

PLC-OPT-LPE-24DC/48DC/100 - Timer module



2903173

<https://www.phoenixcontact.com/us/products/2903173>

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1-channel pulse expansion module, input: 24 V DC, output: 3 - 48 V DC/100 mA, supply: 24 V DC, Push-in connection

Product description

DIP switch settings:

Function

DIP A low - no restart when triggered again (default)

DIP A high - restart when triggered again

DIP B low - input pulse time > 2 ms (default)

DIP B high - input pulse time > 100 µs

Pulse expansion times

DIP 1 - 10 ms

DIP 2 - 20 ms

DIP 3 - 40 ms

DIP 4 - 80 ms

DIP 5 - 160 ms

DIP 6 - 320 ms

DIP 7 - 640 ms

DIP 8 - 1280 ms

No DIP switch set: no switching function for the output

If the input signal is longer than the selected time, the output is switched off after removal of the input signal.

The settings are applied after a voltage reset of the rated control supply voltage.

Commercial data

Item number	2903173
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C461
Product key	DK62A3
GTIN	4046356727860
Weight per piece (including packing)	35.9 g
Weight per piece (excluding packing)	32.35 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Product properties

Product type	Solid-state relay module
Product family	PLC-INTERFACE
Application	Pulse stretching
Operating mode	100% operating factor

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

Data management status

Date of last data management	20.03.2025
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Electrical properties

Maximum power dissipation for nominal condition	0.07 W
Test voltage (Input/output)	2.5 kV _{rms} (50 Hz, 1 min., input/output)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	50 V DC
Rated surge voltage	0.5 kV

Input data

Rated control circuit supply voltage U_S	24 V DC
Voltage range with reference to U_S	0.8 ... 1.2
Rated control supply current I_S	13 mA (Input low, output low)
	19 mA (Input high, output high)
Rated actuating voltage U_C	24 V DC
Rated actuating current I_C	3 mA
Input voltage range	19.2 V DC ... 28.8 V DC
"0" signal switching threshold in reference to U_C	< 0.4
"1" signal switching threshold in reference to U_C	> 0.8
Status display	LED (yellow)
Operating voltage display	Green LED
Protective circuit	Reverse polarity protection
	Surge protection
Surge voltage protection	> 33 V DC

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	3 V DC ... 48 V DC
Limiting continuous current	100 mA

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Surge voltage protection	> 54 V DC
Voltage drop at max. limiting continuous current	< 1 V DC
Output circuit	3-conductor, ground-referenced
Protective circuit	Reverse polarity protection
	Surge protection
	Free running

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
	0.2 mm ² ... 2.5 mm ² (Single ferrule)
	2x 0.5 mm ² ... 1 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

Color	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 75 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	IEC 60947-5-1
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Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

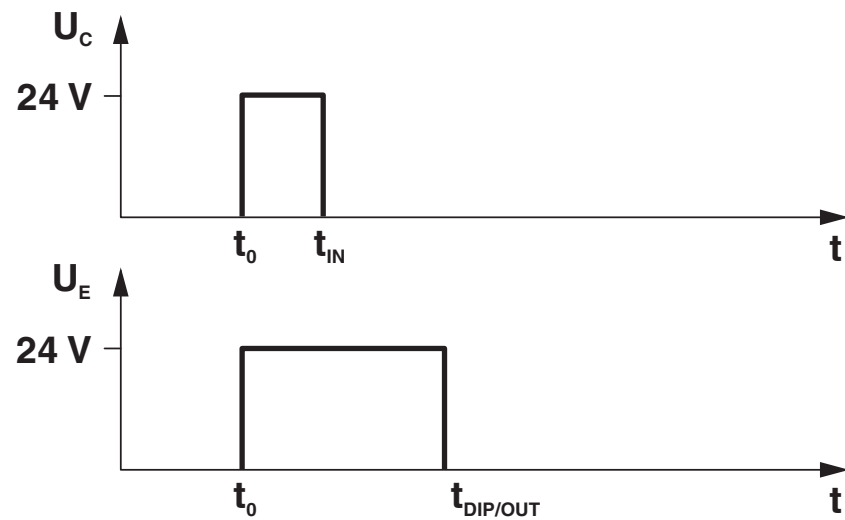
Drawings

Connection diagram

t_{DIP}							
S1	S2	S3	S4	S5	S6	S7	S8
10	—	—	—	—	—	—	—
—	20	—	—	—	—	—	—
—	—	40	—	—	—	—	—
—	—	—	80	—	—	—	—
—	—	—	—	160	—	—	—
—	—	—	—	—	320	—	—
—	—	—	—	—	—	640	—
—	—	—	—	—	—	—	1280

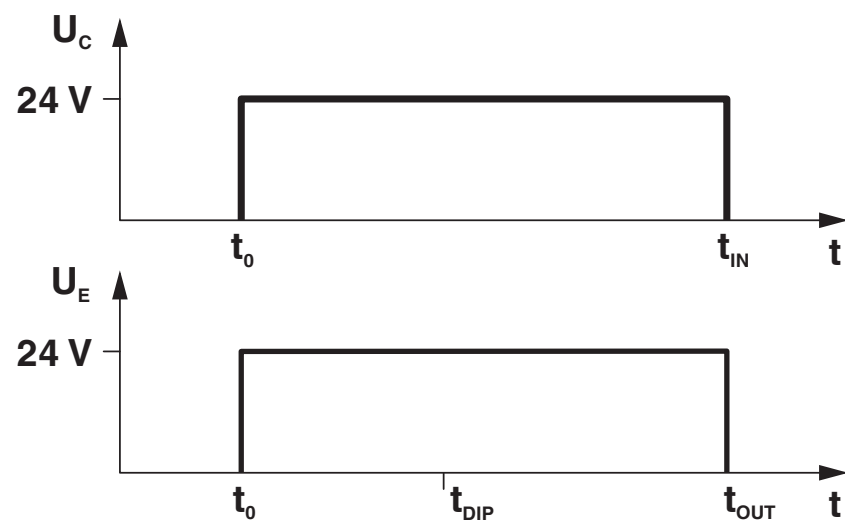
DIP switches

Diagram



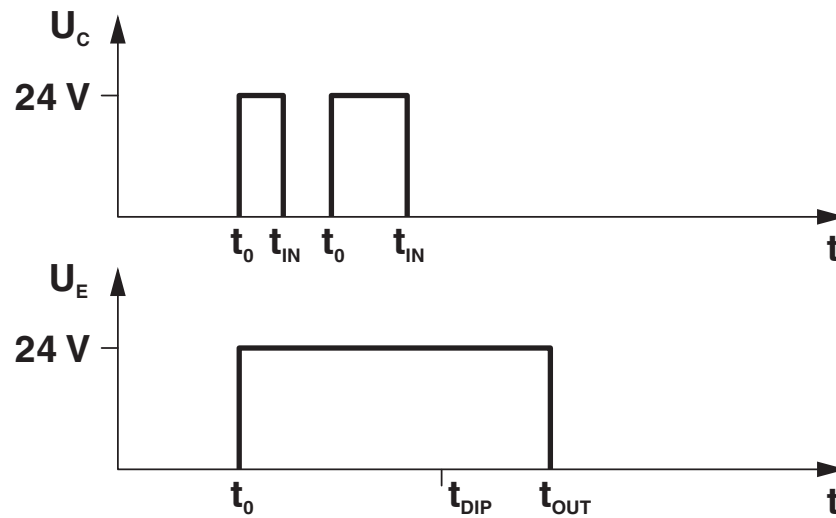
Input pulse $t_{IN} <$ set output pulse t_{DIP} (no restart when triggered again)

Diagram



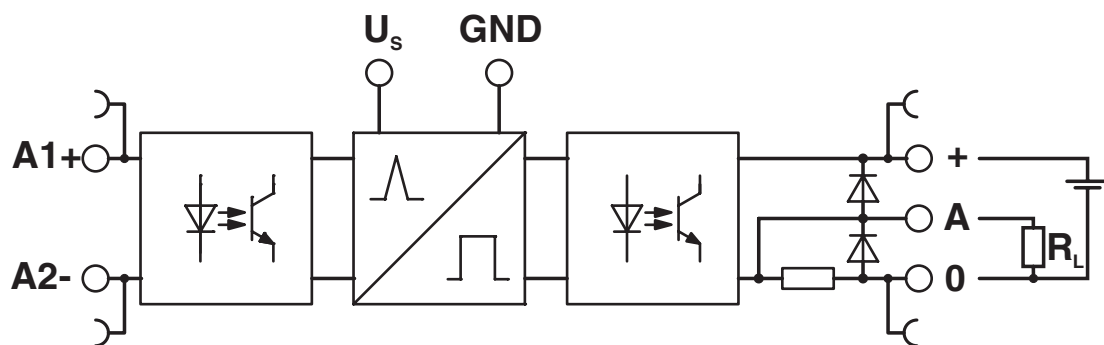
Input pulse $t_{IN} \geq$ set output pulse t_{DIP} , then input pulse $t_{IN} =$ output pulse t_{OUT} (no restart when triggered again)

Diagram



Input pulse $t_{IN} < \text{set output pulse } t_{DIP}$ (restart when triggered again)

Circuit diagram



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Approvals

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903173>



EAC

Approval ID: RU C-DE.A*30.B.01082



EAC

Approval ID: RU*DE.*08.B.01536/19



cULus Listed

Approval ID: E140324

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Classifications

ECLASS

ECLASS-13.0	27371604
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ETIM

ETIM 9.0	EC001504
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	8bc08110-d020-4612-b35c-ef7d9b5d4ebf