

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.



F084_fcw2c_bw

Contact Data					
Contact arrangement		2 f	orm C, 2 CO		
Rated voltage			12VDC		
Rated current	both	motor	both	motor	
	systems	reverse ¹⁾²⁾	systems	reverse1)2)	
	20/20A	30/30A	18/18A	30/30A	
Limiting continuous cur					
at 23°C	20/20A	30/30A ²⁾	18/18A	30/30A ²⁾	
at 85°C	15/15A	30/30A	12/12A	30/30A	
Limiting making current ¹⁾ 35A		35A	35A	35A	
Limiting breaking current ¹⁾ 35A		35A	35A	35A	
Contact material	AgNi0.15	AgNi0.15	AgSnO ₂	AgSnO ₂	
Min. recommended cor	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 AgNi0.15, motor reverse blocked,

25A, 0.77mH inductive >10⁵ ops.

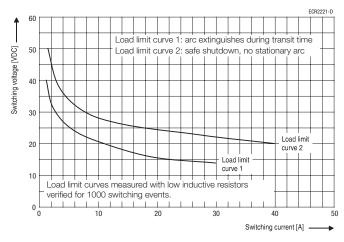
AgSnO₂, lamp load, 45A (on), 8A (off), 80°C >2x10⁵ ops. AgSnO₂, resistive load, 20A, 80°C >2x10⁵ ops.

 $AgSnO_2$, 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.

- 2) 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/
- 4) 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



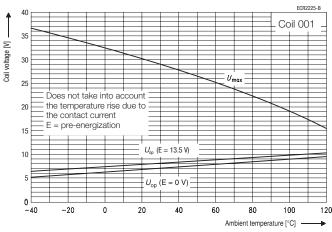
Coil Data	
Coil voltage range	-40 to +85°C
Rated coil voltage	12VDC

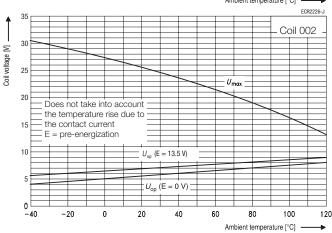
Coil versions, DC coil

Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	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	

Resistance to soldering heat THT

IEC 60068-2-20

Tb, method 1A, hot dip 10s, 260°C with thermal screen Packaging unit 600 pcs.

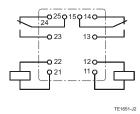
5) Relays have to be dried at 85°C for 24 hours after test.

6) depending on mounting position: no change in the switching state $>10\mu s$.

Terminal Assignment

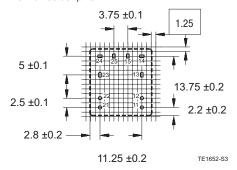
Bottom view on solder pins

2 form C contacts, 2 CO

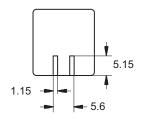


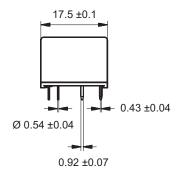
PCB Layout

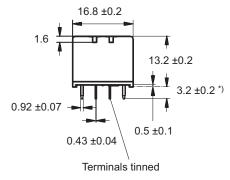
Bottom view on solder pins



Dimensions





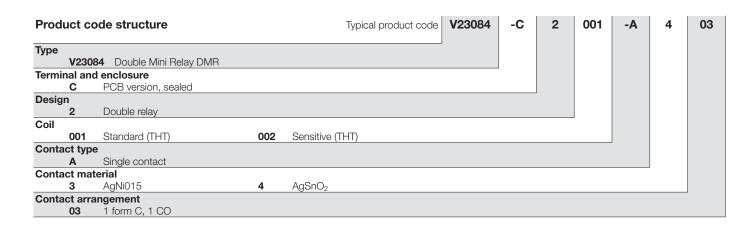


*) Additional tin tops max. 1mm

TE1650-B3



Double Mini Relay DMR (Continued)



Product code	Terminal/Encl.	Design	Coil	Contact type	Cont. material	Arrangement	Part number
V23084-C2001-A303	PCB,	Double relay	Standard (THT)	Single	AgNi0.15	2 form C, 2 CO	0-1393267-2
V23084-C2002-A303	immersion		Sensitive (THT)				1-1393267-0
V23084-C2001-A403	cleanable		Standard (THT)		AgSnO ₂		0-1393267-6
V23084-C2002-A403			Sensitive (THT)				1-1393267-2

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