



Conversion from Thermic to Optic

The easiest and the cheapest way to convert the tank truck to work with optic overfill systems by a wide margin is to use 18 mm optic 5-wire sensors. This conversion is easy and fast to make and requires almost none changes to the truck. What you need for this conversion is:



- 18mm optic 5-wire sensors with extension pipes (one for each compartment)
- 5-pole cable
- One multiplug (Optic socket)
- Wire connectors

Figure 1 shows the current configuration of the truck (In Sweden, the loading connectors can be found from the back of the truck, but the wiring is the same).

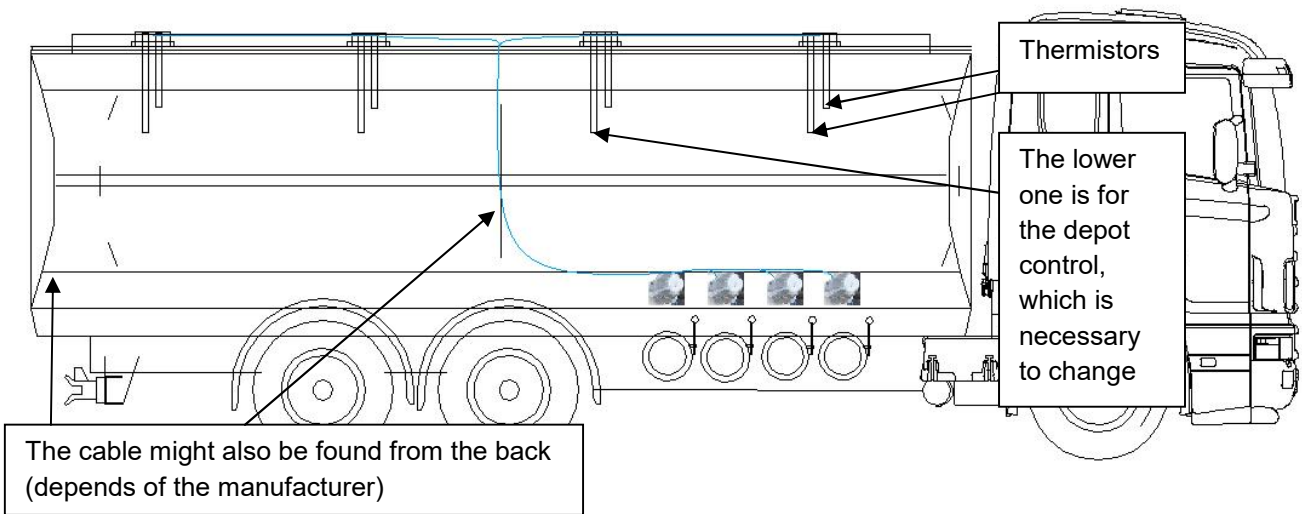


Figure 1. Current configuration

The thermistors are connected with two wires each and are probably brought down from the roof with only one cable. If this is the case, then it is also possible to utilize the old cable. In Figure 2 shows what the truck will look like after the conversion.

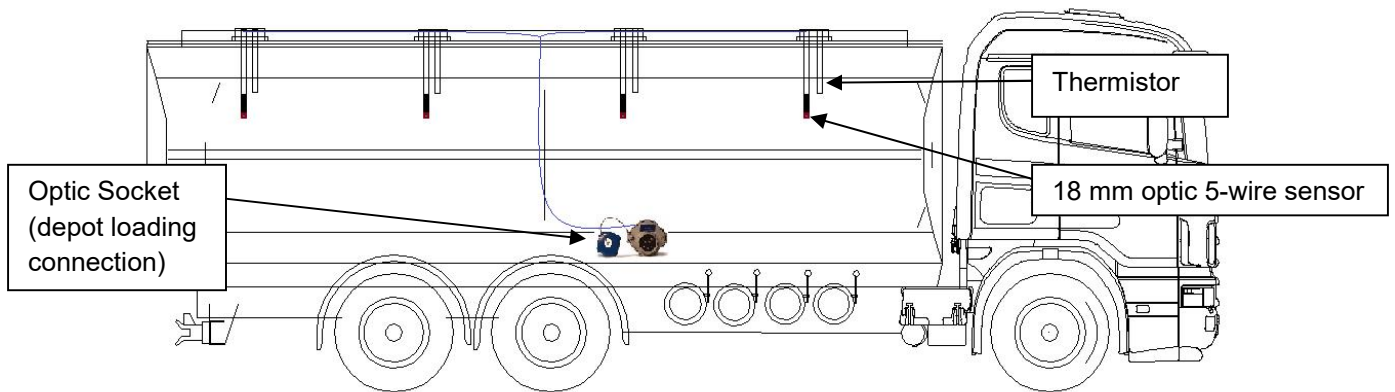


Figure 2. Tank truck after the conversion

The old thermistor sensors are easy to switch since the diameter is the same as the 18 mm five wire optic sensor. Remove the old sensor and cut the extension pipe of the optic sensor to the correct height by using the old thermistor sensor as the ruler and put the new sensor in the old coupling. It is not necessary to make changes or metal works in the tank. The wiring follows EN13922 standard, see Figure 3.

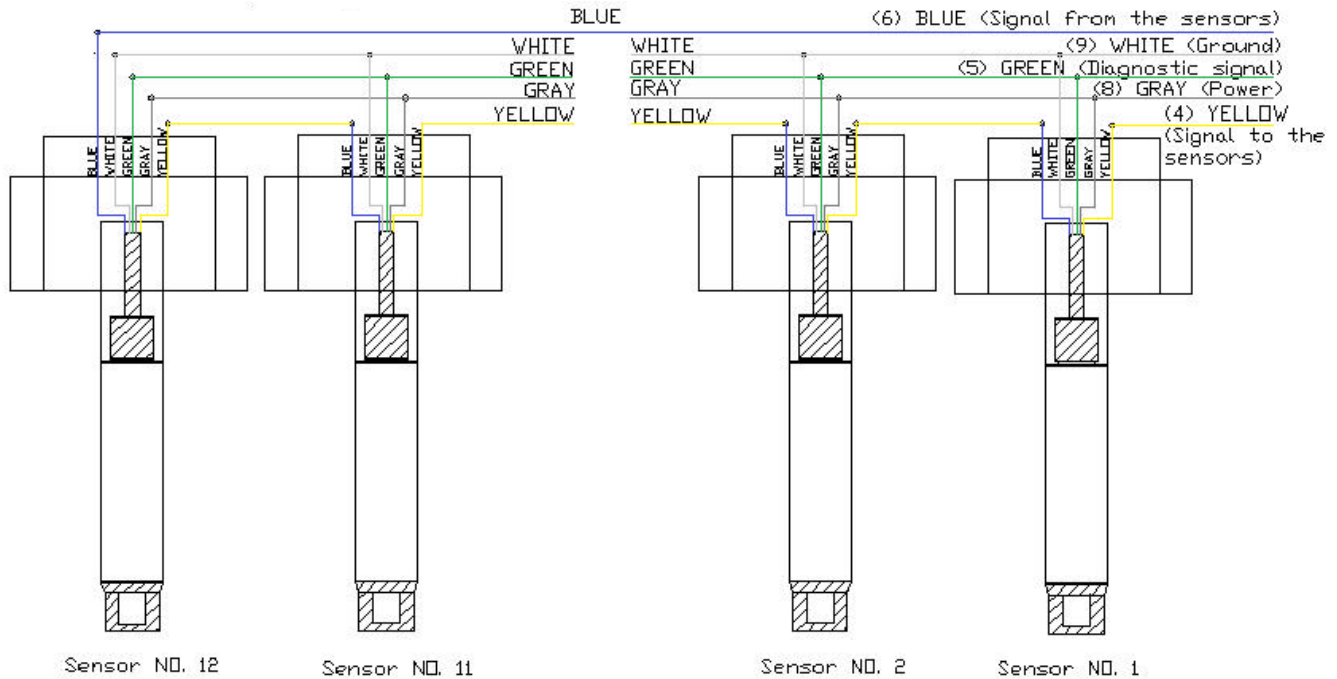


Figure 3. Colour coding and wiring of the sensors

NOTICE! The yellow wire from the optic socket is connected to the yellow wire of the first sensor (first compartment). The blue wire from that first sensor is connected to the yellow wire of the second sensor (second compartment) and so on. This continues until to the last sensor, where the blue wire is connected directly to the optic socket. The optic socket connection is shown in Figure 4.

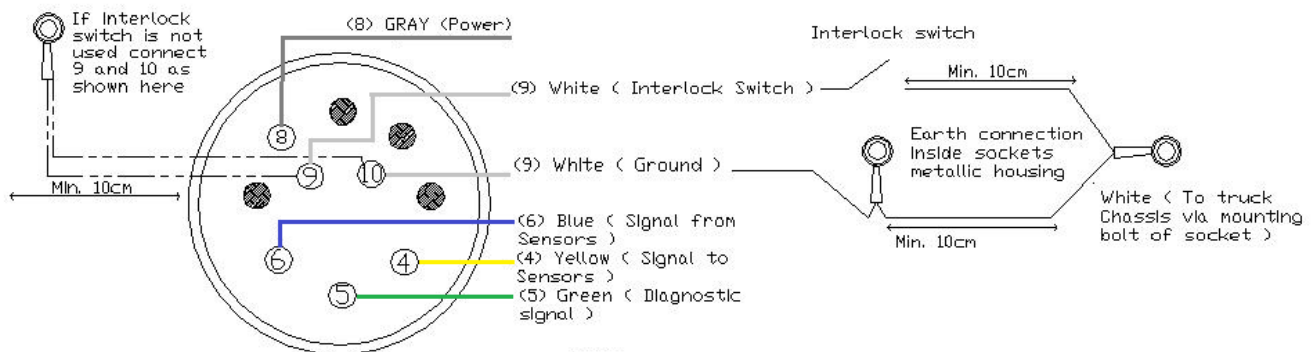


Figure 4. Connecting the optic socket

More information can be found from our website www.optolevel.fi

This also is available at our homepage in [Swedish](#)