Miniature Power PCB Relay T7S

- **1pole 10 / 6 A, 1CO or 1NO contact**
- **Sensitive 360 mW coil**
- **Version T7S-WG with tracking resistance PTI 325 on relay base and cover**
- **WG version: Product in accordance to IEC60335-1**

F_T7S_B

Applications

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

Approvals

T7S / T7S-WG: VDE B265 cULus E82292
Technical data of approved types on request

Contact data	T7S**E	T7S**H
Contact configuration	1 CO or 1 NO	
Contact set	single contact	
Type of interruption	micro disconnection	
Rated voltage / max. switching voltage AC	240 / 400 VAC	
Rated current	10 A	6 A
Maximum breaking capacity AC	2500 VA	
Contact material	AgNi 90/10 / AgZnO	
Rated frequency of operation with / without load	10/300 min^{-1}	
Operate- / release time	max. 7 / 3 ms	
Bounce time NO / NC contact	max. 3 / 2 ms	

Contact ratings

Type	Contact	Load	Ambient temp. [°C]	Cycles
IEC 61810				
T7SV5E	NO of CO	10 A, 250 VAC, cosφ=1	85°C	$50x10^3$
T7SV5E4	NO of CO	10.5 A, 250 VAC, cosφ=1	70°C	$100x10^3$
T7SV1E	NO	10 A, 250 VAC, cosφ=1	85°C	$50x10^3$
T7SV1E4	NO	10.5 A, 250 VAC, cosφ=1	70°C	$100x10^3$
T7SV5H	NO of CO	6 A, 250 VAC, cosφ=1	105°C	$100x10^3$
T7SV1H	NO	6 A, 250 VAC, cosφ=1	105°C	$100x10^3$
UL 508				
T7SV...E	NO	10 A, 250 VAC, resistive	85°C	$50x10^3$
T7SV...H	NO	6 A, 250 VAC, resistive	105°C	$100x10^3$

Coil data

Rated coil voltage range DC coil	5...36 VDC
Coil power DC coil	typ. 360 mW
Operative range to IEC 61810	2
Coil insulation system according UL1446	class F

Coil versions, DC-coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
05	5	3.5	0.5	70±10%	357
06	6	4.2	0.6	100±10%	360
09	9	6.3	0.9	225±10%	360
12	12	8.4	1.2	400±10%	360
18*	18	12.6	1.8	900±10%	360
24	24	16.8	2.4	1600±10%	360
36	36	25.2	3.6	3600±10%	360

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request
* versions with 18V coils are not registered at VDE

Datasheet Rev. IJ1
Issued 2009/10
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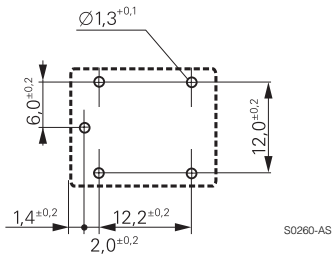
Specifications subject to change.

Miniature Power PCB Relay T7S (Continued)

Insulation	
Dielectric strength coil-contact circuit	1500 V_{rms}
open contact circuit	750 V_{rms}
Clearance / creepage coil-contact circuit	≥ 2.5 / 2.5 mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 325
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	basic
open contact circuit	micro disconnection
Rated insulation voltage	250 V
Pollution degree	2
Rated voltage system	240 V
Overvoltage category	II

Other data	T7**E	T7S**H
Mechanical endurance	10x10^6 cycles	
Material		
RoHS - Directive 2002/95/EC	compliant as per product date code 0424	
Resistance to heat and fire, WG version	according EN60335, par.30	
Environment		
Ambient temperature range	-40...85°C	-40...105°C
Vibration resistance (function) NO / NC contact	>14 / 8 g, 30...400 Hz	
Shock resistance (destruction)	100 g	
Category of protection	RTII - flux proof RTIII - wash tight	
Processing		
Mounting	PCB	
Resistance to soldering heat flux-proof version	270°C / 10 s	
wash-tight version	260°C / 5 s	
Relay weight	11 g	
Packaging unit	1400 / 1400 pcs	

PCB layout / terminal assignment
Bottom view on solder pins



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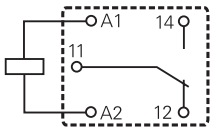

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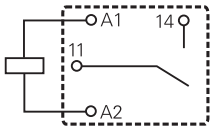

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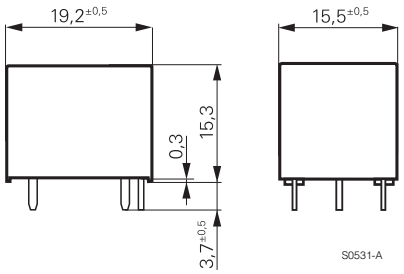
Dimensions



S0531-A

Product key Typical product key: **T7S V 1 E 6 -06**

Type
T7S Miniature Power PCB Relay T7S

Version
S wash tight **V** flux proof

Contact configuration
1 1 NO contact (1 form A) **5** 1 CO contact (1 form C)

Coil version
H DC coil 360 mW, 105°C **E** DC coil 360 mW, 85°C

Contact material
4 AgNi 90/10 **6** AgZnO

Coil
Coil code: please refer to coil versions table

Version
Blank T7S standard version
WG product in accordance with IEC 60335-1

Other types on request

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Product key	Version	Cont. material	Cont.configuration	Coil	Part number
T7SV1E6-05	flux proof	AgZnO	1 NO contact	5 VDC	1721382-1
T7SV1E6-06				6 VDC	1721382-2
T7SV1E6-09				9 VDC	1721382-3
T7SV1E6-12				12 VDC	1721382-4
T7SV1E6-24				24 VDC	1721382-5
T7SV5E6-05			1 CO contact	5 VDC	1721381-1
T7SV5E6-06				6 VDC	1721381-2
T7SV5E6-09				9 VDC	1721381-3
T7SV5E6-12				12 VDC	1721381-4
T7SV5E6-24				24 VDC	1721381-5
T7SV1E6-05-WG	flux proof		1 NO contact	5 VDC	2-1721382-5
T7SV1E6-06-WG	according			6 VDC	2-1721382-6
T7SV1E6-09-WG	IEC 60335-1			9 VDC	2-1721382-7
T7SV1E6-12-WG				12 VDC	2-1721382-8
T7SV1E6-24-WG				24 VDC	2-1721382-9
T7SV5E6-05-WG			1 CO contact	5 VDC	2-1721381-5
T7SV5E6-06-WG				6 VDC	2-1721381-6
T7SV5E6-09-WG				9 VDC	2-1721381-7
T7SV5E6-12-WG				12 VDC	2-1721381-8
T7SV5E6-24-WG				24 VDC	2-1721381-9
T7SS1E6-05	wash tight		1 NO contact	5 VDC	1721382-7
T7SS1E6-06				6 VDC	1721382-8
T7SS1E6-09				9 VDC	1721382-9
T7SS1E6-12				12 VDC	1-1721382-0
T7SS1E6-24				24 VDC	1-1721382-1
T7SS5E6-05			1 CO contact	5 VDC	1721381-7
T7SS5E6-06				6 VDC	1721381-8
T7SS5E6-09				9 VDC	1721381-9
T7SS5E6-12				12 VDC	1-1721381-0
T7SS5E6-24				24 VDC	1-1721381-1
T7SS1E6-05-WG	wash tight		1 NO contact	5 VDC	3-1721382-1
T7SS1E6-06-WG	according			6 VDC	3-1721382-2
T7SS1E6-09-WG	IEC 60335-1			9 VDC	3-1721382-3
T7SS1E6-12-WG				12 VDC	3-1721382-4
T7SS1E6-24-WG				24 VDC	3-1721382-5
T7SS5E6-05-WG			1 CO contact	5 VDC	3-1721381-1
T7SS5E6-06-WG				6 VDC	3-1721381-2
T7SS5E6-09-WG				9 VDC	3-1721381-3
T7SS5E6-12-WG				12 VDC	3-1721381-4
T7SS5E6-24-WG				24 VDC	3-1721381-5
T7SV1E4-05	flux proof	AgNi 90/10	1 NO contact	5 VDC	1721735-1
T7SV1E4-06				6 VDC	1721735-2
T7SV1E4-09				9 VDC	1721735-3
T7SV1E4-12				12 VDC	1721733-4
T7SV1E4-24				24 VDC	1721735-5
T7SV5E4-05			1 CO contact	5 VDC	1721734-1
T7SV5E4-06				6 VDC	1721734-2
T7SV5E4-09				9 VDC	1721734-3
T7SV5E4-12				12 VDC	1721734-4
T7SV5E4-24				24 VDC	1721734-5
T7SV1E4-05-WG	flux proof		1 NO contact	5 VDC	2-1721735-5
T7SV1E4-06-WG	according			6 VDC	2-1721735-6
T7SV1E4-09-WG	IEC 60335-1			9 VDC	2-1721735-7
T7SV1E4-12-WG				12 VDC	2-1721735-8
T7SV1E4-24-WG				24 VDC	2-1721735-9
T7SV5E4-05-WG			1 CO contact	5 VDC	2-1721734-5
T7SV5E4-06-WG				6 VDC	2-1721734-6
T7SV5E4-09-WG				9 VDC	2-1721734-7
T7SV5E4-12-WG				12 VDC	2-1721734-8
T7SV5E4-24-WG				24 VDC	2-1721734-9

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