

Power PCB Relay RTH 105°C 16A

- 1 pole 16A, 1 form C (CO) or 1 form A (NO) contact
- Ambient temperature 105°C
- Sensitive coil 400mW
- 5kV/10mm coil-contact
- Reinforced insulation
- WG version: Product in accordance to IEC 60335-1



Typical applications
Oven control, cooking plate control.



Approvals

VDE Cert. No. 40007571, UL E214025, cCSAus 1142018
Technical data of approved types on request.

Contact Data

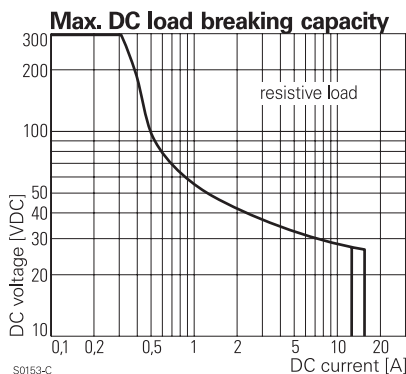
Contact arrangement	1 form C (CO) or 1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	16A ¹⁾
Limiting continuous current, form A/form B	16 / 26A
Limiting making current (form A contact) max. 4 s, duty factor 10 %	30A
Breaking capacity max.	4000VA
Contact material	AgNi 90/10
Frequency of operation, with/without load	360/72000h ⁻¹
Operate/release time max.	8/6ms
Bounce time max., form A/form B	4/6ms

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
RTH14	A (NO)	10A, 250VAC resistive, 105°C	150x10 ³
RTH14	C (CO)	16A, 250VAC resistive, 105°C	10x10 ³
RTH14	B (NC)	26A, 250VAC resistive, 85°C	500
RTH34	A (NO)	10A, 400VAC resistive, 105°C	150x10 ³
RTHH4	A (NO)	10A, 250VAC resistive, 105°C	250x10 ³
UL 508			
RTH14	A/B (NO/NC)	16A, 250VAC, resistive, 105°C	30x10 ³
RTH34	A (NO)	20A, 250VAC, general purpose, 105°C	6x10 ³

Mechanical endurance >30x10⁶ operations

1) Continuous thermal load >10A at 105°C requires reduction of coil power to 64% of rated power after 100ms.



Coil Data

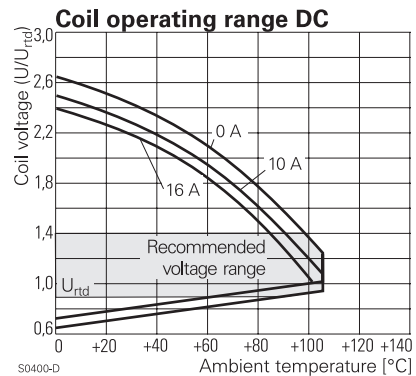
Coil voltage range	5 to 60VDC
Operative range, IEC 61810	90...110% U _{RTD}
Coil insulation system according UL1446	class F

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
009	9	6.3	0.9	203	399 ¹⁾
012	12	8.4	1.2	360	400 ¹⁾
024	24	16.8	2.4	1440	400 ¹⁾

1) Continuous thermal load > 10 A at 105°C requires reduction of coil power to 64% of rated power after 100ms.

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	1000V _{ms}
between contact and coil	5000V _{ms}
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

Power PCB Relay RTH 105°C 16A (Continued)

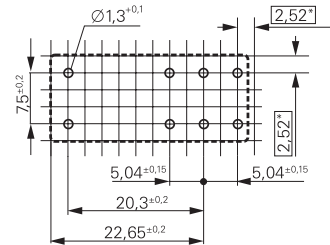
Other Data

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

Resistance to heat and fire	
WG version	according EN 60335-1, par.30
Ambient temperature -40 to 105°C	
Category of environmental protection IEC 61810	
	RTII - flux proof
Vibration resistance (functional) form A/form B contact, 30 to 150Hz	
	20/5g
Shock resistance (destructive)	
	100g
Terminal type	
	PCB-THT
Weight	
	14g
Resistance to soldering heat THT	
	IEC 60068-2-20 270°C/10s
Packaging/unit	
	tube/20 pcs., box/500 pcs.

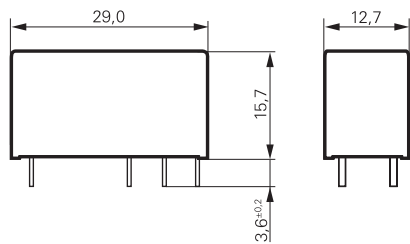
PCB layout / terminal assignment

16A, pinning 5mm

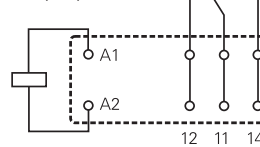


*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

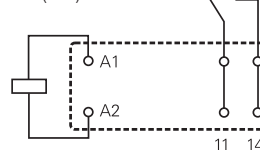
Dimensions



1 form C (CO) contact



1 form A (NO) contact



Product code structure

Typical product code **RT H 3 4 012 WG**

Type	RT Power PCB Relay RTH 105°C 16A
Version	H 16A, pinning 5mm, 105°C
Contact configuration	1 1 form C (CO) contact 3 1 form A (NO) contact H 1 form A (NO) contact „High Performance“
Contact material	4 AgNi 90/10
Coil	Coil code: please refer to coil versions table
Version	Blank Standard version WG Product in accordance with IEC 60335-1 (domestic appliances)

Product code	Version	Contact configuration	Contact Material	Coil	Part number
RTH14012	16A, 105°C	1 form C (CO) contact	AgNi 90/10	12VDC	8-1415006-1
RTH14012WG				24VDC	1-1415538-1
RTH14024WG				12VDC	9-1415535-4
RTH34012	16A, 105°C, High Performance	1 form A (NO) contact		12VDC	9-1415006-1
RTH34012WG				24VDC	1-1415536-9
RTH34024				24VDC	1415039-1
RTH34024WG				24VDC	2-1415536-0
RTHH4009WG				9VDC	1-1415540-6
RTHH4012				12VDC	8-1415047-1
RTHH4012WG				24VDC	4-1415536-2
RTHH4024				24VDC	9-1415047-1

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