

## Single-In-Line Reed Relays



## DESCRIPTION

Single-In-Line Reed Relays reduce the required space to a minimum. Requiring only half the PCB area of the DIP or DIL series, the SIL relays offer all the advantages of Reed Technology.

## CHARACTERISTICS

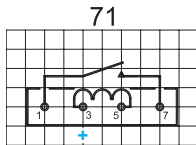
- High resistance coils of up to 2000  $\Omega$  at 12 VDC
- Breakdown voltage coil / contact of up to 4.25 kVDC

## FEATURES

- Magnetic shield available
- High resistance version
- Other coil resistances available
- Option with coax screen for Z=50 Ohm Impedance

## PIN OUT

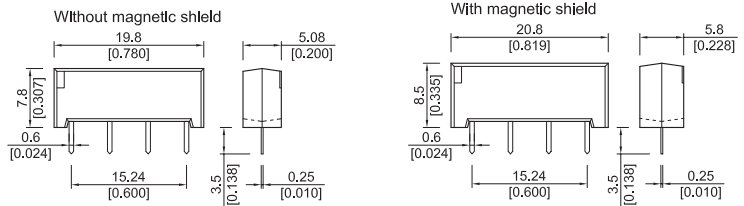
View from top of component  
2.54mm [0.10"] pitch grid



“+” by option with diode

## DIMENSIONS

All dimensions in mm [inches]



## ORDER INFORMATION

### Part Number Example

SIL12 - 1A72 - 71L

12 is the nominal voltage  
1A is the contact form  
72 is the switch model  
L is the option

## OPTIONS

- L = No option  
M = With magnetic shield  
D = With diode and no magnetic shield  
Q = With diode and with magnetic shield

Series	Nominal Voltage	Contact Form	Switch Model	Pin Out	Options	High Resistance Version
SIL	XX -	1 X	XX -	71	X	XX
Options	05, 12, 15, 24*	1 A	72, 75, 84		L, M, D, Q	
	05, 12	1A	72		D, L, M, Q	HR
* Other coil resistance available. Please consult factory.						

**RELAY DATA**

All Data at 20° C	Switch Model → Contact Form →	Switch 72 Form A			Switch 75 Form A			Switch 84 Form A			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Switching Power	Any DC combination of V & A not to exceed their individual max.'s		15				10			10	W
Switching Voltage	DC or peak AC		200				500			400	V
Switching Current	DC or peak AC		1.0				0.5			0.5	A
Carry Current	DC or peak AC		1.25				1.0			1.0	A
Static Contact Resistance	w/ 0.5 V & 10mA		150				200			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure		200				200			200	mΩ
Insulation Resistance across Contacts	Across Contact Coil - Contact	10 <sup>13</sup>			10 <sup>13</sup>			10 <sup>12</sup> 10 <sup>12</sup>	10 <sup>13</sup>		Ω
Breakdown Voltage across Contact	Across Contact Coil - Contact	250 1500			1500* 1500			700 1500			VDC
Operation Time incl. Bounce	Nominal voltage		0.7				0.5			2.0	ms
Release Time	with no coil suppression		0.1				0.1			0.1	ms
Capacitance	Across Contact Coil - Contact			0.2 2.0			0.4 2.0		0.7 2.0		pF
<b>Life Expectance</b>											
Switch Voltage 5V - 10 mA	DC <10 pF stray cap.		1000				500			200	10 <sup>6</sup> Cycles
For other load requirements, see test section on Page 112.											
<b>Environmental Data</b>											
Shock Resistance	1/2 sinus wave duration 11 ms			50			30			50	g
Vibration Resistance	From 10 - 2000 Hz			20			10			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		130	-20		70	-20		70	°C
Stock Temperature	10°C/ minute max. allowable	-55		130	-35		95	-35		95	°C
Soldering Temperature	5 sec.			260			260			260	°C
* 600 VDC with 5V coil.											

**Single-In-Line  
Reed Relays****COIL DATA**

Contact form	Switch Model	Coil Voltage		Coil Resistance			Pull In Voltage	Drop Out Voltage	Nominal Coil Power
		VDC		Ω			VDC	VDC	mW
All Data at 20 °C		Nom.	Max.	Min.	Typ.	Max.	Max.	Min.	Typ.
		1A	72 75 84	5	7.5	450	500 (200)	550 (220)	3.5
12	16			900	1000	1100	8.4	1.8	145
15	7.5			1800	2000	2200	10.5	2.2	110
24	30			1800	2000	2200	16.8	3.6	290
72	5 HR		7.5	900	1000	1100	3.5	0.75	25
	12 HR		16	1800	2000	2200	8.4	1.8	70

\* The pull-in / drop out voltages and coil resistance will change at the rate of 0,4 % / °C.  
\*\* Data in ( ) are valid for switch models 75 and 84.