DTC4 Series
Sub Miniature PCB Signal Relay

- Sub miniature - only 14 x 9 x 5mm
- Up to 1A/24VDC rating
- DIL Pitch PCB mounting
- Surface mount & latching options

c UL us E305753

RoHS Compliant

Contacts

Contact arrangement		DPDT (2 Changeover); 2 Form C
Contact material		Ag + Au plate (0.2um) on stationary contact
Max. switching voltage	AC/DC	250VAC, 220VDC
Min. switching current / voltage		0.01mA / 10mVDC
Rated load (resistive - cos φ=1)	AC1	0.5A, 125VAC
	DC1	1A, 30VDC
Max. switching power		62.5VA / 30W
Initial resistance		≤ 50mΩ, max. at 0.1A / 6VDC

Coil

Rated voltage	DC	3...24V
Must release voltage		≥0.1U_n
Operating range		See table 1, 2 & 3
Rated power consumption	DC	0.14W / 0.10W (single coil latch) /
		0.20W (twin coil latch)

Insulation

Insulation resistance		≥1000MΩ at 500VDC, 50%RH
Dielectric strength	coil to contact	1000Vrms, 1min
	contact to contact	1000Vrms, 1min
	pole to pole	1000Vrms, 1min

General Data

Operating time	typ.	≤ 2ms
Release time	typ.	≤1 / ≤2 (latching)
Electrical life	ops.	2 x 10^5 (1A/30VDC) / 2 x 10^5 (0.5A/125VAC)
Mechanical life	ops.	1 x 10^8

Environmental

Ambient temperature	through hole	-40 to 70°C
	smt	-40 to 85°C
Shock resistance	functional	50g 11ms
	destructive	100g
Vibration resistance		DA 3mm 10-55Hz
Dimensions	L x W x H	14 x 9 x 5mm / 14.2 x 9.3 x 5.3 (smt type)
Weight	approx.	≤ 1.5g

Ordering Code

D T C 4 - 6 2 1 2 - 8 5 - 1 0 0 5

Series

Contact material
62: AgPd +Au plate (0.22um)

Contact arrangement
12: DPDT (2 C/O)

Environmental protection
8: In cover, sealed IP64

Mounting & terminations
5: For PCB
M: For surface mount

Coil code:
See tables
1, 2 & 3

Notes:
For AC loads this relay is designed for 50-60Hz standard industrial power and was tested according to AC1 category as defined by the IEC 60947-1 standard, covering low-frequency switchgear (typically 50-60 Hz). Operating at higher frequencies, places the component outside its certified utilisation category, invalidating all safety certifications (CE, UL, etc.) and manufacturer performance guarantees.

Coil Data — Table 1

Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10%	Power consumption (mW)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Max. allowable Voltage (VDC)
1003	3	64.3	140	2.25	0.3	7.5
1005	5	178	140	3.75	0.5	12.5
1009	9	579	140	6.75	0.9	22.5
1012	12	1028	140	9.00	1.2	30.0
1024	24	2880	200	18.00	2.4	48.0

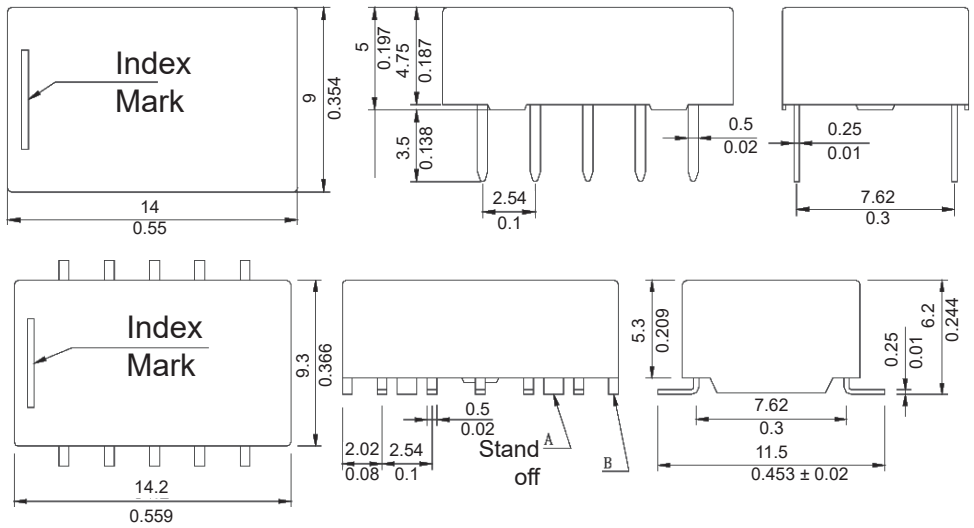
Coil Data - 1 Coil Latching — Table 2

Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10%	Power consumption (mW)	Must set voltage max. (VDC)	Must reset voltage min. (VDC)	Max. allowable Voltage (VDC)
SL03	3	90	100	2.25	2.25	8.7
SL05	5	250	100	3.75	3.75	14.5
SL09	9	810	100	6.75	6.75	26.1
SL12	12	1440	100	9.00	9.00	34.8
SL24	24	3840	150	18.00	18.00	57.6

Coil Data - 2 Coil Latching — Table 3

Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10%	Power consumption (mW)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Max. allowable Voltage (VDC)
TL03	3	45/45	200	2.25	2.25	8.7
TL05	5	125/125	200	3.75	3.75	14.5
TL09	9	405/405	200	6.75	6.75	26.1
TL12	12	720/720	200	9.00	9.00	34.8
TL24	24	1920/1920	300	18.00	18.00	57.6

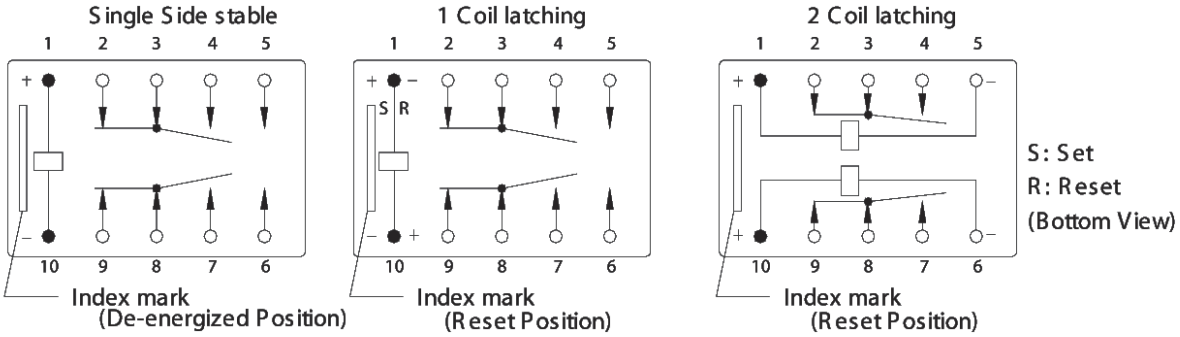
Overall Dimensions — Fig. 1



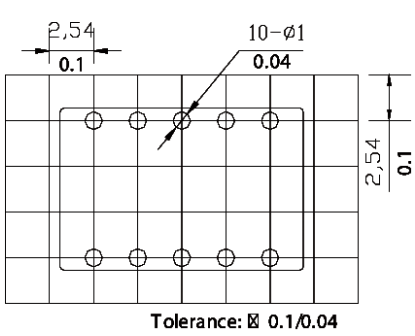
Dimensions in mm / inches. Tolerance: ±0.1 / 0.004 unless indicated

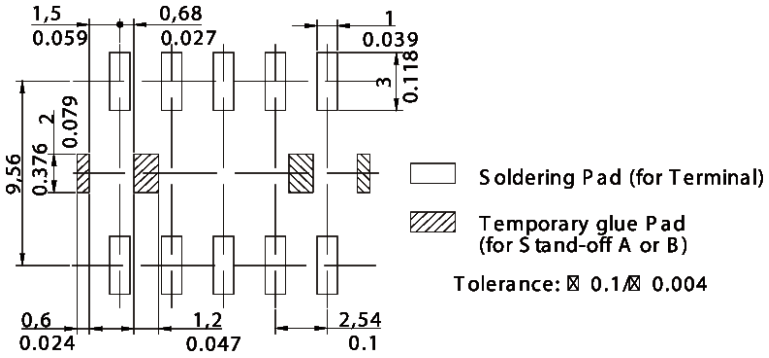
PCB Mounting Dimensions and Wiring Diagrams

Fig. 2



Wiring Diagrams (Bottom View)





Dimensions in mm / inches. Tolerance: ±0.1/ 0.004 unless indicated