

# Miniature Power PCB Relay T7N / T7N-WG

1pole 10A



F0189-B

### Features

- 1C/O or 1N/O contact
- Creepage/clearance to VDE 0435 and VDE 0700
- Sensitive 360 mW coil available
- Version T7N-WG with tracking resistance CTI 325

### Applications

Domestic appliances, heating control, building control, measurement&control

T7N:

T7N-WG:

Technical data of approved types on request

Contact data	T7N	T7N-WG
Configuration	1 C/O contact or 1 N/O contact	
Type of contact	single contact	
Rated current N/O contact / N/C contact	10 / 5 A	
Continuous thermal load	10 A	
Rated voltage / max.breaking voltage AC	250 Vac / 250 Vac	
Maximum breaking capacity AC	2500 VA	
Make current (max. 4 s at duty cycle 10%)	35 A	
Contact material	AgCdO, AgSnO <sub>2</sub>	AgCdO

### Contact ratings

Type	Load	Operations
AgCdO	10 A, 240 Vac	100x10 <sup>3</sup>
AgCdO	5 A, 240 Vac, resistive	2x10 <sup>5</sup>
AgCdO	2 A, 120 Vac, cosφ=0.5, 60 °C	1.4x10 <sup>6</sup>

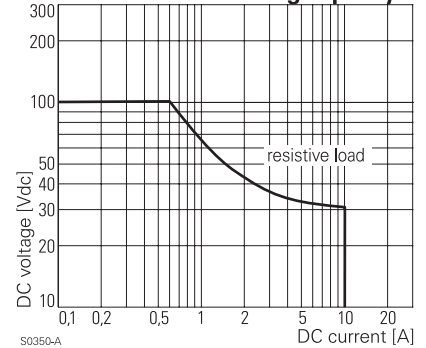
Coil data	T7N standard	T7N-WG	T7N-WG sensitive
Nominal voltage	6...48 Vdc	6...36 Vdc	6...36 Vdc
Nominal coil power	360 mW	450 mW	360 mW
Operate power	176 mW	253 mW	176 mW
Operate category	1 / c	2 / b	2 / b
Operate voltage max.	70 % U <sub>nom</sub>	70 % U <sub>nom</sub>	70 % U <sub>nom</sub>
Non-release voltage	50 % U <sub>nom</sub>	50 % U <sub>nom</sub>	50 % U <sub>nom</sub>
Release voltage min.	10 % U <sub>nom</sub>	10 % U <sub>nom</sub>	10 % U <sub>nom</sub>

### Coil versions

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
<b>version T7N-WG</b>						
12	12	8.4	1.2	25.0	320±10%	37.5
24	24	16.8	2.4	50.0	1280±10%	18.8
36	36	25.2	3.6	73.0	2880±10%	12.5
<b>version T7N standard and T7N-WG sensitive</b>						
06	6	4.2	0.6	12.5	100±10%	60.0
12	12	8.4	1.2	25.0	400±10%	30.0
24	24	16.8	2.4	50.0	1600±10%	15.0
36	36	25.2	3.6	73.0	3600±10%	10.0
48	48	33.6	4.8	100.0	6400±10%	7.0

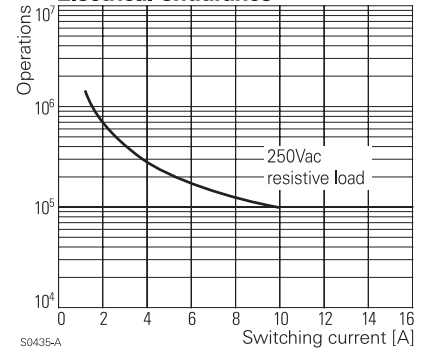
All figures are given for coil without preenergization, at ambient temperature +20°C  
Other coil voltages on request

### Max. DC load breaking capacity



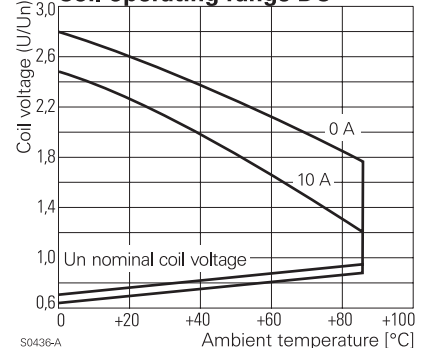
S0350-A

### Electrical endurance



S0435-A

### Coil operating range DC



S0436-A

Edition: 02/2003

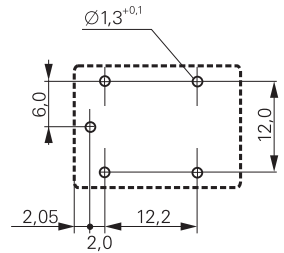
# Miniature Power PCB Relay T7N / T7N-WG

1pole 10A

Insulation	T7N	T7N-WG
Dielectric strength	coil-contacts	2000 V <sub>rms</sub>
	open contact circuit	1000 V <sub>rms</sub>
Surge voltage resistance	coil-contacts	4000 V <sub>rms</sub> (1.2 / 50μs)
Clearance / creepage	2 / 3 mm	3 / 4 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250
Insulation resistance		100x10 <sup>6</sup> Ω
Tracking resistance of relay base	CTI 225	CTI 325

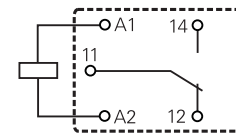
## PCB layout / terminal assignment

View on solder pins  
Dimensions in mm



S0260-AA

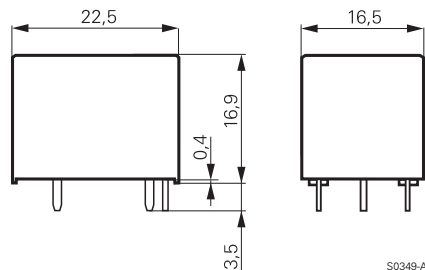
Other data	
Flammability class according to UL 94	V-0
Ambient temperature	-40...+85 °C
Mechanical life	10x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	30 min <sup>-1</sup> / 300 min <sup>-1</sup>
Operate- / release time	10 / 5 ms
Bounce time N/O contact / N/C contact	0.6 / 17 ms
Vibration resistance	>10 g
Shock resistance (function)	>10 g
Shock resistance (destruction)	>100 g
Category of protection (IEC 61810)	RT III - wash tight
Relay weight	11 g
Packaging unit	500 pcs.



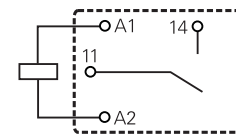
S0260-AB

## Dimensions

Dimensions in mm

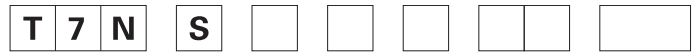


S0349-A



S0260-AC

## Product key



Type

Version

**S** wash tight

Contacts

**1** 1 N/O contact

**5** 1 C/O contact

Coil version

**H** DC coil 450mW

**D** DC coil 360mW

Contact material

**1** AgCdO

**4** AgSnO<sub>2</sub> (T7N standard version only)

Coil

coil code: please refer to coil versions table

Version

**Blank**

T7N standard version

**WG-A**

version for domestic appliances

Other types on request

**Miniature Power PCB Relay T7N / T7N-WG****1pole 10A**

Product key	Version	Cont-material	Cont.configuration	Coil	Part number
T7N S1D1-06	wash tight CTI 225	AgCdO	1 N/O contact	6 Vdc	0-1393186-3
T7N S1D1-12				12 Vdc	5-1440006-4
T7N S1D1-24				24 Vdc	5-1440006-6
T7N S1D1-48				48 Vdc	5-1440006-8
T7N S1D4-06		AgSnO		6 Vdc	6-1440005-2
T7N S1D4-12				12 Vdc	7-1440006-2
T7N S1D4-24				24 Vdc	7-1440006-4
T7N S1D4-48				48 Vdc	7-1440006-6
T7N S5D1-06		AgCdO	1 C/O contact	6 Vdc	4-1440006-2
T7N S5D1-12				12 Vdc	4-1440006-4
T7N S5D1-24				24 Vdc	4-1440006-7
T7N S5D1-48				48 Vdc	4-1440006-9
T7N S5D4-06		AgSnO		6 Vdc	6-1440006-1
T7N S5D4-12				12 Vdc	6-1440006-3
T7N S5D4-24				24 Vdc	6-1440006-5
T7N S5D4-48				48 Vdc	6-1440006-7
T7NS5H1-06-WG-A	wash tight CTI 325	AgCdO		6 Vdc	7-1440006-9
T7NS5H1-12-WG-A				12 Vdc	8-1440006-0
T7NS5H1-24-WG-A				24 Vdc	8-1440006-2
T7NS5H1-36-WG-A				36 Vdc	8-1440006-3
T7NS5H1-48-WG-A				48 Vdc	8-1440006-4