

# Level detection for oil-water separators

## RAC 531



RAC 531

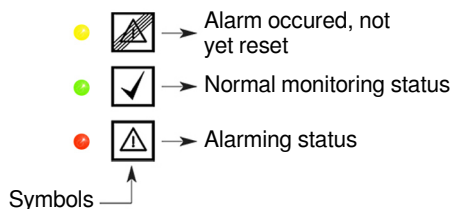
- Detection of layer thickness of hydrocarbon liquids
- Relay output, change-over contact
- Audible and lighting LED alarms
- Easy installation
- Agreement: ATEX II 1 G Ex ia IIB T4

### APPLICATION

- Level monitoring of hydrocarbon liquids in oil-water separators.

### DESCRIPTION

RAC 531 signals the status of complete system with 3 LEDs:



GP/..

An audible alarm is integrated into the unit.

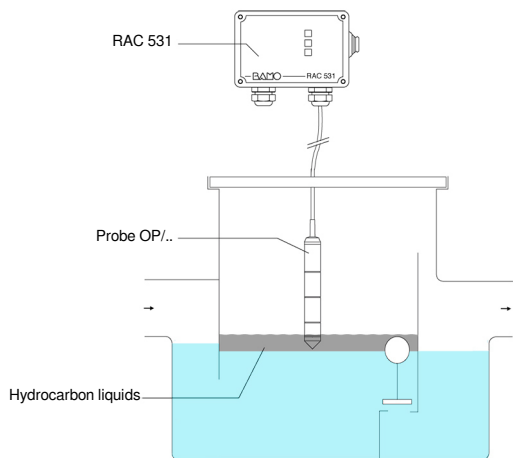
The buzzer can be disabled by the user.

The alarm device has an auto-diagnostic of the probe, detection loop and of device integrity.

The probe NivOil OP/.. (BVS 07 ATEX E 091 X) detects the hydrocarbon liquids thickness floating on the water.

### TECHNICAL FEATURES

Main power supply	230 V $\pm$ 10 % - 50/60 Hz
Consumption	~ 2 W
Protection	IP65, according EN 60529
Temperature	-20 ... +60 °C
ATEX agreement	BVS 12 ATEX E 019 / This alarm unit must be fitted in the safe area
Detection loop impedances	Maxima of permissible values (Uo, Io, Po and Co, Lo) of the intrinsically safe measuring circuit can be found in Annex 1 to the BTA (BVS 12 ATEX E 019).
Intrinsic safety	II (1) G [Ex ia Ga] IIB/IIA (related electrical equipment)
Input signal	Alarm unit RAC to connect to, and only to, our probes OP/.. (BVS 07 ATEX E 091 X)
Monitoring	The device has an auto-diagnostic of measuring loop integrity (broken cable, short-circuit)
Display and signals	1 Green LED for normal status 1 Yellow LED when alarm occurred and not yet reset 1 Red LED for alarming status 1 Built-in audible alarm, disabled with a jumper
Operating	1 push button for diagnostic test and alarm clearance
Relay output	Output: 1 Relay; 230 V AC, 3A; Potential free, change over contact
Housing	Polycarbonate cabinet; 120x80x55 mm; Wall mount; IP 65



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

**BAMO INTERNATIONAL**

22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL

Tel +33 (0)1 30 25 83 20 Web [www.bamo.eu](http://www.bamo.eu)

Fax +33 (0)1 34 10 16 05 E-mail [export@bamo.fr](mailto:export@bamo.fr)

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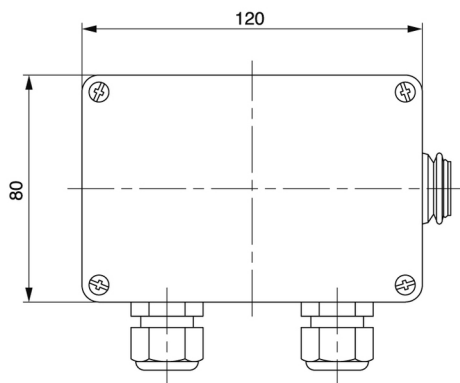
## FEATURES OF PROBE OP/5 and OP/10

Body	Antistatic PE
Probe end	AISI 316 L
Cable	Cable: Resistant to oils and hydrocarbon fluids, 2x 1mm <sup>2</sup> , blue, 5m or 10m (standard lengths), Max. cable length: 300m; other cable lengths on request, Capacitance: line ≤ 200 nF/km ; Inductance: line ≤ 1 mH/km
Protection	IP68 according EN 60529
Detection principle	Capacitive, high frequency
Temperature	-20 ... +60 °C
ATEX certificate	BVS 07 ATEX E 091 X / This sensor can be installed in zone 0
Intrinsic safety	Ex II 1 G Ex ia IIB T4 (intrinsically safe electrical equipment)

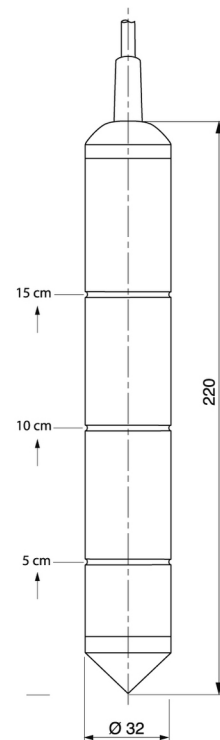
## CODE NUMBERS AND REFERENCES

Code	Reference	Description
531 950	RAC 531	Alarm unit 230 V AC Wall mount, IP 65, 120 x 80 x 55 mm
531 101	OP/5	Hydrocarbon liquids thickness probe, 5 m long cable
531 102	OP/10	Hydrocarbon liquids thickness probe, 10 m long cable

## DIMENSIONS



RAC 531



OP/5 - OP/10

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