

# LEVEL DETECTION FOR GREASE SEPARATORS GAD 531



## Safety Precautions

- Installation, initial start-up and maintenance may only be performed by trained personnel!
- The device may only be connected to supply power which complies with the specifications included in the technical data and on the serial plate!
- The device must be disconnected from all sources of power during installation and maintenance work!
- The device may only be operated under the conditions specified in the operating instructions!

## DESCRIPTION

The GAD 531 system is used in grease separators to monitor the height of the accumulating grease layer.

A grease layer probe of type GP/10 is connected to the GAD 531 sensor power supply unit. The probe detects the layer of fat floating on the water.

The device signals the respective alarm new/old and OK status with three LEDs and has built-in cable break and short-circuit monitoring. GAD 531 has an integrated horn. It can be deactivated with a jumper if required.

### Caution:

- Detection valid only on liquid greases.
- Do not use it for detection on emulsified greases.
- Do not use it on solid / semi-solid greases.

### Caution

Very aqueous grease layers / emulsions may not be recognised correctly!

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LEVEL DETECTION FOR  
GREASE SEPARATORS  
**GAD 531**

01-05-2024

M-531.05-EN-AC

NIV

531-05/1

## TECHNICAL FEATURES

### Sensor power supply / control unit (GAD 531)

Power supply	230V AC / 50...60Hz ±10%
Consumption	2W / 2,5VA
Wall-mounted housing	120x80x55mm
Housing protection	IP65, according EN 60529
Operating temperature	-20 ... +60 °C
Monitoring	The alarm unit GAD 531 has an auto-diagnostic of measuring loop integrity (broken cable, short-circuit).
Display and signals	1 Audible alarm (Buzzer) Green LED for normal status Yellow LED when alarm occurred and not yet reset Red LED for current alarm
Control	Through 1 push button for diagnostic test and alarm reset
Relay output	1 Relay, 230 V AC, 3A Changeover contact; Potential free

### Probe GP/10

#### Only for use with an alarm unit GAD 531

Materials	PP, PE and stainless steel end
Cable	As standard with 10m oil/petrol-resistant cable 2x1mm <sup>2</sup>
Cable maximum length	300 meters (cable extension with connection box e.g. CET03)
Dimensions	approx. Ø32x250mm including cable grommet
Protection	IP 68, acc. EN 60529
Measuring principle	Capacitive, high frequency
Operating temperature	-20 °C ... +60 °C



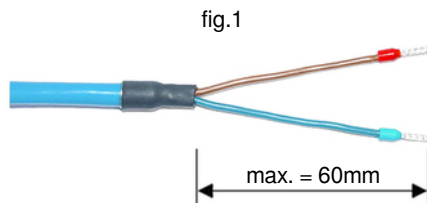
**CE Conformity: The instrument meets the legal requirements of the current European Directives.**

## COMMISSIONING

Install: Steel tip of probe must be at the level of interface water-grease corresponding to the maximum thickness of grease.

### Extension cable:

- When extending the probe cable, shielded cable (min. 2x 1mm<sup>2</sup>) should be used, the maximum length is 300 meters.
- Prepare the cable as shown in Fig.1 and attach a ferrule to each cable.



- Remove the cover of the GAD 531 sensor power supply unit
- Connect the grease probe according to the wiring diagram
- Connect the GAD 531 professionally to the power supply
- Tighten the cover of the GAD 531.
- Switch on the power
- GAD 531 performs self-test (of all LEDs and the buzzer).
- The integrity of detection loop is tested (short circuit / cable break)
- A test alarm is triggered, which must be confirmed by pressing the acknowledgment button (by side)
- Successful test = The green LED continuously lights on

### CAUTION

Before to start-up, be sure the grease probe GP/10 is well inside the water at the right level.  
Since this is a capacitive measuring method, the grease probe must be in the water when it is started up.

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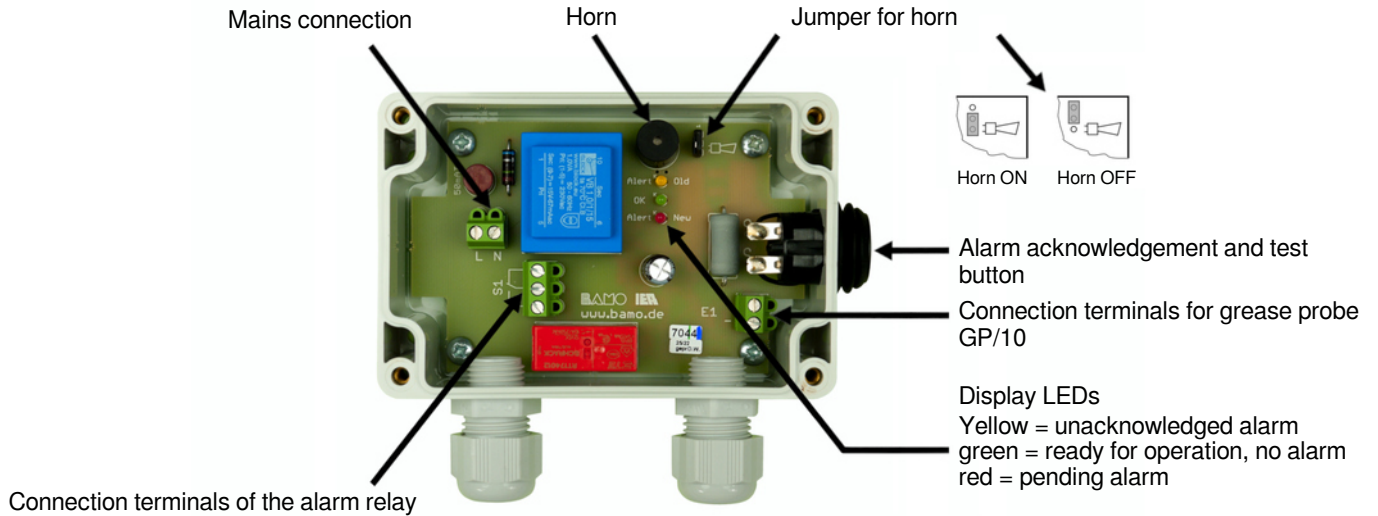
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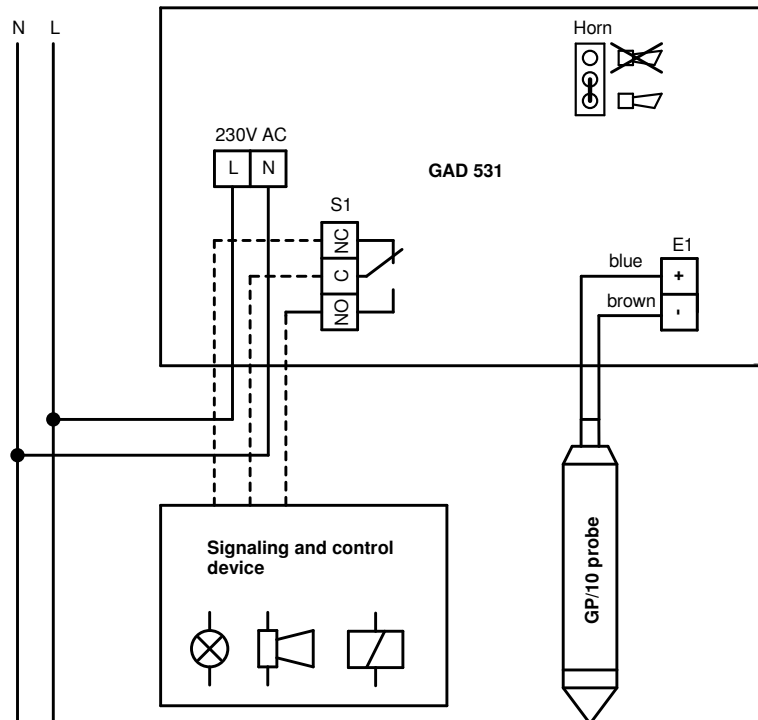
# WIRING

## Inside the cabinet






A multi-core cable (5 cores) is recommended for the mains connection and the connection of the alarm relay terminals.

## Diagram



## SIGNALING

-  → Unacknowledged alarm
  -  → Ready for operation
  -  → Alarm
- Symbols →

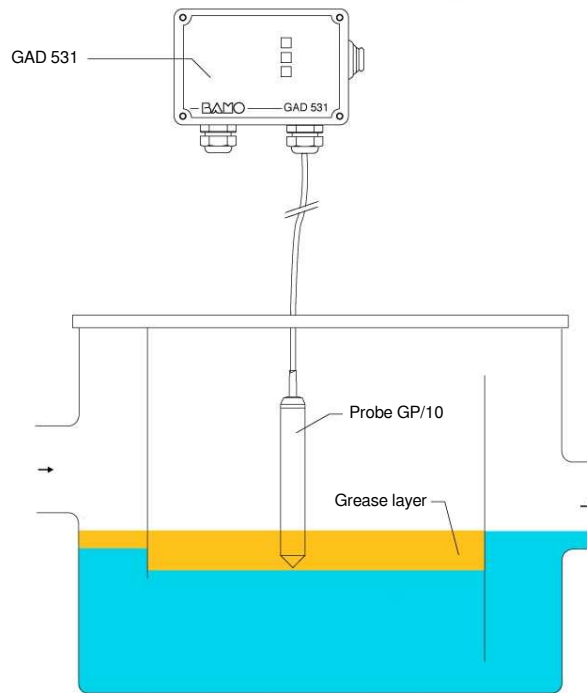
## TEST FUNCTION

Meanwhile GAD 531 is operating a test may be conducted:  
Push the "test / reset" button; As long as it is pushed on, the yellow LED and buzzer are activated.

## MAINTENANCE

When used as intended, the device is maintenance-free.  
After an alarm occurred, the probe GP/10 must be cleaned after the separator is drained.  
To clean out the probe, use a wetted rag, with a house cleaning and degreasing liquid.

## EXAMPLE OF INSTALLATION



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