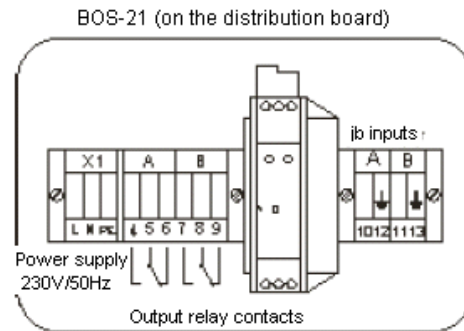




BOS 21 evaluation unit for the conductivity probe



Use:

BOS-21 is a two-channel intrinsically safe evaluation device for liquid and bulk solid level measurement systems based on the electric conductivity measurement principle or on the sphere switch principle.

The conductivity principle is used to measure the level of drinking water and waste water, water solutions and mixtures, humid materials, fine-grained coal, conveyor transfer points, etc. An intrinsically safe switching circuit can be connected to the input and BOS-21 can be used to separate the intrinsically safe circuit. A higher-level control system or action power elements can be connected to the relay outputs.

The BOS-21 device must be placed in such an environment where it is not exposed to explosion hazard or in an adequate casing (e.g. JPB-BOS for mine environment).

Description:

The device is a compact module with fixtures for DIN moulding. On the front side there are LEDs which signalize the state of the output relays of the individual channels. On the bottom side there are inputs, on the upper side there are power supply and output terminals.

Both channels are independent and have a common ground. The relay outputs (change-over contact) are galvanically separated from each other as well as from other circuits. Delayed output relay operation and release (about 5 sec) can be selected in production or later (accredited intervention). The inputs are designed for suitable probes e.g. BOS-4T, BOS-4L, or switches, by means of which a measuring circuit between the ground, the material and the device input is created. If the resistance of this circuit is <math><100\text{k}\Omega</math>, the relay will switch on.

The modules are delivered as separate units or mounted in distribution boards, individually or more pieces, according to customers' requirements. These are marked K BOS-21.

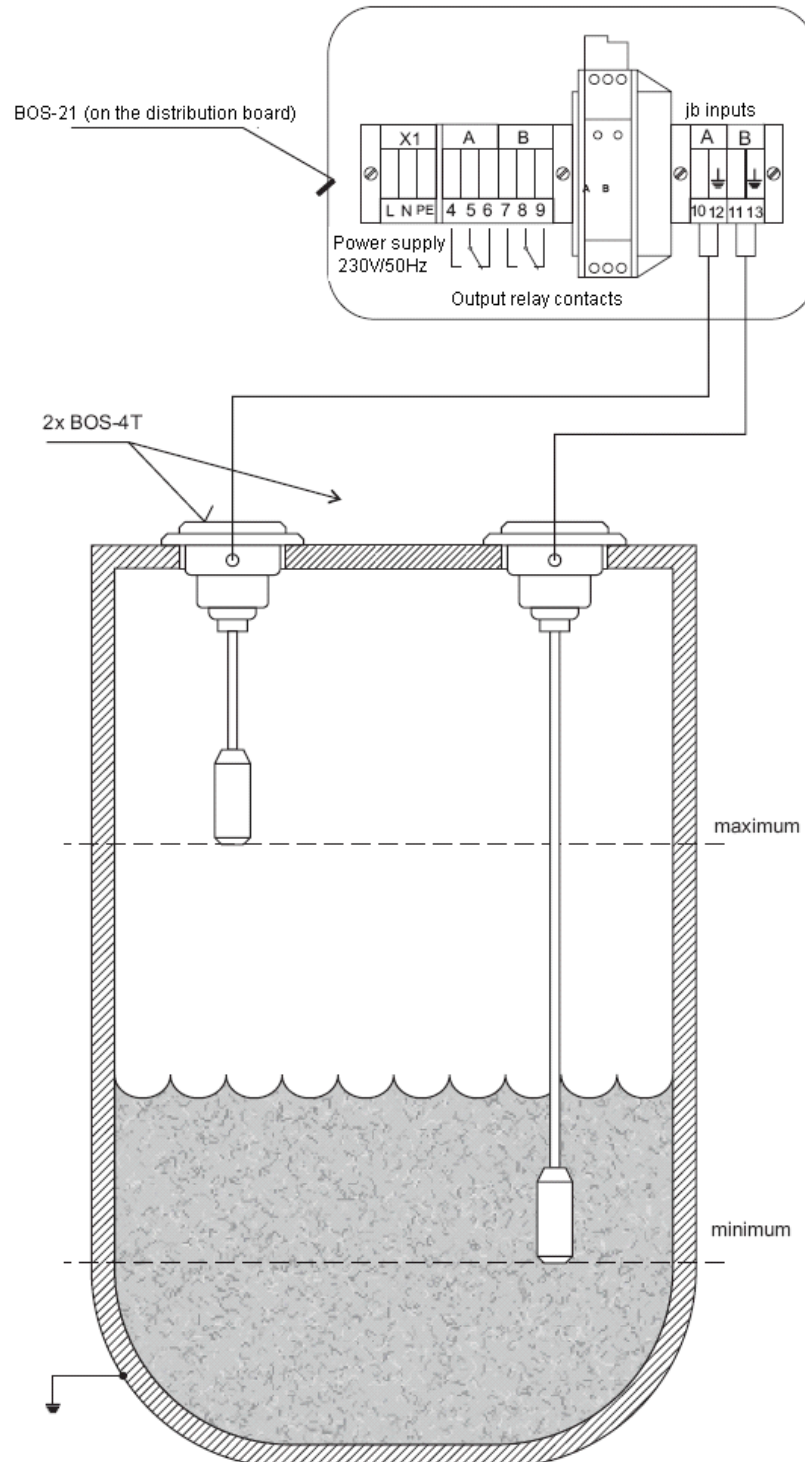
Technical parameters:

Power supply	230V / 50Hz
Input power	1,8VA
Max.probe circuit resistance	100k Ω
Operating position	vertical
Intrinsically safe input	[EExia] I / II C
Max. capacity of the connected CEXT cable	100nF
Max. inductance of the connected LEXT cable	500mH
Max. voltage in the intrinsically safe UMAX circuit	34V
Max. current in the intrinsically safe IMAX circuit	2,3mA
Dielectric strength between the inputs and the power supply.	4kV
Output relay operation and relay release	0/5 s adjustable
Max. switching current	300V / 0,3Ass
Operating temperature	-10°C ... +40°C
Weight	0,2kg
Dimensions	100 x 75 x 35mm
Protection	IP 20,IP 54 (BOS-21)
Protection	IP 65 (K BOS-21)

The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.



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