Overview.

This sheet contains relevant information about the following sensors types.
1. 5300E 5-wire overfill sensors with wire colors according European standard.
2. 5300N is the Non EU version with wire colors other than EN13922
3. A rack monitor version type 5650E and
4. The onboard monitor type 5350E.
5. 5000E as replacement for the 1000
6. 5030E version.

Installation Instructions

This sensor is part of the Blue Series from CIVACON and designed and produced according the latest technologies. New functionalities are added to reduce down time. All overfill sensors must be mounted to the housing with a cut to length extension tube H71809. Two “O” rings are pre-mounted on the sensor to ensure a tight connection between the sensor and the tube. The middle of the Optic ring is detecting area of the sensor. At this point the sensor will sense an impending overfill situation and communicates this to a monitoring system to shut down the loading process. Although the sensors with the tube and housing are designed to be robust and withstand road vibrations it should never be exposed to mechanical impact as it might impair the sensor and zone separation. Wiring should be done with great accuracy and according local regulations. Use weather-tight cable strain reliefs or liquid-tight (IP 65 minimum) conduit fittings to keep out external moisture. The use of weather-tight cable strain reliefs with the sensor and socket housings as well is also imperative for a moisture resistant system. Make sure cable gland match with cable diameter. We advise the use of a high quality stranded and tinned copper wire with a minimum thickness of 1.0 mm* (20 gauge AWG) for all electrical connections to the monitor or socket. Trim about 6 mm (¼") of the insulation of the end of each wire that will be connected to the terminal blocks of the socket and use crimp connectors or other permanent connection to connect the wires. Ensure that NO stray strands of wire have separated from the connection that could cause a potential short with an adjacent terminal or wire due to the vibrations that can occur on a trailer, it is extremely important to double-check all wiring connections for good mechanical integrity. The proper color code of the wires will save time and money on the installation and on any technical help or troubleshooting which may be required in the future. CIVACON Model 2300 cable is a seven (7) conductor color coded cable which is highly recommended for use with the installation. This cable is usable for up to a 6-compartment 2-wire sensor installation. For installations 7 & 8 compartment installations, we recommend CIVACON Model 7215 cable. CIVACON also makes a Model 2100 cable that is a five (5) conductor color coded cable which may be used for 5-Wire overfill sensor installations, and for installation of the loading rack socket(s). For European EN 13922 compliant wiring installations for 5-Wire top overfill sensor installations, Civacon Model 2100E (5) conductor color coded cable is available at that to meet the color codes of this standard.

CIVACON advice to periodically check the installation to ensure proper operation.

Any holes that are not used should be properly sealed with blind plugs.
Cut unused wires and remove all remaining stranded wires.

A short-form wiring diagram is shown on the rear of this sheet. Contact OPW for detailed information.

The entity parameters of the sensors are shown on the diagram. Do not use the sensor outside the temperature range -40°C(F)+70°C(158°F).

Warning: Enclosure contains more than 10% Aluminum. Care must be taken to avoid ignition hazard Disconnect power before installing or servicing. Remove sharp edges after cutting the extension tube (H71809).
Sensors are compatible with the EN13922 and can therefore be connected to any EN13922 compatible monitoring device. Entity parameters have to be verified if this is unknown before coupling.

Installation must be in accordance with the national electric code® (NFPA 70, Article 504) and ANSI/ISA-RP12.6 or any local regulations.