



PRODUCT MANUAL

Power supply source INAP 904 type 904

APPLICATION

- For power supply of electronic equipment in the environment without a threat of explosion
- For power supply of mathematic elements INMAT 55 and 57
- For power supply of converters in two- and four-wire connection, e.g. sensors of temperature, pressure, pressure difference and other equipment.

The sources are rated products pursuant to the Act No. 22/1997 Coll. and the Declaration of Conformity **EC-904000** is issued for them.

DESCRIPTION

The switching power supply source is located, as a compact unit, in a plastic box covered with a lid. Presence of the output voltage is indicated with a light diode located inside the box. Both input and output connections are realized with screw terminals. The terminal board is located inside the box and the wires are brought with sealed outlets. On the rear side of the box, there are clips for the connection on the wall. The box and the lid are provided with sealing screws, which enable to secure the device with a suspension seal.

TECHNICAL DATA

The source is designed pursuant to ČSN EN 61140 ed.2 as the electrical equipment of protection class II for the application in the networks with the category of overvoltage in the installation III and the pollution grade 2 pursuant to ČSN EN 61010-1; the inner source of the output voltage corresponds to the Article 6.3 of the said standard and it also serves for supplying the circuits SELV and PELV.

The source is resistant to short-circuit at the output and it can also operate without load. The source is designed for permanent operation; its input is protected with a safety fuse T1 AH/250V pursuant to ČSN EN 60127-2 ed.2.

Type of supply mains: 1/N AC 230 V 50 Hz

Tolerance of supply voltage: 180-260V

Tolerance of mains frequency: 48 ÷ 62 Hz

Coefficient of upper harmonics: max. 10 %

Input current: 0.1 A

Power input: max. 12 VA

Output voltage: 24 V DC ± 0,5V

Output current: 0 to 350 mA

Electric strength pursuant to ČSN EN 61010-1, Article 6.8.4:
output circuit against mains circuit 3000 V AC

Electric insulation resistance: min. 50 MΩ

Ingress Protection pursuant to ČSN EN 60529: IP 66

Operating position:
discretionary, the outlets shall not be situated upwards

Weight: approximately 0.22 kg

Type of operation: continuous

Used materials:

Box (cover): PC (30%GV), RAL7032, UL 94 V-1

Body of terminal board, blind, face: PC UL 94 V-2

Type of connecting terminals:
screw type, cross-section of wires 2.5 mm²

Type of cable outlets:
1x Pg9, polyamide 6/6, grey colour, cable Ø 4 - 8 mm
2x Pg7, polyamide 6/6, grey colour, cable Ø 3 - 6.5mm

OPERATING CONDITIONS

The environment defined by the group of parameters and their severity grades IE 34/3Z1/3M1 pursuant to ČSN EN 60721-3-3 (i.e. in indoor premises without exposure to direct impact of water and radiation sources of heat, with insignificant level of vibrations and strokes) and the following operation conditions:

Ambient temperature: -20 °C to +55 °C

Relative ambient humidity:
5 to 100 % with upper limit of absolute humidity 29 g/m³

Altitude: up to 2000 m above sea level

Electromagnetic compatibility:
it meets the standards

ČSN EN 61000-6-1 ed.2
ČSN EN 61000-6-3 ed. 2



DESIGNATION

Data on the product:

- Registered trademark of the manufacturer
- Product ordering number
- Ingress Protection
- Manufacturing number
- Type of supply mains
- Maximum power input
- Data about class of electrical equipment and about insulation
- CE mark

DELIVERY

Unless agreed otherwise with the customer, each delivery includes

- Delivery note
- Source pursuant to the purchase order
- Accompanying technical documentation in Czech :
 - o Product quality and completeness certificate, which also serves as the warranty certificate
 - o Product manual

If it is established in the purchase contract or agreed otherwise, the following documentation can be also delivered with the product:

- EC Declaration of Conformity

PACKING

Both sources and accessories are delivered in a packing ensuring resistance to the impact of thermal effects and mechanical effects pursuant to controlled packing regulations.

TRANSPORT

The sources may be transported on conditions corresponding to the set of combinations of classes IE 21 pursuant to ČSN EN 60721-3-2 (i.e. by airplanes and trucks, in premises that are ventilated and protected against atmospheric effects).

STORAGE

The devices may be stored on conditions corresponding to the set of combinations of classes IE 11 pursuant to ČSN EN 60721-3-1, but with ambient temperature from -20 to 70 °C and humidity up to 90% (i.e. (in the places where condensation of water steam on the products is excluded, in the places without a special threat of an attack with biological agents and

impacts of harmful steams and gases, with vibrations of small significance and not situated close to sources of dust and sand).

RELIABILITY

Reliability indicators in operating conditions and conditions of the surroundings specified herein
 - Expected service life min. 35,000 hours

ORDERING

The purchase order shall specify
 - Name
 - Product ordering number
 - Number of pieces

DESIGN OF SOURCE INAP 904

SPECIFICATIONS	ORDERING NUMBER		
	904	000	xxx
Power supply source INAP 904			001

PURCHASER ORDER EXAMPLE

Standard design
 Power supply source INAP 904
 904 000 001
 10 pcs

INSTALLATION AND CONNECTION

Warning!
 Installation and uninstallation of the meter, connection and disconnection of wires, including disconnection and connection of the connector of the display **MUST** be realized with the supply voltage switched OFF.

MECHANICAL INSTALLATION

The device shall be connected on the wall or frame with four screws M5, refer to fig. 1.

FIGURE 1 - INSTALLATION OF THE DEVICE ON THE WALL

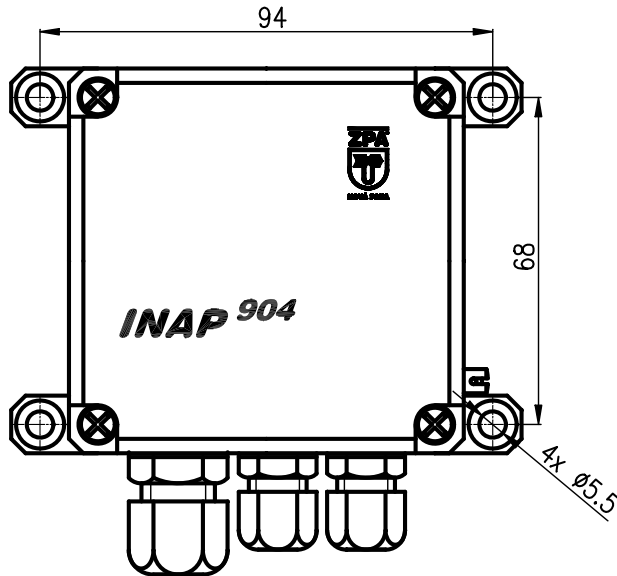
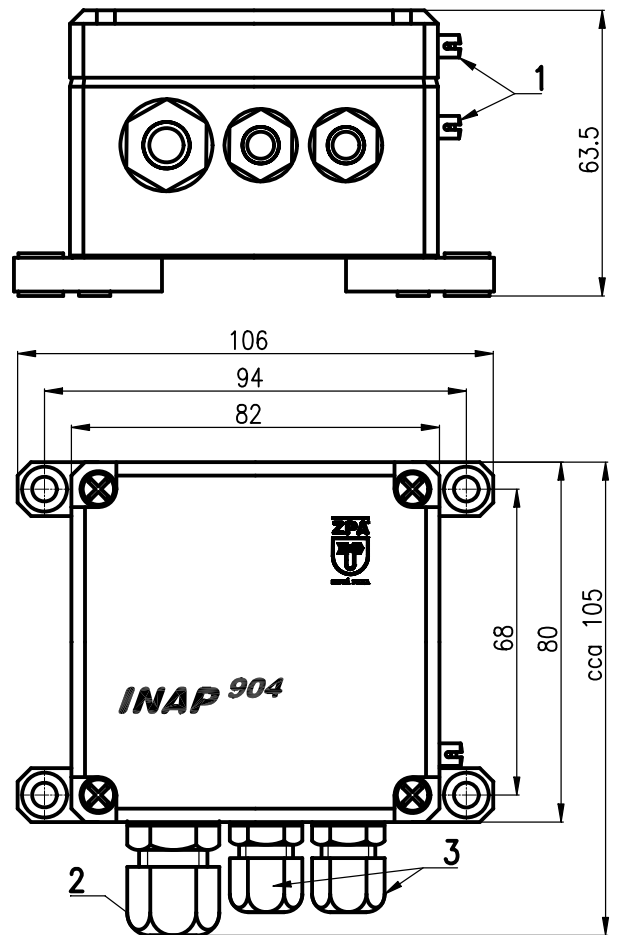


FIGURE 2 – DIMENSIONAL DRAWING

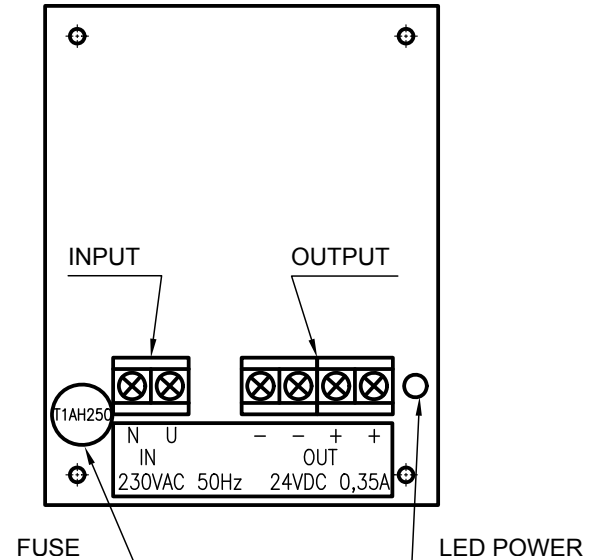


1 – Sealing screws; 2 – Cable outlet Pg9; 3 – Cable outlet Pg7

ELECTRICAL CONNECTION

The electrical connection may only be realized by skilled workers pursuant to Section 5 of the Decree 50/1978 Coll. The terminal board of the source is accessible after the removal of the lid of the cover, which is connected with four screws. The connecting terminals are designed for the connection of the Cu wire with max. cross-section of 1.5 mm². Cable outlets are delivered blinded; before the application of the outlet, the plug shall be removed. Unused cable outlets shall remain sealed with the plugs. The converters, signal sources and evaluation devices shall be connected according to their own technical conditions.

FIGURE 3 – DRAWING OF CONNECTING TERMINAL BOARD



COMMISSIONING

At the input, the source has a safety fuse T1AH/250V and it need not have external security. After the connection of the output terminals and connection of the input voltage, the source is prepared for operation. The source is not designed as a charger of accumulators.

If required, a designed worker of the installation and service organization can provide the source with a seal with the mark of the installation and service organization. For this purpose, the sealing screws on the right side of the box are used.

**WARNING**

A failure to comply with the instructions identified herein can result in erroneous function or, as the case may be, also a failure of the device without any right to a warranty repair.

OPERATION AND MAINTENANCE

The device does not require any operation and maintenance.

SPARE PARTS

The design of the source does not require any delivery of spare parts.

WARRANTY

Pursuant to Section 429 of the Commercial Code and the provisions of Section 620(2) of the Civil Code, the manufacturer warrants for technical and operation parameters of the product specified in the manual. The warranty period is 24 months from the receiving of the product by the customer, unless established otherwise in the contract. Rejection of defects shall be enforced in writing at the manufacturer within the warranty period. The rejecting side shall identify the

product name, ordering and manufacturing numbers, date of issue and number of the delivery note, clear description of the occurring defect and the subject of the claim. If the rejecting side is invited to send the device for repair, it shall do so in the original package of the manufacturer and/or in another package ensuring safe transport.

The warranty shall not apply to defects caused by unauthorized intervention into the device, its forced mechanical damage or failure to comply with operation conditions of the product and the product manual.

REPAIRS

The devices shall be sent for repair in the original or equal package without accessories.

DISABLING AND LIQUIDATION

They shall be realized in compliance with the Waste Act 106/2005 Coll.

The product and its package do not include any parts that could impact the environment.

The products that are withdrawn from operation, including their packages (with the exception of products marked as electrical equipment for the purposes of return withdrawal and separate salvage of electrical waste), may be disposed of to sorted or unsorted waste pursuant to the type of waste.

The manufacturer realizes free return withdrawal of marked electrical equipment (from 13.8.2005) from the consumer and points out the danger connected with their illegal disposal.

The package of the sensor can be recycled completely. Metal parts of the products are recycled, non-recyclable plastic materials and electrical waste shall be disposed of in compliance with the aforesaid Act.

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