## TIMING RELAY



- For clock switching of electric circuits up to 8 A depending on setting of two mutually independent times
- Above all for automation purposes
- Time range: $0.5 \mathrm{~s} \div 120 \mathrm{~min}$

■ Universal supply voltage:
$\mathbf{1 2} \mathbf{V} \div \mathbf{2 3 0}$ V a.c. $/ 24 \mathrm{~V} \div \mathbf{2 2 0}$ V d.c.

Timing relay

| Control voltage AC/DC [V] | Type | Product <br> code | Contact |  | Weight <br> [kg] | Packing[pcs] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Sequence | Voltage/current [V/A] |  |  |
| $12 \div 230 / 24 \div 220$ | TCR-U | 13333 | 001 | 250/8 | 0.08 | 1 |

${ }^{1)}$ Each digit indicates successively the number of make, break and break-make contacts

TCR-U accessories
Label P...-LSN page 25

## Description

- Terminals 1 and 2 for setting the relay start
- If the terminals 1 and 2 are not interconnected, the relay starts in the mode of impulse after switching - If the terminals 1 and 2 are interconnected, the relay starts in the delayed operation mode
- Start processes are shown in the function chart on the next page
- Brake-make contact ON state indication by red LED

Supply voltage presence indication by green LED

Terminals of the brake-make contact 250 V a.c. $/ 8 \mathrm{~A}$


- Terminals of universal supply voltage $12 \mathrm{~V} \div 230 \mathrm{~V}$ a.c. $/ 24 \mathrm{~V} \div 220 \mathrm{~V}$ d.c. - Conductor L and N or (+) and (-) arbitrarily to terminals $\mathrm{A} 1, \mathrm{~A} 2$
- Controls knobs and change-over switches $\mathbf{t}_{1}, \mathbf{t}_{2}$ for setting the switching time
- Minimum set time $\mathrm{t}_{1}$ or $\mathrm{t}_{2}: 0.5 \mathrm{~s}$
- Maximum set time $\mathrm{t}_{1}$ or $\mathrm{t}_{2}: 120 \mathrm{~min}$
- Tolerance of set time $\mathrm{t}_{1}$ or $\mathrm{t}_{2}$ at re-timing - max. $2 \%$ $\mathrm{t}_{1}$ or t
-The scales of both $t_{1}$ and $t_{2}$ are linear.



## TIMING RELAY

## Specification

| Type |  |  | TCR |
| :---: | :---: | :---: | :---: |
| Standards |  |  | EN 116000-2 |
| Approval marks |  |  | (ECC E $C=\sqrt{S}$ |
| Main circuit (contact) |  |  |  |
| Sequence ${ }^{1)}$ |  |  | 001 |
| Rated voltage |  | $U_{\text {e }}$ | 250 V a.c. $/ 24 \mathrm{~V}$ d.c. |
| Rated current |  | $\mathrm{I}_{\mathrm{n}}$ | 8 A |
| Max. switched power |  |  | $2000 \mathrm{VA} / 192 \mathrm{~W}$ |
| Max. switched voltage |  |  | 380 V a.c., 150 V d.c. |
| Min. voltage/current |  |  | 5 V d.c. $/ 10 \mathrm{~mA}$ |
| Endurance - electrical/mechanical |  |  | 100000 operating cycles/5000 000 operating cycles |
| Connection |  |  | $0.75 \div 6 \mathrm{~mm}^{2}, 2 \mathrm{x}(0.75 \div 2.5) \mathrm{mm}^{2}$ |
| Control circuit (coil) |  |  |  |
| Rated control voltage |  | $U_{\text {e }}$ | $12 \div 230$ a a.c., $24 \div 220 \mathrm{~V}$ d.c. |
| Dwell between applied $\mathrm{U}_{\text {e }}$ |  |  | 3 s |
| Connection |  |  | $0.75 \div 6 \mathrm{~mm}^{2}, 2 \times(0.75 \div 2.5) \mathrm{mm}^{2}$ |
| Consumption for $\mathrm{U}_{\mathrm{e}}$ | 12/230 V a.c. |  | 0.7 VA / 2.1 VA |
|  | 24/220 V d.c. |  | $0.9 \mathrm{~W} / 1.2 \mathrm{~W}$ |
| Rated frequency |  |  | $50 \div 60 \mathrm{~Hz}$ |
| Time circuit |  |  |  |
| Range |  |  | $0.5 \mathrm{~s} \div 120 \mathrm{~min}$ |
| $\mathrm{t}_{1}, \mathrm{t}_{2}$ setting method |  |  | control knobs on the front panel of the device |
| Tolerance of set time at re-timing |  |  | max. $2 \% \mathrm{t}_{1}, \mathrm{t}_{2}$ |
| Other data |  |  |  |
| Mounting on the rail DIN EN 50022 -width |  |  | 35 mm |
| Degree of protection |  |  | IP20 |
| Ambient temperature |  |  | $-20 \div 55^{\circ} \mathrm{C}$ |
| Seismic immunity ( $8 \div 55 \mathrm{~Hz}$ ) |  |  | 3 g |
| Operating position |  |  | arbitrary |

${ }^{1)}$ Each digit indicates successively the number of make, break and break-make contacts

Dimensions
TCR


Diagram
TCR


## Function chart



## LOCKING INSERT, LABELS



## Dimensions

vu-LsN


