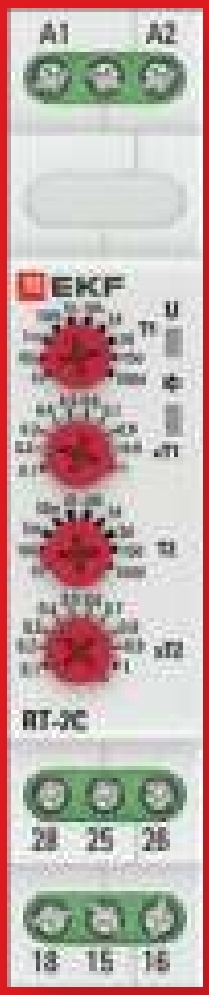
EKF




# TECHNICAL MANUAL

## Time relay RT-2C 2 timers 2 timed contacts EKF

## 1 DESCRIPTION

Time relay RT-2C EKF is an electronic switching device with an adjustable time setting. The time relay is designed to create cyclic automation scenarios. Timers can be adjusted using dials on the front panel of the relay.

The time relay complies with IEC 61000-4-4, IEC 60947-5-1 requirements.

The relay can be used in industrial and household automation, e.g. in HVAC and lighting systems.

## 2 TECHNICAL DATA

Table 1

| **Characteristics** | **Values** | |
|---|---|---|
| **Item code** | **RT-2C** | **RT-2C-12-240** |
| Rated voltage, V | 24-240 AC/DC | 12-240 AC/DC |
| Rated pulse voltage, V AC | 380 | |
| Power consumption | AC:⩽1,5 VA DC:⩽1 W | |
| Time delay range | 0,1 sec. to 10 days | |
| Set-point accuracy, % | ⩽5 | |
| Repeatability, % | ⩽0,2 | |
| Power interruption, ms | min 200 | |
| Electrical endurance, cycles | 100 000 | |
| Mechanical endurance, cycles | 1 000 000 | |
| Contacts | 2 C/O | |
| Rated load current | 2 x 8 A at 230 V, AC-1 | |
| Interference immunity | 3 in accordance with IEC 61000-4-4 | |

Table 1 continued

| **Characteristics** | **Values** | |
|---|---|---|
| **Item code** | **RT-2C** | **RT-2C-12-240** |
| Max. altitude above sea level, m | 2000 | |
| Degree of protection | IP20 | |
| Pollution degree | 3 | |
| Operating temperature, °C | -5 to 50 | |
| Storage temperature, °C | -25 ... 75 | |
| Connection | Screw terminals, max. conductor cross-section 2,5 $mm^2$ | |
| Tightening torque, N*m | 0,5 | |
| Mounting | 35 mm DIN rail | |

**Indication**

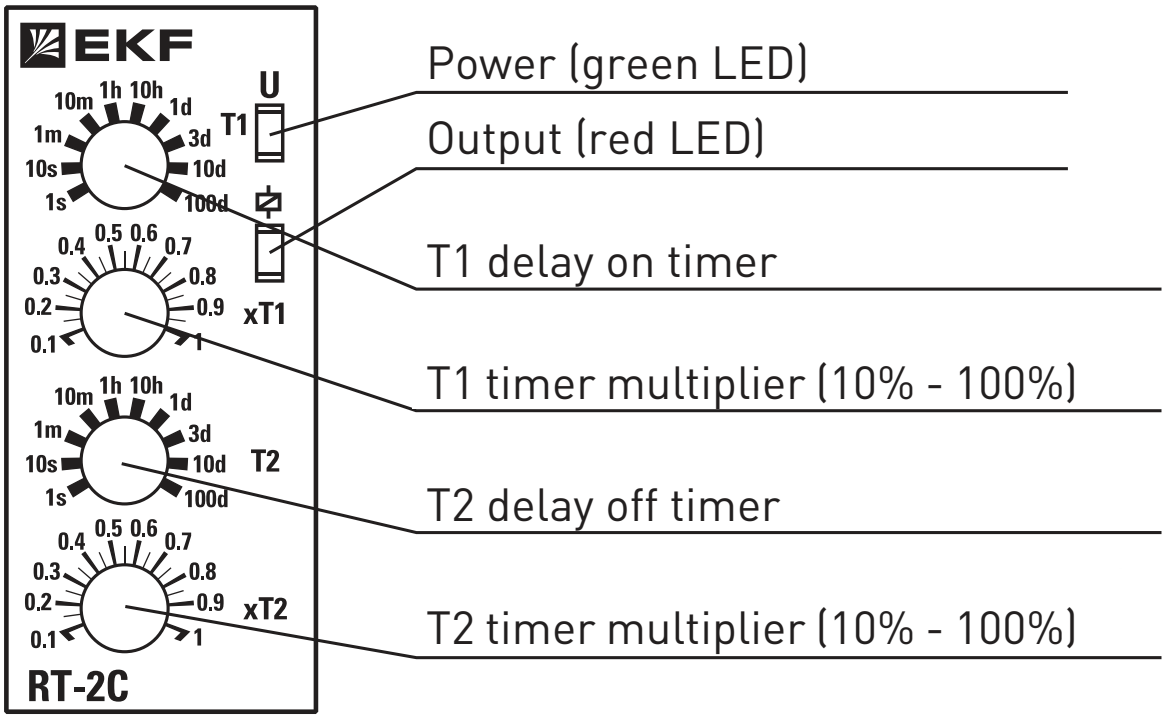
Green "U" LED: constantly lit when the relay is powered.

Red "⏻" LED:

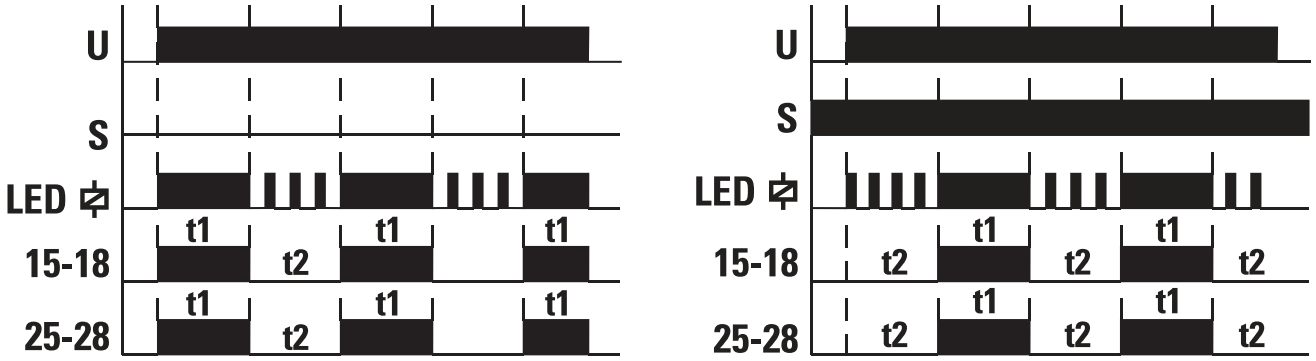
- Timer countdown - flashes.
- The relay is on, contacts 15-18 (25 - 28) are closed - lit.
- The relay is off, contacts 15-18 (25-28) are open – not lit.

**CAUTION!** To repeat the cycle after power off, wait at least 200 ms before powering up the relay.

## Control panel




## Function diagram

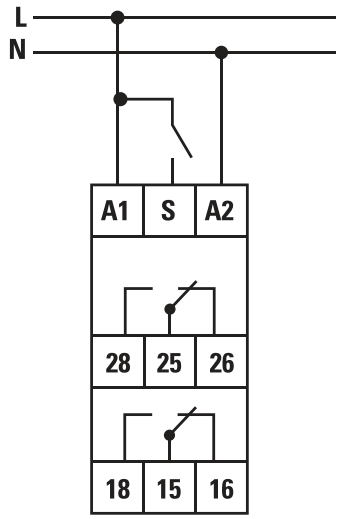



Recycle (NO) After the relay is energized, contacts 15-16 open, and contacts 15-18 close, a countdown (t1) is started. Once the countdown is finished, relay coil is de-energized, contacts 15-18 open, and contacts 15-16 close and the cycle repeats as long as the power is supplied to the relay. The second group of contacts (25, 26, 28) works in conjunction with the first one. When the signal S appears, the t2 timer countdown starts.

**Setup:**

- Install and secure the relay in the intended location.
- Connect the relay as per wiring diagram.
- Energize the relay, the "U" LED will light up green.
- Set the required time ranges.

## Wiring diagram




Contacts 16–15–18 and 26–25–28 are linked and when switching, they work in conjunction with each other.

## 3 OVERALL AND INSTALLATION DIMENSIONS

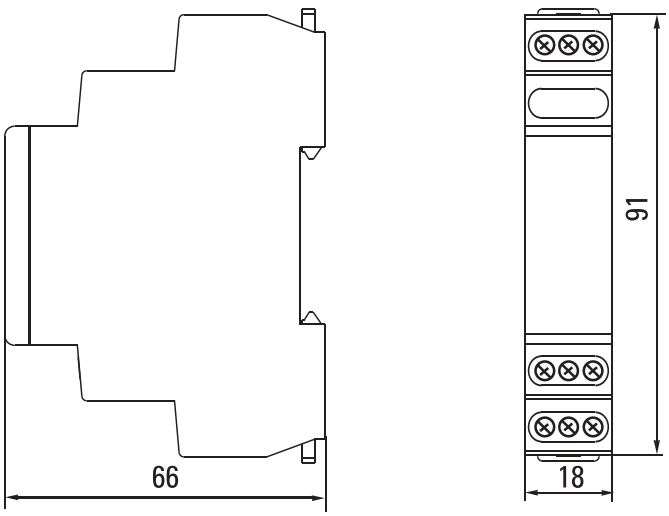



Fig. 1

## 4 OPERATION CONDITIONS

Operating temperature: -5°C to +50°C
Max. altitude above sea level: 2000 m.

## 5 DELIVERY SCOPE

The time relays are supplied in individual and group package. For all available documentation, scan the QR-code on the insert or on the inside of the package.

## 6 SAFETY REQUIREMENTS

Do not operate relays with visible mechanical damage.
The relays conform to IEC 61140 Class 0 for protection against electrical shock and must be installed in Class 1 enclosures or higher.

## 7 MAINTENANCE

The relay must be installed and maintained by qualified personnel. For maintenance, follow national safety rules for operation of electrical Installations.
Under normal operating conditions, visually inspect the relay and check the set modes and trigger time every 6 months.
Tighten the screw terminals, as they may become loose due to cyclical changes in the ambient temperature and material flow.
Follow the wiring diagram when installing the relay.
Do not install the relay without protective cover in any area exposed to water or direct sunlight.

## 8 TRANSPORTATION AND STORAGE

Relays can be transported by any means of enclosed transport that protects the packaged goods from mechanical impact and weather exposure.
Relays shall be stored indoors, in their original packaging, at the ambient temperatures from -25°C to +75°C and max. relative humidity of 80% at +25°C.

## 9 DISPOSAL

Life-expired and failed products shall be disposed of in compliance with the effective national and local laws and regulations.
To dispose of the product, send it to an authorized company for recycling in compliance with the effective national and local laws and regulations.

## 10 MANUFACTURER'S WARRANTY

The manufacturer guarantees the relays comply with the declared characteristics, provided that the consumer observes the operation, transportation and storage conditions and requirements.
Warranty period: 7 years from the date of sale specified in the sales receipt. Shelf life: 7 years from the date of manufacture specified on the product package or housing. Service life: 10 years.
**Manufacturer:** ООО Electroresheniya, Otradnaya st., 2b/9, 127273, Moscow, Russia, tel. +7 (495) 788-88-15.
**Importer and EKF trademark service representative:**
EKF ELECTRICAL SOLUTION – FZCO, Dubai Silicon Oasis, DDP, Building A2, Dubai, United Arab Emirates, tel. +971-4-547-06-18.
**Importer and EKF trademark service representative on the territory of the Republic of Kazakhstan:**
ТОО «Energoresheniya Kazakhstan», Kazakhstan, Almaty, Bostandyk district, Turgut Ozal st., 247, apt 4.

## 11 CERTIFICATE OF ACCEPTANCE

The time relay RT-2C EKF has been manufactured in compliance with the effective laws and regulations and has been approved for operation.

Date of manufacture: for information, refer to the product package.

Quality control stamp

EAC



v3

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