Single-In-Line Reed Relays

DESCRIPTION

Single-In-Line Reed Relays reduce the required space to a minimum. The SIL series is available as both voltage and current driven (line sense) Reed Relays. Requiring only half the PCB area of the DIP or DIL series, the SIL relays offer all the advantages of Reed Technology. The SIL series is approved according to EN60950 and offers sufficient distance in air and creepage paths.

CHARACTERISTICS

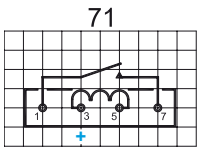
- High resistance coils of up to 2000 Ω at 12 VDC
- Line sense relay with pull-in current = 15 mA
- Breakdown voltage coil / contact of up to 4.25 kVDC

FEATURES

- Magnetic shield available
- High resistance version
- Other coil resistances available

PIN OUT

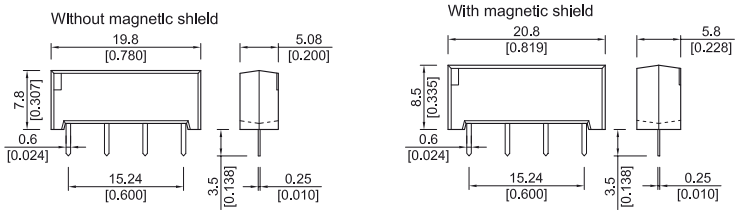
View from top of component
2.54mm [0.10"] pitch grid



"+" by option with diode

DIMENSIONS

All dimensions in mm [inches]



ORDER INFORMATION

Part Number Example

SIL12 - 1A46 - 46L

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

Series	Nominal Voltage	Contact Form	Switch Model	Pin Out	Options	High Resistance Version
SIL	**XX -**	**1 X**	**XX -**	**46**	**X**	**XX**
Options	05, 12, 15, 24*	A**	72, 75, 84		L, M, D, Q	
	05, 12	1A	72		L, M	HR

* Other coil resistance available. Please consult factory.
** Contact B available.

OPTIONS

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

RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 72 Form A			Switch 75 Form C			Switch 84 Form A			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
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^{13}			10^{13}			10^{12} 10^{12}	10^{13}		Ω
Breakdown Voltage across Contact	Across Contact Coil - Contact	250 1500			1500 1500			1500* 1500			VDC
Operation Time incl. Bounce	100 % Overdrive		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
Life Expectance											
Switch Voltage 5V - 10 mA	DC <10 pF stray cap.	1000			500	100			200		10^6 Cycles
For other load requirements, see test section on Page 112.											
Environmental Data											
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.

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Reed Relays

COIL DATA

Contact form	Switch Model	Coil Voltage		Coil Resistance			Pull In Voltage	Drop Out Voltage	Nominal Coil Power
All Data at 20 °C		VDC		Ω			VDC	VDC	mW
		Nom.	Max.	Min.	Typ.	Max.	Max.	Min.	Typ.
1A	72 75 84	5	7.5	450 (180)**	500 (200)	550 (220)	3.5	0.75	50 (125)
		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.