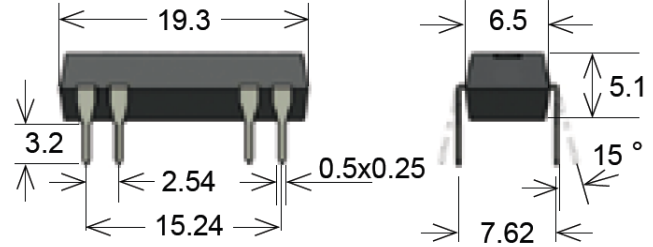
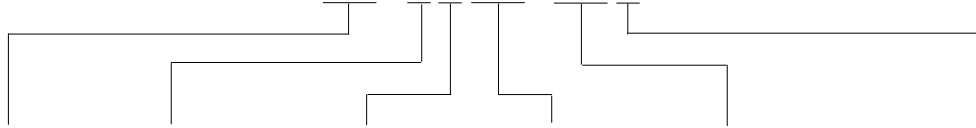


# DIP Series Reed Relays



- Features: Dual In-Line IC Compatible Relay, Available with Dielectric Strength 4.25VDC
- Applications: General Purpose, Measuring and Testing Devices & Others
- Markets: Telecommunications, Test and Measurement, Security & Others

Part Description: **DIP 00-0X00-00X**



Nominal Voltage	Contact QTY	Contact Form	Switch Model	Pin Out	Option ( ) Version with Magnetic Shield
05, 12, 15, 24	1, 2	A, B, C	72, 75, 90	10, 11, 12, 13, 19, 21, 51	A, B, C, L(M), D(Q), E(R), F(S)

Customer Options	Switch Model			Unit
	72	75	90	
<b>Contact Data</b>				
<b>Rated Power (max.)</b> Any DC combination of V&A not to exceed their individual max.'s	10	10	10	W
<b>Switching Voltage (max.)</b> DC or peak AC	200	500	175	V
<b>Switching Current (max.)</b> DC or peak AC	0.5	0.5	0.5	A
<b>Carry Current (max.)</b> DC or peak AC	1.0	1.0	1.2	A
<b>Contact Resistance (max.)</b> @ 0.5V & 50mA	100	200	150	mOhm
<b>Breakdown Voltage (min.)</b> According to EN60255-5	0.25	0.6	0.2	kVDC
<b>Operating Time (max.)</b> Incl. Bounce; Measured with w/ Nominal Voltage	0.5	0.5	0.7	ms
<b>Release Time (max.)</b> Measured with no Coil Excitation	0.1	0.1	1.5	ms
<b>Insulation Resistance (typ.)</b> Rh<45%, 100V Test Voltage	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>9</sup>	GOhm
<b>Capacitance (typ.)</b> @ 10kHz across open Switch	0.3	0.4	1.0	pF

Coil Data		Coil Voltage (nom.)	Coil Resistance (typ.)	Pull-In Voltage (max.)	Drop-Out Voltage (min.)	Nominal Coil Power (typ.)
Contact Form	Switch Model					
Unit		VDC	Ohm	VDC	VDC	mW
1A, 1B*	72, 75**	05	500 (200)	3.5	0.75	50
		12	1,000	8.4	1.8	145
		15	2,000	10.5	2.2	115
		24	2,000	16.8	3.6	290
1C	90	05	200	3.5	0.75	125
		12	500	8.4	1.8	290
		15	2,000	10.5	2.2	115
		24	2,000	16.8	3.6	290
2A	72	05	200	3.5	0.75	125
		12	500	8.4	1.8	290
		15	2,000	10.5	2.2	115
		24	2,000	16.8	3.6	290

The Pull-In / Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C. \*Re-closure of Form B may occur if the max. coil voltage is exceeded. Coil polarity on Form B must be observed. Pin 2 is positive. ( ) For Switch 1A75 \*\*1B-75 only with Coil Voltage 24 available.

Environmental Data		Unit
<b>Shock Resistance (max.)</b> 1/2 sine wave duration 11ms	50	g
<b>Vibration Resistance (max.)</b>	20	g
<b>Operating Temperature</b>	-20 to 70	°C
<b>Storage Temperature</b>	-35 to 95	°C
<b>Soldering Temperature (max.)</b> 5 sec. max.	260	°C

#### DIP Reed Relay

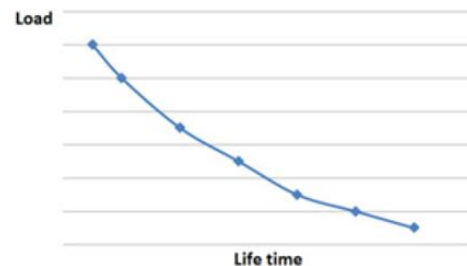


#### Handling & Assembly Instructions

- Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay. Protective circuits need to be used.
- External magnetic fields need to be taken into consideration, including a too high packing density. This may influence the relays' electrical characteristics.
- Mechanical shock impacts e.g. dropping the relays may cause immediate or post-installation failure.
- Wave soldering: maximum 260°/5 seconds.
- Reflow soldering: Recommendations given by the soldering paste manufacturer need to be considered as well as the temperature limits of other components/processes.

#### Life Test Data

\*Load increase reduces life expectancy of Reed Switches



Glossary Contact Form		
Form A	NO = Normally Open Contacts SPST = Single Pole Single Throw	
Form B	NC = Normally Closed Contacts SPST = Single Pole Single Throw	
Form C	Changeover SPDT = Single Pole Double Throw	



Pin Out			
Top View 2.54mm [0.10"] pitch grid	10	11	12
	13	19	21
			51

Contact Form	Package Size	Pin Out	Options												
			L	A	B	C	D	E	F	M	Q	R	S		
1A	Low Profile	10	X	X	X	X									
		11	X					X							
		12	X	X											
		13	X												
	High Profile	10				X									
		11					X		X	X	X			X	
		12					X	X	X						
		13				X			X	X					
1B	High Profile	19	X			X			X	X					
2A	High Profile	21	X	X		X	X	X	X	X	X	X	X	X	
1C	Low Profile	51	X												
	High Profile					X	X	X	X	X	X	X	X	X	

Options		
() Versions with magnetic shield		
Top View, 2.54mm [0.10"] pitch grid		
A	B	C
L (M)	D (Q)	
E (R)	F (S)	