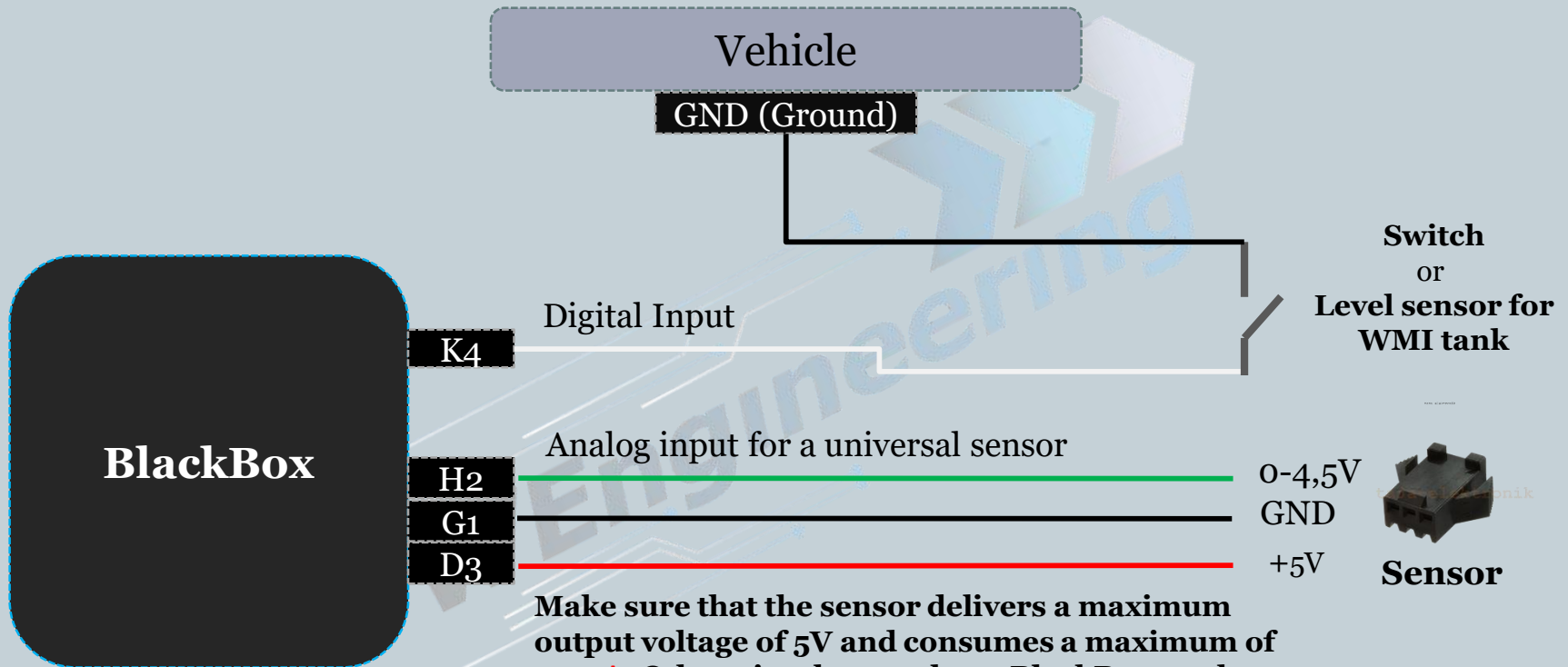
Control unit connection diagram outputs

The outputs are LS (low side) outputs. When activated, the signal is pulled to ground.



Attention: Output 7 do not directly connect to a consumer, use a relay!

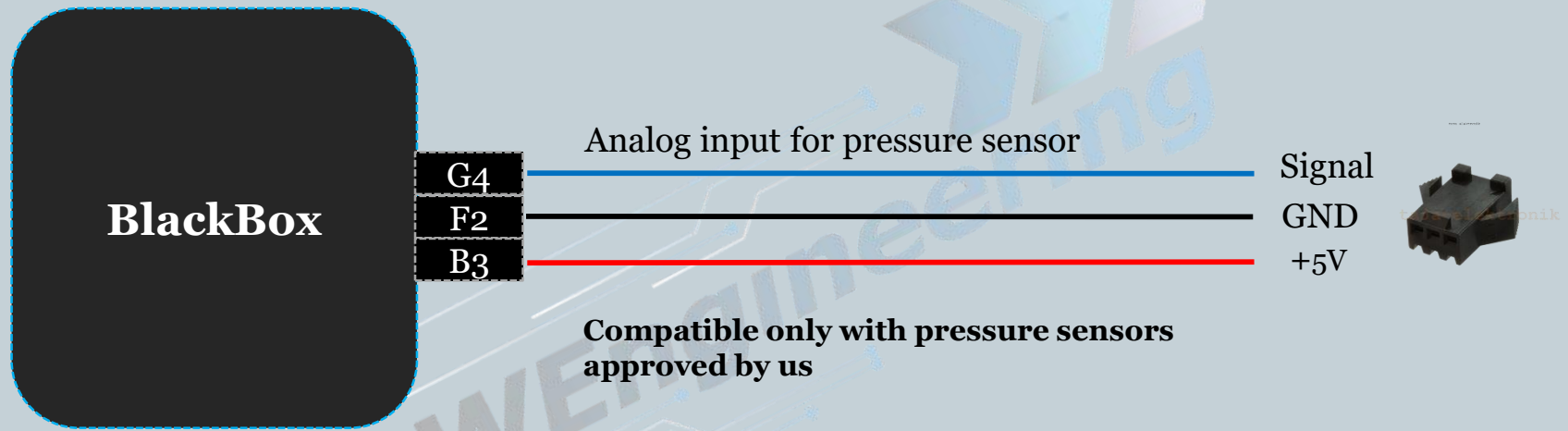
Control unit connection diagram inputs



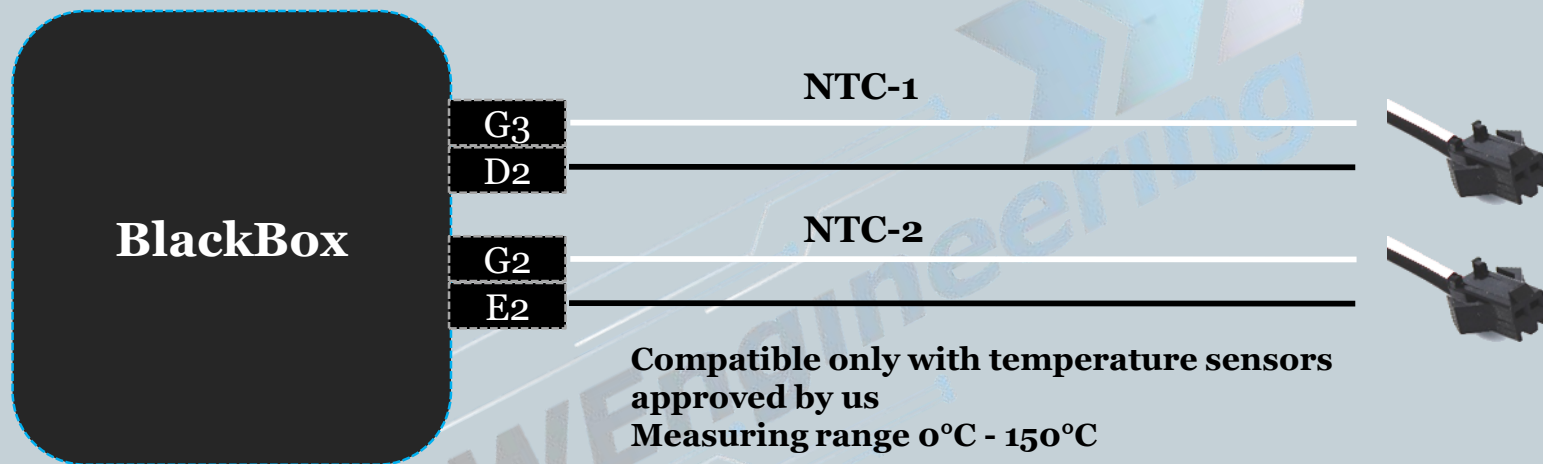
Make sure that the sensor delivers a maximum output voltage of 5V and consumes a maximum of **50mA**. Otherwise the supply on BlackBox can be damaged.

0-4500mV in the software.

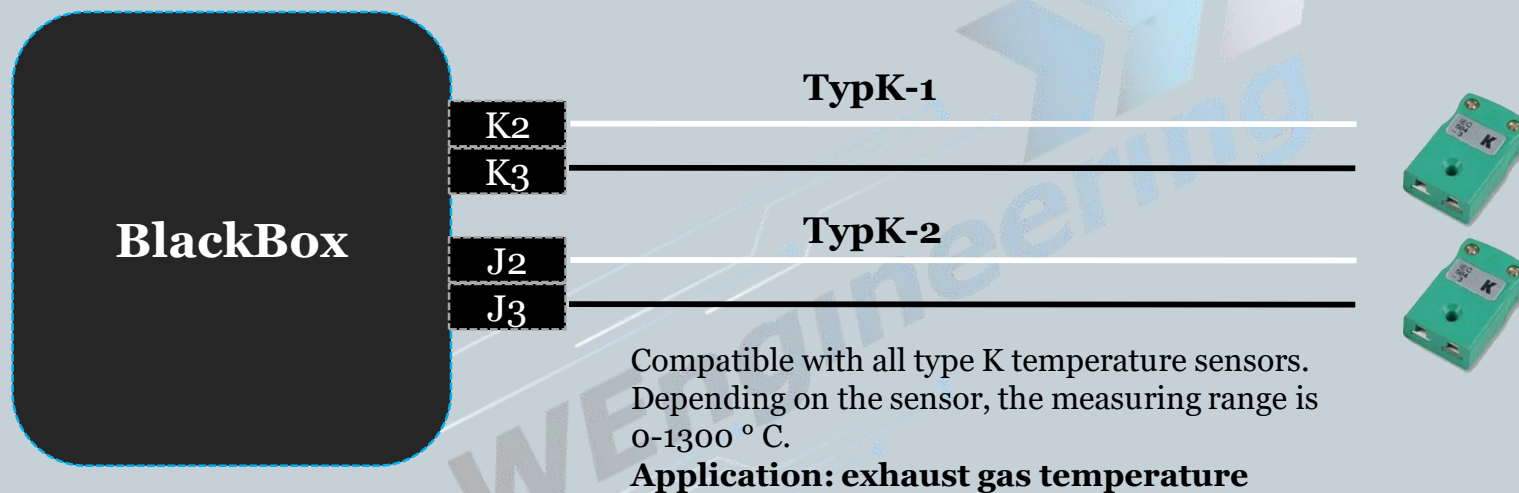
Control unit connection diagram pressure sensor



Control unit connection diagram temperature sensor NTC



Control unit connection diagram temperature sensor type K



Control unit connection diagram for ethanol sensor



Compatible only with Flex Fuel Ethanol Sensor from Continental / GM
50Hz-150Hz = 0% -100% ethanol content



Connection for WMI flow sensor



Compatible only with flow sensor provided by us.
Flowrate: 100cc-1200cc

Specification

- Input voltage: 10V-15V
- 2x PWM outputs 12A
- 2x PWM outputs 5A
- 2x digital outputs 5A
- 1x digital output 0.5A
- 1x digital input
- 1x analog input (external ADC)
- 2x inputs NTC temperature sensors 0-150 °C
- 2x inputs type-K temperature sensors 0-1300 °C
- 1x input for flex fuel ethanol sensor 50Hz-150Hz = 0% -100%
- 1x connection for WMI flow sensor
- 1x USB