RS stock numbers : 1245096, 1245097, 1245098, 1245099, 1245100, 1245101, 1245105, 1245106, 1245107, 1245108, 1245109, 1245110

DA(UL) Series

*UL Approved *, Normally Open, High Voltage Relays - 10kV*

- *10kV 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 SPNO		
Contact Form			N/O (normally open)		
Contact Material			Rhodium	Tungsten	
Isolation across contacts	kV	DC or AC peak	10	10	
Switching Power Max.	W		50	50	
Switching Voltage Max.	V	DC or AC peak	1000	7000	
Switching Current Max.	A	DC or AC peak	3	2	
Carry Current Max	A	DC or AC peak	4	3	
Capacitance across contacts	pF	coil to screen grounded	<0.2	<0.2	
Lifetime operations		dry switching	10^9	10^9	
		50W switching	10^6	10^6	
Contact Resistance	mΩ	max (typical)	50 (15)	250(100)	
Insulation Resistance	Ωmin	(typical)	10^{10}	(10^{13})	
Coil Specification			**5V**	**12V**	**24V**
Must Operate Voltage	V	DC	3.7	9	20
Must Release Voltage	V	DC	0.5	1.25	4
Operate Time	ms	diode fitted	3.0	3.0	3.0
Release Time	ms	diode fitted	2.0	2.0	2.0
Resistance	Ω		28	150	780
Relay Specification					
Isolation contact/coil	kV		17		
Insulation resistance contact to all terminals	Ωmin	(typical)	10^{10} (10^{13})		
Environmental Operating Temp range	ºC		-20 to +70		

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.

The Rhodium contact relays have low contact resistance, while the Tungsten contact relays can switch higher voltages.

PCB or Panel Mount, via Nylon studs, versions are available, contact Cynergy3 for details.

Connection options, for the HV, include PCB, solder turret(wire wrap), flying lead and 0.25" spade terminals, contact cynergy3 for details,

*Consult factory for UL ratings

RS Stock No	Standard Part	Contact Material	Coil Voltage (Vdc)	Mount type
1245096	DAR70510U	Rhodium	5	PCB
1245097	DAR71210U	Rhodium	12	PCB
1245098	DAR72410U	Rhodium	24	PCB
1245099	DAT70510U	Tungsten	5	PCB
1245100	DAT71210U	Tungsten	12	PCB
1245101	DAT72410U	Tungsten	24	PCB
1245105	DAR70510FU	Rhodium	5	PCB with flying lead coil connection
1245106	DAR71210FU	Rhodium	12	PCB with flying lead coil connection
1245107	DAR72410FU	Rhodium	24	PCB with flying lead coil connection
1245108	DAT70510FU	Tungsten	5	PCB with flying lead coil connection
1245109	DAT71210FU	Tungsten	12	PCB with flying lead coil connection
1245110	DAT72410FU	Tungsten	24	PCB with flying lead coil connection

Please refer to this document for circuit design notes:-
http://www.cynergy3.com/blog/application-notes-reed-relays-0

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ISO9001 CERTIFIED

DA(UL) RS 2016

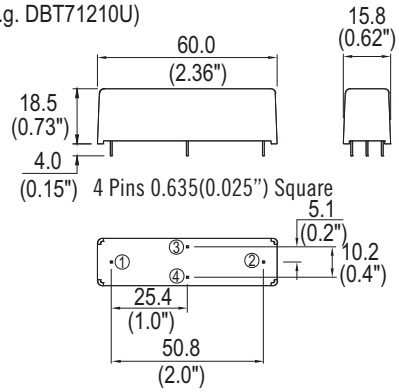
Made in the UK

www.cynergy3.com

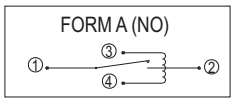
MECHANICAL

STANDARD

(e.g. DBT71210U)



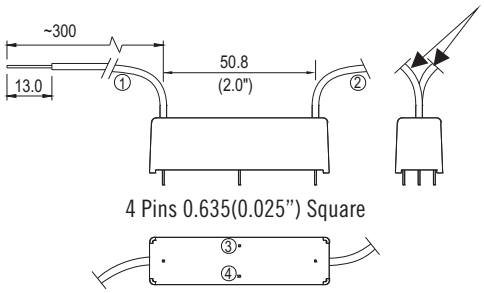
CIRCUIT DIAGRAMS
(ALL VARIANTS)



NOTE: COIL POLARITY IS
NOT SIGNIFICNAT

FLYING LEAD

(e.g. DBT71210FU)



Cable: UL3239, 22AWG,
20kV, Nom. 3.2mm OD (White)

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

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