D Series

High Voltage relays 10kV & 15kV



Very high isolation voltages, up to 15kV. 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.

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

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- 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	10kV SPNC	15kV SPNO
Contact Material Isolation across contacts kV Switching Power Max. Switching Voltage Max. Switching Current Max. Carry Current Max Capacitance across contacts Lifetime operations Contact Resistance Insulation Resistance M DC or AC peak DC or AC peak P coil to screen grounded dry switching 50W switching max (typical)	Rhodium Tunsten 10 10 50 50 1000 7000 3 2 4 3 <0.2 <0.2 10 ⁹ 10 ⁹ 10 ⁶ 10 ⁶ 50 (15) 250(100) 10 ¹⁰ (10 ¹³)	Rhodium Tungsten 10 10 50 50 1000 7000 3 2 4 3 <0.2 <0.2 10° 10° 106 106 50 (15) 250(100) 1010 (1013)	Tungsten 15 50 10000 2 2 <0.2 10° 10° 250 (100) 10¹0 (10¹³)
Coil Specification	5V 12V 24V	5V 12V 24V	5V 12V 24V
Must Operate Voltage V DC Must Release Voltage V DC Operate Time ms diode fitted Release Time ms diode fitted Resistance Relay Specification	3.7 9 20 0.5 1.25 4 3.0 3.0 3.0 2.0 2.0 2.0 28 150 780	3.7 9 20 0.5 1.25 4 2.0 2.0 2.0 3.0 3.0 3.0 38 240 925	3.7 9 20 0.5 1.25 4 3.0 3.0 3.0 2.0 2.0 2.0 16 95 350
notal opcomodition			
Isolation contact/coil kV Insulation resistance contact to all terminals min (typical) Envirnonmental Operating Temp range °C	17 10 ¹⁰ (10 ¹³) -20 to +70	17 10 ¹⁰ (10 ¹³) -20 to +70	17 10 ¹⁰ (10 ¹³) -20 to +70

Part Numbering System

D A T 7 12 10 F **Reed Switch Size** Contact Form A=n/o, B=n/c **Contact Material** R=Rhodium, T=Tungsten Moulding Ref. No. **Coil Voltage** 05=5Vdc, 12=12Vdc, 24=24Vdc Isolation between **Contacts** 3=3kV, 5=5kV, 10=10kV, 15=15kV

Mounting or Connection Style

No suffix indicates PCB mount F=PCB mount & coil connection with Flying lead HV connection P=Panel mount with wire wrap terminals S=PCB mount & coil connection with stud fixing & 1/4" spade HV connection (not available on 15kV models) T=PCB mount & coil connection with

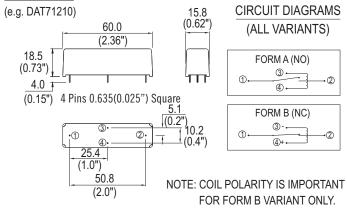
stud fixing & wire wrap HV connection

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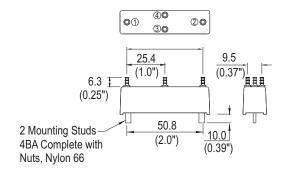
MECHANICAL

STANDARD



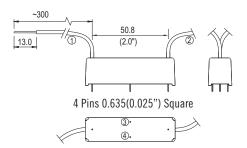
PANEL MOUNT

(e.g. DAT71210P)



FLYING LEAD

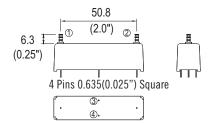
(e.g. DAT71210F)



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

TURRET (Wire Wrap)

(e.g. DAT71210T)



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

SPADE TYPE

(e.g. DAT71210S)

'S' Suffix denotes the 0.250" 'Push On' blade connectors, 4BA fixing bolts and Epoxy potting.

