

Relay for resistive level detection

ES5000



- For all electrical conductive liquids
- Suitable for level or leakage detection
- Adjustable sensitivity and timer, Selection of action mode
- Self diagnostic with instant alarm (LED) for:
Short circuit on the loop detection,
Loop detection cable break off
- Functions:
 - On /Off level controller between 2 rods
 - Level regulation between 3 rods
 - Leakage, inundation and humidity detection

PRINCIPLE

The relay ES 5000 works with the electrical conductivity property of the liquid, detecting the opening or closing circuit between two electrodes.

APPLICATIONS

Relay for level control

Minimal or maximal levels – Dosing, flow detection and alarm, pump control, solenoid valve control, fluid detection in a pipe.

Relay for leakage, inundation and humidity detection

In use with a LISA sensor, the relay ES5000 is dedicated for leakage detection on water distribution (pipes, sprinklers) and alarming in case of water, condensates or humidity in areas where water is prejudicial for equipments. The relay ES5000 includes a self diagnostic of the detection loop (short circuit on the loop detection and ribbon sensor break off) in order to warranty a positive safe detection system.

TECHNICAL FEATURES

Power supply input:	230, 115, 48, 24 V AC - 50/60 Hz 12, 24 V DC
Consumption:	< 2 VA
Ambient temperature:	-15 to +45°C
Mass:	100 g
Mounting:	DIN rail (DIN 46277)
Dimensions:	22.5 x 75 x 99 mm
Protection:	IP40 – Tropicalized on request (<i>varnish</i>)
Hysteresis:	About 10% of sensitivity
Adjustable timer:	0.5 ... 3 s (<i>increase and decreasing signal</i>)
Sensitivity:	Low range = 5 to 70 kOhm High range = 15 to 150 kOhm
Current loop output:	Galvanic insulated, < 6 V ac / < 2 mA
Relay outputs (2):	Max 250 V, 3 A [AC] Max 125 V, 1 A [DC]
CE Labels:	In accordance with low voltage guidelines (2006/95/EEC) and (89/336/CEE)

BAMO MESURES

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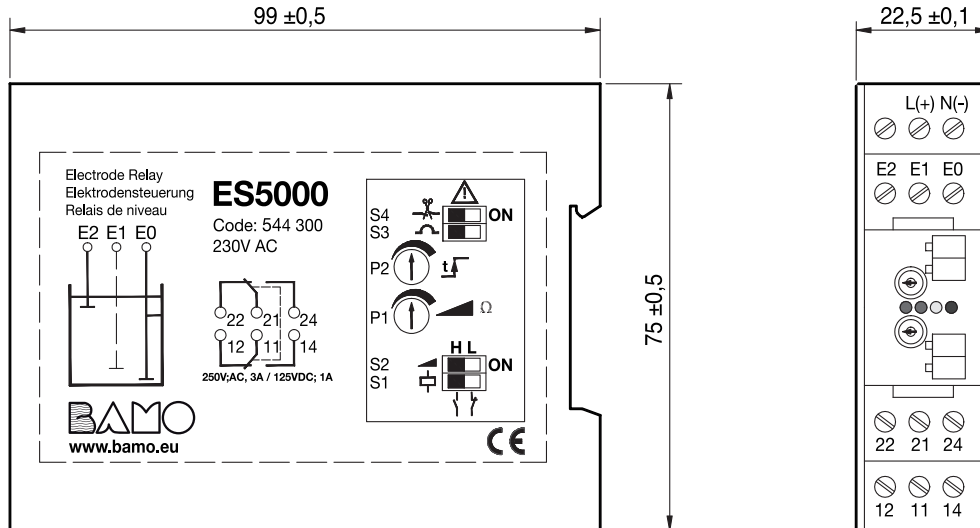
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CODE NUMBERS AND REFERENCES

Code	Reference	Designation
544 300	ES5000 /230	Relay, input power supply 230 V / 50-60 Hz
544 310	ES5000 /115	Relay, input power supply 115 V / 50-60 Hz
544 320	ES5000 /48	Relay, input power supply 48 V / 50-60 Hz
544 330	ES5000 /24	Relay, input power supply 24 V / 50-60 Hz
544 352	ES5000 /12 V dc	Relay, input power supply 12 V DC
544 354	ES5000 /24 V dc	Relay, input power supply 24 V DC

DIMENSIONS



OPERATING RANGE

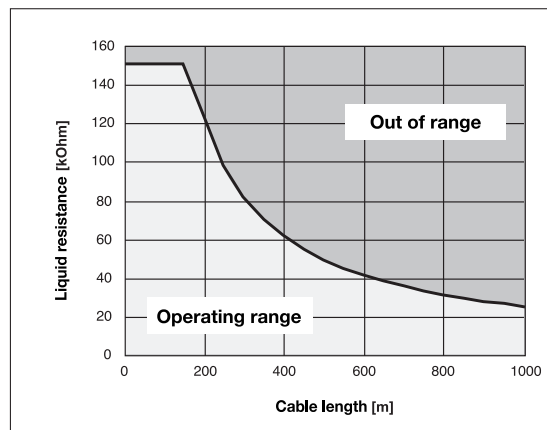
The capacitive resistance of a long cable reduces the sensitivity of the relay ES5000. A standard PVC cable, shielded, 3 conductors, has a capacitance of approx. 100 pF/m. This results in an operating range which is dependent upon cable length and the liquid resistance in accordance with the following drawing.

Caution:

- Choose a suitable cable with 0.5 mm^2 wires
- Over 25 m distances, preferably use a shielded cable
- All the detection loop, must be faraway from high power lines

! To assure the self diagnostic of the detection loop (*short circuit on the loop detection and ribbon sensor break off*) using the relay ES5000, the standard cable (*2 wires 0.5 mm^2*) connecting the sensor, is **50 m as a maximum**.

[Only for V AC supply]



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