



## WRU-10-RAL

WRU-10-RAL, Residual current relay

Code: P24453.

- > Usefull diam.(mm): 28
- >  $I_{\Delta n}$  (A): 0,03 ... 3 A | 0,03 ... 30 A
- > Delay: 0,02...10 s, INS, SEL
- > Nr. reclosures: Programmable
- > Time between reclosures: Programmable
- > Breaking element: Contactor
- > Type of protection: Type A

### Description

Electronic residual current protection relay with self-reclosing system, with built-in 28 mm transformer, forming a single unit. Super-immunised type-A relay with high-frequency current filtering and high immunity. True root mean square (TRMS) measure. Display with LEDs and backlit display:

- Residual current reclosing / protection parameters
- Protection trip current.
- Number of reclosures
- Protection status messages, etc.

Device with three changeover contact output relays and two simple relays (all relays can be programmed). The main relay provides the protection associated with the contactor, one is for the prealarm and the other one is for interlocking once the maximum number of reclosures has been reached. It also has a voltage-free input for external tripping and rearming.

- Assembly on **DIN 46277** rail (**EN-50022**)
- Compact size: 3 modules
- Connection by pluggable terminal strips

### Application

**WRU-10 RAL** relays associated with a contactor allow automatic reclosing after tripping, thus offering the most adequate solution for street lights, ATMs, refrigerating chambers, traffic lights, etc. Their design features guarantee maximum security and electrical service continuity, avoiding unwanted tripping.



## WRU-10-RAL

Residual current relay with built-in transformer and display (type A)

Code: P24453.

### Specifications

#### AC power supply

Consumption	4,5 VA
Frequency	50/60 Hz
Nominal voltage	230 V ~ ±30 % / 110 V ~ ±10 %

#### Mechanical characteristics

Size (mm) width x height x depth	52.5 x 109.4 x 75 (mm)
Fastening	DIN 46277 (EN 50022)
Weight (kg)	0,17

#### Environmental characteristics

Protection class	IP 20
Relative humidity (without condensation)	95%
Working temperature	-20 ... +70 °C

#### External reset input for tripping

Type	Voltage free, not insulated
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#### Standards

Electrical safety, Maximum height (m)	2000
Standards	IEC 60947-2-M, IEC 60755, IEC 62020

#### Other digital relay outputs

Nominal load	1250 VA
Nominal current	5 A ~
Nominal voltage	250 V ~

#### Digital relay outputs

Nominal load	62,5 VA
Nominal current	0,25 A ~
Nominal voltage	230 V ~

#### Differential protection

Type	Type A ultra-immunised
Sensitivity ( $I_{\Delta n}$ ), A	0,03 ... 3 / 5-10-30 (Setup)
Delay time ( $t_{\Delta}$ )	Direct setting: 0.02 ... 1 s Programmable: 3-5-10 s Inverse curve: Instantaneous or selective



## WRU-10-RAL

Residual current relay with built-in transformer and display (type A)

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### Protection

LED indication	Power supply voltage Earth leakage tripping Prealarm Latching
Measure	True root mean square (TRMS)

### Reclosure type

Reclosure number	Programmable
Reset time	Programmable
Reclosure time	Programmable

### WRU-10RAL

Protection relays and residual current reclosing, Type A ultra-immunised with built-in transformer

CODE	TYPE	$I_{\Delta n}$ (A)	Breaking element
P24453.	WRU-10-RAL	0,03 ... 3 A   0,03 ... 30 A	Contactora
P24457.	WRU-10-RAL0,3-1	0,3 ... 1 A	Contactora

Requires an residual current transformer, WGC type (not included). The breaking element to be associated must be a contactor not included. To encode other parameters, see the table at the end of the section.



## WRU-10-RAL

Residual current relay with built-in transformer and display (type A)

Code: P24453.

### Dimensions

