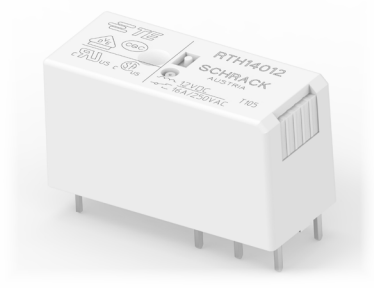
Power PCB Relay RTH 105°C 16A

- **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**
- **Product in accordance to IEC 60335-1**



Typical applications
Oven control, cooking plate control.

Approvals

VDE Cert. No. 40007571, UL E214025, cCSAus 1142018
CQC 18002197247 (monostable), CQC 20002275223 (China production), CQC 08001027262 (China production)

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

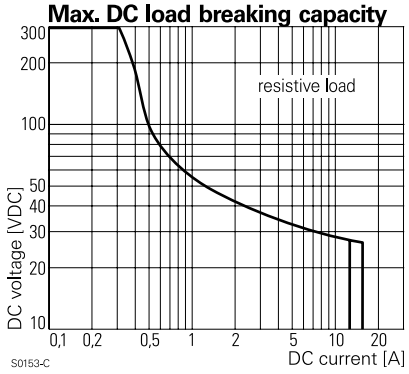
Contact ratings

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 61810-1 (former UL 508)			
RTH14	A/B (NO/NC)	16A, 250VAC, resistive, 105°C	30x10^3
RTH34	A (NO)	20A, 250VAC, general purpose, 85°C	6x10^3

Mechanical endurance	>30x10^6 operations

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

Max. DC load breaking capacity



Coil Data

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

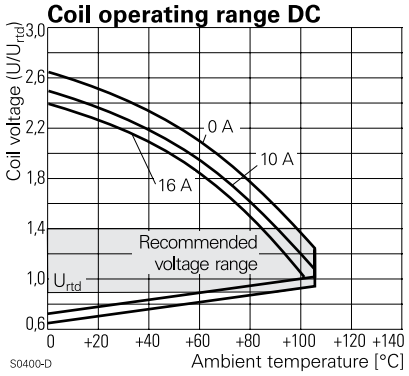
Coil versions, DC coil

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.

Coil operating range DC



Insulation Data

Insulation resistance 1000MΩ (at 500VDC)		
Initial dielectric strength		
between open contacts		1000V$_{rms}$
between contact and coil		5000V$_{rms}$
Clearance/creepage		
between contact and coil	≥10/10mm	
Material group of insulation parts	IIIa	
Tracking index of relay base	PTI250V	

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Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Catalog product data, 'Definitions' section, application notes and all specifications are subject to change.

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

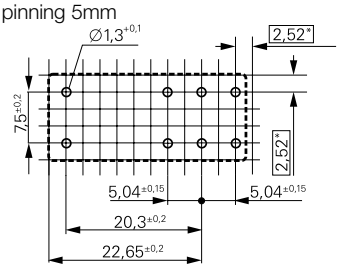
Other Data

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	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

PCB layout / terminal assignment

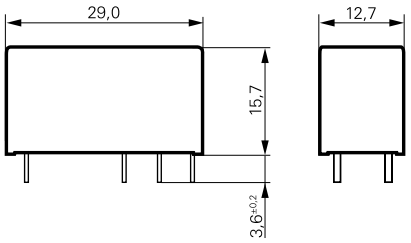
Bottom view on solder pins

16A, pinning 5mm

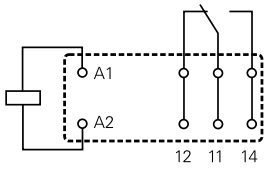


*) With the recommended PCB hole sizes a grid pattern from 2.5mm to 2.54mm can be used.

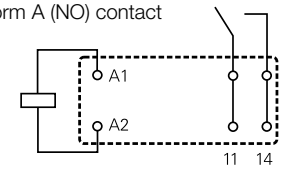
Dimensions



1 form C (CO) contact



1 form A (NO) contact



Product code structure

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

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

Product code	Version	Contacts	Contact material	Coil	Part Number	
					Austria	China
RTH14005	16A, 105°C	1 form C (CO)	AgNi 90/10	5VDC		1649357-1
RTH14012		contact		12VDC	8-1415006-1	1649357-4
RTH34012		1 form A (NO)		12VDC	9-1415006-1	1-1649357-3
RTH34024		contact		24VDC	1415039-1	1-1649357-5
RTHH4012	16A, 105°C,			12VDC	8-1415047-1	
RTHH4024	High Performance			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.

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