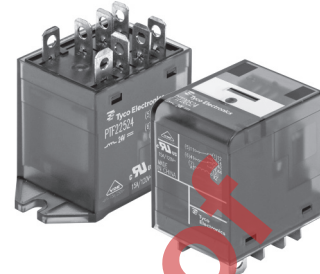


**Miniature Power Relay PTF**

- 2 pole 15A, 2 form C (CO) contacts
- DC or AC coil
- Plug-in version, PCB or chassis mount version

Typical applications  
Panel boards, domestic appliances



F0281-B



**Approvals**

VDE REG.-Nr. A379, UL E58304  
Technical data of approved types on request

**Contact Data**

Contact arrangement	2 form C (CO)
Rated voltage	240VAC
Max. switching voltage	400VAC
Rated current	15A
Limiting making current, max. 20ms	24A
Switching power	2500VA
Contact material	AgNi90/10
Min. recommended contact load	5V at 100mA
Frequency of operation, with/without load	360/36000h <sup>-1</sup>
Operate time max., DC coil	15ms
Release time max., DC coil	10ms
Bounce time max., DC coil, form A/form B	5/5 ms

**Contact ratings**

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
PTF2 DC coil	C (CO)	15A, 250VAC, cosφ=1, 70°C	35x10 <sup>3</sup>
PTF2 AC coil	C (CO)	15A, 250VAC, cosφ=1, 70°C	6x10 <sup>3</sup>
<b>UL 508</b>			
PTF2	A/B (NO/NC)	10A, 250VAC, resistive, 70°C	100x10 <sup>3</sup>
PTF2	A/B (NO/NC)	15A, 120VAC, resistive, 70°C	100x10 <sup>3</sup>
Mechanical endurance			
DC coil		20x10 <sup>6</sup> operations	
AC coil		15x10 <sup>6</sup> operations	

**Coil Data**

Coil voltage range	6 to 220VDC 6 to 230VAC
Operative range, IEC 61810	
DC coil, AC-coil 50Hz:	2
AC coil 60 Hz at 70°C:	90..110% of rated voltage

**Coil versions, DC coil**

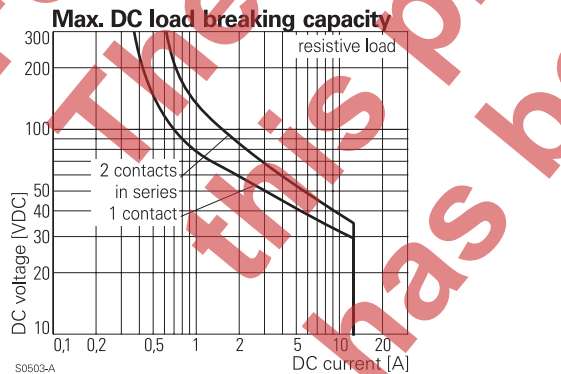
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10% <sup>1)2)</sup>	Rated coil power mW
STD LED bipolar					
006 L06	6	4.5	0.6	48	750
012 L12	12	9.0	1.2	192	750
024 L24	24	18.0	2.4	777	741
048 L48	48	36.0	4.8	3072	750
060 L60	60	45.0	6.0	4845 <sup>1)</sup>	743
110 M10	110	82.5	11.0	16133 <sup>2)</sup>	750
220 N20	220	165.0	22.0	64533 <sup>2)</sup>	750

1) Coil resistance ±12%, 2) Coil resistance ±15%  
All figures are given for coil without pre-energization, at ambient temperature +23°C

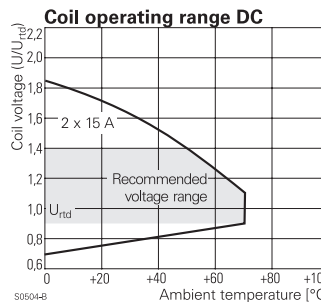
**Coil versions, AC coil, 50/60Hz**

Coil code	Rated voltage VAC	Operate voltage 50/60Hz VAC	Release voltage 50/60Hz VAC	Coil resistance Ω±10% <sup>1)2)</sup>	Rated coil power 50/60Hz VA
506 R06	6	4.8/5.4	1.8	11	1.0/0.85
512 R12	12	9.6/10.8	3.6	48	1.0/0.85
524 R24	24	19.2/21.6	7.2	192	1.0/0.79
548 R48	48	38.4/43.2	14.4	777	1.0/0.87
560 R60	60	48.0/54.0	18.0	1306	1.0/0.87
615 S15	115	92.0/103.5	34.5	4845 <sup>1)</sup>	1.0/0.86
730 T30	230	184.0/207.0	69.0	19465 <sup>2)</sup>	1.0/0.90

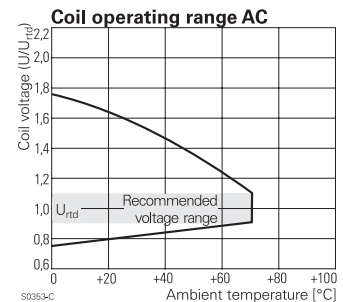
1) Coil resistance ±12%, 2) Coil resistance ±15%  
All figures are given for coil without pre-energization, at ambient temperature +23°C



S0503-A



S0504-B



S0353-C

**Miniature Power Relay PTF (Continued)**

**Insulation Data**

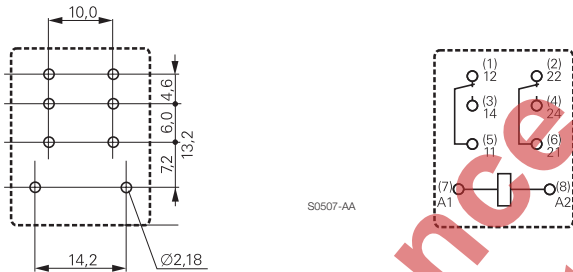
Initial dielectric strength	
between open contacts	1200V <sub>rms</sub>
between contact and coil	2500V <sub>rms</sub>
between adjacent contacts	2500V <sub>rms</sub>
Clearance/creepage	
between contact and coil	≥3.1/3.1mm
between adjacent contacts	≥4.4/8.8mm
Material group of insulation parts	IIIa

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customer-support/rohssupportcenter">www.te.com/customer-support/rohssupportcenter</a>	
Ambient temperature	
DC coil	-40 to +70°C
AC coil	-40 to +70°C
Category of environmental protection	
IEC 61810	RTII - flux proof
Vibration resistance (functional)	
form A (NO)/form B (NC)	7/4g
Shock resistance (functional)	
form A (NO)/form B (NC)	20/5g
Terminal type	
	PCB-THT, plug-in quick-connect
Cover retention, pull/push force	100/100N
Weight	30g
Resistance to soldering heat THT	
IEC 60068-2-20	270°C/10s
Packaging unit	20 pcs.

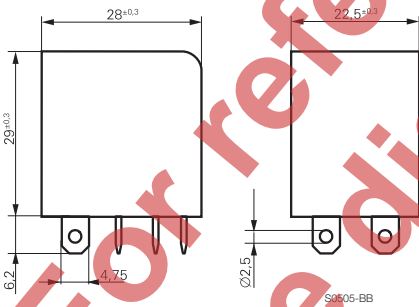
**PCB layout / terminal assignment**

Bottom view on pins

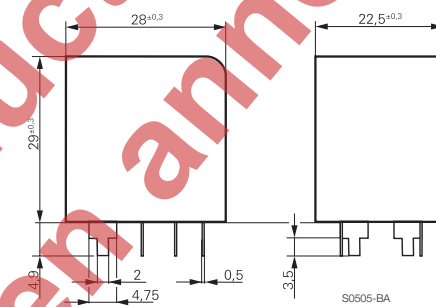


**Dimensions**

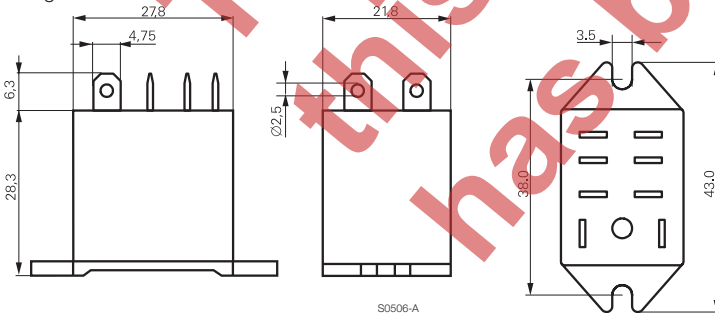
Solder- and plug-in terminals (standard version)



PCB version



Flange mount version



**Miniature Power Relay PTF (Continued)**

<b>Product code structure</b>	Typical product code	<b>PTF</b>	<b>2</b>	<b>0</b>	<b>524</b>
<b>Type</b>	<b>PTF</b> Miniature Power Relay PTF				
<b>Contact material</b>	<b>2</b> AgNi 90/10				
<b>Version</b>	<b>0</b> Quick connect terminals <b>1</b> PCB terminals <b>2</b> Flange mount cover				
<b>Coil</b>	Coil code: please refer to coil versions table				

Product code	Contacts	Cont. material	Terminal	Coil	Coil	Part number
PTF20024	2 form C 2 CO contacts	AgNi 90/10	quick connect term.	DC coil	24VDC	1461937-3
PTF21024			PCB			1-1461937-0
PTF20524			quick connect term.	AC coil	24VAC	1461938-3
PTF20615					115VAC	1461938-7
PTF20730					230VAC	1461938-9
PTF21524			PCB		24VAC	1-1461938-2
PTF21615					115VAC	1-1461938-6
PTF21730					230VAC	1-1461938-8
PTF20L24			quick connect term.	DC + LED	24VDC	1461944-3
PTF20R24				AC + LED	24VAC	1461945-3
PTF20S15					115VAC	1461945-7
PTF20T30					230VAC	1461945-9
PTF22024				DC coil	24VDC	1721058-3
PTF22524			flange mount cover	AC coil	24VAC	1-1721058-0
PTF22615					115VAC	1-1721058-4
PTF22730					230VAC	1-1721058-6

For reference only. The discontinuance of this product series has been announced.