



JBP-BOS – Point Resistance Level Meter



Certificate: ATEX



Technical Parameters:

Model	I M2 (M1) Ex de [ia] I
Supply voltage	24 V/AC, 230 V/AC
Power input	1.8 VA
Maximum permitted load on output contacts	250 V or 5 A / 100 VA
Dielectric strength input/output	> 4 kV ef. / 50 Hz
Ambient temperature	0°C - +40°C
Relative humidity	maximum of 95%
Protection	IP 54
Dimensions	300 x 240 x 136 mm
Weight	5.5 kg

Use:

A JBP-BOS-X intrinsically safe resistance level meter is designed for separating intrinsically safe circuits from power circuits in an environment with a methane and coal dust explosion hazard in mines.

Description:

The device is constructed in a firm enclosure, the terminal block is located in a protected combined enclosure and there is an intrinsically safe enclosure. The device consists of a non-explosive electronics case which consists of two non-explosive closures.

The device enclosure is an Exd I model, the terminal block enclosure is combined with protection Exe I and intrinsically safe Ex ia I enclosure. The spaces of non-explosive enclosures are interconnected by three (two) multiple non-explosive PD lead-in insulators depending on the type of converter. The number of lead-in insulator conductors depends on the type of converter. Intrinsically safe terminals in the terminal block enclosure are separated by a metal partition.

In the apparatus area there is one or two BOS-21 module units, a metal partition and FU 1 and FU2 protective network device fuses on a DIN 35 rail. Power conductor harnesses are led on the right side of the case and intrinsically safe harnesses are led on the left.

The BOS-21 unit contains two independent A and B channels and the check of switching on/off the output relay is indicated by LED on the module panel. The converter can convert two kinds of independent binary information from intrinsically safe circuits. An input to the converted can also be BOS contact probes or other input information based on a resistance change.

Cable inputs to the terminal block area are made separately by means of plastic non-explosive M20 x 1.5 bushings. The enclosure part with intrinsically safe inputs is distinguished by blue colour.

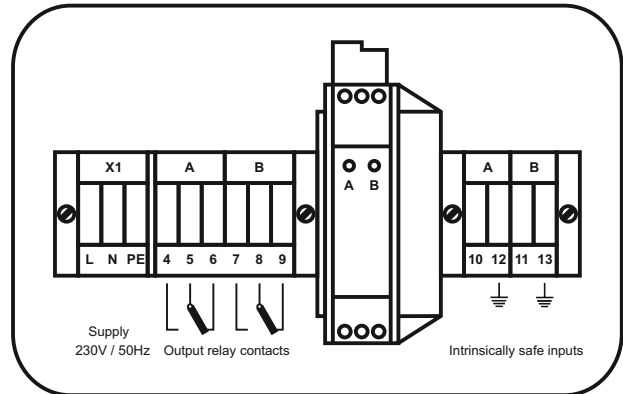
The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.



BOS 21 Point Resistance Level Meter – Evaluation Unit



Certificate: ATEX



BOS-21 (in a switchboard)

Use:

A BOS-21 module level meter (a point resistance level meter) can be used for various functions in electrical circuits of automated processes, switching on/off, blocking, level control, signalling etc.

- Intrinsically safe input circuits according to European standards;
- Measuring and controlling levels of loose and liquid conductive substances by contact probes;
- Delayed relay pick-up, delayed drop-out, immediate output relay function;
- Two independent systems (channels) in a single module;
- Sensing binary information from intrinsically safe circuits (an intrinsically safe converter);
- Sets with one or more BOS-21 modules, IP 54, IP 65 protection;
- Easy assembly on a DIN rail.

Description:

A BOS-21 module unit is situated in a compact case with assembly on a DIN 35 assembly rail. On one side of the JBP-BOS case there are terminals for supply voltage and terminals for output contacts, on the opposite side there are input terminals of intrinsically safe inputs.

The module contains two independent A and B systems (channels). The module channels switches on the output relay at the input crossover by the resistance of 0 – (X) k Ω according to the setting.

The output relay switching-on check is indicated by A and B LED on the case panel. If needed, delayed pick-up, delayed drop-out, delayed pick-up and drop-out (approx. 5 s) or immediate output relay function can be selected for both channels.

The delay mode is set in the factory or additionally as a service modification. Output contact parameters enable direct connecting of action power members up to the output of 100 VA.

Technical Parameters:

Model	Ex ia I/II C
Power input	1.8 VA
Supply voltage	24V/AC, 230 V/AC
Input impedance	10 k
Permitted load on output contacts	Max. 250 V or Max. 5 A / 100 VA
Function delay	2s (t) 8s
Dielectric strength input/output	4 kV ef. / 50 Hz
Ambient temperature	0°C - +40°C
Module protection	IP 20
Case protection	IP 54, IP 65
Dimensions	100 x 75 x 35 mm
Weight	0.2 kg

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