

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

The 2-wire version is available in two versions.

3. A rack monitor version type 5650E and
4. The onboard monitor type 5350E.

For Onboard equipment only

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 mm² (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 that meets 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).



CIVACON

Retain & Overfill Sensors
Declaration, Quality & installation Form
Date: 12 April 2013
DOC: DS00450 -A

EC Declaration of Conformity & Quality In accordance with ISO/IEC 17050:2004

We **OPW Fluid Transfer Group Europe BV**

Roggestraat 38 2153 GC Nieuw Vennepe
The Netherlands Tel : +31 (0) 252 660300

CIVACON

4304 Matrox Rd. Kansas City Missouri 64150 USA
Customer serv.888 526 5657 Hotline(800) 524-8226

declare that:

Product description : CIVACON Petroleum Retain & Overfill sensors

Item number : 5000E&N 5030E&N 2-Wire Retain and : 5350E&N 5650E&N 2-Wire Overfill sensors
: 5300E&N 5-wire overfill sensors

Serial no./ Lot no. Engraved on tube

Protection Type : Ex ia IIB T4 , IS Class 1 Division 1 Group C & D,T4

Certificate number : Zelm 13 ATEX 0506 X, IECEx ZLM 13.0002X , FM per H71859

Product category : II 1G

is/are in accordance with the following Directives:

94/9/EC ATEX 95 – Explosion Safety Directive and its amending directives

Has been designed and manufactured to the following standards and specifications

EN 60079-0	SEP12	Electrical apparatus. for explosive gas atmospheres – Part 0: General req.
EN 60079-11	JAN12	Electrical apparatus for explosive gas atmospheres Intrinsic safety "I"
EN 60079-26	MAR07	Electrical apparatus for explosive gas atmospheres protection level (EPL)
EN 61000-6-2	JAN05	Electromagnetic compatibility – Immunity for industrial environments
EN 61000-6-4	FEB07	Electromagnetic compatibility – Emission Standards for industrial environments
EN 61000-4-2	MAY09	Electrostatic Discharge
EN 13922	SEP11	Tanks for Transportation of dangerous Goods
FM3600	JAN10	Approval standard for electrical equipment for use in Hazardous locations.
FM3610	DEC10	Approval standard for intrinsic safety

And has satisfactorily passed a manufacturing quality check, containing a functionality test, a dimensional check and a visual inspection.

All tests are in accordance with the **OPW Fluid Transfer Group Europe BV**, 'General Test and Inspection Plan'.

We hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all essential requirements of the Directives.

The commitments are fulfilled towards: **Zelm Ex**

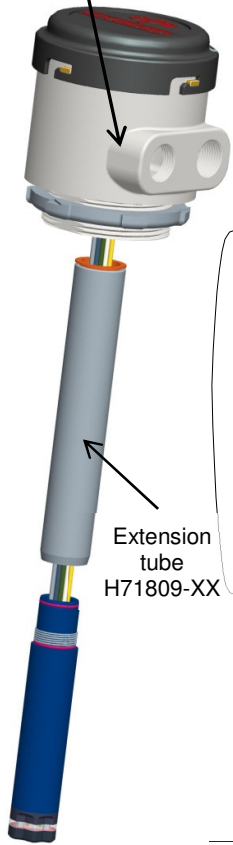
Siekgraben 56, 38124 Braunschweig, Deutschland
Identification number: **CE 0820**

Authorized Representative on behalf of OPW Fluid Transfer Group

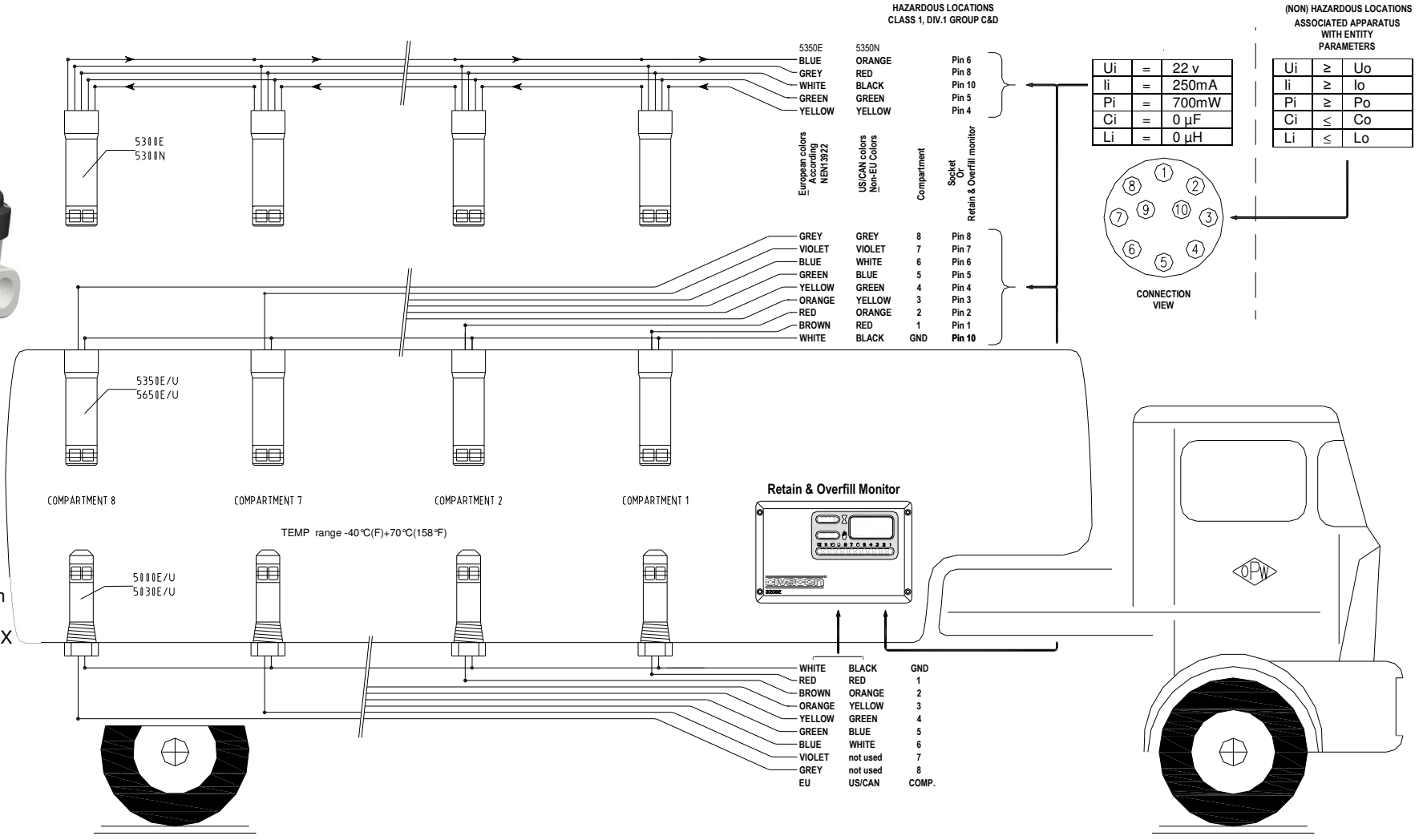
Leo Kors

Date

Housing model number 1455-1455 for NPT cable gland thread and 12435 for Metric M20 thread.



Extension tube H71809-XX



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.