MICRO SIL
Reed Relays

DESCRIPTION

MICRO SIL is a compact version of our SIL Reed Relay Series using only 15.2 x 3.81 mm of board space which is half the standard SIL requirement.

APPLICATIONS

- ATE systems
- Measurement equipment
- Telecommunications
- Security systems

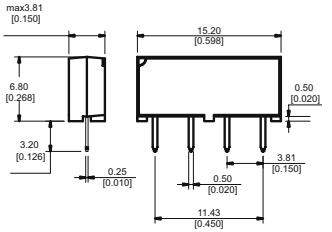
FEATURES

- Contact Form 1A, 1B and 2A
- Coaxial shield option for 1A
- Internal magnetic shield on all relays
- Diode option available
- High coil resistance option for 1A
- UL available on most models

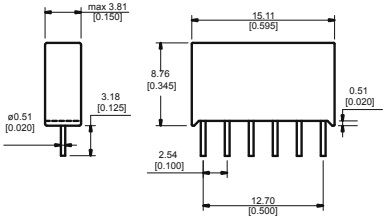
DIMENSIONS

All dimensions in mm [inch]

Form 1A
Unspecified Tolerances +/- 0.25 mm



Form 2A
Unspecified Tolerances +/- 0.127 mm

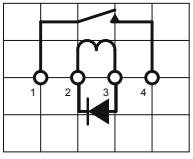


PIN OUT

View from top of component

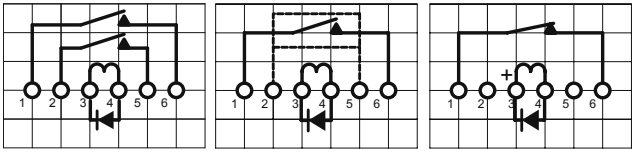
Form 1A
Pitch grid: 3.81 mm [0.15”]
Pin #2 must be positive when internal diode protection is present.

75



Form 2A
Pitch grid: 2.54 mm [0.1”]
Pin #3 must be positive when internal diode protection is present.

78 79 80



• Notch in case denotes pin #1 in 75 layout; dot stamped over pin # 1 for 78, 79 and 80 layouts.

ORDER INFORMATION

Relay Series	Nominal Voltage	Contact Form	Switch Model	Pin Out	Options	High Resistance Version
MS	XX -	1A	87	75	X	**XX**
Options	05, 12				L, D	**HR**
Options	05	1A coaxial	87	79	L, D	
	05	1B	87	80	L, D	
	05	2A	87	78	L, D	

Part Number Example

MS12 - 1A87 - 75L

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

OPTIONS

L = No diode
D = With diode
HR = High resistance version (5 Volt option only)

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 Normally open	**87**	5	7.5	250	280	310	3.5	0.75	90
		5 HR	7.5	450	500	550	3.5	0.75	50
		12	18	630	700	770	8.4	1.8	205
1A coaxial	**87**	5	7.5	338	375	413	3.75	0.5	67
1B Normally	**87**	5	7.5	338	375	413	3..75	0.5	67
2A 2 poles	**87**	5	7.5	338	375	413	3.75	0.5	67

* The pull-in / drop-out voltages and coil resistance will change at the rate 0.4% / °C

RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 87 Form A			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Units**
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			10	W
Switching Voltage	DC or peak AC			200	V
Switching Current	DC or peak AC			0.5	A
Carry Current	DC or peak AC			1.0	A
Static Contact Resistance	w/ 0.5 V & 50mA			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure			200	mΩ
Insulation Resistance	Across Contacts Coil - Contact	10^{10} 10^{13}	10^{12} 10^{14}		Ω
Breakdown Voltage	Across Contacts Contact - Shield Contacts and shield to coil	225 1000 1500			VDC
Operation Time incl. Bounce	Nominal voltage			0.5	ms
Release Time	with no coil suppression with diode suppression			0.1 0.35	ms
Capacitance - across open contact Open contacts to coil Contact to shield	No shield Shield floating Shield guarded No shield Shield floating Shield guarded Contact open and shield floating		0.1 0.7 < 0.1 0.8 0.8 0.4 0.8		pF
Life Expectance					
Switch Voltage 5V - 10 mA	DC <10 pF stray cap.		1000		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	g
Vibration Resistance	From 10 - 2000 Hz			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		70	°C
Stock Temperature	10°C/ minute max. allowable	-35		95	°C
Soldering Temperature	5 sec.			260	°C