



WYTÓRNI SPRZĘTU ELEKTROENERGETYCZNEGO  
„AKTYWIZACJA” Spółdzielnia Pracy  
31-946 Kraków, os. Teatralne 24

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## DIPS-B INSULATING POLE (STICK)

### OPERATING MANUAL

#### 1. Subject of the Operating Manual.

The subject of this Operating Manual is the DIPS-B insulating pole (stick) (see catalogue sheet).

#### 2. Application and purpose of the Operating Manual.

This Manual is intended for authorised and trained staff having knowledge of safe work organisation in power industry and is also aiming at indicating the way of a proper usage, storage and maintenance of this safeguard equipment.

#### 3. Application of the UDI Pole.

The DIPS-B insulating pole is designed for operating together with earthing devices e.g. the U-PS. It is used to protect service personnel against electric shock by isolation the personnel from live equipment.

#### 4. Operating Instructions.

4.1. Take the pole out of the protective cover and check if there are not any mechanical damages.

4.2. Check if the pole has legible name plate (trade mark of the producer, type of the pole, rated voltage, year of production, serial number, standard number PN-EN 61230:1999) and the expiration date of the periodical voltage surveys.

**ATTENTION: If the requirements of 4.1 and 4.2 are not fulfilled the pole shall be withdrawn from exploitation.**

4.3. Check if the rated voltage of the pole is equal or higher than that of the equipment.

4.4. Check if the length of the pole's insulating part is large enough to service the equipment. If not, a pole for higher voltage should be used.

**ATTENTION: It is forbidden to use the DIPS-B insulating pole for equipment having higher rated voltage than that of the insulation pole.**

4.5. In case of multi-segmental poles (see catalogue sheet), put the upper tube into the seat of the second segment. To bring both segments closer together in such a way the locking lip meets the transverse cut-out. In this position tighten the nut. Check the reliability of the connection. For the poles consisting of more than two segments these operations should be repeated for the remaining segments.

4.6. Put the earthing device tip into the pole socket in such a way its transverse lock to meet the cut out of upper part of the socket and – overcoming the resistance of the spring – rotate the pole until the lock snaps in the T-shaped groove.

**ATTENTION: The earthing device shall be assembled in the place where it is lifted and mounted because carrying it from one place to another creates a dangerous situation – due to big sizes - of possible touching the equipment being under high voltage.**

4.7. When lifting it up one should pay attention to do it only in the fenced area of work.

4.8. Execute the intended job (e.g. installing an earthing device) holding the handle of the DIPS-B

4.9. If after clamping the earthing device, the pole needs to be disconnected from the earthing device tip, the pole should be moved a little up (to overcome the resistance of the spring) and then rotated into the opposite direction than during mounting and fastened in downward direction.

4.10. If necessary, execute the operations according to p. 4.6 up to 4.9 for the other earthing devices.

4.11. If the earthing device is going to be on the line for a longer time, the pole should be disassembled (if it is multi-segmental). It should be put into the producer's package in a clean and dry condition.

4.12. Dismounting of the earthing device with the help of the DIPS-B is done as follows: adjust the pole's socket on the tapered tip of the earthing device to enable introducing it into the socket. Rotate the pole in such a way that the transverse lock of the earthing device tip meet the cut-out socket – it enables further putting it on. When a distinct resistance has been felt rotate the pole to snap the lock in the T-groove. The clamp has been fastened and disassembly should be done according to the Operating Manual of the earthing device.

4.13. If necessary, repeat the operation according to p. 4.12 for the other earthing devices.

4.14. In case of a multi-segmental pole it shall be disassembled.

4.15. Put the pole into the producer package in clean and dry place. If it is multi-segmental pole each segment put into the separate partition.

## **5. Remarks concerning exploitation, storage, maintenance and withdrawal from exploitation of the DIPS-B insulating pole.**

5.1. The detector should be kept clean and dry in the producer's protective cover stored in room temperature, in dry and clean room.

5.2. Before using, the surface of insulating part should be always wiped with a clean and dry cloth. The pole shall be cleaned with a clean cloth wetted in waterless alcohol. If there is any doubt about the condition of the pole or its isolating properties it should be withdrawn from exploitation and verified by appropriate tests in an authorised laboratory.

5.3. Only the producer can repair a damaged insulating pole.

5.4. The DIPS-B insulating pole passes through tests carried out by the producer according to appropriate standards. It guarantees safe and failure-free work to the user when all the requirements of this Manual are fulfilled. Taking into account stability of electrical and mechanical parameters of the materials the pole is made of, the producer recommends maintenance tests carried out once every three years.

Withdrawal of the pole from exploitation can takes place if it is worn out, mechanically damaged or when results of the periodical surveys are negative. Nevertheless, users – having some own experience – can establish shorter terms of carrying tests than these recommended by the producer.

### **Range of periodical surveys and acceptance pole test.**

1. Visual inspection – to reveal defects originated during manufacturing process or during exploitation.
2. Dimensional control – to confirm accordance of the pole's dimensions to the dimensions determined by the producer.
3. Checking the labelling and marking if they have not been damaged or removed.
4. Dry electric test according to EN 60832:1996, p. 13.1 to reveal sparks between surfaces in the air, or breakdown of the poles' insulating parts, visible traces or damages of insulating surfaces and noticeable increase of temperature.

Results of the periodical survey and acceptance test are positive if none damage has been revealed (if all above test are positive).

## **6. Warranty.**

The producer guarantees for the DIPS-B insulating pole the term of 24 months since the date of sale. The conditions of the warranty are specified in the articles 577 – 581 of the Polish Civil Code (Kodeks Cywilny).

### **Enclosure:**

Catalogue sheet.



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### DIPS-B INSULATING POLE (STICK)

The DIPS-B insulating pole – depending to rated voltage - is designed for servicing electrical equipment of low-, medium- and high-rated voltages. It is used for protection against electric shock by insulating the operator from live electrical equipment. The insulating and handling part of the pole is made of an epoxy- glass tube filled with polyurethane foam or an empty standard tube (S) of high mechanical and electrical resistance. For easy identification, the DIPS-B poles are of orange colour.

The head of the DIPS-B pole is made of metal covered with a protective layer. The handle limiter and joint limiter of the pole are made of high mechanical and electrical resistance plastic. The plug of the hole at the bottom part of the pole is made of high impact resistance rubber. Dependent on the rated voltage, the pole is manufactured as uniform or multi-segmental.

The types of the DIPS-B poles and technical parameters are given in the table below.

When ordering the DIPS-B one should write the designation of the rated voltage (e.g. DIPS-B-110).

A unit package includes a protective cover made of coated waterproof fabric.

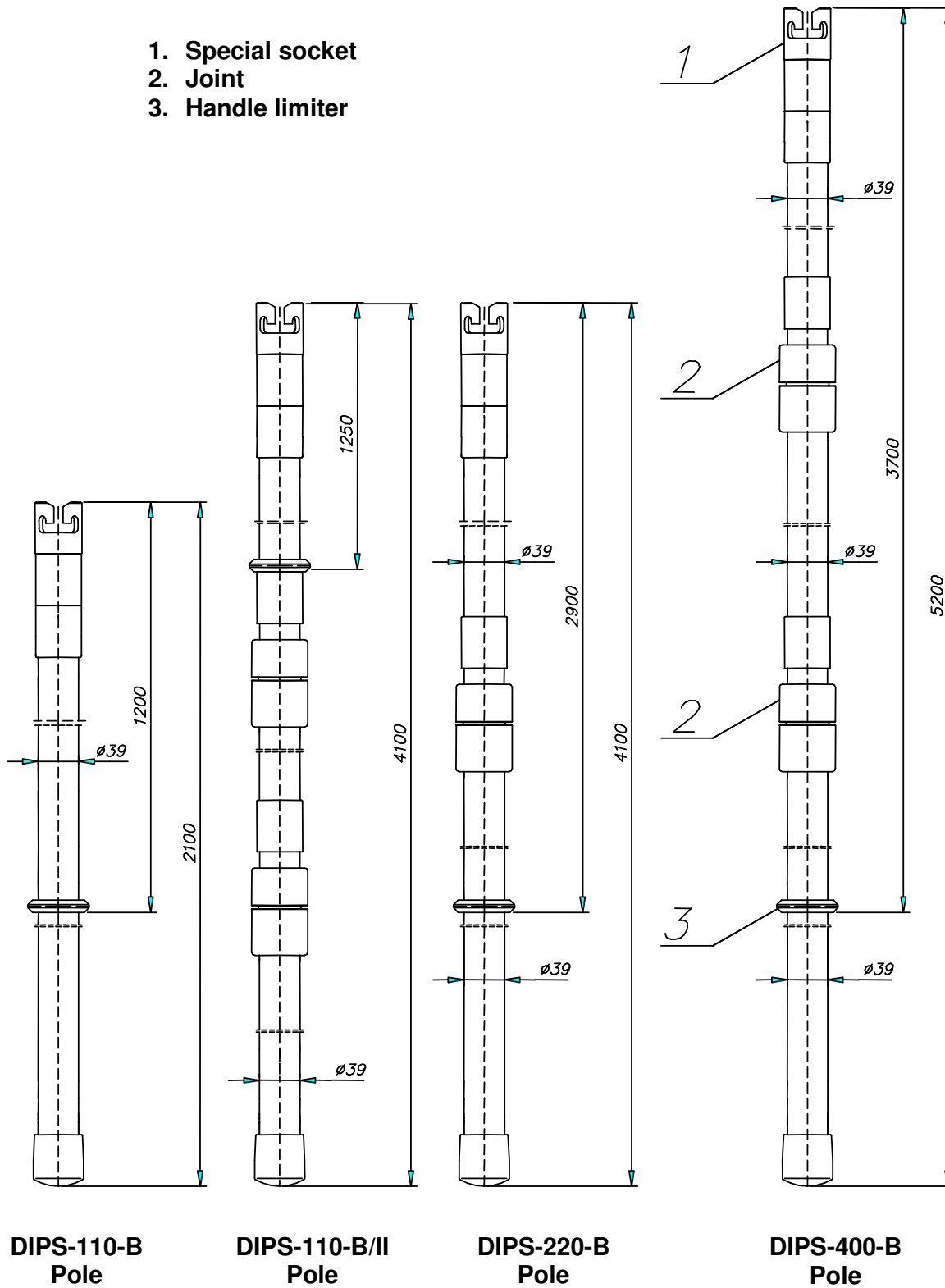
Pole symbol		Rated voltage [kV]	Max rated voltage of equipment [kV]	Dimensions		Number of segments
				Length L [mm]	Diameter D[mm]	
Uniform pole	DIPS-B-110	110	110	2100	Ø39	1
Multi-segmental poles	DIPS-B-110/II	110	110	4100	Ø39	3
	DIPS-B-220	110	110	4100	Ø39	2
	DIPS-B-400	400	400	5200	Ø39	3

Reference documents:

- PN-EN 60832:2002 - Insulating poles (sticks) and universal tool attachments (fittings) for live working.
- PN-EN 60855:1999 - Insulating tubes filled with foam and rods for live working.
- PN-EN 61230:1999 - Live working. Portable equipment for earthing or earthing and short-circuiting.
- PN-EN 61235:1999 - Empty insulating tubes for electrical purposes.

## DIPS-B INSULATING POLES (STICKS)

- 1. Special socket
- 2. Joint
- 3. Handle limiter



**DIPS-110-B Pole**

**DIPS-110-B/II Pole**

**DIPS-220-B Pole**

**DIPS-400-B Pole**







PN-EN ISO  
9001: 2001

Wytwórnia Sprzętu Elektroenergetycznego  
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Form. 1/P-08-1

### CERTIFICATE

Herewith one ascertain conformity of manufacturing **Insulating pole (stick)**  
type serial number

according to requirements of PN-EN 61230:1999, WTO-6/01

Term of test

Remarks:

Laboratory of Quality Department

(date of test)

(stamp of controller )

V Edition – valid since Feb. 2002.