# PLC-OSC-LPE-24DC/48DC/100 - Timer module

2903171

https://www.phoenixcontact.com/us/products/2903171

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1-channel pulse expansion module, input: 24 V DC, output: 3 - 48 V DC/100 mA, supply: 24 V DC, screw 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 | 2903171 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C461 |
| Product key | DK6223 |
| GTIN | 4046356727853 |
| Weight per piece (including packing) | 41.1 g |
| Weight per piece (excluding packing) | 34.16 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 | 29.10.2026 |

## 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 |

| | |
|---|---|
| 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 | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross-section rigid | 0.14 mm² ... 2.5 mm² |
| Conductor cross-section flexible | 0.14 mm² ... 2.5 mm² |
| | 0.2 mm² ... 2.5 mm² (Single ferrule) |
| | 2x 0.5 mm² ... 1.5 mm² (TWIN ferrule) |
| Conductor cross-section AWG | 26 ... 14 |
| Tightening torque | 0.45 Nm ... 0.55 Nm (Usually these terminal blocks must be supported during conductor connection (held by one hand, supported on the housing)) |

## Dimensions

Item dimensions

| | |
|---|---|
| Width | 6.2 mm |
| Height | 80 mm |
| Depth | 94 mm |

## Material specifications

| | |
|---|---|
| Color | gray (RAL 7042) |

## 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 |

## Mounting

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

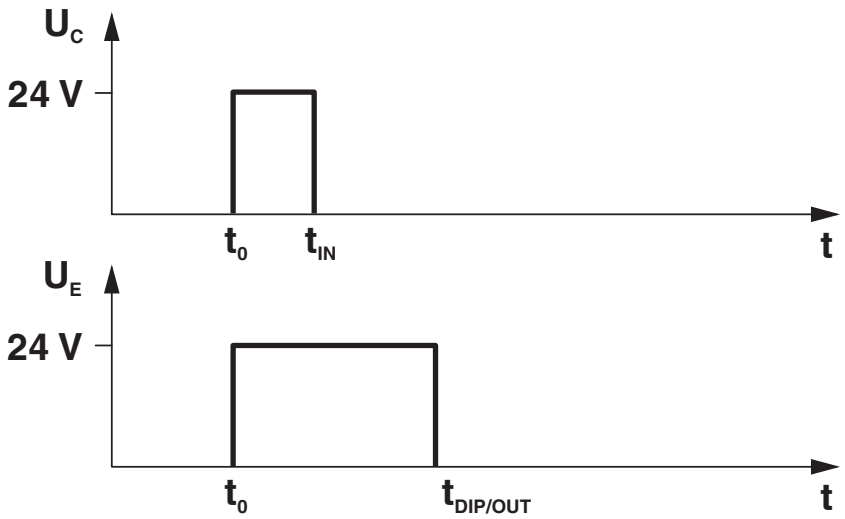
## Drawings

Connection diagram

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

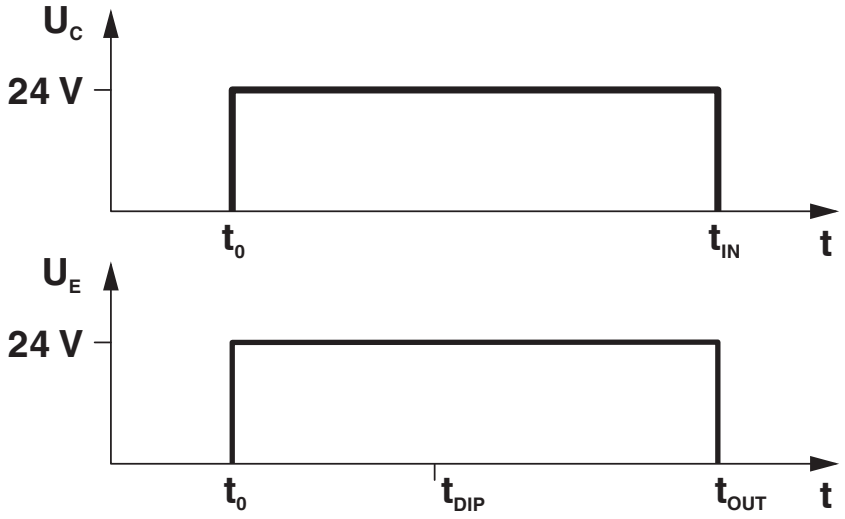
DIP switches

Diagram



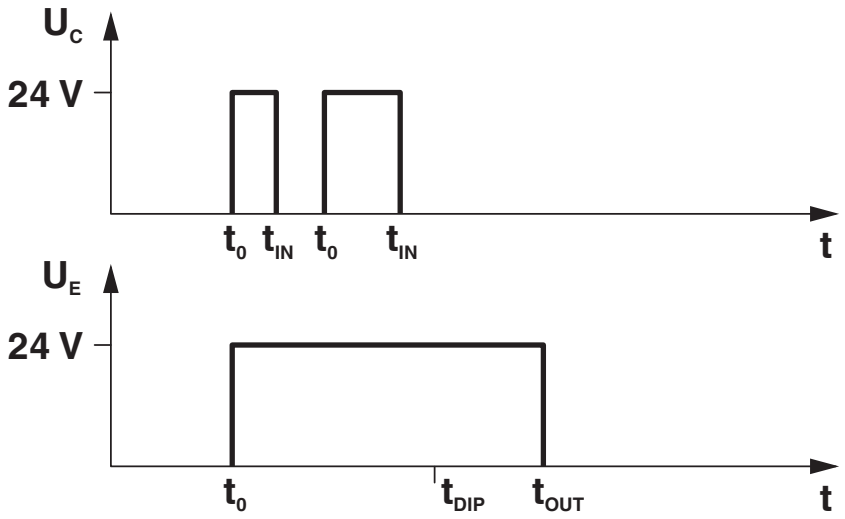

Input pulse $t_{IN}$ < set output pulse $t_{DIP}$ (no restart when triggered again)

Diagram



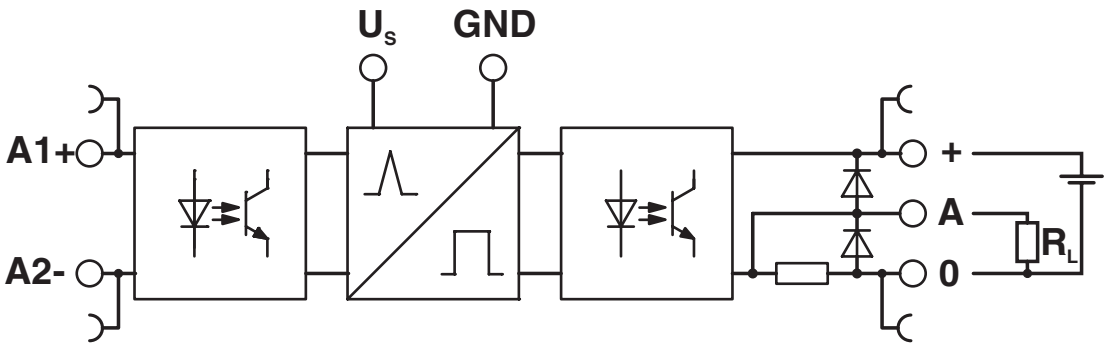

Input pulse $t_{IN}$ ≥ set output pulse $t_{DIP}$, then input pulse $t_{IN}$ = output pulse $t_{OUT}$ (no restart when triggered again)

Diagram




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

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2903171

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

**cULus Listed**
Approval ID: E140324

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27371604 |
| ECLASS-15.0 | 27371604 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001504 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39122300 |

## 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 | 10fba99f-eac2-46fe-940a-578d3e643167 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 3.069 kg CO2e |

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