

# 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
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### Product properties

Product type	Timer relay
Operating mode	100% operating factor
Mechanical service life	approx. $2 \times 10^7$ cycles

#### Insulation characteristics

Insulation	Basic insulation
Overtoltage category	III
Pollution degree	2

### Electrical properties

Service life electrical	approx. $2 \times 10^5$ 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	$\leq 0.01$ %/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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	20 ... 14
Tightening torque	1 Nm ... 1 Nm

## Signaling

Status display	Green LED (POWER) Yellow LED (relay active)
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## 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
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## 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
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### UL, USA/Canada

Identification	UL/C-UL Listed UL 508
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## 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
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## Standards and regulations

Standards/regulations	EN 50178
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## 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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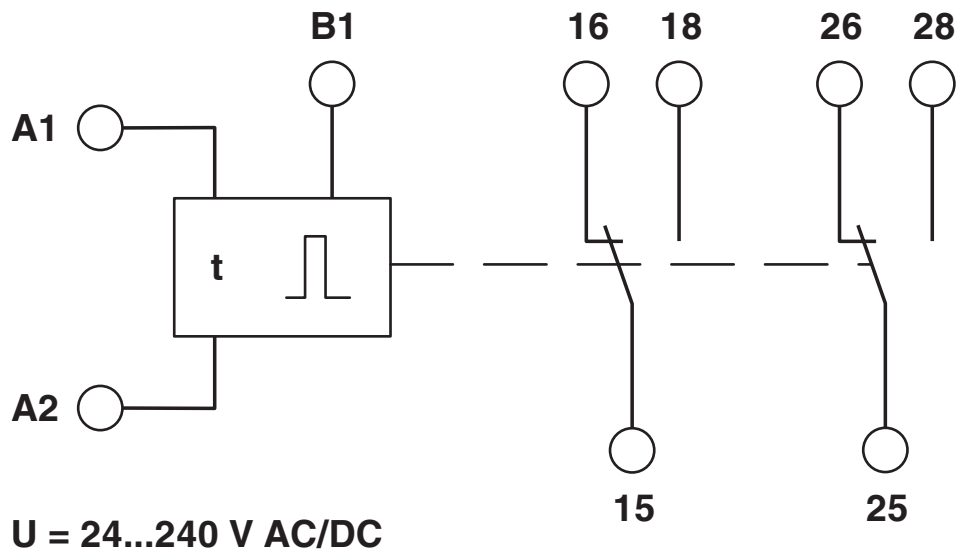
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## Drawings

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
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### 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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