

TFI-SERIES TFIS 24-240VUC 1CO OFFC

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Product image



Timing relays are used in automation engineering in order to compensate for malfunctions caused by high clock rates.

Short pulses are extended and hence are reliably identified by downstream control components.

Various timing functions such as make and break delays, clock generator and star/delta switchover are available to users.

General ordering data

| | |
|------------|---|
| Type | TFIS 24-240VUC 1CO OFFC |
| Order No. | 2697290000 |
| Version | TFI-SERIES, Off-delay timing relay, with separate control input, Number of contacts: 1, CO contact, AgNi, Rated control voltage: 24...240 V UC -15 % / +10 %, Continuous current: 8 A, Screw connection |
| GTIN (EAN) | 4050118706055 |
| Qty. | 1 pc(s). |

Creation date 24 September 2020 12:18:21 CEST

Catalogue status 11.09.2020 / We reserve the right to make technical changes.

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Technical data
Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Width | 17.5 mm | Width (inches) | 0.689 inch |
| Height | 87 mm | Height (inches) | 3.425 inch |
| Depth | 60 mm | Depth (inches) | 2.362 inch |
| Net weight | 71 g | | |

Temperatures

| | | | |
|-----------------------------|--|-----------------------------|----------------|
| Humidity | 15...85 % rel. humidity, no condensation | Operating temperature, max. | 55 °C |
| Operating temperature, min. | -25 °C | Storage temperature, max. | 70 °C |
| Storage temperature, min. | -25 °C | Operating temperature | -25 °C...55 °C |
| Storage temperature | -25 °C...70 °C | | |

Input

| | | | |
|-----------------------|---|--|--|
| Rated control voltage | 24...240 V UC - 15 % / + 10 % | Power rating | 4 VA, 1.5 W |
| Status indicator | LED green (U/t): flashes when time runs, lights permanently with supply voltage applied, LED yellow (R): relay closed | Repeat accuracy | < 0.5 % or ±5 ms |
| Setting tolerance | 5 % | Basic accuracy | ± 1 % (of scale-end value) |
| Min. pulse duration | 100 ms | Time ranges | 0.05 s - 1 s, 0.5 s - 10 s, 3 s - 60 s, 30 s - 10 min, 3 min - 1 h, 30 min - 10 h, 5 h - 100 h |
| Timing function | On-delay with control input | Max. reset time after voltage interruption | 100 ms |

Output

| | | | |
|---|----------------------------|---|-------|
| Rated switching voltage | 250 V AC | Max. switching voltage, AC | 250 V |
| Max. switching voltage, DC | 30 V | Continuous current | 8 A |
| AC switching capacity (resistive), max. | 2000 VA | DC switching capacity (resistive), max. | 240 W |
| Min. switching power | 10 mA @ 12 V, 100 mA @ 5 V | | |

Contact data

| | | | |
|-------------------------|---------------------------------------|----------------------------------|---|
| Contact type | 1 CO contact (AgNi) | Electrical service life, DC coil | 2x10 ⁵ switching cycles (1000 VA ohm load) |
| Mechanical service life | 20 x 10 ⁶ switching cycles | | |

General data

| | | | |
|-------------|-----------------------------|--------------------------------------|---|
| Version | with separate control input | Rail | TS 35 |
| Test button | No | Mechanical switch position indicator | No |
| Colour | black | Resistance to vibration EN 61812-1 | 10 Hz...60 Hz: 0.15 mm, 60 Hz...150 Hz: 2 g |

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Technical data**Insulation coordination**

| | | | |
|-----------------------------------|--------|--|--------|
| Rated voltage | 300 V | Surge voltage category | III |
| Pollution severity | 2 | Protection degree | IP20 |
| Dielectric strength, Input/Output | 1.6 kV | Creepage and clearance distance input – output | ≥ 3 mm |
| Impulse withstand voltage | 4 kV | | |

Further details of approvals / standards

| | |
|-------------------------|---------|
| Certificate no. (cULus) | E360862 |
|-------------------------|---------|

Connection data

| | | | |
|---|---------------------|---|---------------------|
| Wire connection method | Screw connection | Stripping length, rated connection | 8 mm |
| Tightening torque, max. | 1 Nm | Clamping range, rated connection | 2.5 mm ² |
| Clamping range, min. | 0.5 mm ² | Clamping range, max. | 4 mm ² |
| Wire connection cross section AWG, min. | AWG 20 | Wire connection cross section AWG, max. | AWG 12 |
| Wire cross-section, solid, min. | 0.5 mm ² | Wire cross-section, solid, max. | 4 mm ² |
| Wire connection cross-section, finely stranded, min. | 0.5 mm ² | Wire connection cross section, finely stranded, max. | 4 mm ² |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm ² | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm ² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 0.5 mm ² | Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 2.5 mm ² |
| Wire connection cross section, finely stranded, two clampable wires, min. | 0.5 mm ² | Wire cross-section, finely stranded, two clampable wires, max. | 2.5 mm ² |
| Blade size | size PZ 1 | | |

Classifications

| | | | |
|-------------|-------------|------------|-------------|
| ETIM 6.0 | EC001439 | ETIM 7.0 | EC001439 |
| eClass 9.0 | 27-37-16-05 | eClass 9.1 | 27-37-16-05 |
| eClass 10.0 | 27-37-16-05 | | |

Approvals

Approvals



| | |
|------|---------|
| ROHS | Conform |
|------|---------|

Downloads

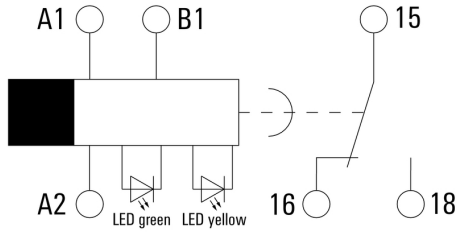
| | |
|---|---|
| Approval/Certificate/Document of Conformity | EU Konformitätserklärung / EU Declaration of Conformity |
| Engineering Data | STEP |
| User Documentation | Beschreibung der Zeitfunktionen - Deutsch Declaration of time functions - English Beipackzettel / Package Insert – multilingual |

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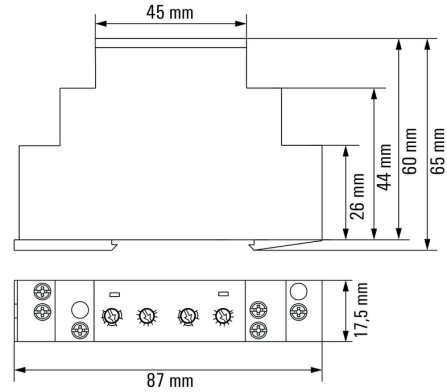
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Drawings

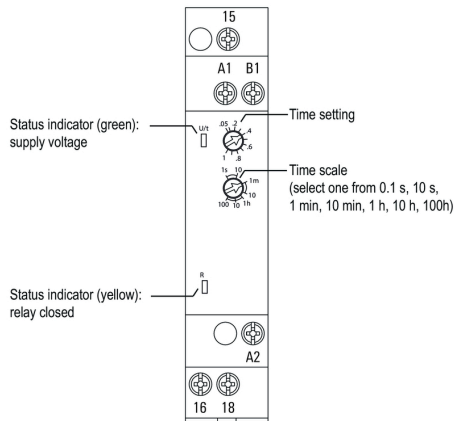
Wiring diagram



Dimensional drawing



Miscellaneous



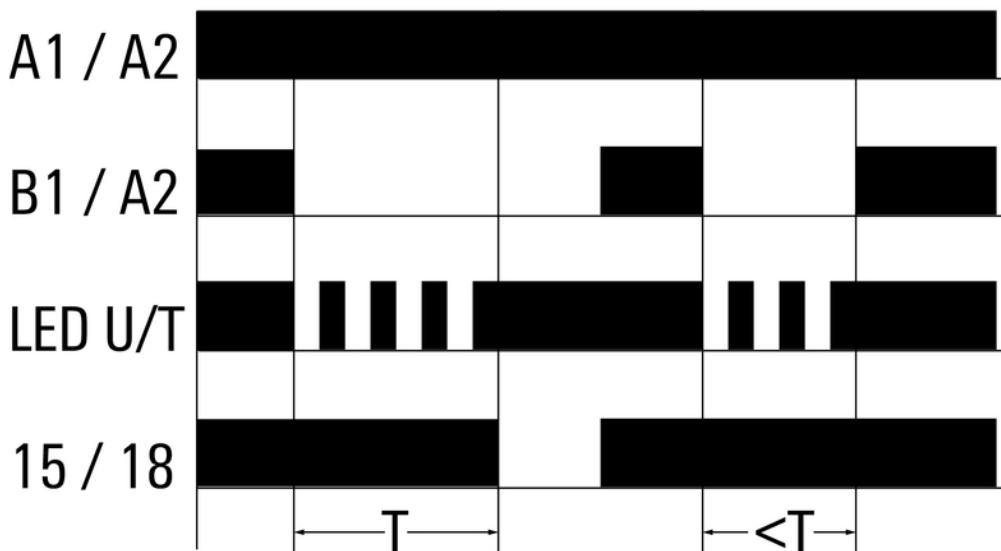
Detailed drawing

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Graph

R off-delay with control input



Time functions

