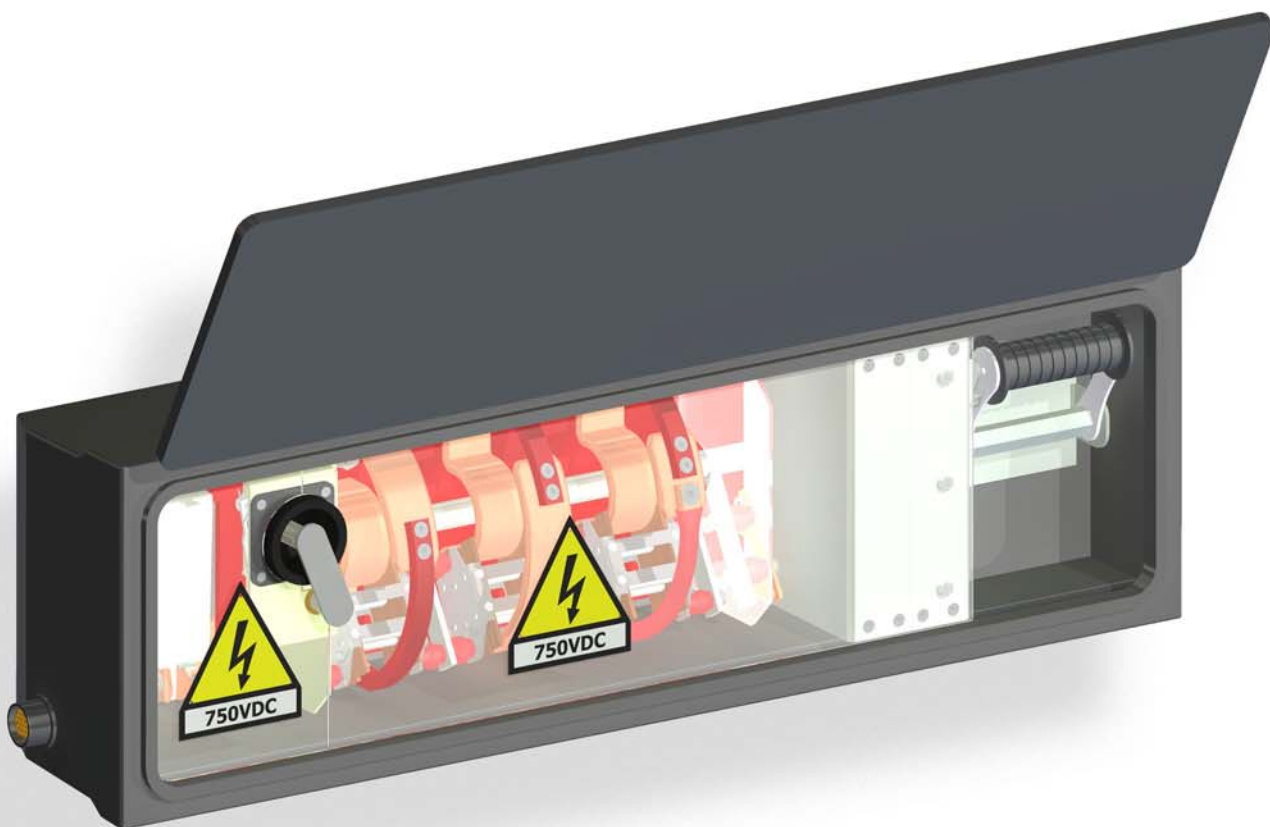


CHANGE OVER SWITCH KDI SERIES



eLERON
Energy Railway Engineering
MADE IN ITALY

STOT240001-EN

KDI SERIES

• GENERAL INFORMATION

Four positions controller KD-I is designed by Eleron Power to carry out high electrical and mechanical performance; dependability (thanks to power breaker points visibility); low maintenance in one product. Modularity is the main purpose: all contacts can be convertor, isolator or earth switch. These properties allow operator to work safely thanks to the lock system that prevent wrong actions.

• APPLICATIONS

Controllers can be used in isolating, converting and earthing requirements, in AC or DC complex electrical circuits, with high current rating rated and with short-circuit current.

For example in railway sector, where products must be compact and made to be installed under box for section supplying circuit system or for convert supplying circuit system in "operator mode".

• ELECTRICAL CONFIGURATIONS

All power contacts can take a maximum of four positions. On customer request Eleron can design others breaker points.

• CONTROLS

Hand control: the operator can change speed contacts conversion using a mechanical system.

Automatic control: conversion contacts depend on a spring that frees energy after operator charge.

Motorized control: on request, it is possible to equip the control with a motor for automatic switching.

• POWER BREAKER POINTS

Moving part is composed by two knife in parallel. Fixed part (a strap) guarantees the perfect functionality. Both parts are made using copper CU ETP 99,9.

In standard conditions stainless steel springs cause contact pressure; in particular conditions auto-clench, effect due to the passage of high current, causes contact pressure. Bolt and screws and all electrical components are made of stainless steel.

Every contacts group is a contact bench. Every single bench moving part is simultaneously moved by a shaft in connection with the controller.

• CONTROLLER SERIES KDI

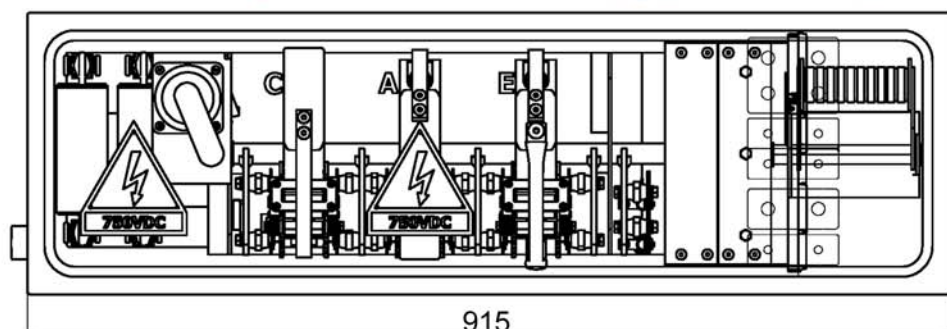
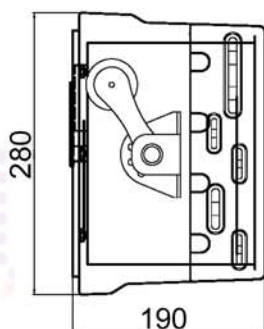
Box: the box protects the controller's parts from foreign bodies like water or dust. Eleron Power can made painted steel boxes, stainless steel boxes or insulate material boxes with protection IP65. Auxiliary contacts and HT connections are on one or more box walls. On one box's side there is a hatch that can be locked; the hatch can interlock using manual control. When the hatch is open, it is possible to use control lever in safety because of contacts' protection made of transparent material. This protection can be removed in case of maintenance.

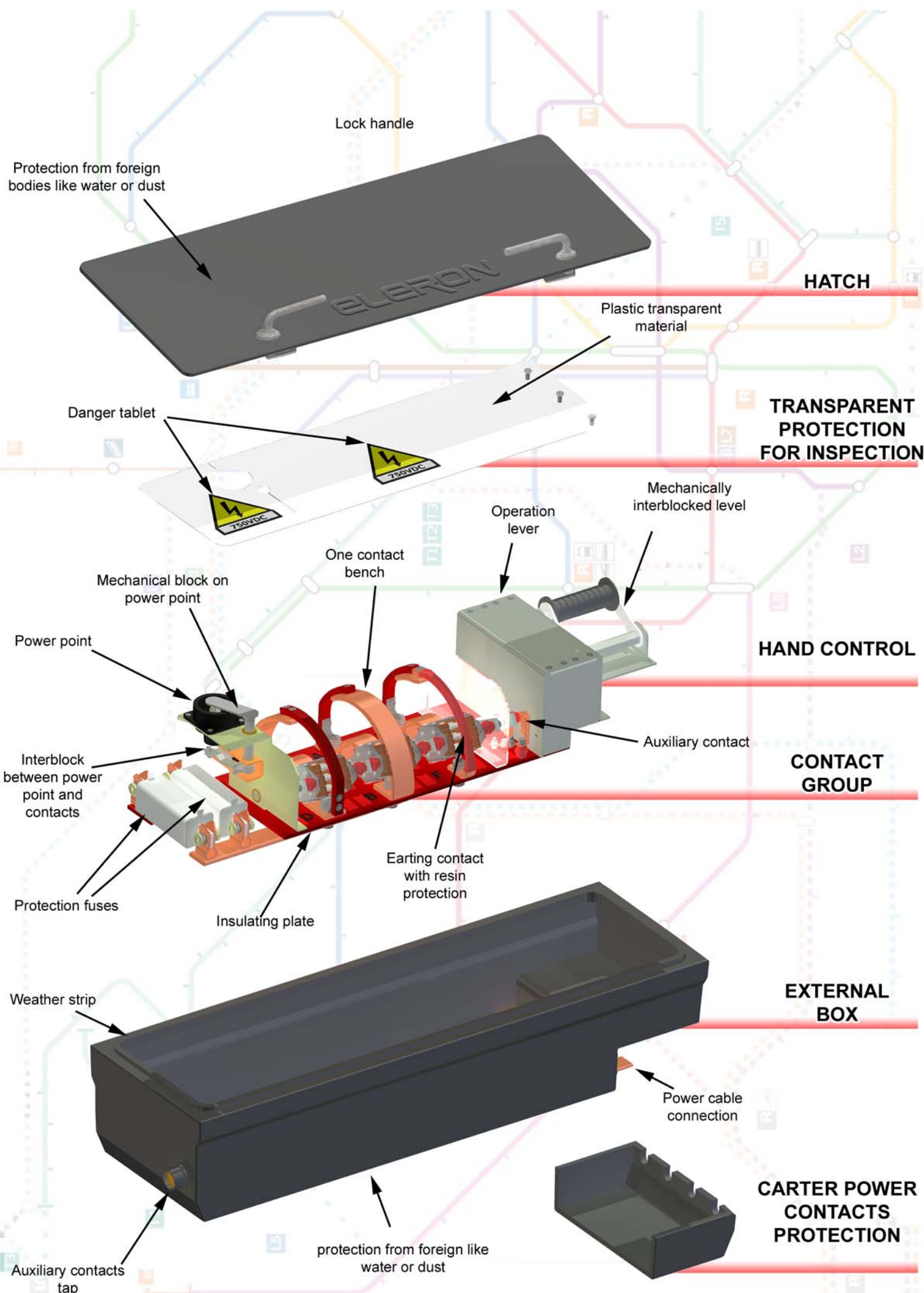
Auxiliary contacts give a distance signal of contacts' position. Power contacts' shaft directly moves auxiliary contacts to have a sure signal position.

It is possible to have an additional separated space in which it is possible to put one or more protection fuses.

Using the power current tap it is possible to connect the controller with an external driver.

Key locks are used to make interlocks with others products and to have a correct switching sequence.





CONTROLLERS SERIES KDI

• PROJECT AND PRODUCTION

Eleron Power, leader in design and production, made controllers as one of their most important products. Controllers' parts are made directly by Eleron: mechanical components, contacts and switch disconnectors. Items not produced are bought by qualified furnisher. The assembly is carried out directly by Eleron in its factory.

• TYPE TESTS

- Dielectric test on auxiliary and control circuits
- Temperature - rise test
- Short time withstand current and peak withstand current test
- Measurement of resistance of the main circuit
- Mechanical endurance test
- Shock and Vibration test
- Verification of protection
- Inductive pressure interruption

Routine tests:

- Visual check
- Mechanical functionality verification
- Dielectric test on auxiliary and control circuits
- Verification of switching time under minimum and maximum alimentation tension

• LAWS, OMOLOGATIONS AND QUALITY SYSTEM

Eleron works in correspondence of quality assurance system in agreement with the law UNI EN-ISO 9001. Controllers KDI are constructed in agreement to the following laws:

- CEI EN 6077-1
- CEI EN 6077-2
- CEI EN 60694
- CEI EN 50124-1
- CEI EN 50124-2
- AFNOR F16-102

• ELECTRICAL PROPERTIES

Model	1500	750
Rated voltage	1500V	750 V
Nominal thermal current (Ue)	800A	800A
Rated insulation voltage (Unm)	1800V	900V
Impulse withstand voltage (Uni)	8kV	12kV
Pollution	PD3	PD3
Short time current (0.25sec.)	25 kA	25kA

• MECHANICAL PROPERTIES

Functionality frequency (C1)	20000 cycles	20000 cycles
Controller weight (m)	29kg	25kg
Box weight (m)	15kg	15kg
Dimensions (BxPxH)	915x190x280 mm	915x190x280 mm

• FUNCTIONALITIES

Environmental temperature	-25°C + 45°C	-25°C + 45°C
Box protection degree	IP65	IP65

ELERON

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