

ETD-SL-1T-DTF - Timer relay



2866161

<https://www.phoenixcontact.com/us/products/2866161>

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Multi-functional timer relay with 8 functions and an adjustable time range (50 ms - 100 h), wide range power supply unit, 2 changeover contacts

Product description

Increasingly higher demands are being placed on safety and system availability – across all sectors. Processes are becoming more and more complex, not only in mechanical engineering and the chemical industry, but also in plant and automation technology. Demands on power engineering are also increasing constantly.

The timer relays in the ETD series can be used to control time sequences in production and process technology.

Your advantages

- Universal use thanks to wide range of functions and selectable time ranges
- Time ranges from a few milliseconds to several days
- 2 floating changeover contact outputs
- Variable supply voltage range

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2866161 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C441 |
| Product key | DK66ZZ |
| GTIN | 4046356046596 |
| Weight per piece (including packing) | 140.8 g |
| Weight per piece (excluding packing) | 138.66 g |
| Customs tariff number | 85364900 |
| Country of origin | AT |

Technical data

Notes

Utilization restriction

| | |
|----------|---|
| EMC note | EMC: class A product, see manufacturer's declaration in the download area |
|----------|---|

Product properties

| | |
|-------------------------|--------------------------------|
| Product type | Timer relay |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 2×10^7 cycles |

Insulation characteristics

| | |
|----------------------|------------------|
| Insulation | Basic insulation |
| Overtoltage category | III |
| Pollution degree | 2 |

Electrical properties

| | |
|---|---|
| Service life electrical | approx. 2×10^5 cycles at ohmic load, 1000 VA |
| Maximum power dissipation for nominal condition | 2 W |
| Nominal frequency | 48 Hz ... 63 Hz |
| Nominal power consumption | 2.5 VA (1 W) |
| Test voltage relay winding/relay contact | 4 kV |
| Rated insulation voltage | 300 V |

Input data

| | |
|-----------------------------------|--|
| Nominal power consumption | 2.5 VA (1 W) |
| Input voltage range | 24 V DC ... 240 V DC -20 % ... +25 % |
| | 24 V AC ... 240 V AC -15 % ... +10 % |
| Temperature coefficient, typical | ≤ 0.01 %/K |
| Recovery time | 500 ms |
| Function | E: With switch-on delay |
| | Rs: With release delay and control contact |
| | Es: With switch-on delay and control contact |
| | Wu: With single shot leading edge, voltage controlled |
| | Ws: With single shot leading edge and control contact |
| | Wa: With single shot trailing edge and control contact |
| | Bi: Flashing beginning with pulse |
| Bp: Flashing beginning with pause | |
| Response delay function | yes |
| Release delay function | yes |
| Passing make contact function | yes |
| Passing break contact function | yes |
| Star/delta function | no |

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| | |
|--|-------------------------------------|
| Pulse-forming function | no |
| Flashing function beginning with pause, fixed time | yes |
| Clocking function beginning with pause, variable | no |
| Flashing function beginning with pulse, fixed time | yes |
| Clocking function beginning with pulse, variable | no |
| Setting range time | 50 ms ... 100 h (7 time end ranges) |
| Basic accuracy | ± 1 % (of scale end value) |
| Setting accuracy | ≤ 5 % (of scale end value) |
| Repeat accuracy | ≤ 0.5 % ±5 ms |

Control

| | |
|----------------------|--|
| Connection name | Non-floating, terminals A1-B1 |
| Load capacity | Parallel switched minimum load current 1 VA (0.5 W), terminals A2-B1 |
| Cable length | < 10 m |
| Control pulse length | min. 70 ms |

Output data

Switching

| | |
|---------------------------------------|---|
| Contact switching type | 2 floating changeover contacts |
| Maximum switching voltage | 250 V AC (in acc. with IEC 60664-1) |
| Interrupting rating (ohmic load) max. | 750 VA (3 A/250 V AC, module aligned, ≤ 5 mm spacing) 1250 VA (5 A/250 V AC, module not aligned, ≥ 5 mm spacing) |
| Output fuse | 5 A (fast-blow) |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 20 ... 14 |
| Tightening torque | 1 Nm ... 1 Nm |

Signaling

| | |
|----------------|--|
| Status display | Green LED (POWER) Yellow LED (relay active) |
|----------------|--|

Dimensions

| | |
|--------|---------|
| Width | 22.5 mm |
| Height | 90 mm |
| Depth | 113 mm |

Material specifications

| | |
|--|------------------|
| Color | green (RAL 6021) |
| Flammability rating according to UL 94 | V0 |

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| | |
|-----------------------------|----------------------------------|
| Housing insulation material | Polyamide PA, self-extinguishing |
|-----------------------------|----------------------------------|

Environmental and real-life conditions

Ambient conditions

| | |
|---|--|
| Degree of protection (Housing) | IP40 (Housing) |
| Degree of protection (Connection terminal blocks) | IP20 (Connection terminal blocks) |
| Ambient temperature (operation) | -25 °C ... 55 °C -25 °C ... 40 °C (corresponds to UL 508) |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Climatic class | 3K3 (in acc. with EN 60721) |
| Permissible humidity (operation) | 15 % ... 85 % |

Approvals

CE

| | |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

UL, USA/Canada

| | |
|----------------|-----------------------|
| Identification | UL/C-UL Listed UL 508 |
|----------------|-----------------------|

EMC data

| | |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC directive |
| Low Voltage Directive | Conformance with Low Voltage Directive |
| Noise immunity | EN 61000-6-2 |

Noise emission

| | |
|-----------------------|--------------|
| Standards/regulations | EN 61000-6-4 |
|-----------------------|--------------|

Standards and regulations

| | |
|-----------------------|----------|
| Standards/regulations | EN 50178 |
|-----------------------|----------|

Mounting

| | |
|-------------------|--|
| Mounting type | DIN rail mounting |
| Assembly note | on standard DIN rail NS 35 in accordance with EN 60715 |
| Mounting position | any |

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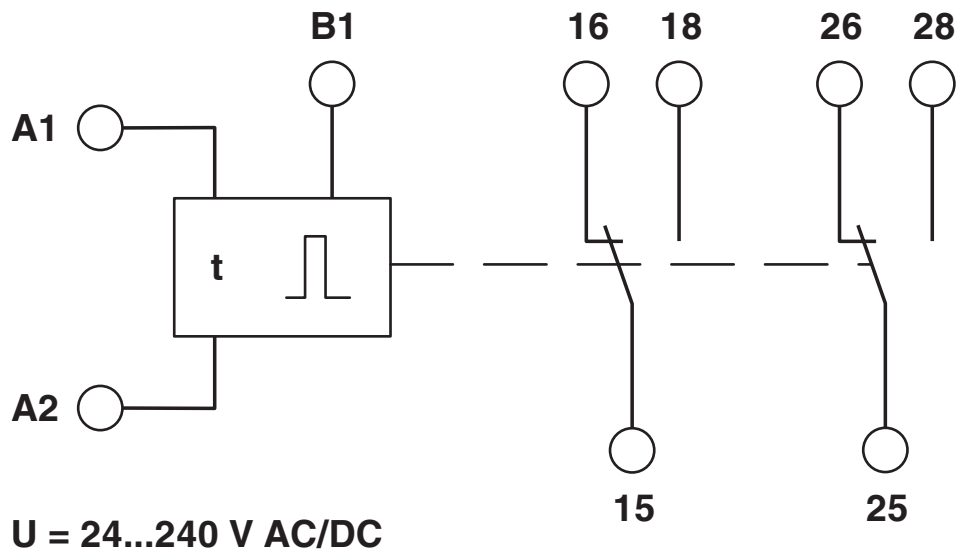
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Drawings

Block diagram



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Classifications

ECLASS

ECLASS-15.0

27371605

ETIM

ETIM 9.0

EC001439

UNSPSC

UNSPSC 21.0

39122300

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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