

T92 Series Two-pole Power Relay (Continued)

Coil Data

Coil voltage range	5 to 110VDC; 12 to 240VAC
Max. coil power	1.7W; 4.0VA
Max. coil temperature	155°C
Coil insulation system according UL	Class F

Coil versions, DC coil (D type)

Coil code	Rated voltage ²⁾ VDC	Operate voltage ³⁾ VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power W
5	5	3.75	0.6	14.9	
6	6	4.5	0.6	22	
9	9	6.75	0.9	48	
12	12	9	1.2	86	
18	18	13.5	1.8	197	1.7W/
22	22	16.5	2.2	294	Min. 0.41W
24	24	18	2.4	350	hold
36	36	27	3.6	767	
48	48	36	4.8	1390	
110	110	82.5	11	7255	
120	120	90	12	8514	

2) For T92H type, after the energization time of 100ms with rated voltage, the coil requires a reduction of the coil voltage to 50% of rated voltage.

3) For Anti-explosion sealed type, the operate voltage is 80% of the rated coil voltage.

Coil versions, AC coil (A type)

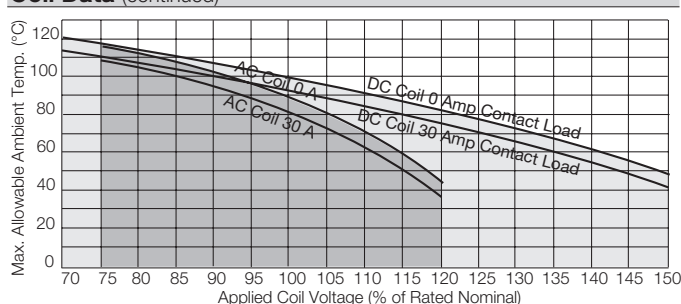
Coil code	Rated voltage VAC	Frequency Hz	Operate voltage VAC, 60Hz	Release voltage VAC, 60Hz	Coil resistance $\Omega \pm 10\%$	Rated coil power VA
12	12	60	9.6	1.2	9.1	4
24	24	60	19.2	2.4	36.6	4
110	110	60	88	11	793	4
120	110/120	50/60	96	12	950	4
208	208	60	166.4	20.8	2841	4
240	220/240	50/60	192	24	3800	4
277	250/277	50/60	221.6	27.7	5485	4

Coil versions, AC coil (F type)

Coil code	Rated voltage VAC	Frequency Hz	Operate voltage VAC, 60Hz	Release voltage VAC, 60Hz	Coil resistance $\Omega \pm 10\%$	Rated coil power VA
12	12	50	9.6	1.2	11.2	3.5
24	24	50	19.2	2.4	44.4	3.5
48	48	50	38.4	4.8	179.2	3.5
240	240	50	192	24	4355	3.5

All figures are given for coil without preenergization, at ambient temperature +23°C. For A type, 110V/120V, 50/60Hz. Signify 50Hz Operation at Nominal 110V, 60 Hz Operation at Nominal 120V.

Coil Data (continued)



Note: This chart only apply for T92 standard type. For coil data of T92 Anti-explosion sealed type and T92H type, please contact TE engineering.

Insulation Data

Initial dielectric strength	
between open contacts	1500V _{rms}
between contact and coil	4000V _{rms}
between adjacent contact	2000V _{rms}
Initial surge withstand voltage	
between contact and coil	8kV
Initial insulation resistance (@500VDC)	
between insulated elements	1x10 ⁹ Ω
Clearance/creepage	
between contact and coil	8mm clearance/9.5mm creepage

Other Data

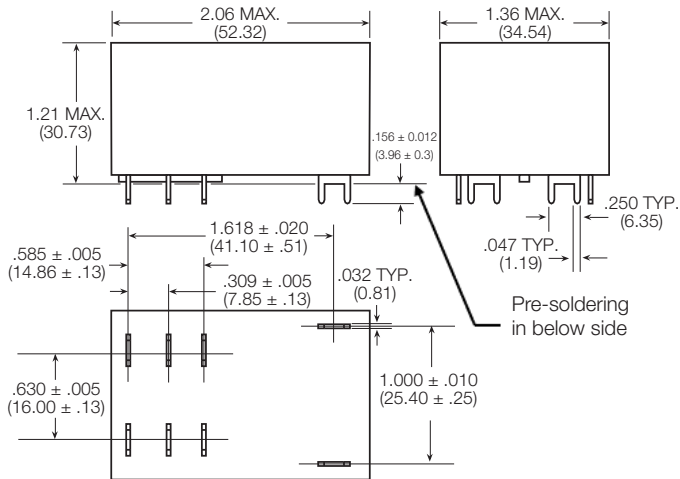
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	
DC coil	-55°C to 85°C
AC coil	-55°C to 65°C
Category of environmental protection	
IEC 61810	RTI - dust protected, RTII - flux proof, RTIII - wash tight
Vibration resistance (functional)	1.65mm max amplitude, 10-55 Hz
Shock resistance (functional)	10G for 11msec
Shock resistance (destructive)	100G
Terminal type	PCB / Quick Connect / Screw

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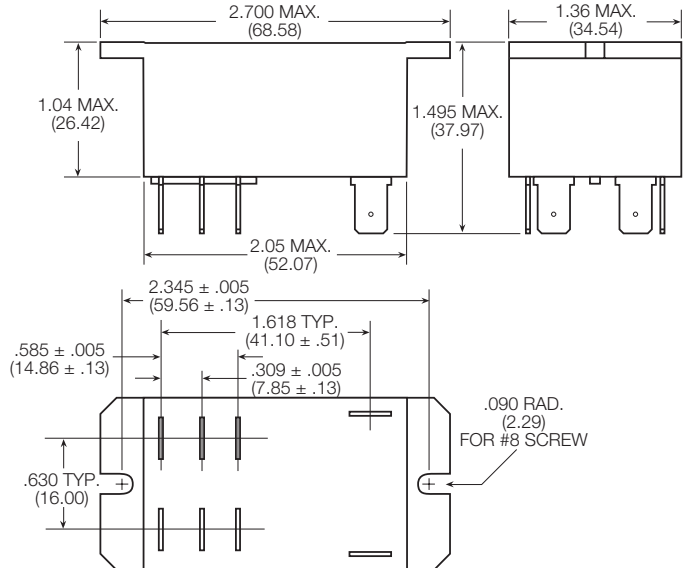
Dimensions

T92/T92H – Mounting and termination code 1

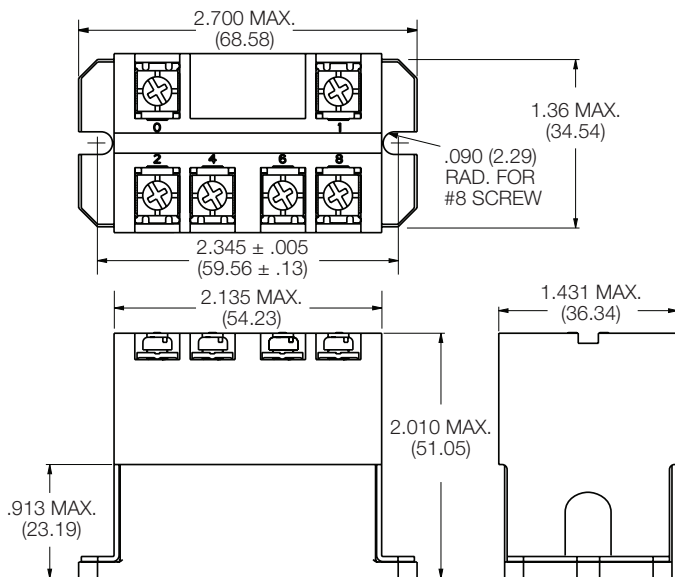


Note: Dimensions of the pins after tin soldering
a) +0.3mm for the width and the thickness
b) +1.0mm for the length

T92 – Mounting and termination code 2, 3 and 4



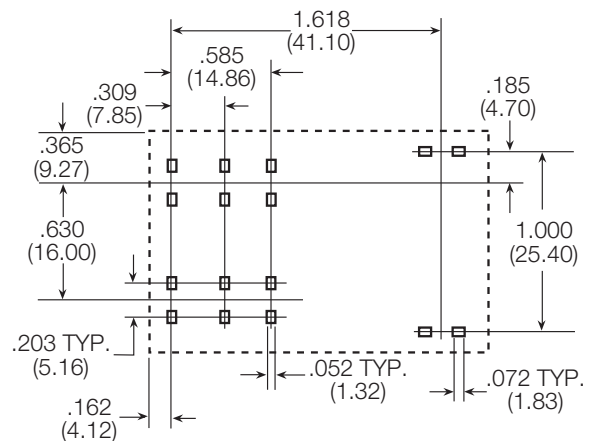
T92 – Mounting and termination code 5



PCB layout

Bottom view on pins

T92/T92H - Mounting and termination code 1



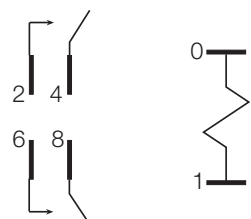
An alternate PC board layout utilizes .076 ± .003 (1.93 ± .076) diameter holes on the same center-to-center spacing shown above. Use of the rectangular holes is recommended for improved solderability.

Only necessary terminals are present on single throw models. Consequently, some holes will be unnecessary for single throw models.

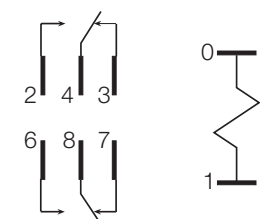
Terminal assignment

Bottom view on pins

2 form A



2 form C



T92 Series Two-pole Power Relay (Continued)

Product code structure (T92H type)

Typical product code **T92H P 7 D 1 X -12**

Type	T92H Power relay T92 High Performance (50A)
Enclosure	P Dust protected plastic case S Wash-tight, tape sealed, plastic case (Mounting and termination code 1)
Contact arrangement	7 2 form A (2 NO)
Coil Input	D DC voltage
Mounting and termination	1 Printed circuit board mount; printed circuit board terminals.
Contact material	X Special Ag Alloy X (Cd Free)
Coil voltage	Coil code: please refer to coil versions table

Product code	Enclosure	Contacts	Coil	Mounting	Contact Material	Coil	Part number
T92HP7D1X-12	Plastic dust cover	2 form A, 2 NO	DC	PCB terminals	Special Ag Alloy X (Cd Free)	12VDC	6-1423008-6
T92HP7D1X-24						24VDC	6-1423008-7
T92HP7D1X-48						48VDC	6-1423008-9

Note. This list represents the most common types and does not show all variants covered by this datasheet, other types on request.

Product code structure (T92 type)

Product code structure

Typical product code **T92 S 11 D 2 2 -24 -99**

Type	T92 Printed circuit board / panel mount power relay T92
Enclosure	P Dust protected plastic case S Wash-tight, tape sealed, plastic case (Mounting and termination code 1) Wash-tight, glue sealed, plastic case (Mounting and termination code 1, 2 for anti-explosion version) Top sealed, not wash-tight, not tape sealed on bottom (Mounting and termination codes 2, 3 & 4)
Contact arrangement	7 2 form A (2 NO) 11 2 form C (2 CO)
Coil Input	A AC voltage, 60Hz or 50/60 Hz (consult coil versions table) D DC voltage F AC voltage, 50Hz
Mounting and termination	1 Printed circuit board mount; printed circuit board terminals. 2 Panel mount via flanged cover; .250" (6.35mm) x .032" (.81mm) QC terminal 3 Panel mount via flanged cover; .187" (4.75mm) x .032" (.81mm) QC terminals for coil and .250" (6.35mm) for contacts 4 Panel mount via flanged cover; .187" (4.75mm) x .020" (.51mm) QC terminals for coil and .250" (6.35mm) for contacts. 5 Panel mount via flanged cover, M4 screws w/ captive pressure plates. Requires Enclosure P and Contact arrangement 7.
Contact material	2 AgCdO 4 AgSnInO X Special Ag Alloy X (Cd Free)
Coil voltage	Coil code: please refer to coil versions table
Customer code	-99 Anti-explosion -00 WG version

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Product Code	Enclosure	Contacts	Coil	Mounting	Contact Material	Coil	Part Number
T92P7A22-24	Plastic dust cover	2 form A, 2 NO	AC	Panel mount + quick connect	AgCdO	24 VAC	6-1393211-0
T92P7A22-120						120 VAC	5-1393211-7
T92P7A22-240						240 VAC	6-1393211-2
T92P7A22-277						277 VAC	6-1393211-3
T92P7A24-240					AgSnOInO	240 VAC	3-1423008-3
T92P7A52-120				Panel mount + screw terminals	AgCdO	120 VAC	1423008-8
T92P7A52-240						240 VAC	1-1423008-2
T92P7D12-12			DC	PCB terminals		12 VDC	6-1393211-5
T92P7D14-12					AgSnOInO	12 VDC	2-1423008-1
T92P7D12-24					AgCdO	24 VDC	6-1393211-6
T92P7D22-12				Panel mount + quick connect		12VDC	6-1393211-9
T92P7D22-24						24 VDC	7-1393211-1
T92P7D22-48						48 VDC	7-1393211-2
T92P7D24-12					AgSnOInO	12VDC	2-1423008-2
T92P7D24-24						24 VDC	1423008-9
T92P7D42-24					AgCdO		7-1393211-5
T92P7D52-12				Panel mount + screw terminals		12 VDC	1-1423008-0
T92P7D52-24						24 VDC	1423967-1
T92P11A12-120		2 form C, 2 CO	AC	PCB terminals		120 VAC	3-1393211-8
T92P11A22-12				Panel mount + quick connect		12 VAC	3-1393211-9
T92P11A22-24						24 VAC	4-1393211-3
T92P11A22-120						120 VAC	4-1393211-0
T92P11A22-240						240 VAC	4-1393211-4
T92P11A22-277						277 VAC	4-1393211-6
T92P11A24-240					AgSnOInO	240 VAC	3-1423008-7
T92P11A42-120					AgCdO	120VAC	4-1393211-8
T92P11D12-12			DC	PCB terminals		12 VDC	5-1393211-0
T92P11D22-12				Panel mount + quick connect			5-1393211-3
T92P11D22-24						24 VDC	5-1393211-4
T92P11D24-12					AgSnOInO	12 VDC	3-1423008-5
T92P11D24-24						24 VDC	3-1423008-6
T92S7A12-24	Wash tight	2 form A, 2 NO	AC	PCB terminals	AgCdO	24 VAC	9-1393211-8
T92S7A12-120						120 VAC	9-1393211-7
T92S7A12-240						240 VAC	9-1393211-9
T92S7A22-24	Top sealed			Panel mount + quick connect		24 VAC	1393212-4
T92S7A22-120						120 VAC	1393212-2
T92S7A22-240						240 VAC	1393212-5
T92S7D12-12	Wash tight		DC	PCB terminals		12 VDC	1393212-8
T92S7D12-24						24 VDC	1-1393212-0
T92S7D12-48						48 VDC	1-1393212-1
T92S7D12-110						110 VDC	1393212-7
T92S7D14-12					AgSnOInO	12 VDC	1-1423008-6
T92S7D14-24						24 VDC	1-1423008-8
T92S7D22-12	Top sealed			Panel mount + quick connect	AgCdO	12 VDC	1-1393212-4
T92S7D22-18						18 VDC	1-1393212-5
T92S7D22-24						24 VDC	1-1393212-7
T92S7D22-110						110 VDC	1-1393212-3
T92S11A12-24	Wash tight	2 form C, 2 CO	AC	PCB terminals		24 VAC	8-1393211-1
T92S11A12-120						120 VAC	8-1393211-0
T92S11A12-240						240 VAC	8-1393211-2
T92S11A22-12	Top sealed			Panel mount + quick connect		12 VAC	8-1393211-3
T92S11A22-24						24 VAC	8-1393211-6
T92S11A22-120						120 VAC	8-1393211-4
T92S11A22-240						240 VAC	8-1393211-7
T92S11D12-12	Wash tight		DC	PCB terminals		12 VDC	8-1393211-9
T92S11D12-24						24 VDC	9-1393211-0
T92S11D12-48						48 VDC	9-1393211-1
T92S11D12-110						110 VDC	8-1393211-8
T92S11D22-12	Top sealed			Panel mount + quick connect		12 VDC	9-1393211-3
T92S11D22-24						24 VDC	9-1393211-4
T92P7D12-12-99	Plastic dust cover	2 form A, 2 NO	DC	PCB terminals	AgCdO	12VDC	2-2071223-3
T92S7D1X-12-99	Wash tight				Special Ag Alloy	12VDC	6-1423008-1
T92S7D2X-12-99				Panel mount + quick connect	X (Cd Free)	12VDC	6-1423008-2
T92S7A22-240-00	Top Sealed(WG)		AC		AgCdO	240VAC	2-2071223-4
T92S7D12-12-00	Wash tight (WG)		DC	PCB terminals		12VDC	1-2071223-7

Note. This list represents the most common types and does not show all variants covered by this datasheet, other types on request.