

Double Mini Relay DMR

■ Limiting continuous current 30 A

Typical applications

Car alarm, door control, door lock, immobilizer, seat control, sun roof, window lifter, wiper control.

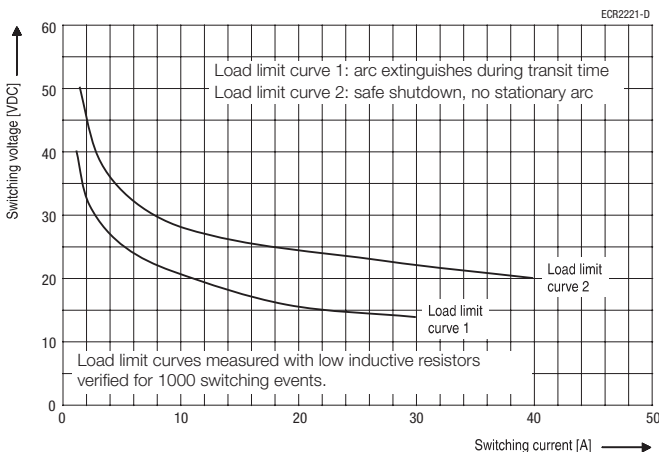


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Contact Data		
Contact arrangement	2 form C, 2 CO	
Rated voltage	12VDC	
Rated current	both systems	motor reverse ¹⁾²⁾
	20/20A	30/30A
Limiting continuous current at 23°C	20/20A	30/30A ²⁾
Limiting continuous current at 85°C	15/15A	30/30A
Limiting making current ¹⁾	35A	35A
Limiting breaking current ¹⁾	35A	35A
Contact material	AgSnO ₂	
Min. recommended contact load	1A at 5VDC ³⁾	
Initial voltage drop at 10A, typ./max.	30/300mV	
Operate/release time max. at nominal voltage	typ. 3/1.3ms ⁴⁾	
Electrical endurance		
at cyclic temperature -40/+23/+85°C and 13.5VDC, both systems, motor reverse blocked, 25A, 0.77mH inductive	>10 ⁵ ops.	
AgSnO ₂ , lamp load, 45A (on), 8A (off), 80°C	>2x10 ⁵ ops.	
AgSnO ₂ , resistive load, 20A, 80°C	>2x10 ⁵ ops.	
Mechanical endurance	>10 ⁷ operations	

- The values apply to a resistive or inductive load with suitable spark suppression and at maximum 13.5VDC for 12VDC load voltages.
- At 50% ON period: max. make time 15s.
- See chapter Diagnostics of Relays in our Application Notes or consult the internet at <http://relays.te.com/appnotes/>
- For unsuppressed relay coil. A low resistive suppression device in parallel to the relay coil increases the release time and reduces the lifetime caused by increased erosion and/or higher risk of contact tack welding.

Max. DC load breaking capacity



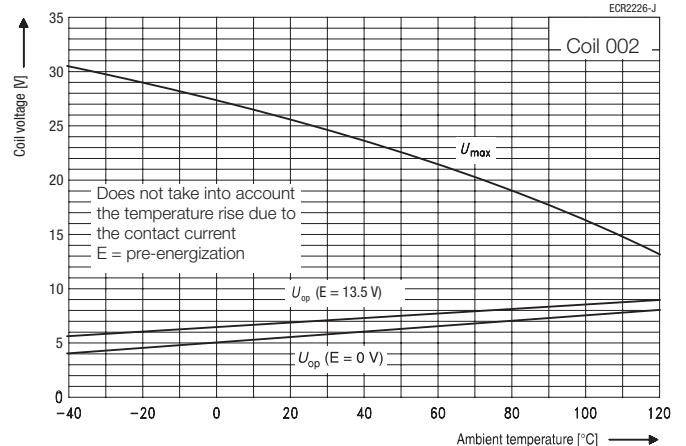
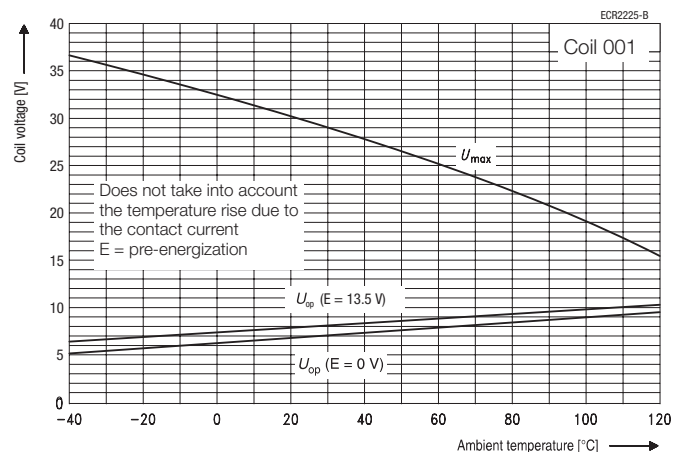
Coil Data	
Coil voltage range	-40 to +85°C
Rated coil voltage	12VDC

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated power mW
001	12	6.9	1.0	255	565
002	12	5.8	0.8	178	809

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Coil operating range



Double Mini Relay DMR (Continued)

Insulation Data

Initial dielectric strength	
between open contacts	500VAC _{rms}
between contact and coil	500VAC _{rms}

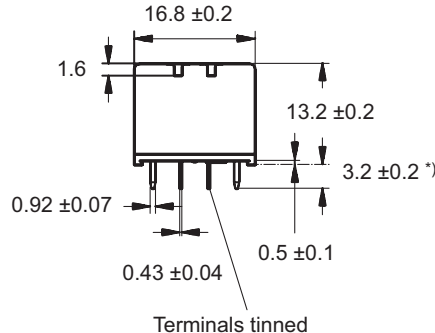
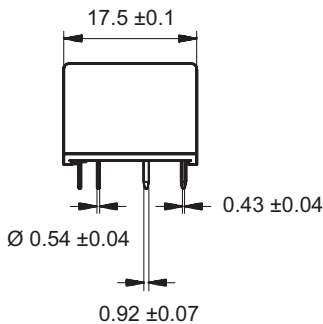
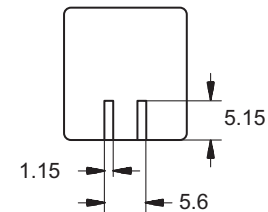
Other Data

EU RoHS/ELV compliance	compliant
Ambient temperature	-40 to 85°C
Cold storage, IEC 60068-2-1	1000h; -40°C
Dry heat, IEC 60068-2-2	1000h; +125°C
Temperature cycling (shock)	
IEC 60068-2-14, Na	1000 cycles; -40/+125°C
Temperature cycling	
IEC 60068-2-14, Nb	35 cycles; -40/+125°C
Damp heat cyclic	
IEC 60068-2-30, Db, Variant 1	6 cycles 25°C/55°C/93%RH
Damp heat constant	
IEC 60068-2-3, Ca	56 days 40°C/95%RH ⁵⁾
Category of environmental protection, IEC 61810	RT III - immersion cleanable
Sealing test	
IEC 60068-2-17	Qc, method 2, 1min, 70°C
Vibration resistance (functional)	
IEC 60068-2-6 (sine sweep)	10 to 200Hz; 6to 30g ⁶⁾
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	6ms; 30g ⁶⁾
Shock resistance (destructive)	
IEC 60068-2-29 (half sine)	30g: 6ms, 105 shocks 100g: 2ms, 10 shocks
Terminal type	PCB
Weight	approx. 10g (0.35oz)
Solderability (aging 3: 4h/155°C)	
IEC 60068-2-20	Ta, method 1, hot dip 5s, 215°C
Resistance to soldering heat THT	
IEC 60068-2-20	Tb, method 1A, hot dip 10s, 260°C with thermal screen
Packaging unit	600 pcs.

5) Relays have to be dried at 85°C for 24 hours after test.

6) depending on mounting position: no change in the switching state >10µs.

Dimensions

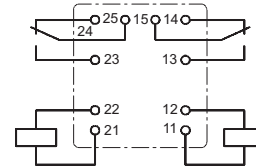


*) Additional tin tops max. 1mm

Terminal Assignment

Bottom view on solder pins

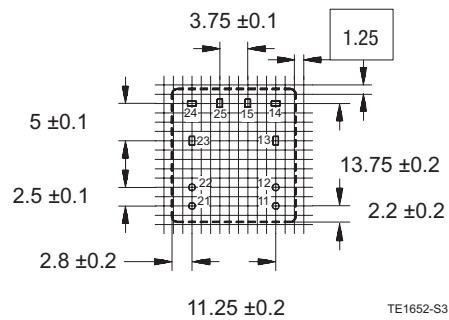
2 form C contacts, 2 CO



TE1651-J2

PCB Layout

Bottom view on solder pins



TE1652-S3

TE1650-B3