DB(UL) Series



UL Approved* Normally Closed, High Voltage Relays - 10kV, 7.5kV & 5kV



Recently approved by UL, very high isolation voltages (up to 10kV) are achieved through the use of high vacuum reed switches with either Rhodium or Tungsten contacts and make these relays suitable for high reliability applications, such as cardiac defibrillators, test equipment and high voltage power supplies.

A choice of 5kV, 7.5kV and 10kV isolation voltages is available

The Rhodium contact relays have low contact resistance, while the Tungsten contact relays can switch higher voltages, up to 7000Vdc/ac peak to peak

PCB or Panel Mount, via Nylon studs, versions are available.

Connection options, for the HV, include PCB, solder turret(wire wrap), flying lead and 0.25" spade terminals.

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ISO9001 CERTIFIED

DB(UL) 2019

- Choice of 10kV. 7.5kV or 5kV Isolation
- Low Contact Resistance
- PCB or Panel Mount
- HV connections via Flying Leads, Solder Turret (wire wrap), or 1/4" Spade Terminals
- Excellent AC characteristics



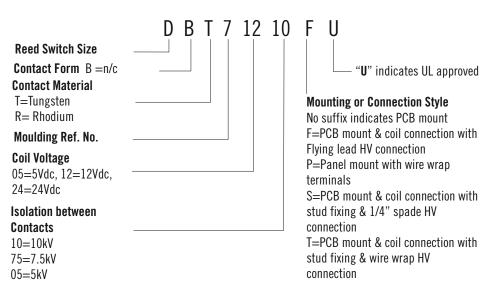
Contact Specification	Unit	Condition	10kV		7.5kV		5kV	
Contact Form	ontact Form			N/C (normally colsed)				
Contact Material			Rhodium	Tungsten	Rhodium	Tungsten	Rhodium	Tungsten
Isolation across contacts	s kV	DC or AC peak	10	10	7.5	7.5	5	5
Switching Power Max.	W		50	50	50	50	50	50
Switching Voltage Max.	٧	DC or AC peak	1000	7000	1000	5000	1000	3500
Switching Current Max.	Α	DC or AC peak	3	2	3	2	3	2
Carry Current Max	Α	DC or AC peak	4	3	4	3	4	3
Capacitance across	pF	coil to screen	< 0.2	< 0.2	<0.2	< 0.2	<0.2	< 0.2
contacts		grounded			_			
Lifetime operations		dry switching	10°	10°	10°	10°	10°	10°
		50W switching	10^6	10^6	10 ⁶	10^6	10 ⁶	10^6
Contact Resistance	mΩ	max (typical)	50 (15)	250(100)	50 (15)	250(100)	50 (15)	250(100)
Insulation Resistance	Ω m	in (typical)	10 ¹⁰	(10^{13})	1010	(10^{13})	10 ¹⁰	(10^{13})
Coil Specification				5\	<i>l</i> 1	2V	24V	
Must Operate Voltage	٧	DC		3.	7	9	20	
Must Release Voltage	٧	DC		0.9	5	1.25	4	
Operate Time	ms	diode fitted		2.0	0	2.0	2.0	
Release Time	ms	diode fitted		3.0	0	3.0	3.0	
Resistance	Ω			38	}	240	925	
Note. The operate / release voltage and coil resistance will change at a rate of 0.4% per degree C. Values are stated at room temperature (20 degrees C)								
Relay Specification								
Isolation contact/coil kV				17				
Insulation resistance contact								
to all terminals Environmental	Ωmin (typical)			$10^{10} (10^{13})$				
Operating Temp range	O			-20 to +70				

*Consult factory for UL ratings

These products have been UL approved for use as per pollution degree 2 classification.

If you require further information as to how this may affect product usage, please contact sales@cynergy3.com.

Part Numbering System



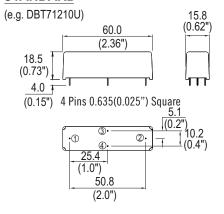


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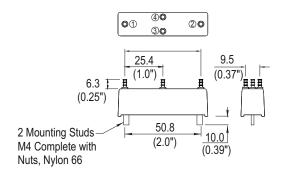
MECHANICAL

STANDARD

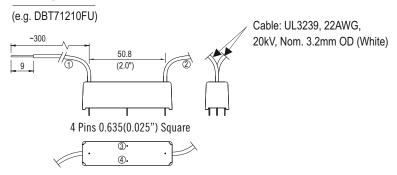


PANEL MOUNT

(e.g. DBT71210PU)

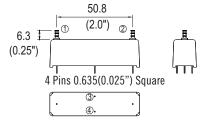


FLYING LEAD



TURRET (Wire Wrap)

(e.g. DBT71210TU)



NOTE: PINS WHICH ARE NOT NUMBERED HAVE NO ELECTRICAL CONNECTION.

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SPADE TYPE

CIRCUIT DIAGRAMS

(ALL VARIANTS)

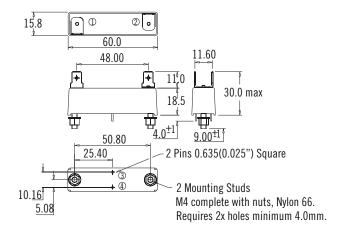
FORM B* (NC)

NOTE: COIL POLARITY

IS IMPORTANT

(e.g. DBT71210SU)

'S' Suffix denotes the 0.250" 'Push On' blade connectors, M4 fixing bolts and Epoxy potting.



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