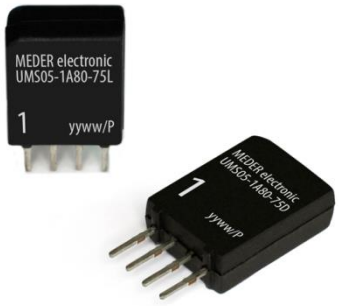
UMS Series
Reed Relays



- Features: Ultra miniature Single-In Line Relay with Internal Magnetic Shield, UL-listed
- Applications: PCB & Semiconductor Test Systems, Automated Test Systems, High Density Assembly
- Markets: Test & Measurement, Telecommunication, ATE

Part Description: UMS05-1A80-75X

Nominal Voltage	Contact Quantity	Contact Form	Switch Model	Pin Out	Option
05	1	A	80	75	L, D

See page 3 for Glossary

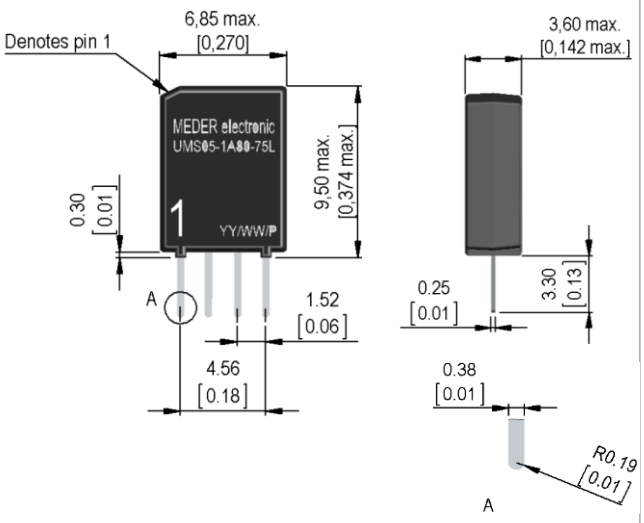
Contact Data (at 20°C)	Switch Model 80 (A-Dry)	Unit
Contact Material	Rhodium	
Rated Power (max.) Any DC combination of V&A not to exceed max rated power	10	W
Switching Voltage (max.) DC or peak AC	170	V
Switching Current (max.) DC or peak AC	0.5	A
Carry Current (max.) DC or peak AC	1.0	A
Contact Resistance (max.) @ 0.5V & 10mA, Measured with 40% Pull-In Overdrive	200	mOhm
Breakdown Voltage (min.) According to IEC 60255-27	210	VDC
Operating Time (max.) Including Bounce, Measured with 40% Pull-In Overdrive	0.2	ms
Release Time (max.) Measured without Coil Suppression	0.1	ms
Insulation Resistance (min. / typ.) Rh<45%, 100V Test Voltage	10^{11} / 10^{12}	Ohm
Capacitance (typ. / max.) @ 10kHz across Open Switch	0.2 / 0.4	pF

Coil Data (at 20°C)		Coil Voltage (VDC)		Coil Resistance (Ohm)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Coil Power (mW)
Contact Form	Switch Model	Nominal	Maximal	Typical (± 10 %)	Maximal	Minimal	Nominal
1A	80	05	7.5	400	3.75	0.5	62.5
The Pull-In, Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C							

Relay Data (at 20°C)		Unit
Dielectric Strength Coil/Contact (min.) According to IEC 60255-27	1.5	kVDC
Insulation Resistance Coil/Contact (min./typ.) Rh<45%, 200V Test Voltage	10^{12} / 10^{13}	Ohm
Capacitance Coil/Contact (typ. / max.) @ 10 kHz with Closed Switch	0.9 / 1.1	pF
Shock Resistance (max.) 1/2 sine wave duration 11ms	50	g
Vibration Resistance (max.) 10 – 2,000 Hz	20	g
Operating Temperature (max.) Surrounding of the relay's housing	-20 to 85	°C
Storage Temperature (max.) Surrounding of the relay's housing	-35 to 100	°C
Soldering Temperature (max.) 5 seconds max.	260	°C
Washability Aqueous rinsing suitable. Proper drying necessary.	Fully Sealed	

UMS Reed Relay Dimensions (in mm)

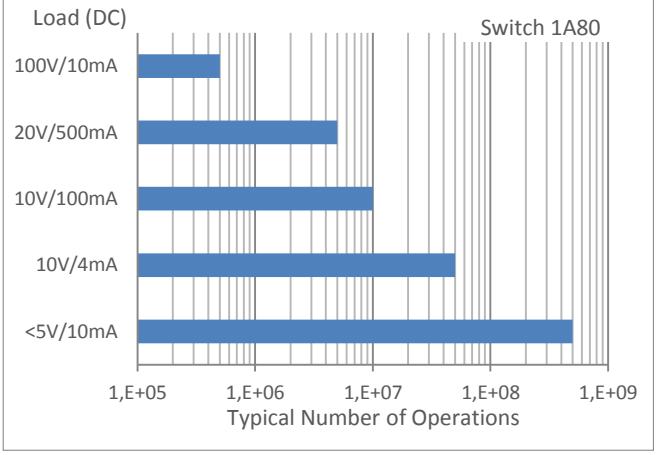
Tolerances acc. to ISO 2768-m



Handing & Assembly Instructions

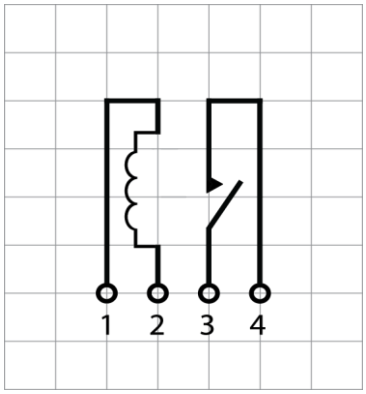
- Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay. Protective circuits need to be used - see our website.
- External magnetic fields and magnetic effects, due to adjacent relays in high density matrices that may influence the relays' electrical characteristics, must be taken into consideration.
- Mechanical shock impacts, e.g. dropping the relays, may cause immediate or post-installation failure.
- Wave soldering: maximum 260°C / 5 seconds.

Life Test Data (for general information only)

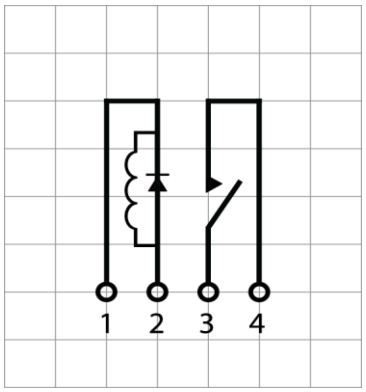


Pin Out Top View (Pitch 1.52 mm [0.06 inch])

75L



75D



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*
Form E	*Latching* *unchanged until an opposite impulse is present*
UMS Relays are available only in “Form A” configuration	

Glossary Option	
L	Standard, with Magnetic Shield
D	with Diode, with Magnetic Shield
M	*with Magnetic Shield, without Diode*
Q	*with Diode and Magnetic Shield*
HR	*High Resistance Coil*
UMS Relays are available with “L” and “D” Option	