

## Power Relay 41083 3mm

- 1 pole 16A, 1 form X, double make, bridging contact
- Contact gap >3mm
- Switching capacity 4000VA
- Coil power 360mW
- 4kV/8mm coil-contact, insulation to VDE 0631 and 0700
- Ambient temperature 85°C; max. 105° at 10A
- Quick connect terminals for load side
- Materials in accordance to IEC 60335-1

### Typical applications

Washing machines, tumble dryers, absolute safe power supply  
disconnection in other domestic applications.



### Approvals

VDE REG.-Nr. 40001454, UL E214025

Technical data of approved types on request.

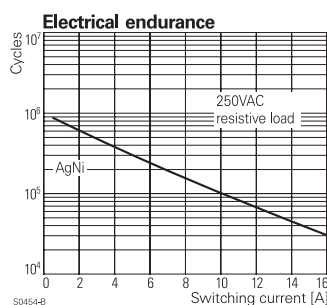
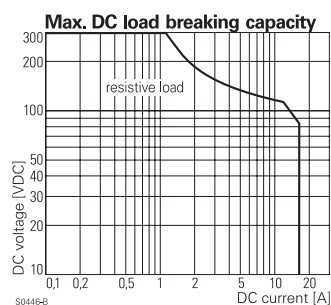
### Contact Data

|                                                   |                                  |
|---------------------------------------------------|----------------------------------|
| Contact arrangement                               | 1 form X, double make (NO)       |
| Contact gap                                       | >3mm/full disconnection          |
| Rated voltage                                     | 250VAC                           |
| Max. switching voltage                            | 400VAC                           |
| Rated current                                     | 16A                              |
| Limiting making current, max. 4s, duty factor 10% | 20A                              |
| Breaking capacity max.                            | 4000VA                           |
| Contact material                                  | AgNi                             |
| Contact style                                     | single contact, bridging contact |
| Frequency of operation, with/without load         | 600/36000h <sup>-1</sup>         |

### Contact ratings

| Type             | Contact | Load                         | Cycles              |
|------------------|---------|------------------------------|---------------------|
| <b>IEC 61810</b> |         |                              |                     |
| 410 83           | A (NO)  | 16A, 250VAC resistive, 85°C  | 30x10 <sup>3</sup>  |
| 410 83           | A (NO)  | 10A, 250VAC resistive, 105°C | 100x10 <sup>3</sup> |
| 410 83           | A (NO)  | 10A, 400VAC resistive, 105°C | 100x10 <sup>3</sup> |

Mechanical endurance >1x10<sup>6</sup> operations



### Coil Data

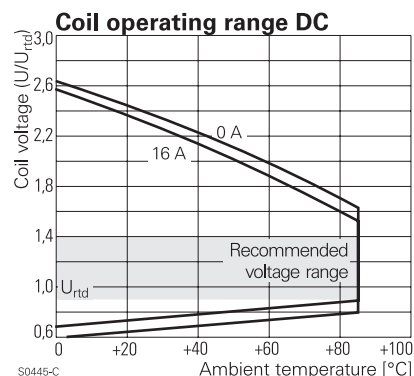
|                                         |            |
|-----------------------------------------|------------|
| Coil voltage range                      | 6 to 60VDC |
| Operative range, IEC 61810              | 1          |
| Coil insulation system according UL1446 | class F    |

### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 053       | 9                 | 5.9                 | 0.68                | 230                               | 360                 |
| 054       | 6                 | 3.9                 | 0.45                | 100                               | 360                 |
| 050       | 12                | 7.9                 | 0.9                 | 400                               | 360                 |
| 046       | 24                | 15.8                | 1.8                 | 1600                              | 360                 |
| 043       | 48                | 31.6                | 3.6                 | 6400                              | 360                 |
| 042       | 60                | 39.5                | 4.5                 | 10000                             | 360                 |

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Other coil voltages on request.



### Insulation Data

|                                    |                      |
|------------------------------------|----------------------|
| Initial dielectric strength        |                      |
| between open contacts              | 2500V <sub>rms</sub> |
| between contact and coil           | 4000V <sub>rms</sub> |
| Initial surge withstand voltage    |                      |
| between contact and coil           | 8000V (1.2/50μs)     |
| Clearance/creepage                 |                      |
| between contact and coil           | ≥8/8mm               |
| Material group of insulation parts | IIIa                 |
| Tracking index of relay base       | PTI250V              |

**Power Relay 41083 3mm** (Continued)

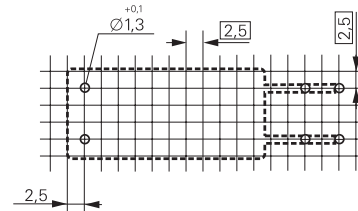
**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

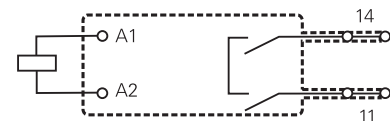
|                                                                |                                      |
|----------------------------------------------------------------|--------------------------------------|
| Resistance to heat and fire                                    |                                      |
| WG version                                                     | according EN60335-1, par.30          |
| Ambient temperature                                            | -20 to +85°C<br>max. +105°C at 10A   |
| Category of environmental protection                           |                                      |
| IEC 61810                                                      | RTII - flux proof                    |
| Vibration resistance (functional),<br>form A (NO), 10 to 500Hz | 10g                                  |
| Shock resistance (destructive)                                 | 100g                                 |
| Terminal type                                                  | PCB-THT, quick connect for load side |
| Weight                                                         | 24g                                  |
| Resistance to soldering heat THT                               |                                      |
| IEC 60068-2-20, flux proof version                             | 270°C/10s                            |
| Packaging/unit                                                 | tray/75 pcs., box/1050 pcs.          |

**PCB layout / terminal assignment**

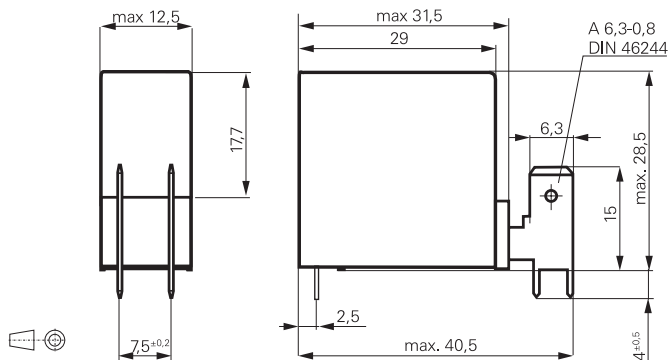
Bottom view on solder pins



1 form X, double make contact



**Dimensions**



**Product code structure**

Typical product code **041083 050 001 WG**

|                |                                                                        |
|----------------|------------------------------------------------------------------------|
| <b>Type</b>    | <b>41083</b> Power Relay 410 83 3 mm                                   |
| <b>Coil</b>    | Coil code: please refer to coil versions table                         |
| <b>Version</b> | <b>001</b> 1 form X, double make (NO) contact                          |
| <b>Version</b> | <b>WG</b> Product in accordance with IEC 60335-1 (domestic appliances) |

Other types on request.

| Product code      | Contact arrangement | Contact material | Coil  | Version              | Part Number |
|-------------------|---------------------|------------------|-------|----------------------|-------------|
| 0410 83 046 001   | 1 form X            | AgNi             | 24VDC | Standard             | 4-1415410-8 |
| 0410 83 046 001WG | double make (NO)    |                  |       | IEC60335-1 compliant | 8-1415536-6 |
| 0410 83 050 001WG | 3mm contact gap     |                  | 12VDC |                      | 8-1415536-7 |
| 0410 83 053 001WG |                     |                  | 9VDC  |                      | 8-1415536-8 |
| 0410 83 054 001WG |                     |                  | 6VDC  |                      | 8-1415536-9 |

This list represents the most common types and does not show all variants covered by this datasheet.  
Other types on request.