

**Miniature Power Relay PTF**

- 2 pole 15 A, 2 CO contacts
- DC or AC coil
- Plug-in version, PCB or chassis mount version
- RoHS compliant (Directive 2002/95/EC)

**Applications**

Panel boards, domestic appliances



F0281-A

**Approvals**

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

**Contact data**

Contact configuration	2 CO contacts
Contact set	single contact
Type of interruption	micro disconnection
Rated current	10 A / 250 VAC 15 A / 120 VAC
Rated voltage / max.switching voltage AC	240/400 VAC
Maximum breaking capacity AC	2500 VA / 250 VAC 1800 VA / 120 VAC
Limiting making capacity, max 20 ms	20 A / 250 VAC 30 A / 120 VAC
Contact material	AgNi90/10
Minimum contact load	5V/100mA
Mechanical endurance DC coil	20x10 <sup>6</sup> cycles
AC coil	15x10 <sup>6</sup> cycles
Rated frequency of operation with / without load	6/600 min <sup>-1</sup>

**Contact ratings**

Type	Load	Cycles
PTF2	15 A, 120 VAC, NO, DC coil / AC coil	100x10 <sup>3</sup> / 50x10 <sup>3</sup>
PTF2	10 A, 250 VAC, NO, DC coil / AC coil	200x10 <sup>3</sup> / 100x10 <sup>3</sup>
PTF2	10 A, 24 VDC, NO, DC coil / AC coil	100x10 <sup>3</sup> / 50x10 <sup>3</sup>

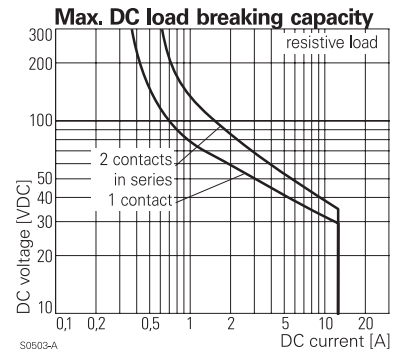
**Coil data**

Rated coil voltage range DC coil	6...220 VDC
AC coil	6...230 VAC
Coil power DC coil	0.75 W
AC coil	1.0 VA
Operative range DC coil, AC-coil 50Hz	2
AC coil 60 Hz at 70°C, % of U <sub>rtid</sub>	90..110%

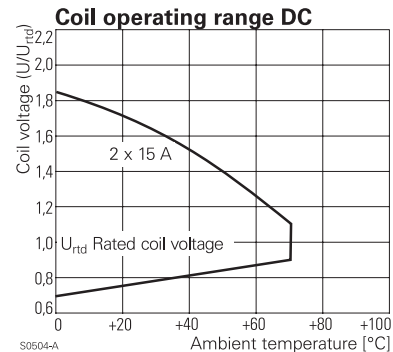
**Coil versions, DC-coil**

Coil code	LED bipolar	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
STD						
006	L06	6	4.5	0.6	48±10%	750
012	L12	12	9.0	1.2	192±10%	750
<b>024</b>	<b>L24</b>	<b>24</b>	<b>18.0</b>	<b>2.4</b>	<b>777±10%</b>	<b>741</b>
048	L48	48	36.0	4.8	3072±10%	750
060	L60	60	45.0	6.0	4845±12%	743
110	M10	110	82.5	11.0	16133±15%	750
220	N20	220	165.0	22.0	64533±15%	750

All figures are given for coil without preenergization, at ambient temperature +23°C



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S0504-A

**Miniature Power Relay PTF (Continued)**

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

Coil code	LED	Rated voltage	Operate voltage	Release voltage	Coil resistance	Rated coil power
		VAC	50/60Hz	50/60Hz	Ohm	50/60Hz VA
506	R06	6	4.8/5.4	1.8	11±10%	1.0/0.85
512	R12	12	9.6/10.8	3.6	48±10%	1.0/0.85
<b>524</b>	<b>R24</b>	<b>24</b>	<b>19.2/21.6</b>	<b>7.2</b>	<b>192±10%</b>	<b>1.0/0.79</b>
548	R48	48	38.4/43.2	14.4	777±10%	1.0/0.87
560	R60	60	48.0/54.0	18.0	1306±10%	1.0/0.87
615	S15	115	92.0/103.5	34.5	4845±12%	1.0/0.86
<b>730</b>	<b>T30</b>	<b>230</b>	<b>184.0/207.0</b>	<b>69.0</b>	<b>19465±15%</b>	<b>1.0/0.90</b>

All figures are given for coil without preenergization, at ambient temperature +23°C

**Insulation**

Dielectric strength coil-contact circuit	2500 V <sub>rms</sub>
open contact circuit	1200 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>
Clearance / creepage coil-contact circuit	≥ 3.1/3.1 mm
adjacent contact circuits	≥ 4.4/8.8 mm
Material group of insulation parts	≥ IIIa
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	basic
open contact circuit	functional
adjacent contact circuits	basic
Rated insulation voltage	250 V
Pollution degree	2
Rated voltage system	240/400 V
Overvoltage category	III

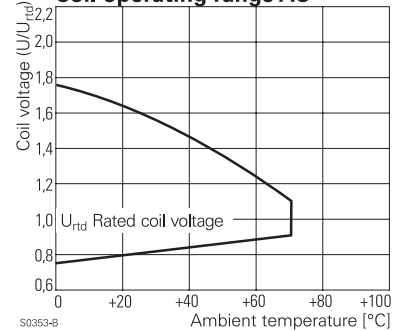
**Other data**

RoHS - Directive 2002/95/EC	compliant
Ambient temperature range	-40...+70°C
Operate- / release time	15/10 ms
Bounce time NO / NC contact	5 ms
Vibration resistance (function) NO / NC contact	7/4 g
Shock resistance (function) NO / NC contact	20/5 g
Category of protection	RTII - flux proof
Resistance to soldering heat	270°C / 10 s
Relay weight	30 g
Packaging unit	20 pcs

**Accessories**

For details see datasheet Accessories Miniature Power Relay PTF

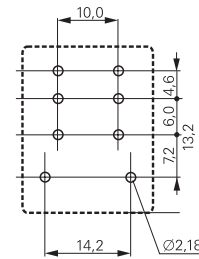
**Coil operating range AC**



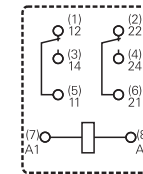
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**PCB layout / terminal assignment**

Bottom view on pins



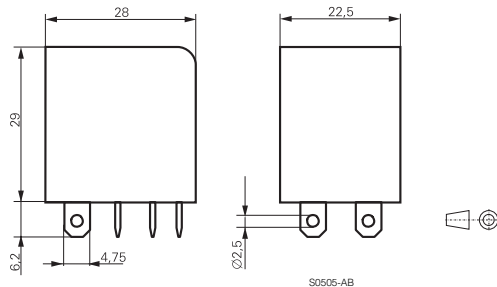
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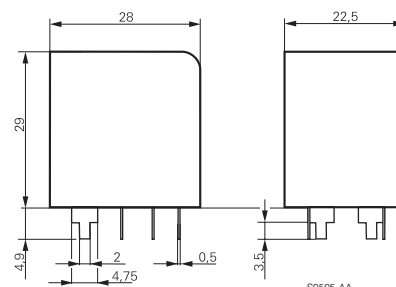
**Dimensions**

Solder- and plug-in terminals (standard version)



S0505-AB

PCB version

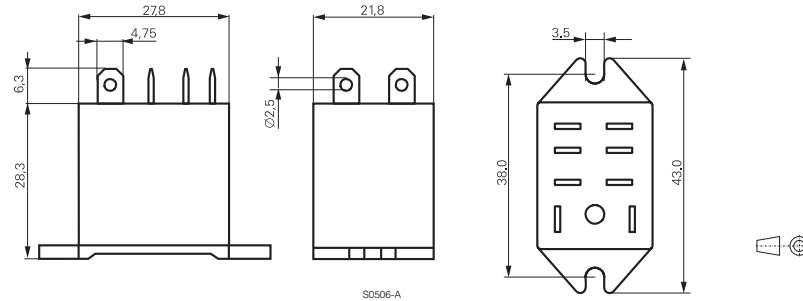


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**Miniature Power Relay PTF (Continued)**

**Dimensions**

Flange mount version



**Product key**

**P T F**

Type

Contact material

**2** AgNi 90/10

Version

- 0** Quick connect terminals
- 1** PCB terminals
- 2** Flange mount cover

Coil

Coil code: please refer to coil versions table, preferred types in bold print

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