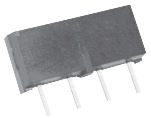
MICRO SIL
Reed Relays



DESCRIPTION

MICRO SIL is a single-in-line Reed Relay using only 15.2 x 3.81 mm of board space which is half the standard SIL requirement.

CHARACTERISTICS

- Contact Form 1A
- Internal magnetic shield

APPLICATIONS

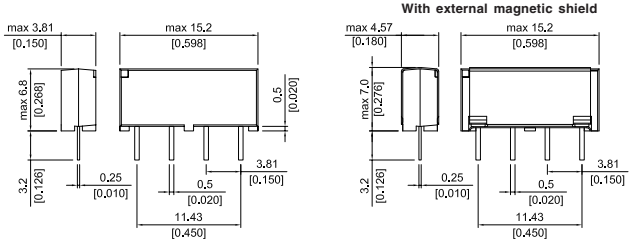
- ATE systems
- Measurement equipment
- Telecommunications
- Security systems

FEATURES

- New rugged molded design
- Diode option available
- High coil resistance option

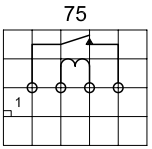
DIMENSIONS

All dimensions in mm [inches]



PIN OUT

View from top of component
3.81mm [0.15"] pitch grid



- Notch in case denotes pin #1
- Pin #2 must be positive when internal diode protection is present

ORDER INFORMATION

SERIES	NOMINAL VOLTAGE	CONTACT FORM	SWITCH MODEL	PIN OUT	OPTIONS	HIGH RESISTANCE VERSION
MS -	**XX**	**1A**	**XX -**	**75**	**X**	**XX***
OPTIONS	05, 12		31, 87		L, D	HR*
* HR version is available with the 87 switch only						

OPTIONS

L = No diode (with internal shield)
D = With diode and internal magnetic shield
HR = High resistance version (5 Volt option only)

Part Number Example

MS12 - 1A87 - 75L

12 is the nominal voltage
87 is the switch model
L is the option

RELAY DATA

All data at 20 °C	Switch Model --> Contact Form -->	Switch 31 Form A			Switch 87 Form A			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50			10	W
Switching Voltage	DC or peak AC			1000			200	V
Switching Current	DC or peak AC			2.0			0.5	A
Carry Current	DC or peak AC			3.0			1.0	A
Static Contact Resistance	w/ 0.5V & 50mA			80			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			200			200	mΩ
Insulation Resistance (100 Volts applied)	Across contacts Contact to coil	10^{10} 10^{12}			10^{11} 10^{13}	10^{12} 10^{14}		Ω
Breakdown Voltage	Across contacts Contact to coil	1500 2000			225 1500			VDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			1.0			0.5	ms
Release Time	No suppression			0.7			0.1	ms
Capacitance	Across contacts Contact to coil		0.3 2.0			0.2 2.0		pF
Life Expectancies								
Switching 5 Volts@ 10mA	DC only & <10 pF stray cap.		500			1000		10^6 Cycles
For other load requirements please see our life test section located on page 151.								
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10 °C/ minute max. allowable	-20		70	-20		70	°C
Storage Temperature	10 °C/ minute max. allowable	-35		95	-35		95	°C
Soldering Temperature	5 sec. dwell			260			260	°C

MICRO SIL
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.	Min.	Max.	Min.	Max.	Typ.
1A	31	5	7.5	90	100	110	0.85	3.5	0.75	3.4	250
		12	16	315	350	385	1.9	8.4	1.8	8.3	410
	87**	5	7.5	250	280	310	0.85	3.5	0.75	3.4	90
		5 HR**	7.5	450	500	550	0.85	3.5	0.75	3.4	50
		12	16	630	700	770	1.9	8.4	1.8	8.3	205

* The pull-in / drop-out voltages and coil resistance will change at the rate of 0.4% per °C.
** High Resistance version 87 switch only