

ETD-FL-2T-DTI - Timer relay

2866187

<https://www.phoenixcontact.com/pc/products/2866187>

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Multi-functional timer relay with 7 functions and two adjustable time ranges (50 ms - 10 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	2866187
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CK4421
Catalog page	Page 264 (C-5-2019)
GTIN	4046356046619
Weight per piece (including packing)	165 g
Weight per piece (excluding packing)	165 g
Customs tariff number	85364900
Country of origin	AT

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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. 2×10^7 cycles

Insulation characteristics

Insulation	Basic insulation
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Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Electrical properties

Service life electrical	approx. 2×10^5 cycles at ohmic load, 1000 VA
Nominal frequency	48 Hz ... 400 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	Ip: Switched-mode beginning with the pause Ii: Switched-mode beginning with the pulse ER: With switch-on and release delay with control contact EWu: With switch-on delay and single shot leading edge, voltage controlled EWs: With switch-on delay and single shot leading edge with control contact WsWa: With single shot leading edge and single shot trailing edge with control contact Wt: Pulse sequence evaluation (retriggerable release delay)
Setting range time	50 ms ... 10 h (10 time end ranges)
Basic accuracy	± 1 % (With 1 M Ω remote potentiometer, from scale end value)

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Setting accuracy	≤ 5 % (With 1 MΩ remote potentiometer, from scale end value)
Repeat accuracy	≤ 0.5 % ±5 ms

Control

Connection name	Floating, basic isolation between connection and input/output/bridge Y1-Y2
Load capacity	Cannot carry load
Cable length	< 10 m
Control pulse length	min. 50 ms (only with Wt function: > 7 ms)
Maximum control voltage	5 V
Maximum short-circuit current	1 mA

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)
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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
Housing insulation material	Polyamide PA, self-extinguishing

Environmental and real-life conditions

Ambient conditions

Degree of protection (Housing)	IP40 (Housing)
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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

Low Voltage Directive	Conformance with Low Voltage Directive
Noise immunity	EN 61000-6-2
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

Standards and regulations

Standards/regulations	EN 50178
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Mounting

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

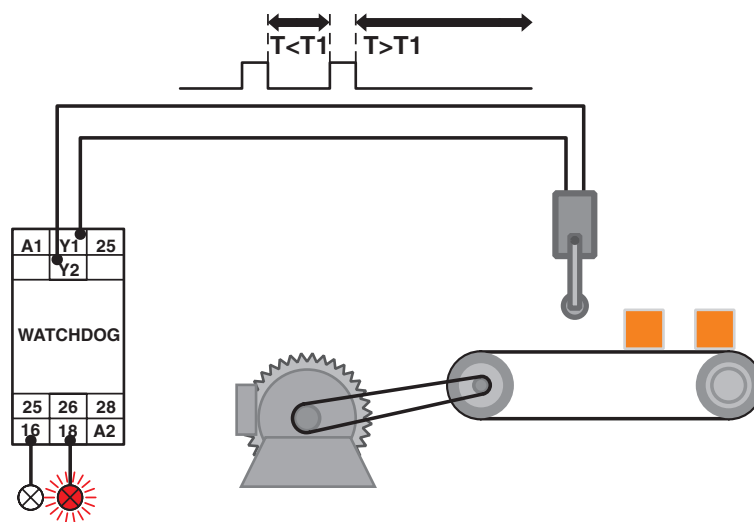
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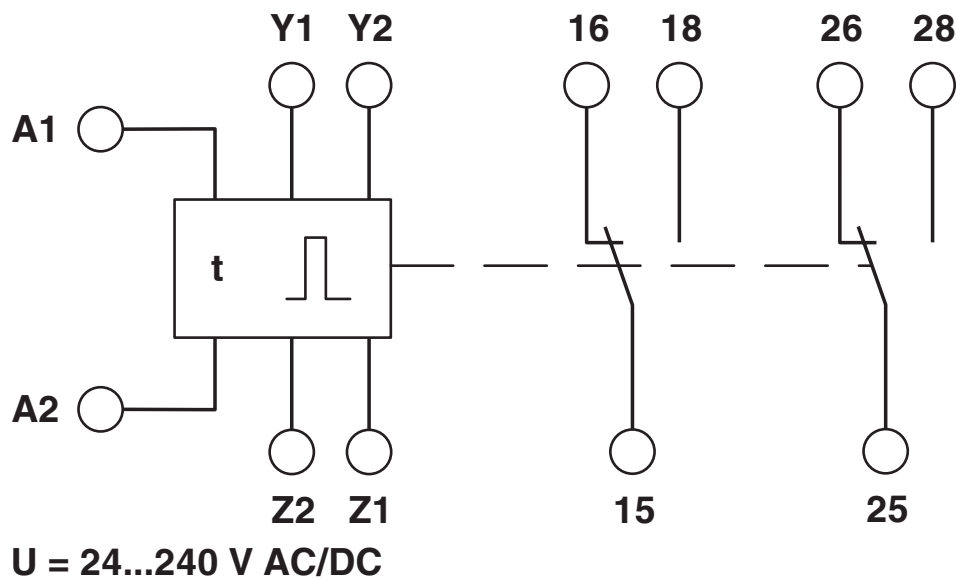
Drawings

Application drawing



Message for incorrect pulse

Block diagram



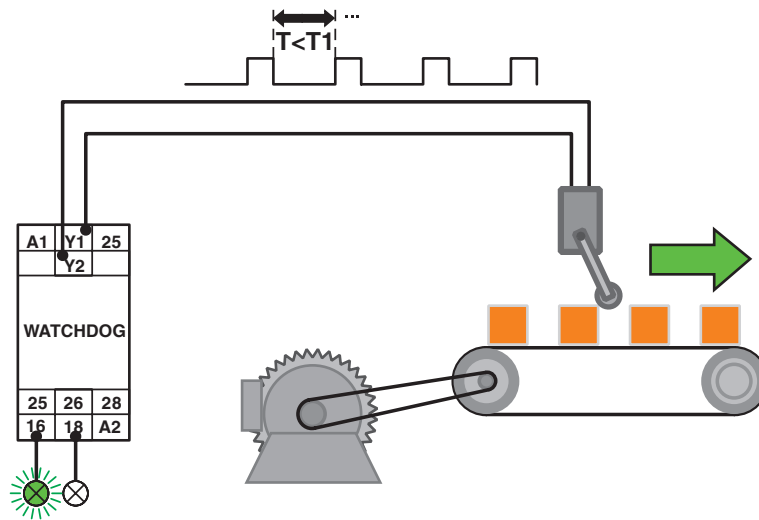
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Application drawing



Function: Pulse sequence evaluation

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Classifications

ECLASS

ECLASS-11.0

27371605

ETIM

ETIM 8.0

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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