

Level detection for grease-water separators GAD 531



Safety Precautions

- Fitting, wiring, initial start-up and maintenance operations must be done by trained technicians.
- The device may only be connected to intrinsically safe measuring circuit, which complies with the specifications 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.

APPLICATIONS

GAD 531 is designed for grease-water separators, to monitor level of accumulated floating greases.

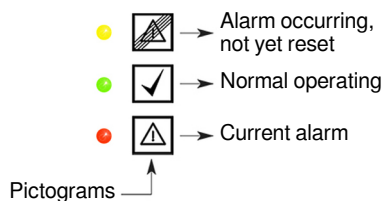
Caution:

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

Description

GAD 531 and probe GP/10 are designed to alarm when the thickness of floating grease is overpassed.

The GAD 531 alarm unit signals the status of the system with 3 LEDs:



Once the thickness of grease is overpassed, the GAD 531 send alarming signals (LEDs and buzzer)

This alert can be forwarded to a remote PLC via the relay output.

The system has a self-diagnostic of the measuring loop, probe and cable.

The integrated buzzer can be disabled with a simple jumper if required.

The probe GP/10 detects when the thickness of greases floating over the water is overpassed.

Caution

Very watery emulsions of grease may not be recognized correctly.

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GAD 531

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TECHNICAL FEATURES

GAD 531 – Alarm unit

Power supply	230 V AC ± 10 %; 50/60 Hz
Consumption	2 W
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
Cabinet	In polycarbonate; IP65; Wall mounting: 120x80x55 mm

Probe GP/10

Only for use with an alarm unit GAD 531

Materials	PP, PE and stainless steel end
Cable	10m, grease resistant cable, 2x1mm ²
Cable maximum length	300 m (with an extension and junction connector)
Dimensions	$\approx \varnothing 32 \times 250$ mm including the 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.

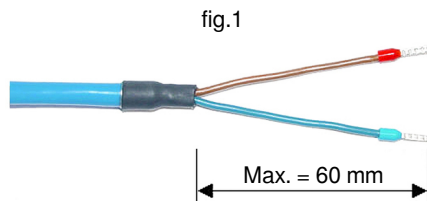
COMMISSIONING

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

Extension cable:

Use a shielded cable, 2-wire (2x1 mm² as a minimum).
The maximal length for an extension is 300 m.

- Cable preparation: As shown on picture fig.1 and fit on wiring tips.



- Take off the cabinet lid (4 screws) of GAD 531.
- Connect the grease probe according to the wiring diagram
- Connect the alarm unit GAD 531 to the power supply
- Close back the cabinet with its lid.

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.

- 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

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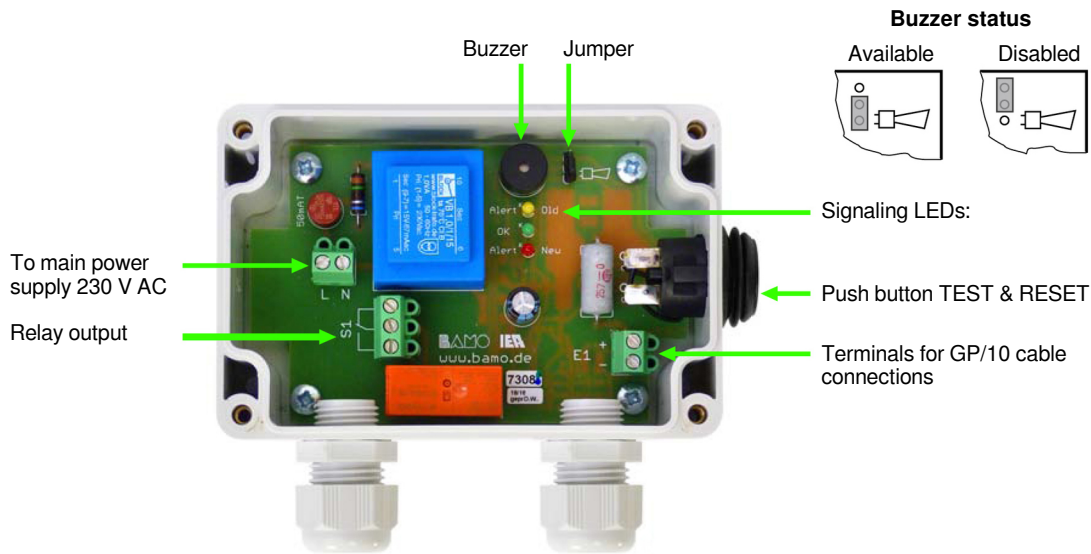
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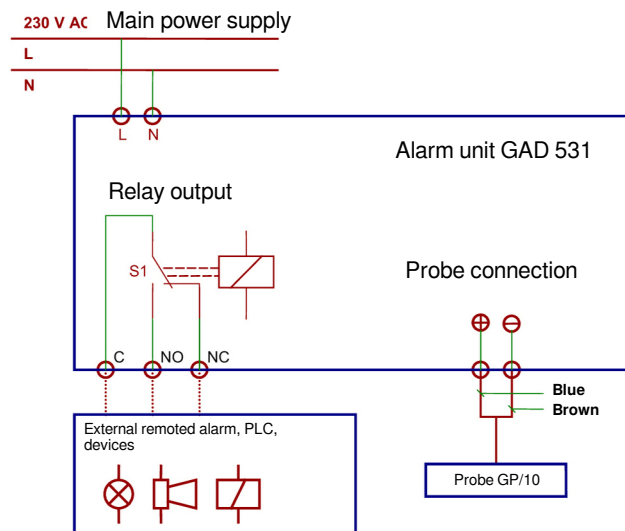
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WIRING

Inside the cabinet



Diagram



TEST

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

Alarm unit GAD 531 and probe GP/10 do not require any maintenance in normal operation.
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.

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