

## Power supply unit NG3-16ib-0.3

### Ordering Data

Designation	Type	Item no.
Power supply unit	NG3-16ib-0.3 (42 V <sub>AC</sub> / 50 Hz)	371 008 41 AX
Power supply unit	NG3-16ib-0.3 (230 V <sub>AC</sub> / 50 Hz)	371 008 42 AX
Power supply unit	NG3-16ib-0.3 (100 V <sub>AC</sub> / 50 Hz)	371 008 44 AX
Power supply unit	NG3-16ib-0.3 (240 V <sub>AC</sub> / 60 Hz)	371 008 45 AX
Power supply unit	NG3-16ib-0.3 (167 V <sub>AC</sub> / 50 Hz)	371 008 46 AX
Power supply unit	NG3-16ib-0.3 (36 V <sub>AC</sub> / 50 Hz)	371 008 48 AX
Power supply unit	NG3-16ib-0.3 (24 V <sub>AC</sub> / 50 Hz)	371 008 49 AX



- **Universal power supply unit in different input voltage versions for the power supply of intrinsically safe installations which are protected against firedamp with 16 V direct voltage.**
- **Versions for AC input**  
(50 Hz) at 24 V<sub>AC</sub> 36 V<sub>AC</sub> 42 V<sub>AC</sub> 100 V<sub>AC</sub> 167 V<sub>AC</sub> 230 V<sub>AC</sub> and 240 V<sub>AC</sub> / (60 Hz)
- **Constant DC output voltage 16 V<sub>DC</sub> / 0.2 A**  
(limited current and voltage values)
- **Output voltage indication through LED**
- **Output as per protection type “Intrinsically safe”, cat. ib**
- **For use in type “e” (increased safety) terminal boxes with PG29 screw-in thread**

### Application

The power supply unit NG3-16ib-0.3 enables the power supply of electrical equipment items operated in intrinsically safe systems within hazardous locations which are susceptible to firedamp.

The power supply unit NG3-16ib-0.3 provides protection as per I M 2 EEx m [ib] I.

Based on a non-intrinsically safe AC input voltage, a regulated, current-

limited and intrinsically safe of 16 V<sub>DC</sub> / 0.2 A is generated in the output circuit. The device is preferably used for the remote powering of the line amplifier of the Mobil Radio System MR90.

For details of the non-intrinsically safe mains voltage and of the of the intrinsically safe DC output voltage, refer to the nameplate of the power supply unit.

### Configuration

The power supply unit NG3-16ib-0.3 is mounted into an enamel gray cast iron housing. The housing consists of a tub-like bottom section and a vaulted cover. The cover is pressed onto the bottom section by means of two screws, with a sealing as intermediate layer, and constitutes the intrinsically safe terminal box.

The main compartment of the housing's bottom section combines the mains transformer and the electronics module which are completely embedded in sealing compound.

Only the 2-pole terminal strip for the connection of the intrinsically safe output circuit and the LED for the function indicating jut out of the compound. This LED is on, if the intrinsically safe output voltage is applied and no short-circuit has occurred on the output side.

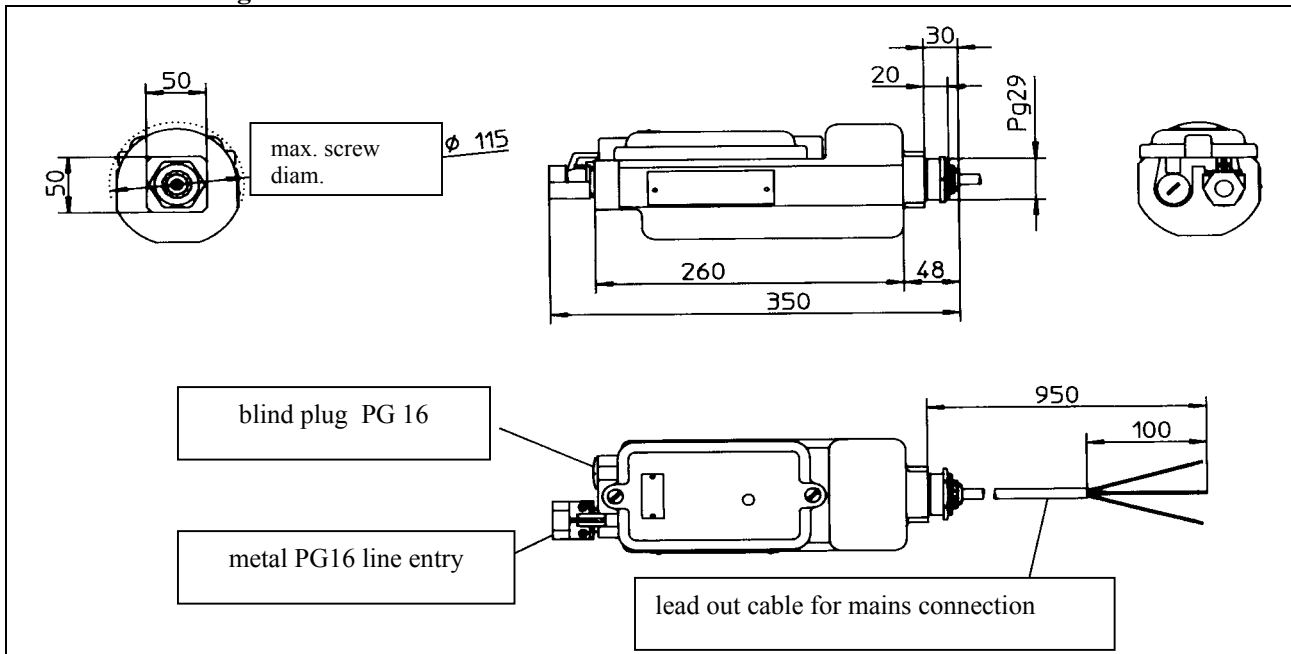
The LED is visible from the outside through a sight glass in the housing cover.

The electronics module consists of a mains transformer serving as isolation between the non-intrinsically safe supply net and the downstream electronic voltage and current regulation. A voltage transformer and two electronic current / voltage-limiting stages connected in series ensure a stabilized output voltage (within the limits of the non-intrinsically safe input voltage). Two electronic overload stages which act independently from one another, switch off the intrinsically safe output voltage in case of an overload or a short-circuit on the output side. The switch-off or on again of the intrinsically safe output circuit due to overload is repeated in intervals until the short-circuit or the overload has been eliminated. The LED for indicating

the function flashes in the cycle of the switch-off and on of the intrinsically safe output voltage.

On one of the housing sides, the power supply unit NG3-16ib-0.3 has a PG29-threaded bush for leading out a 3-wire connecting cable used for the connection with the non-intrinsically safe supply net. By means of threaded bush, the power supply unit is screwed in appropriate bores of housings offering protection type "increased safety" and at the same time fixed and secured. The opposite housing side is equipped with a PG16 gland for line diameters from 9 to 14 mm and a PG16 blind plug. The PG16 line entry (incl. strain relief, protection against buckling and twisting) is used for leading through the connecting cables for the intrinsically safe output circuit.

### Dimension drawing NG3-16ib-0.3



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