

## **Installation guide**

# **ECOJET GREASE LEVEL SENSOR**



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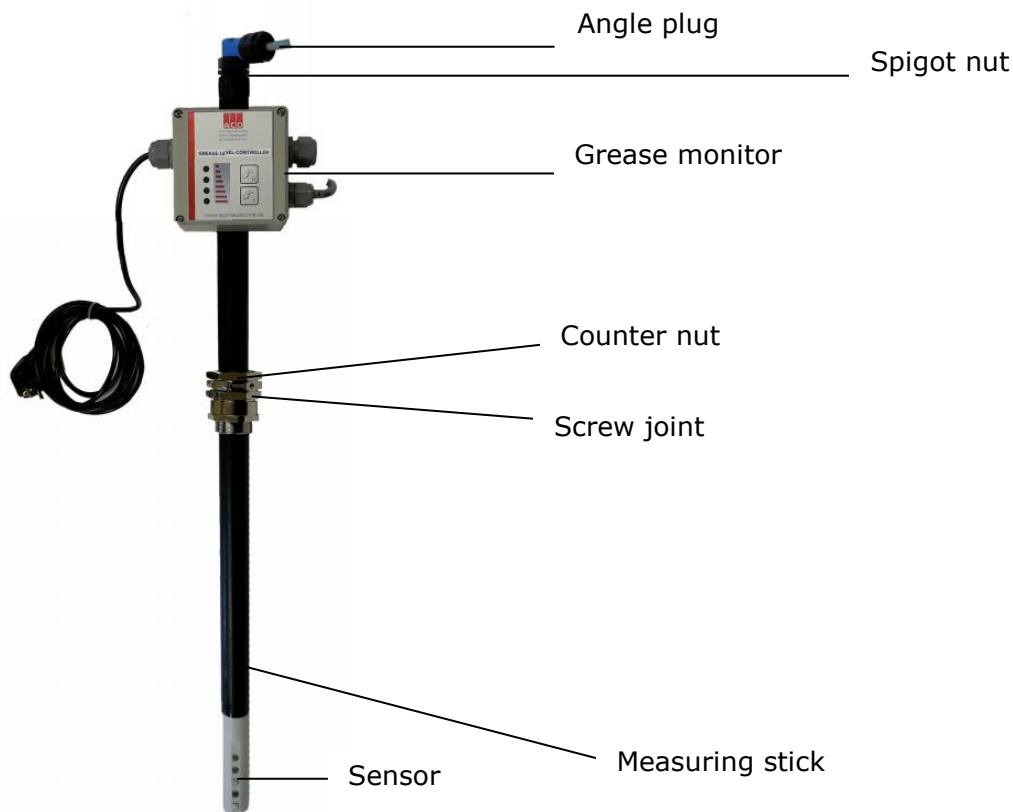
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## 1 GREASE LEVEL SENSOR COMPONENTS

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## 2 BASIC SAFETY NOTES AND WARNINGS

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- The electrical connection must be carried out by a qualified contractor and in accordance with AS/NZS 3000.
- Assembly and maintenance works may only be carried out by qualified personnel.
- The product may only be installed and operated in accordance with this manual.
- The product is not suitable for use in potentially explosive environments.
- During operation, sensors are heated to reach an operating temperature of approximately 65-75°C. After disconnecting from mains, the product will still be hot. Adequate protective measures must be taken.
- The product may not be altered or modified.
- Isolate power supply before assembly and maintenance.
- The terminal can be damaged by incorrect bolting torques at the connecting terminals, or by inappropriate use of tools. Cables which were improperly connected can disconnect during operation and present a considerable safety risk. By transfer resistance at clamp connections, an increased heat build-up is generated, which could cause a fire. Incorrectly wired connections may damage electrical components and cause other damages.
- The mains voltage connection is protected against excess voltage by varistor 390V.

### 3 PRODUCT DESCRIPTION AND FUNCTION

The Grease Level Sensor features four heated sensors. Depending on the water contact, the filling level is shown by four green LEDs. As the grease layer thickens, the LEDs go out, top down. When 50% of the grease storage volume has been reached, two green LEDs flash and when the grease layer thickness reaches 80% of capacity or more, one LED light will show. This is the indication that the grease separator must be emptied. Note: all discharge frequencies in agreement with local water authority.



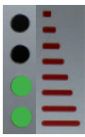
**Table A: Possible displays**

Display	Lights			Explanation		
	off	green	red	Water exists	Grease exists	Air exists
LED 4	●				●	●
LED 3	●	●		●	●	●
LED 2	●	●		●	●	●
LED 1		●		●	●	●
			●		●	●

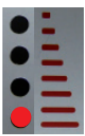
**Table B: Test button**

Button	Description
Test button 1	Output relay 1 is switched, half level signal can be checked at ZLT (central technical supervision).
Test button 2	Output relay 2 is switched, full level signal can be checked at ZLT (central technical supervision).

**Table C: Half level signal=50% max. grease storage cap.**

Display		Lights			Sensors	
		off	green	red	Water exists	Grease exists
	LED 4	●				●
	LED 3	●				●
	LED 2		●		●	
	LED 1		●		●	

**Table D: Full level signal=80% max. grease storage cap.**

Display		Lights			Sensors	
		off	green	red	Water exists	Grease exists
	LED 4	●				●
	LED 3	●				●
	LED 2	●				●
	LED 1			●		●

## 4 TECHNICAL DATA

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Designation	Description
Operating voltage	230VAC/5 VA max.
2 x relay	Change-over contact for Ohm resistive load Load NC connection 230V AC/5A Load NO connection 20V AC/2A
Consumption	Approximately 12W.
Dimensions	Type -230V (15 65 46) x 100 x 100 x 60mm Supplied in plastic housing, with ready to plug in connecting cable (2m).
Impedance switch-point	15-80 kOhm, adjustable via individual potentiometers
Measurement voltage	Max. 5 Vss
Measurement current	<250 µA

## 5 MAINTENANCE

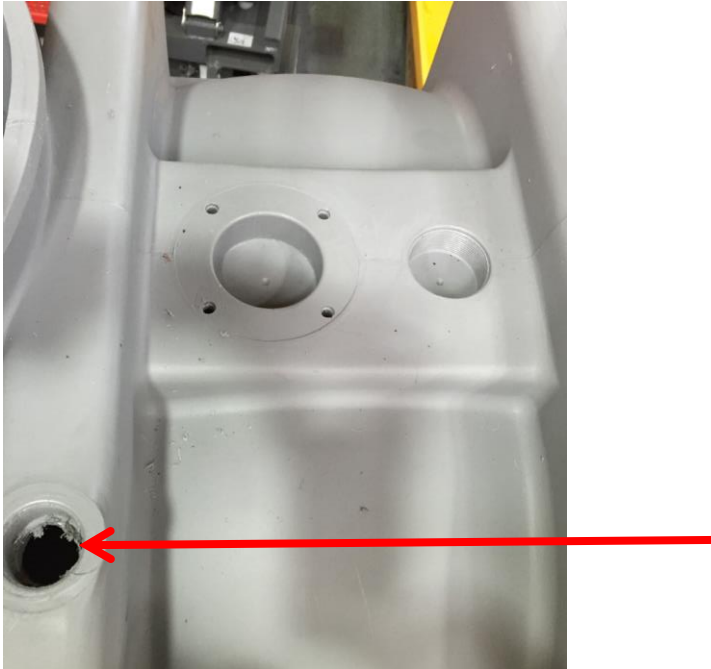
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The Grease Level Sensor must be cleaned and visually inspected each time the contents of the grease separator are disposed.

## 6 INSTALLATION INSTRUCTIONS

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1. Remove both maintenance opening lids.
2. Drill in specified location (indicated below) using a 30mm hole saw.



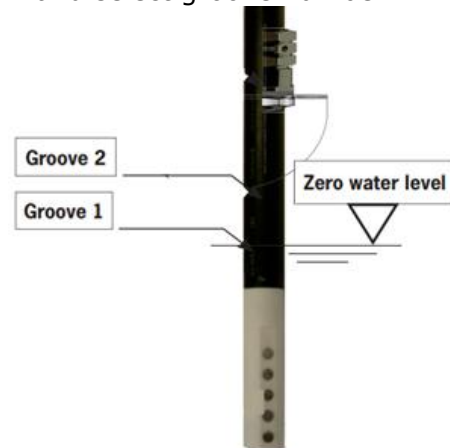
3. Apply sealant to prevent odours and put screw joint into drilled hole and tighten, ensuring it is kept straight. Discard counter nut.



4. Remove screws at back of grease monitor to remove grease monitor from measuring stick.
5. Remove screws from screw joint, so measuring stick remains.

6. Select EcoJet nominal size from the table below and select groove number:

Nominal Size (NS)	Groove number
1-4	1
5-10	2



7. Put measuring stick into EcoJet through maintenance opening and line up the required groove with the water level.



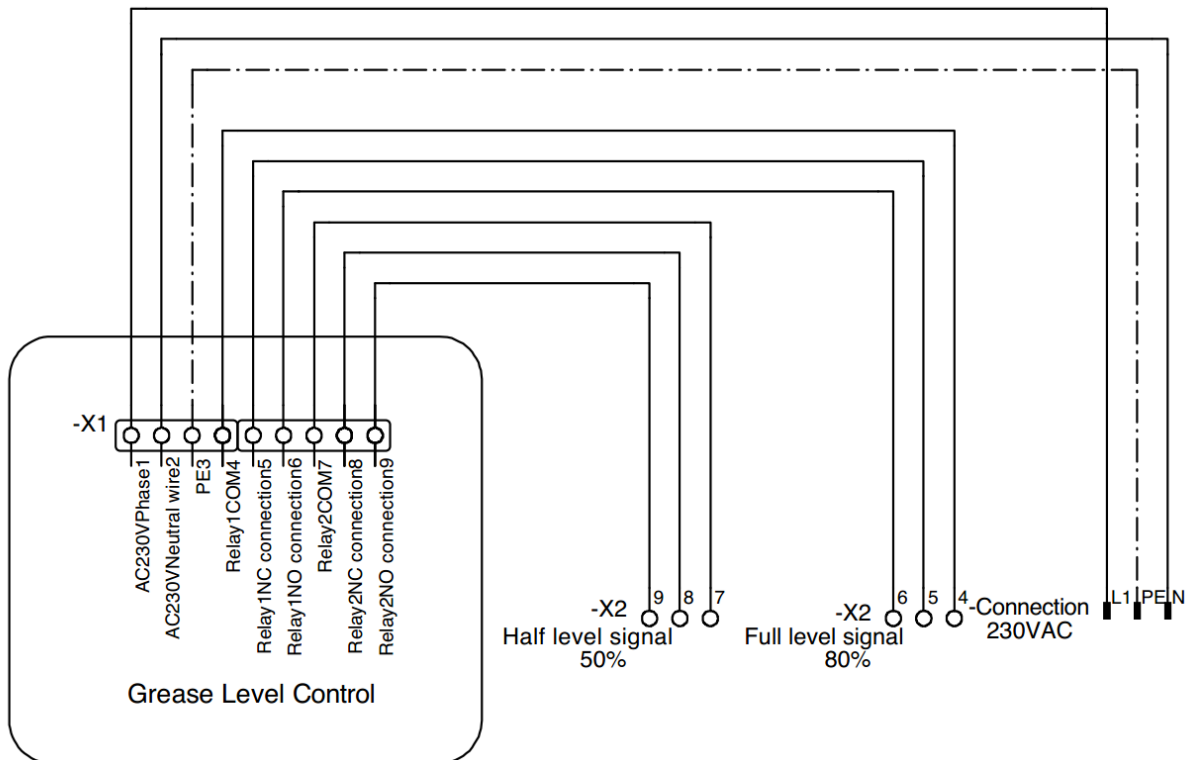
**Installation Tip:**  
 If separator is not filled with water, put masking tape around required groove, so the required groove can be easily seen when inside the separator.  
 With a tape measure, measure from the base of the separator to the bottom of the outlet to determine water level. Place tape measure at required depth into separator and line up the relevant groove with the required dimension.

8. When measuring stick is in position, tighten up screws on screw joint.
9. Remove tape from measuring stick (if used).
10. Place angle plug into spigot nut.
11. Place grease monitor on measuring stick, position at desired level and insert screws.

12. Plug device into wall socket.
13. Electrician to certify connection.

## 7 COMMISSIONING

If telemetry is required for Grease Level Sensor, contact ACO.



The NC / NO connections (2 relays) with potential-free-change-over contacts activate signals.

NC rating: 230V 5A AC max.

NO rating: 230V 2A AC max.

Use cable 7c x 0.5mm<sup>2</sup> as connecting cable.

## 8 POSSIBLE MALFUNCTIONS

- The switching points are pre-set.
- Depending on the conductivity of water, the switching point is adjusted at the trim-pot. Generally, it is sufficient for most applications with clean tap water to leave the potentiometers in the most sensitive setting (left stop), corresponding to a switching point of approximately 12µS.
- If required, sensitivity for each electrode can be separately adjusted. When turning against the clockwise direction, the electronics become more insensitive leading to better results with wastewater.



- Generally, all potentiometers should be in the same position. Only in the case of electrodes to the reference electrode or in the case of long connection lines it is reasonable to adjust the sensitivity. Following changing the cable connecting length, the setting must be checked.
- Delays in switching behaviour may result from sensor surfaces being coated by grease, dissolving only in the course of several minutes and admitting a proper test reading. In the case of indication error of the sensor, the cleanliness of the sensor must be checked.

**If situations develop that are not sufficiently described, please contact ACO using contact information in section 9.**

## **9 CONTACT INFORMATION**

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For queries, servicing assistance and spare parts, contact ACO.

<p style="text-align: center;"><b>ACO Polycrrete</b> 134-140 Old Bathurst Road Emu Plains NSW 2750 Australia e: sales@acoaus.com.au    p: +61 2 4747 4000</p>
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Original manufacturer document ACO Haustechnik HT 869 subject number 3300.11.50.