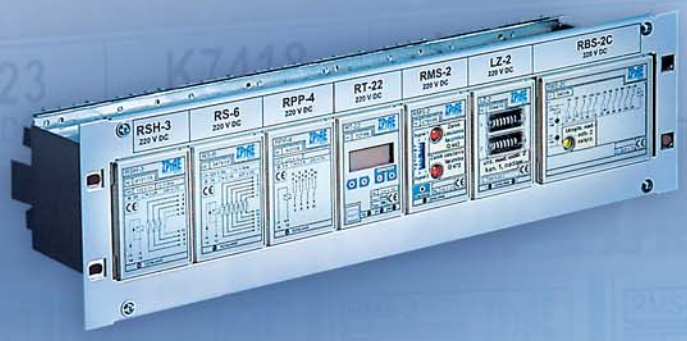
ZPrAE Sp.z o.o.

RE line®
ENERGETIC STANDARDS




# GZ-14/GZ-14Z
# R-8614/R-8614Z
# ZAS-55/ZAS-70

## RELAY SOCKETS,
## CHASSIS,
## BLINDING PLUGS

## APPLICATION

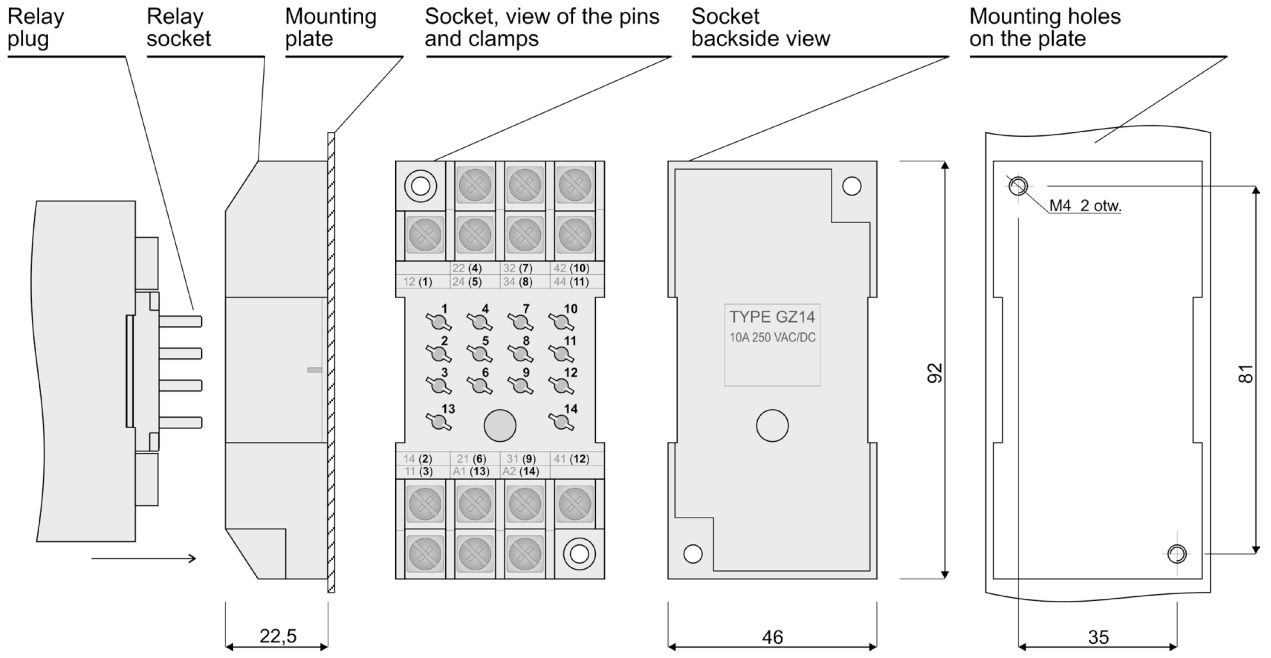
Our production portfolio of all auxiliary relays is supported with plugs and 19" EURO-chassis to facilitate mounting in swing frames of cubicles. All of our relays have a 14-pin plug compliant with the R15 4p standard, what enables use of commonly known and tested equipment, as GZ-14 Relpol-make sockets. Additionally, thanks to experience gained during mounting and handling of relay cabinets, as well as constructive suggestions obtained from our clients, together with Relpol we have designed and constructed a new type of plug: GZ14Z with a modified housing. It enables faster electrical installation inside of the cabinet, and easier access to clamps during tests. Due to weight of specified relays it is not recommended to use plug GZ14U for TS35 bus mounting.

The EURO-chassis are designed for fast and dependable mounting the relays in 19" frames. The chassis are available in two different versions for use of GZ14 and GZ14Z sockets. The chassis can hold up to 8 sockets what enables mounting of 8 55 mm-wide relays. In case relays of 70mm width are used the number of relays is limited to 6. Construction of the frame is designed in a way, that the relays are dependably fixed in the sockets, and protected against accidental drawing out. The front side of the frame is dedicated for attaching description of the relay.

As a supplement to the family of relays, we offer blinding plugs for unused places in chassis. These provide neat view of the front of cabinet, eliminating spare places. The blinding plugs are performed in two widths ZAS-55 (55mm) and ZAS-70 (70mm). The blinding plugs as well as relays require that GZ14 or GZ14Z sockets are mounted in the EURO-chassis.

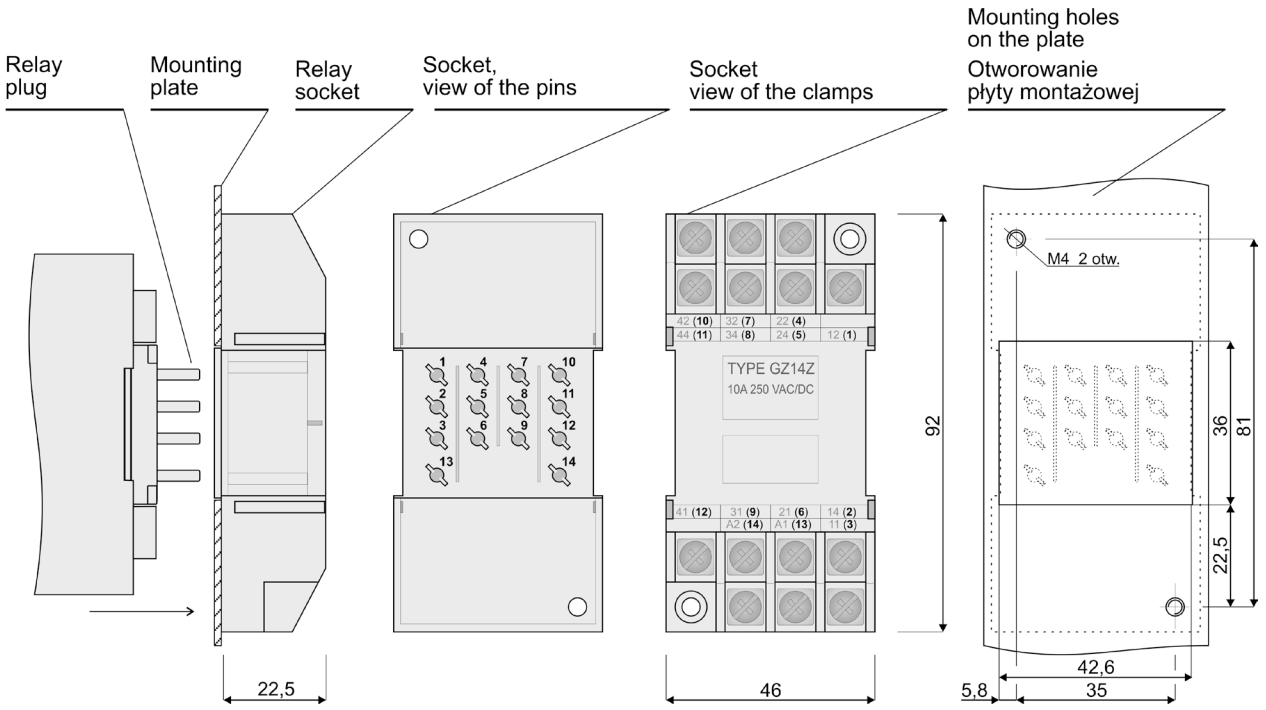
## SOCKETS OF THE RELAYS

GZ14 socket for on- plate mounting.




Picture 1. Dimensions of the GZ14 socket

GZ14Z socket for mounting behind the plate.

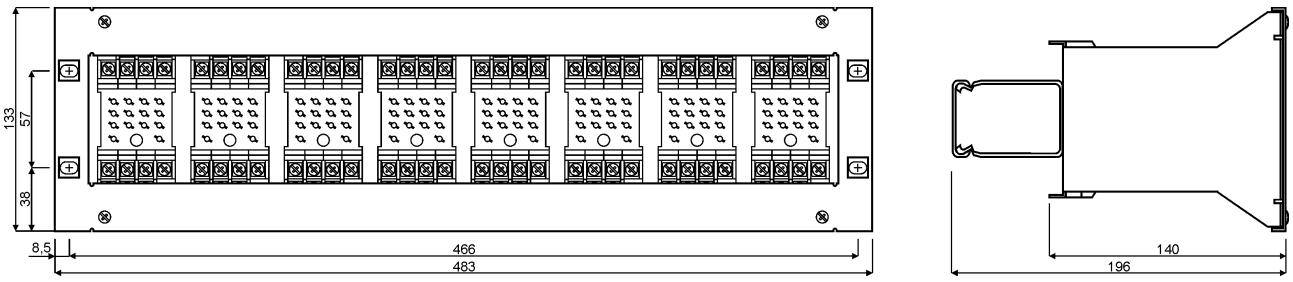



Picture 1. Dimensions of the GZ14Z socket

**19" EURO – chassis**

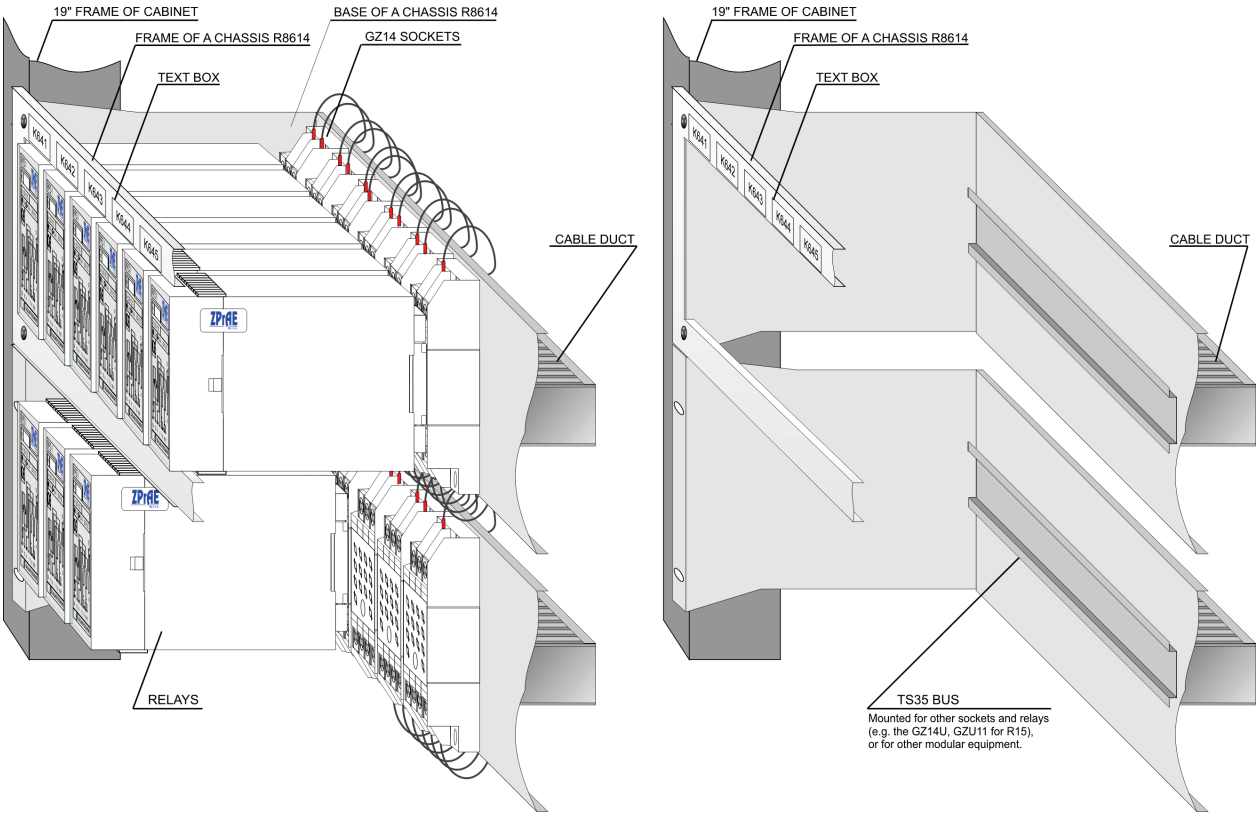
The main part of the chassis is a steel, galvanized base to which the sockets and cable ducts are mounted. The base is covered with a RAL 7035 painted frame. The frame ensures dependable fixing of the relays and provides space for placing the descriptions. The chassis consists of the base, frame, cable duct and a set of mounting screws. The sockets should be ordered separately.

**The R6814 chassis for mounting GZ14 sockets.**



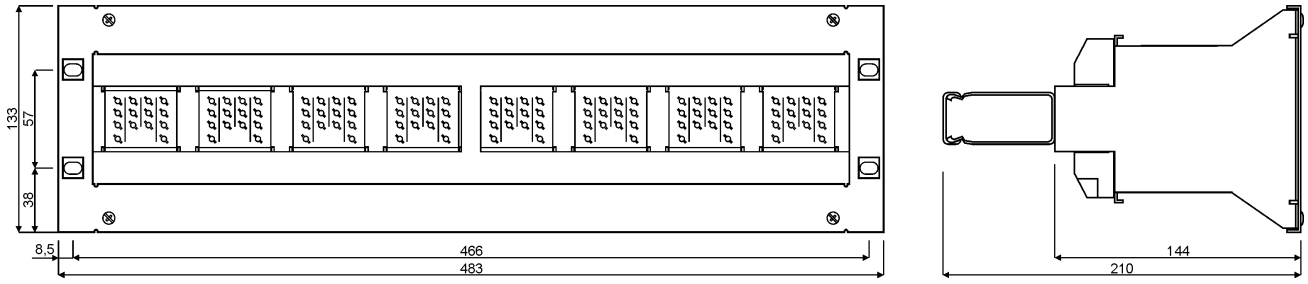

Picture 2. Dimensions of the R8614

The main advantage of the R6814 chassis is its versatility. The place of a relay socked can be used for installing any small on-plate apparatus, or the TS-bus for mounting modular equipment. The biggest weakness is the limited access to the GZ14 sockets, which are behind the relays.




Picture 4. Design of R8614 chassis

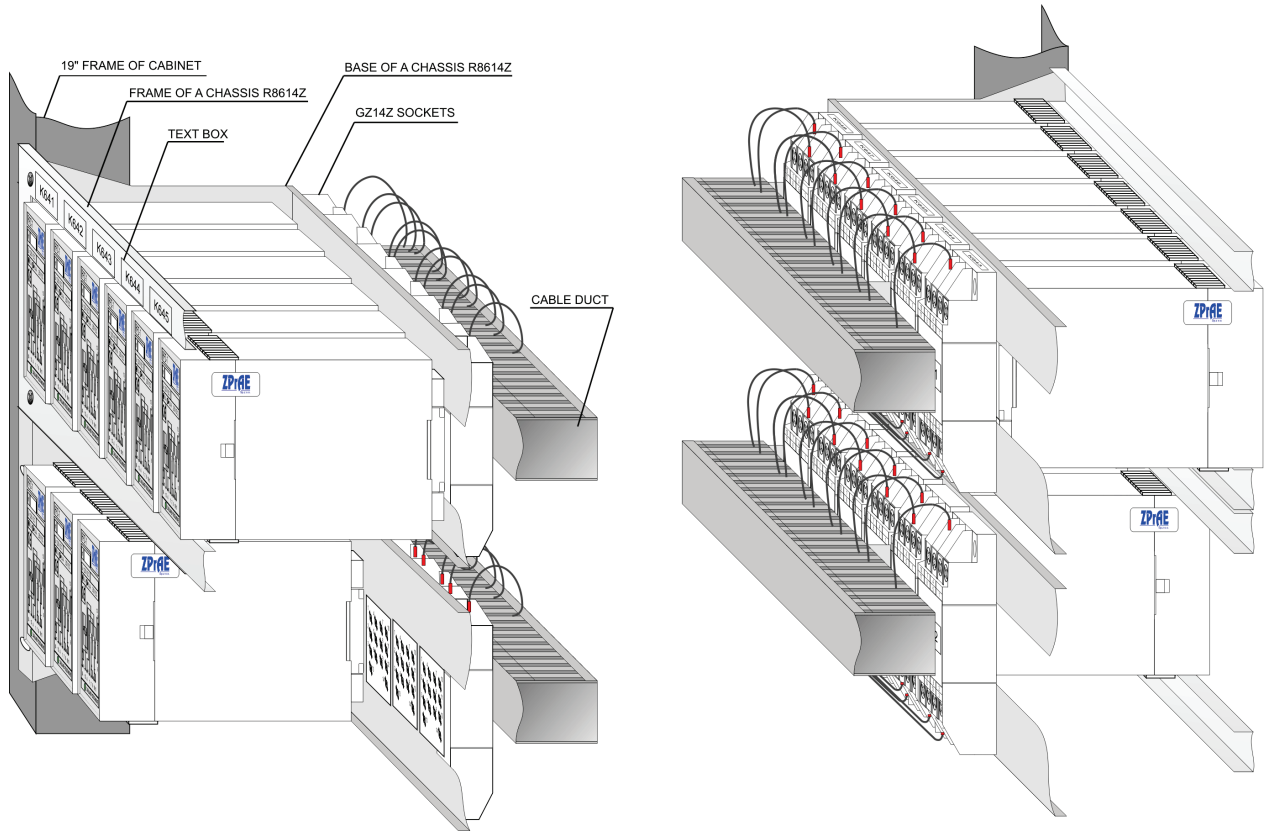
**The R8614Z chassis for mounting of GZ14Z sockets**




Picture 5. Dimensions of the R8614Z chassis

The R8614Z chassis eliminates the limited access to the mounting sockets, having all of the advantages of the GZ8614 chassis. Thanks to modified GZ14Z socket the access to the terminals on the sockets is enables from the back. It facilitates mounting as well as subsequent use.

*The R8614Z chassis along with the GZ14Z sockets are recommended for use in all new projected substations, and required by investors for power substations of the highest voltages.*



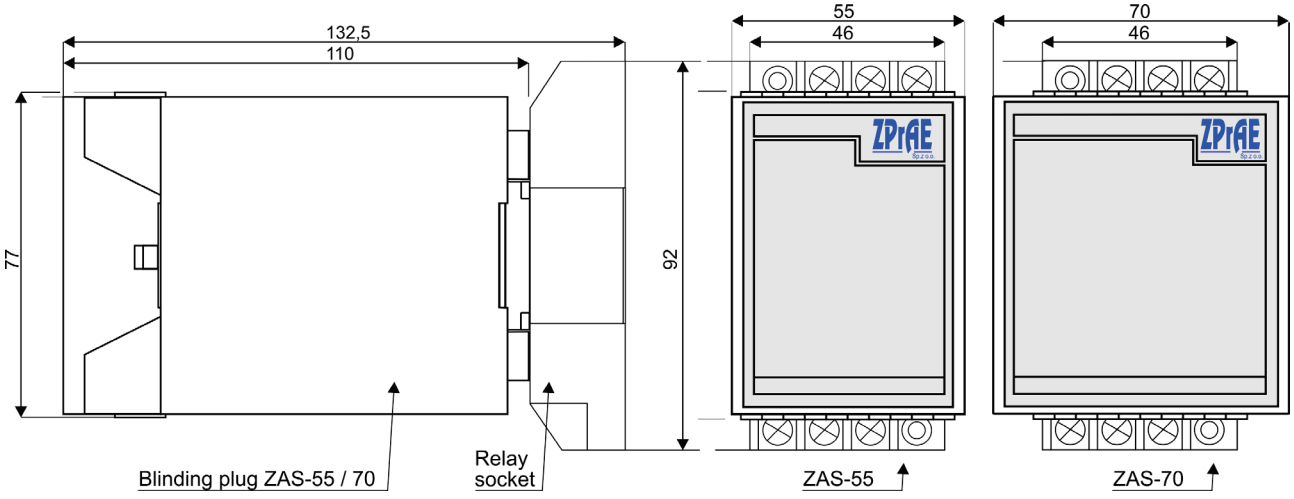

Picture 6. Design of R8614Z chassis

## BLINDING PLUGS

In order to increase aesthetics of the cabinets elevation all unused spaces of the EURO-chassis can be filled with specially designed blinding plugs:

- ZAS-55 (55 mm wide)
- ZAS-70 (70 mm wide)

The blinding plugs like all relays demand a GZ14 or GZ14Z mounting socket to be installed inside the chassis.




Picture 7. Dimensions of the ZAS-55 and ZAS-70 blinding plugs.

## TECHNICAL INFORMATION

| | |
|---|---|
| ***GZ14 and GZ14Z Socket*** | |
| Rated insulation voltage | 250 V AC / 300 V DC |
| Rated current | 10 A |
| Proof voltage of insulation between lines | 2 kV; 50 Hz; 1 min |
| Resistance of the connection | < 20 mOhm |
| Force of connecting the relay with socket | < 350 Nm |
| Force of disconnecting the relay with socket | > 20 Nm |
| Rated contact of terminal | 2 × 1,5 $mm^2$ |
| Maximal contact of a single terminal | 2 × 2,5 $mm^2$ |
| Ambient temperature | from -40 °C to +55 °C |
| External dimenstions | 46,2 × 92,2 × 24,4 mm |
| Weight | ~ 150 g |
| ***Chassis R8614 and R8614Z*** | |
| Max. number of sockets | 8 × GZ14 (R8614) / 8 × GZ14Z (R8614Z) |
| External dimensions | 483 (19”) × 133 (3U) × ~200 mm |
| Weight | ~ 1 kg |
| ***ZAS-55 and ZAS-70 Blinking plugs*** | |
| Terminations (socket/plug) | As for R15 4P |
| External dimensions ZAS-55 (without socket) | 77 × 55 × 110 mm (H×W×D) |
| External dimensions ZAS-70 (without socket) | 77 × 70 × 110 mm (H×W×D) |
| Mounting | As R15 4P into the mounting socket |

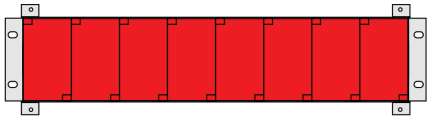
## ARRANGEMENT OF RELAYS IN CHASSIS

Exemplary arrangements of relays in R8614 and R8614Z chassis are presented on Picture 8. Along with the exemplary solutions all arrangements abiding the following principles are feasible:

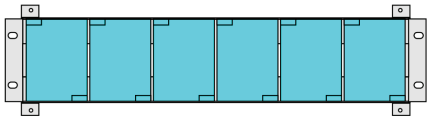
- Total length of relays must not exceed 440mm
- Relays of the same sizes should be grouped.

If it is necessary to mix the sequence of 55 mm and 70 mm relays, it should be assumed that only 6 relays can be fitted into one chassis.

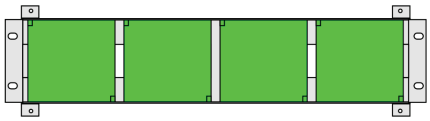
8 × 55 mm
(RSH-3;
RS-6;...)



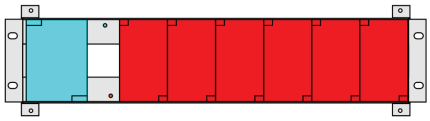
6 × 70 mm
(RSH-3S)



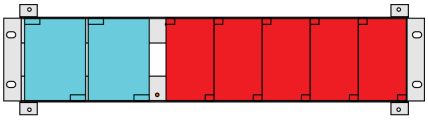
4 × 100 mm
(RBS-2)



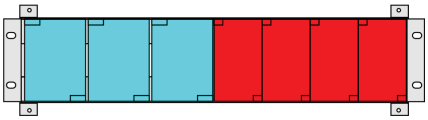
1 × 70 mm
6 × 55 mm



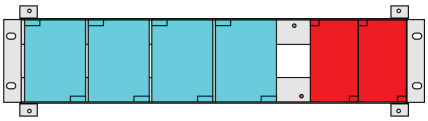
2 × 70 mm
5 × 55 mm



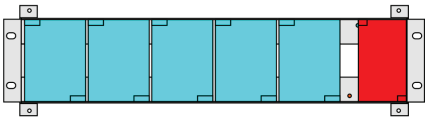
3 × 70 mm
4 × 55 mm



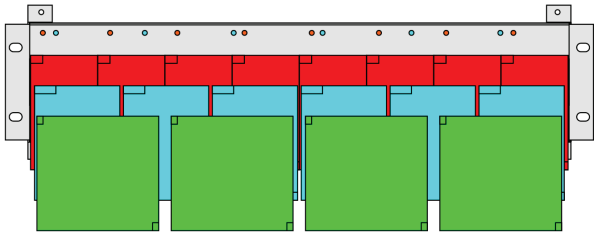
4 × 70 mm
2 × 55 mm



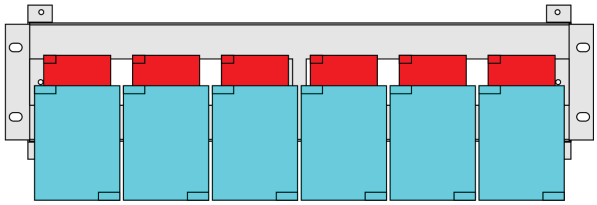
5 × 70 mm
1 × 55 mm



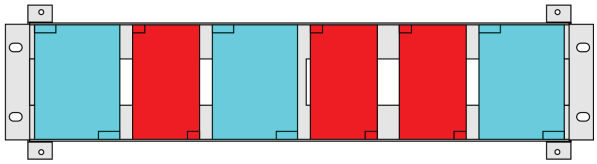
Maximal number of relays to be fitted into Euro chassis:
8 × 55 mm lub 6 × 70 mm lub 4 × 100 mm

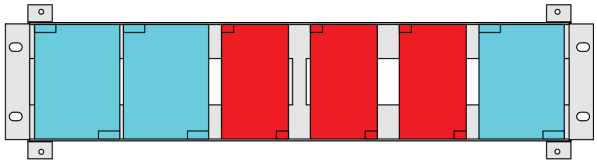


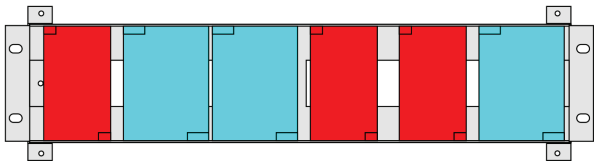
In case of placing 55 mm and 70 mm relays in Euro chassis it should be assumed that 6 relays is the maximum number.



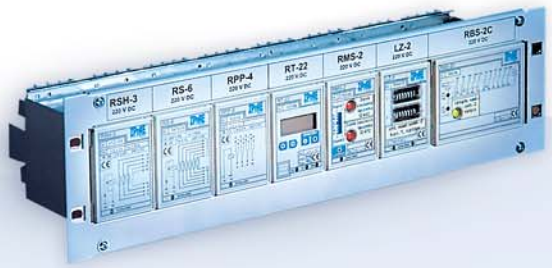
Examples of mixed placement 55 mm and 70 mm relays.







# GZ-14/GZ-14Z
# R-8614/R-8614Z
# ZAS-55/ZAS-70




## OFFER

REline® ENERGETIC STANDARDS

RSH-3, RSH-3S - tripping

RS-6, RPD-2, RPP-4, RPP-6 - interposing

RMS-2 - signalling

RCW-3, RCDW-1 - circuit continuity monitoring

RKO-3 - power supply circuit continuity monitoring

RB-1, RBS-1, RBS-2 - bistable

RT-22 - time

RUT-2, RUT-3 - time-voltage

RJT-1, RJT-3 - time-current

RKU-1, RKS-1 - final controlling

LZ-1, LZ-2 - operation counters

RPZ-1 - supply source switching

GPS-1 - time synchronisation

MDD-6, MDS-12 - Diode modules

PH-XX, PS-XX - Modules of switches, pushbuttons and control lamps

Relay racks

Busbar protections and breaker failure protections type TSL-9r, TSL-11

Auxiliary and signalization relays

Reserve Central Signalling System type MSA-9, MSA-12, MSA-24

Protection relays type AZT-9, APP-9

Disturbance recorder RZS-9

Energy measurement system and event recorder ZRZ-28

Load Resistors for measuring transformers

DC and AC auxiliary power supply switchgears

Cubicle-contained sets of control and supervision protections

Modular power supplies, measuring suitcases, measuring and registering system RFQ-8

PROFIL-L cubicles

Periodical and post-failure tests, as well as repairs and overhauls of busbar protections TSL

Servicing, strting-up and post assembly tests

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