## Analog twin timer

## TF62A

NSTRUCTION MANUAL

,
Please read the instruction manual
carefully before using this product, and use the product correctly.
Safety information
Please read the safety information carefully then use the product correctly.
The alerts declared in the manual are classified into Danger, Warning and Caution according to their importance
$\triangle$ DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury 4. WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury $\triangle$ CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor injury or property damage

## \ DENGER

he input/output terminals are subject to electric shock risk. Never let the input/output terminals come

## $\triangle$ Warning

Please install an appropriate protective circuit on the outside if malfunction, an incorrect operation or failure of the roduct may be a cause of leading to a serious accident and plan for preventing accidents.
After mounting the product onto a panel, please use a socket dedicated to the product when connecting with other units and do not turn on the power until completing wiring to prevent electric shock.
lease turn off the power when mounting/dismounting of he product. This is a cause of electric shock, malfunction, or failure.
If the product is used with methods other than specified by the manufacturer, then it may lead to injury or property damage. - In order to use this product properly and safely, we recommend periodic maintenance.
-The warranty of this product (including accessories) is 1 year only when it is used for the purpose it was intended under normal condition

## Suffix code

| Model | Code |  |  |  | Description | Product configura |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TF62A | $\square \cdot$ | $\square$ | - | $\square$ | Analog twin timer 38.4(W) X 42.4(H) X 59.0 (D) mm | - TF62A-1N-A <br> - TF62A-3N-A |
| Time range |  | 1 |  |  | Maximum time : $1 \mathrm{sec} / 1 \mathrm{~min} / 1 \mathrm{hhour} / 10 \mathrm{sec} / 10 \mathrm{~min} / 1$ hoour |  |
|  |  | 3 |  |  | Maximum time : $3 \mathrm{sec} / 3 \mathrm{~min} / 3 \mathrm{hour} / 30 \mathrm{sec} / 30 \mathrm{~min} / 30 \mathrm{hour}$ |  |
|  |  | 6 |  |  | Maximum time : $6 \mathrm{sec} / 6 \mathrm{~min} / 6$ hour $/ 60 \mathrm{sec} / 60 \mathrm{~min} / 60 \mathrm{hour}$ |  |
| Control output |  |  | N |  | No option |  |
| power voltage |  |  |  | A | $24-240 \mathrm{~V}$ a.c. $50 / 60 \mathrm{~Hz}$ or $24-240 \mathrm{~V}$ d.c. dual usage |  |

## Specification

| Model | TF62A |
| :---: | :---: |
| Timer type | Analog twin timer |
| Power voltage | $24-240 \mathrm{~V}$ a.c. $50 / 60 \mathrm{~Hz}$ or $24-240 \mathrm{~V}$ d.c. dual usage |
| Allowable voltage | $\pm 10 \%$ of Power supply voltage |
| Power consumption | - Max. $4.1 \mathrm{VA}(24-240 \mathrm{Va.c} .50 / 60 \mathrm{~Hz}) \quad$ - Max. $2 \mathrm{~W}(24-240 \mathrm{~V}$ d.c.) |
| Operating time range | 0.1 sec $\sim 60$ hour |
| Operating time error | - Setting error: Max. $\pm 5 \% \pm 0.05$ - Repetition error: Max. $\pm 0.3 \%$ <br> - Voltage error: Max. $\pm 0.5 \%$ - Temperature error: Max. $\pm 2 \%$ |
| Return time | Max. 100 ms |
| External connection method | 8 -pin socket |
| Operation mode | $\mathrm{A} / \mathrm{B} / \mathrm{C} / \mathrm{D} / \mathrm{E} / \mathrm{F}$ (selected by front operating mode selector switch) |
| Control <br> output Contact <br> composition | - instantaneous SPDT (1c) + Time limit SPDT (1c) <br> - Time limit DPDT (2c) *Automatic change of contact composition according to operation mode |
| Contact capacity | - N.O. (250 V a.c. 3 A Resistive load) - N.C. (250 V a.c. 2 A Resistive load) |
| Relay life | - Mechanical life: MIn. 10 million cycles•Electrical life: Min. 20,000 cycles <br> (250 V a.c. 2 A resistive load) |
| Insulation resistance | Min. $100 \mathrm{M} \Omega(500 \mathrm{~V}$ d.c. mega, at conductive terminal and non-charged metal which is exposed) |
| Dielectric strength | 2000 V a.c. 60 Hz for 1 minute (at conductive terminal and non-charged metal which is exposed) |
| Noise immunity | $\pm 2 \mathrm{kV}$ (between the power terminals, pulse width $=1 \mathrm{ss}$, square wave noise by noise simulator) |
| Vibration resistance (durability) | $10-55 \mathrm{~Hz}$ ( 1 minute) 0.75 mm double amplitude 0.75 in each $X, Y, Z$ direction for 2 hours |
| Shock resistance (durability) | $300 \mathrm{~m} / \mathrm{s}^{2}(30 \mathrm{G})$ in each $X, Y, Z$ direction for 3 times |
| Operating ambient temperature | $-10 \sim 55^{\circ} \mathrm{C}$ (without condensation) |
| Accessories | - Fixing Bracket $\quad$- BRACKET-M $(48.0 \times 59.0 \mathrm{~mm})$ <br> flush type bracket |
| $\begin{aligned} & \text { Accessories } \\ & \text { (separately sold) } \end{aligned}$ | - BRACKET-S ( $48.0 \times 48.0 \mathrm{~mm}$ )bracket for adjusting size (flush type)- BRACKET-L ( $53.5 \times 84.4 \mathrm{~mm}$ ) <br> bracket for adjusting size (flush type) |
| Weight (g) | Approx. 79 g (Exposure type) |
| Approval | C |

## Dimension \& Panel cutout

Exposure type


## Flush type


※ Application of BRACKET-M (BRACKET-S/L refer to the chart below)


- Panel cutout



## IConnection diagram



Panel cutout
Panel cutout
$(+0.5 /-0)$


Function and name of each part
ume for setting ON operation time
ON operation time setting in operation mode ${ }^{\mathrm{I}} \mathrm{A} / \mathrm{B} / \mathrm{D} / \mathrm{E} / \mathrm{F}$
Setting ON operation time of OUT2 in operation mode ' $C$
ON operation time range selection switch
Select $O N$ operation time range in operation mode $A$ ' $/ B / D / \mathrm{E} / \mathrm{F}^{\prime}$ Select ON operation time range of OUT2 in operation mode ' $C$ '
w table about
The operation mode selection switch
Turns on when output is 'OFF' operation mode $\mathrm{A} / \mathrm{B} / \mathrm{D} / \mathrm{E}$ ' Turns on when OUT1 output is ' $O N$ ' in operation mode 'C/F

Volume for setting OFF operation time
OFF operation time setting in
operation mode $\mathrm{A} / \mathrm{A} / \mathrm{B} / \mathrm{D} / \mathrm{E} / \mathrm{F} \mathrm{F}$
Setting ON operation time of OUT1 in
operation mode ' $C$ '

| ON/OFF operation time range selection switch ("change after power is off) |  |  |  | Operation mode sel |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| time range |  | setting time range |  | Indication |  |
| TF62A-1 | 1 S | $0.1 \sim 1$ | sec | TF62A | A |
|  | 1 M | $0.1 \sim 1$ | min |  | B |
|  | 1 H | $0.1 \sim 1$ | hour |  | C |
|  | 10 S | $1 \sim 10$ | sec |  | D |
|  | 10 M | $1 \sim 10$ | min |  | E |
|  | 10 H | 1 ~ 10 | hour |  |  |
|  | 3 S | $0.3 \sim 3$ | sec |  | F |
|  | 3 M | $0.3 \sim 3$ | min |  |  | Dutput operation mode FLICKER ON START (time-limit 2c) FLICKER OFF START + instantaneous 1c TWIN (time-limit 1c + time-limit 1c) FIICKER OFF START (time-limit 2c) FLICKER ON START + instantaneous 1c DUAL (time-limit 1c + time-limit 1c) Same as TF62D output operation of isting product

$30 \mathrm{M} / 3$ orating time range is selected as ' $10 \mathrm{~S} / 10 \mathrm{M} / 10 \mathrm{H}, 30 \mathrm{~S}$ $10^{\prime}$ from th, dis When OFF operation time range is selected as ' $10 \mathrm{sec} / 10 \mathrm{~min} / 10 \mathrm{H}$, $30 \mathrm{~S} / 30 \mathrm{M} / 30 \mathrm{H}, 60 \mathrm{~S} / 60 \mathrm{M} / 60 \mathrm{H}$ ', OFF operation time is converte o ' $\times 10$ ' from the display time on the front panel and operates.
When the switch power is ' ON ", both the operation time range and the operation mode are not changed. (Ex. A->B/1S

## Operation mode



