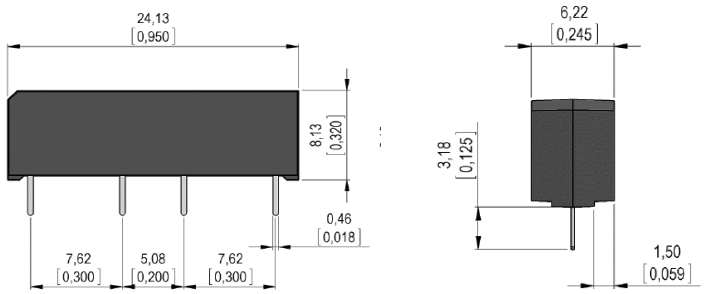
SHV Series Reed Relays



- Features: Small Size High Voltage Relay, High Dielectric Strength up to 4 kVDC, Internal Magnetic Shield
- Applications: Portable Test and Medical Equipment, Defibrillators, Cable and In-Circuit Tester & Others
- Markets: Test and Measurement, Medical & Others

Part Description: SHV 00-1A85-78X0K

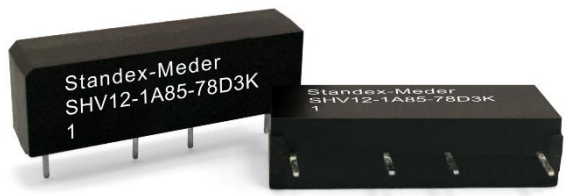
Nominal Voltage	Contact QTY	Contact Form	Switch Model	Pin Out	Option	Breakdown Voltage
05, 12	1	A	85	78	D, L	2K, 3K, 4K

Customer Options	Switch Model	Unit
Contact Data	**85**	
Rated Power (max.) Any DC combination of V&A not to exceed their individual max.'s	100	W
Switching Voltage (max.) DC or peak AC	1,000	V
Switching Current (max.) DC or peak AC	1.0	A
Carry Current (max.) DC or peak AC	2.5	A
Contact Resistance (max.) @ 0.5V & 50mA	150	mOhm
Breakdown Voltage (min.) According to EN60255-5	2 / 3 / 4	kVDC
Operating Time (max.) Incl. Bounce; Measured with w/ Nominal Voltage	1.1	ms
Release Time (max.) Measured with no Coil Excitation	0.1	ms
Insulation Resistance (typ.) Rh<45%, 100V Test Voltage	10^{10}	Ohm
Capacitance (typ.) @ 10kHz across open Switch	0.5	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	85 (3kV)	05	180	3.75	0.5	139
		12	500	8.4	1.8	288
	85 (4kV)	05	140	3.75	0.5	179
		12	500	8.4	1.8	288
The Pull-In / Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C.						

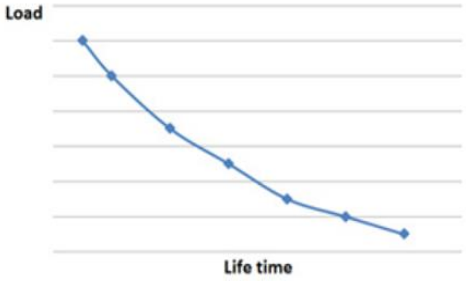
Relay Data		Unit
Dielectric Strength Coil/Contact (min.) according to EN60255-5	4	kVDC
Insulation Resistance Coil/Contact (typ.) Rh<45%, 200V Test Voltage	10^{12}	Ohm
Capacitance Coil/Contact (typ.) @ 10 kHz	1.2	pF
Shock Resistance (max.) 1/2 sine wave duration 11ms	30	g
Vibration Resistance (max.)	20	g
Operating Temperature	-40 to 100	°C
Storage Temperature	-40 to 125	°C
Soldering Temperature (max.) 5 sec. max.	260	°C
Washability	Fully Sealed	

SHV Reed Relay



Life Test Data

*Load increase reduces life expectancy of Reed Switches



Handling & Assembly Instructions

- Switching inductive and/or capacitive loads creates 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 assembly density. This may influence the relays' electrical characteristics.
- Mechanical shock impacts, e.g. dropping the relays, may cause immediate or post-installation failure.

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	

REACH COMPLIANT

RoHS COMPLIANT

Pin Out

2.54mm [0.10“] pitch grid