

Data sheet

MFRk-E08 F 230 V AC, 24 V AC/DC

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P/N

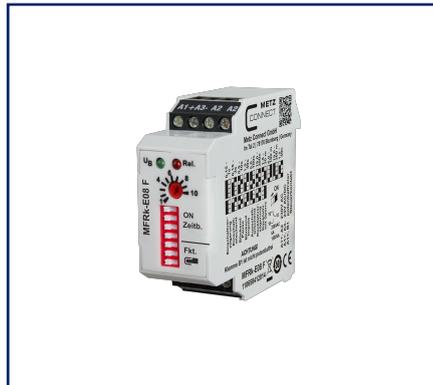
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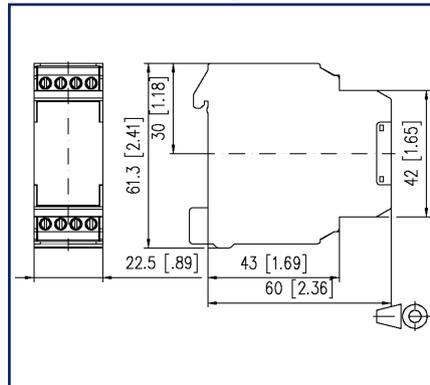
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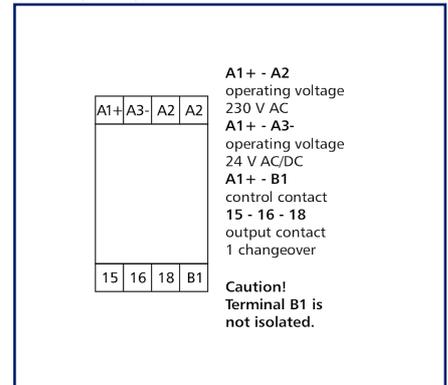
Illustrations



Dimensional drawing



Wiring diagram



See enlarged drawings at the end of document

Product specification

Multifunctional timer relay with incorporated coding switches to set functions. The time is set by means of a linear potentiometer on a relative scale.

- Connection with screw type terminal blocks
- Ten adjustable time ranges from 0.05 s to 30 h
- Seven selectable functions
 1. On-delayed
 2. Making-pulse interval
 3. Off-delay
 4. Breaking-pulse interval
 5. Flashing for pause start
 6. Flashing for pulse start
 7. Off-delay with control contact B1 inhibition

Technical Data

| Supply | |
|---|-------------------------------------|
| Operating voltage | 230 V AC / 24 V AC/DC -10% ... +10% |
| Frequency range | 50 ... 60 Hz |
| Power consumption | |
| Power consumption 230 V AC | 5.2 VA |
| Power consumption 24 V AC | 0.5 VA |
| Power consumption 24 V DC | 0.3 W |
| Duty cycle relative | 100 % |
| Response time typical | 20 ms |
| Release time typical | 20 ms |
| Fallback voltage range | >= 0.15 UN |
| Time Ranges | |
| Time range adjustable | 0.05 s - 30 h |
| Repeatability | +/- 0.01 % |
| Repeatability in the smallest time range (max.) | +/- 0.1 % |
| Inputs | |
| Minimum switch-on duration | |
| Minimum switch-on duration (control contact) | >= 5 ms |
| Minimum switch-on duration DC | >= 0.2 s |
| Minimum switch-on duration AC | >= 0.3 s |
| Outputs | |
| Contacts | 1 changeover contact |
| Contact material | AgSnO ₂ |
| Switching voltage (max.) | 250 V AC |
| Continuous Current | 6 A |
| Protection | 6 A |
| Switching frequency | 1200 switching cycles/h |
| Mechanical life | 1x10 ⁷ switching cycles |
| Electrical life | 1x10 ⁵ switching cycles |

Technical Data

Outputs

| | |
|---------------------------------|-------------------|
| Recovery time | |
| Recovery time (control contact) | ≥ 10 ms |
| Recovery time 24 V AC | 10 ... 30 ms |
| Recovery time 24 V DC | 10 ... 30 ms |
| Recovery time 230 V AC | 10 ... 30 ms |
| Indicator | green and red LED |

Insulation coil - contact set

| | |
|--|--|
| Nominal voltage of the power supply system | 230 / 400 V AC |
| Overvoltage category | III II |
| Degree of pollution | 2 2 |
| Rated test voltage | 4 kV 2.5 kV |
| Type of insulation | basic insulation reinforced insulation |

Housing

| | |
|-----------------------|-----------------------------------|
| Dimensions | |
| Dimension (W x H x D) | 22.5 mm x 61.3 mm x 60 mm |
| Dimension (W x H x D) | 0.886 in. x 2.413 in. x 2.362 in. |
| Weight | 70 g |
| Mounting style | Standard rail TH35 |
| Mounting position | any |
| Apposition | without distance |
| Connection type | Screw type terminal blocks |

Terminal blocks

| | |
|--------------------------------------|--|
| Wire cross section solid | 0.34 mm ² - 2.5 mm ² / AWG 22-12 |
| Wire cross section multi | 0.25 mm ² - 2.5 mm ² / AWG 22-12 |
| Wire cross section with wire ferrule | 0.25 mm ² - 2.5 mm ² / AWG 22-12 |
| Screw torque (max.) | 0.5 Nm |
| Stripping length (min.) | 8 mm |

Technical Data

Material

| | |
|---------------------------|-----------------|
| Material - Housing | Polyamid 6.6 V0 |
| Color | gray |
| Material - Terminal block | Polyamid 6.6 V0 |
| Material - Covers | Polyamid 6.6 V0 |

Protection category according to IEC 60529

| | |
|---|------|
| Protection category - housing (acc. to IEC 60529) | IP40 |
| Protection category - terminal blocks (acc. to IEC 60529) | IP20 |

Climatic Data

Operating

| | |
|----------------------------|--------------------------|
| Temperature - Operating °C | -10 °C - 55 °C |
| Temperature - Operating °F | 14 °F - 131 °F |
| Relative humidity | max. 85 % non-condensing |

Storage

| | |
|--------------------------|-----------------|
| Temperature - Storage °C | -25 °C - 70 °C |
| Temperature - Storage °F | -13 °F - 158 °F |

Power loss

| | |
|----------------------|-----|
| Power loss (typical) | 1 W |
|----------------------|-----|

Classifications

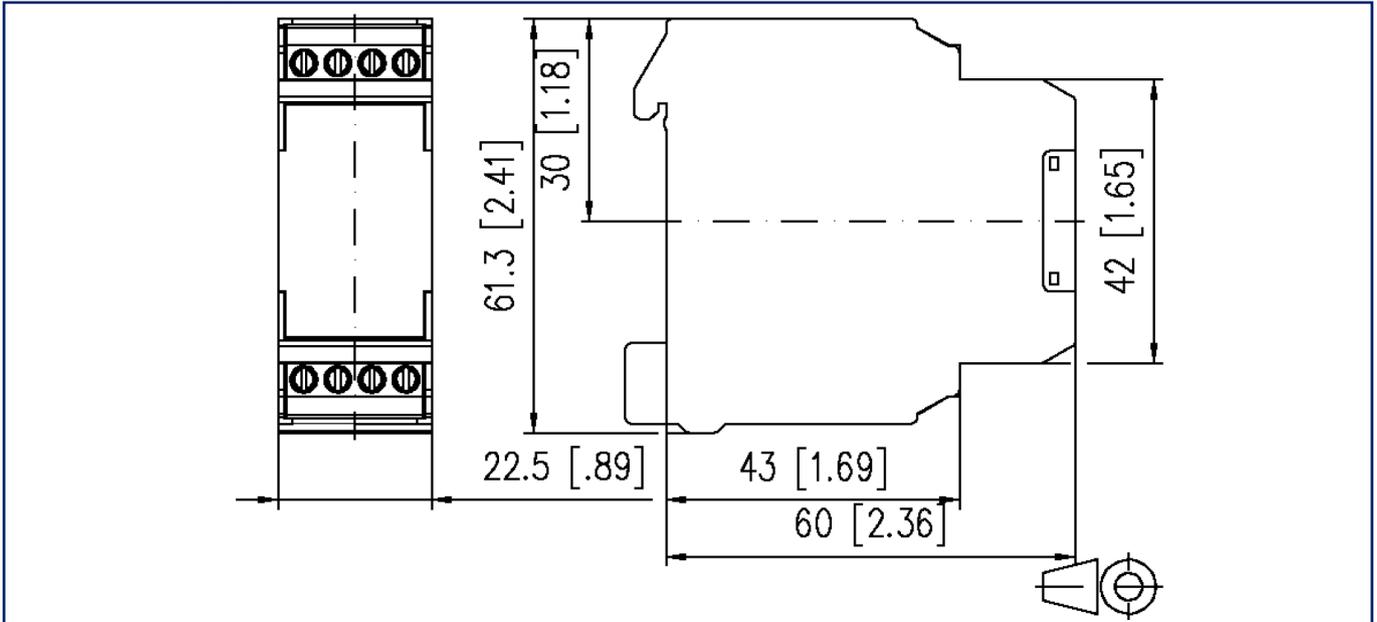
| | |
|-----------|----------|
| ETIM 7.0 | EC001439 |
| ETIM 8.0 | EC001439 |
| ETIM 9.0 | EC001439 |
| ETIM 10.0 | EC001439 |

Application note

This product is a standard product of METZ CONNECT. METZ CONNECT is not aware of the specific intended use of the goods by the Customer or any customers of the Customer. The Customer guarantees that it has fully and sufficiently tested the use of the goods and any product modifications, product changes or product enhancements with regard to the specific intended use in accordance with the state of the art or in any other way. At METZ CONNECT's request, the Customer shall submit and make available meaningful evidence (e.g. test and laboratory protocols, certifications, etc.).

Illustrations

Dimensional drawing



Wiring diagram

| | | | |
|-----|-----|----|----|
| A1+ | A3- | A2 | A2 |
| | | | |
| 15 | 16 | 18 | B1 |

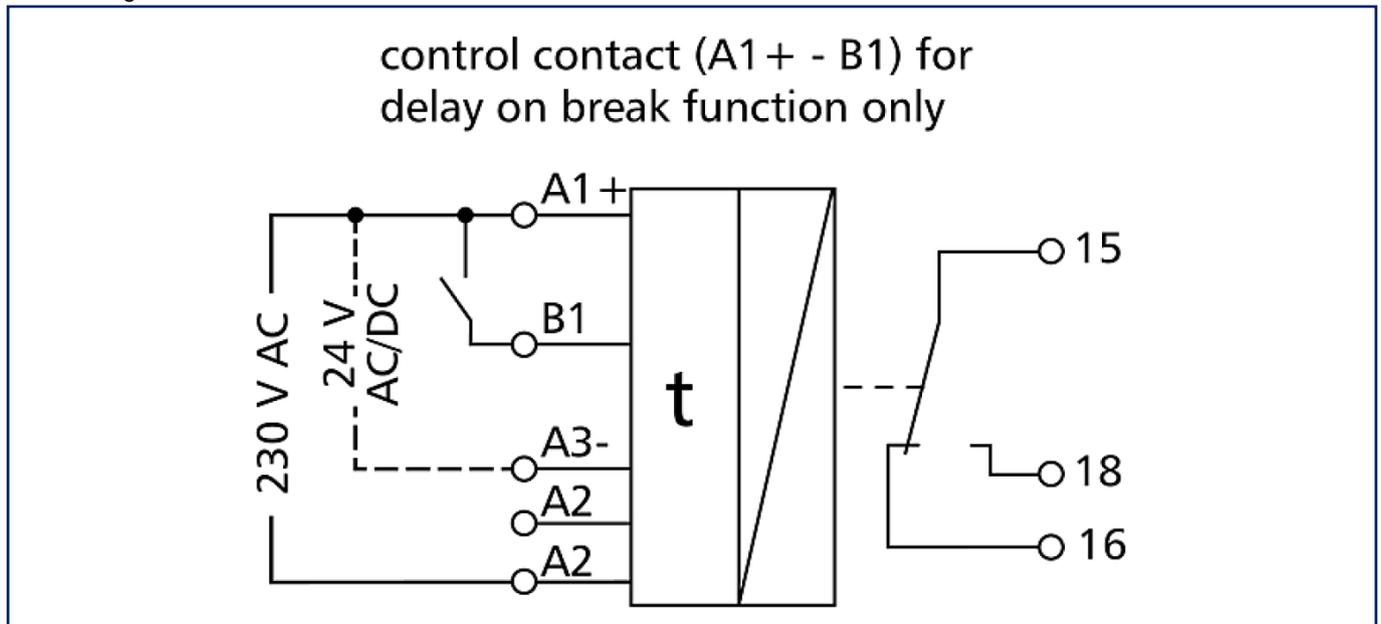
A1+ - A2
 operating voltage
 230 V AC
A1+ - A3-
 operating voltage
 24 V AC/DC
A1+ - B1
 control contact
15 - 16 - 18
 output contact
 1 changeover

Caution!
Terminal B1 is not isolated.

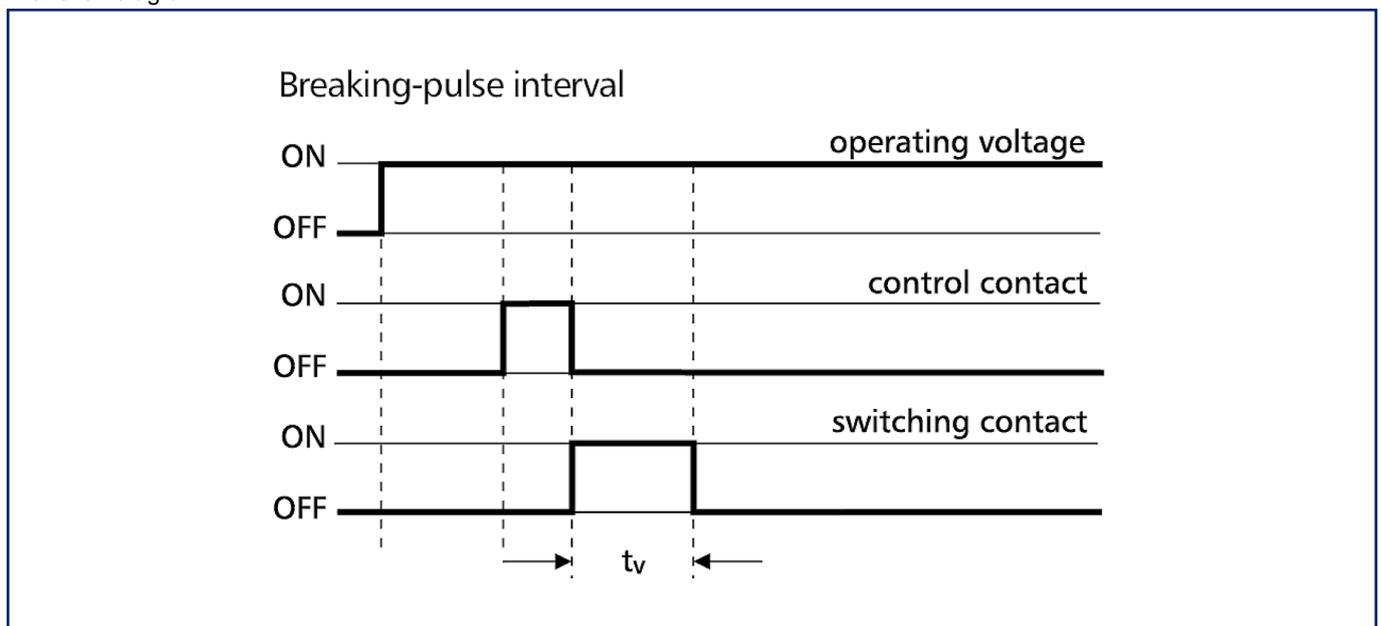


Illustrations

Circuit diagram

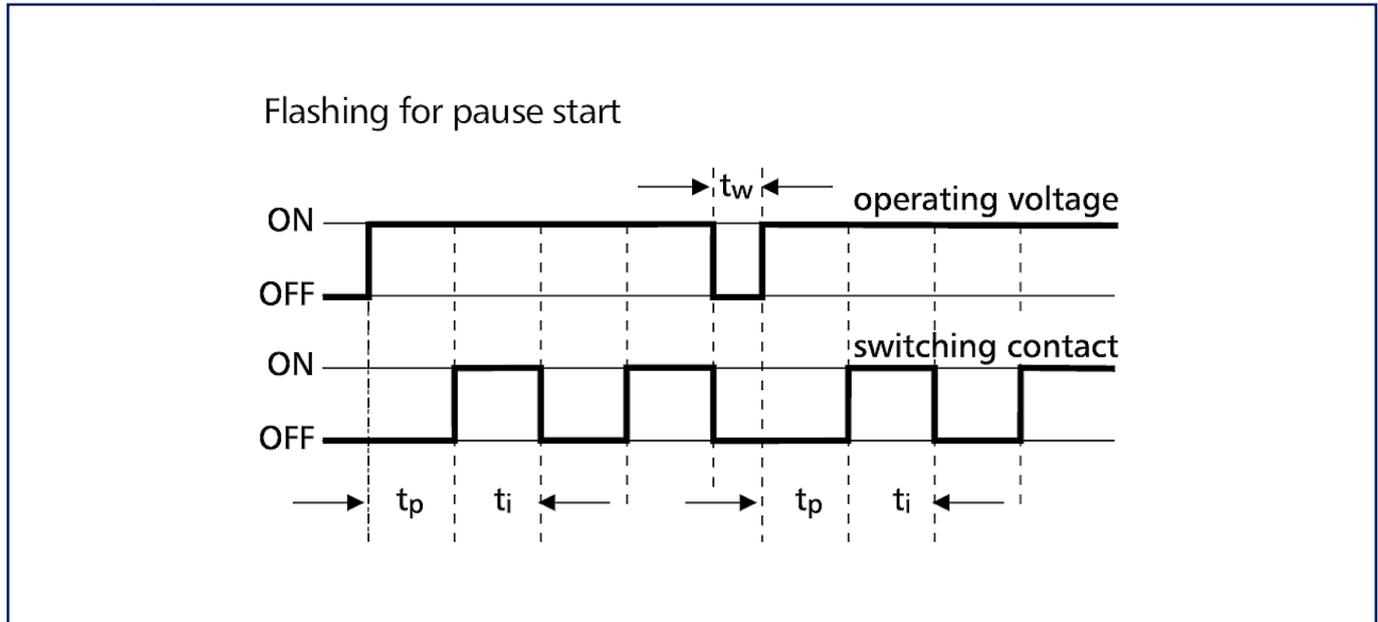


Function diagram

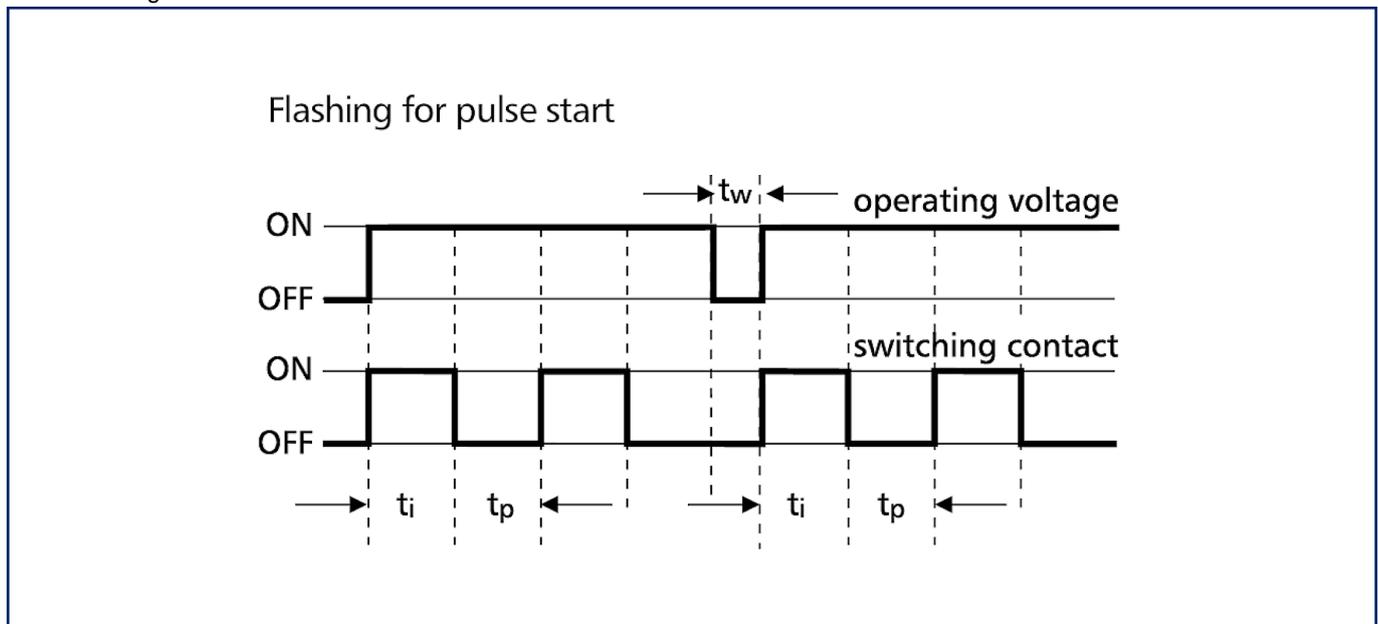


Illustrations

Function diagram

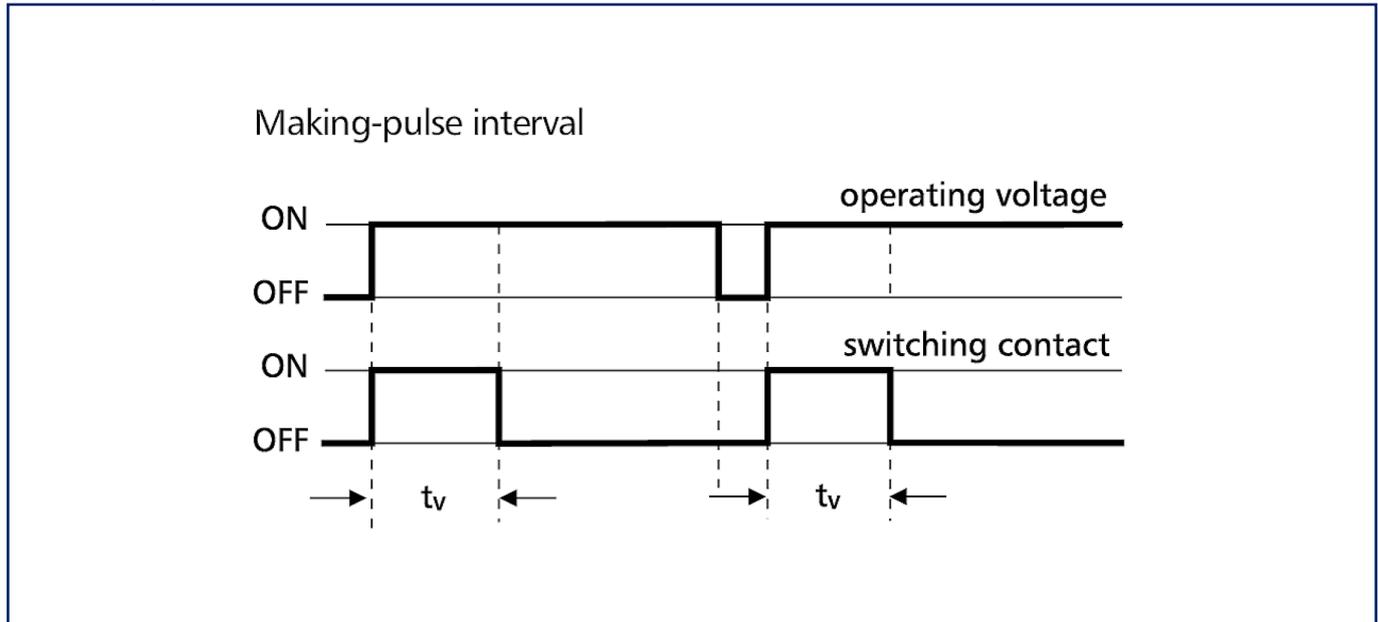


Function diagram

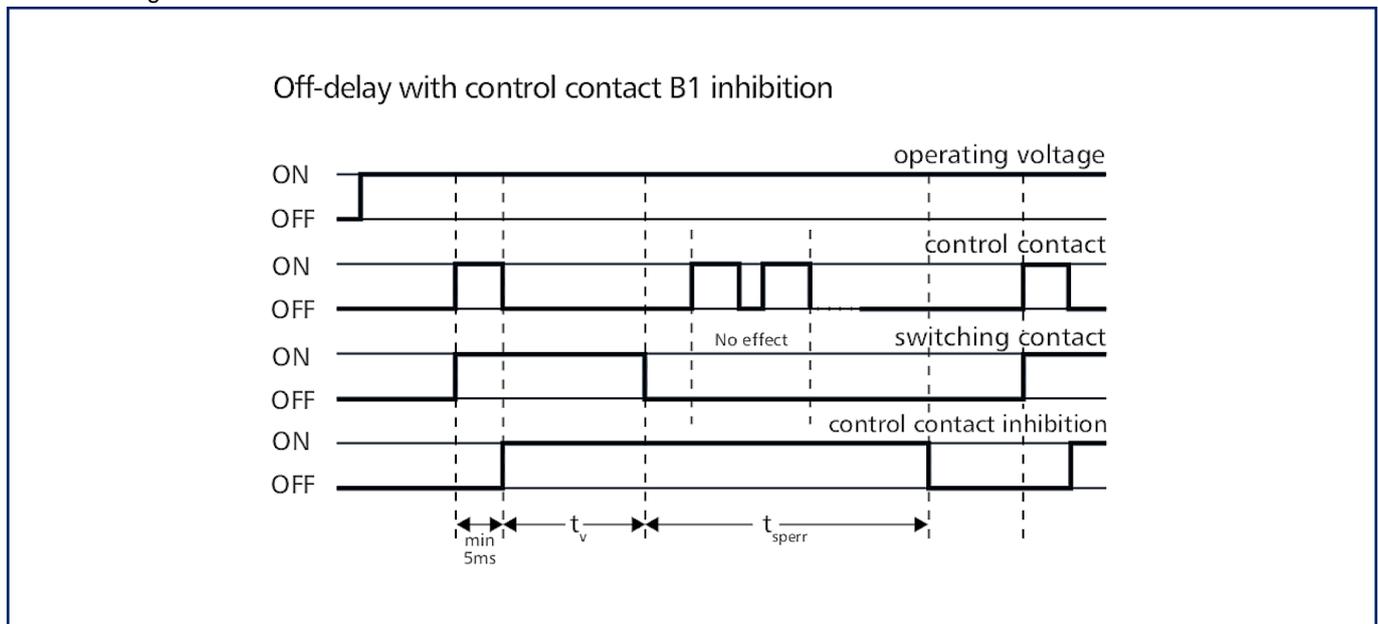


Illustrations

Function diagram

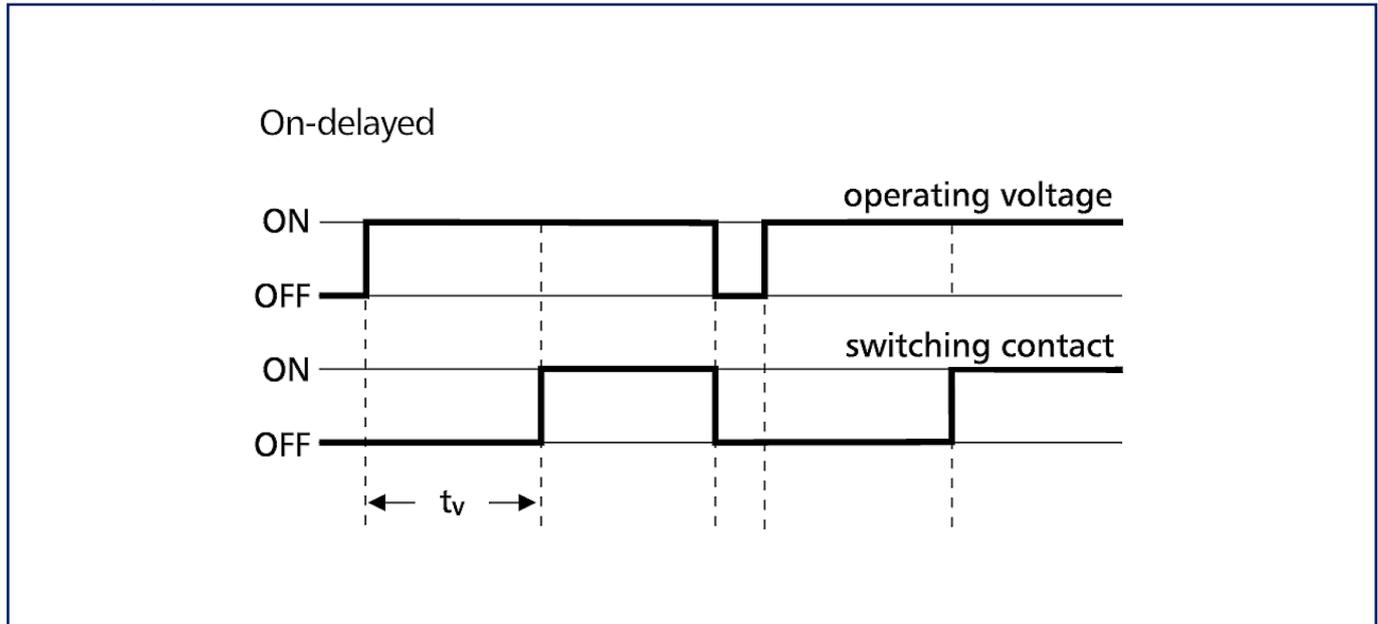


Function diagram



Illustrations

Function diagram



Function diagram

