

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.

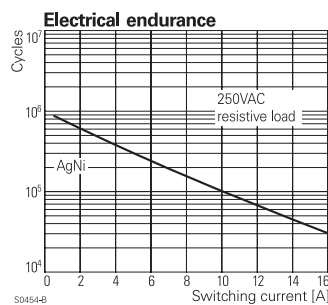
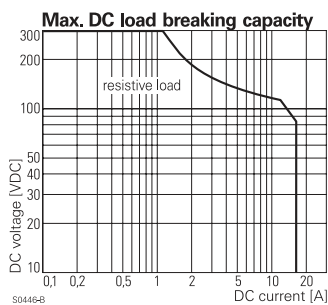
Contact Data

| | |
|---------------------------------------------------|----------------------------------|
| 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 ⁻¹ |

Contact ratings

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

Mechanical endurance >1x10⁶ operations



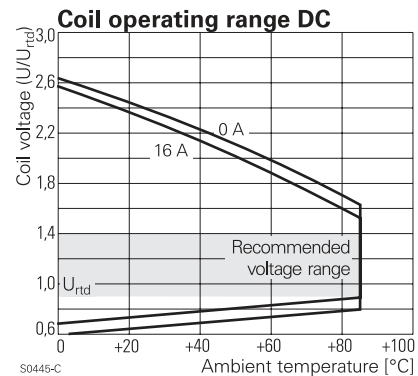
Coil Data

| | |
|-----------------------------------------|------------|
| 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 Ω±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 _{rms} |
| between contact and coil | 4000V _{rms} |
| 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)

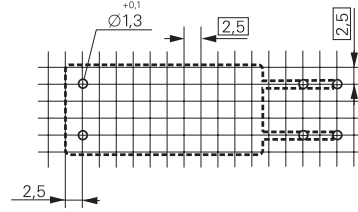
Other Data

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

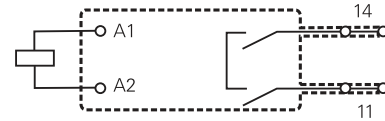
| | |
|-------------------------------------------------------------|--------------------------------------|
| Resistance to heat and fire | |
| WG version | according EN60335-1, par.30 |
| Ambient temperature | -20 to +85°C max. +105°C at 10A |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof |
| Vibration resistance (functional), 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

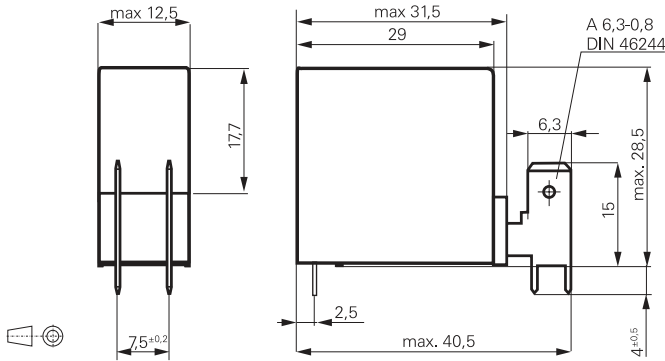
Bottom view on solder pins



1 form X, double make contact



Dimensions



Product code structure

Typical product code **041083 050 001 WG**

| | |
|----------------|------------------------------------------------------------------------|
| Type | 41083 Power Relay 410 83 3 mm |
| Coil | Coil code: please refer to coil versions table |
| Version | 001 1 form X. double make (NO) contact |
| Version | WG 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.