

ASR Series Reed Relays



Key Features and Benefits:

- ✓ Narrow SIL package for dense PCB layouts and high-channel-count test designs
- ✓ Up to 200 V switching with 0.5 A switching and 1 A carry capability
- ✓ Low capacitance and high insulation resistance for accurate signal routing
- ✓ Fast operate and release times for high-throughput automated test systems

Key Markets and Applications:

- ✓ Test & Measurement / ATE, electronics manufacturing, PCBA test, and modular test systems
- ✓ ICT/FCT, Flying Probe, JTAG, PXI/load-board matrices, DMM, LCR, SMU, and sensor routing



Contact and Switching Characteristics :

Contact Data	Switch Model	Unit
	87 (A-Dry)	
Contact Material	Rh	
Rated Power (max.) Any DC combo of V&A not to exceed max. rated power	10	W
Switching Voltage (max.) DC or peak AC (Limited by FLRY-B Cable)	200	VDC
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 EN60255-27	0.22	kVDC
Operating Time (max.) Incl. Bounce; Measured with w/ 40% Pull-In Overdrive	0.35	ms
Release Time (max.) Measured without Coil Suppression	0.1	ms
Insulation Resistance (typ.) Rh<45%, 100V Test Voltage	10 ¹²	Ohm
Capacitance (typ.) @ 10kHz across open Switch	0.2	pF

Part Number Configuration:



Ordering Code Structure:

ASR 05 - 1A87 - 75 X

SERIES 1 2 3 4 5

CONFIGURATION OPTIONS:

- 1 NOMINAL VOLTAGE [05]
- 2 CONTACT FORM [1A]
- 3 SWITCH MODEL [87]
- 4 PINOUT [75]
- 5 VERSION [L, D]

OPTIONS GLOSSARY:

- L** Standard - Internal Magnetic Shield Only
D Diode + Internal Magnetic Shield
M External Magnetic Shield
Q Diode with External Magnetic Shield
HR High Resistance Coil

Contact Form Glossary :

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



ASR Series Reed Relays

DATA SHEET

General Relay Characteristics:

Relay Data	Condition	Value	Unit
Dielectric Strength Coil/Contact (min.)	According to EN60255-27	0.5	kVDC
Insulation Resistance Coil/Contact (min./typ.)	Rh<45%, 200V Test Voltage	10 ¹²	Ohm
Capacitance Coil/Contact (typ.)	@10 kHz	1.1	pF
Shock Resistance (max.)	1/2 sine wave, 6md, 3-axis	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	-20 to 95	°C
Soldering Temperature (max.)	5 sec. max.	260	°C
Washability Aqueous rinse suitable	Proper drying necessary	Fully Sealed	
RoHS / REACH		Yes	
Weight		2	g

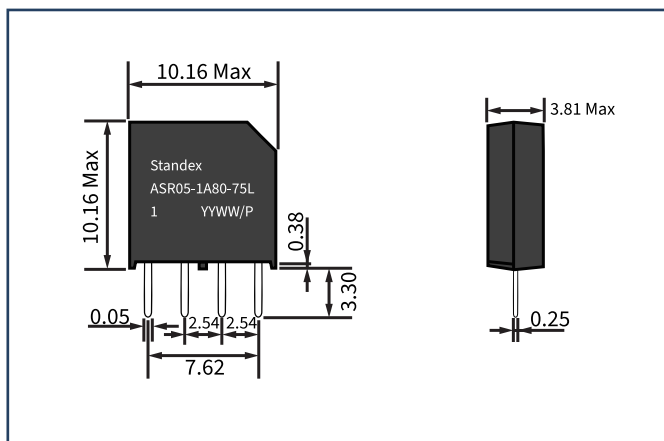
Available Configurations and Key Electrical Parameters:

Series	Ordering Code	Contact Form	Pinout	Available Options	Breakdown Voltage	Nominal Coil Voltage	Coil Resistance	Coil Power	Pull-In Voltage	Drop-Out Voltage
					[VDC min.]	[VDC typ.]	[Ω nom.]	[mW nom.]	[VDC max.]	[VDC min.]
ASR	ASR05-1A87-71L	1A	71	Internal Mag. shield	220	05	500	50	3.75	0.5
	ASR05-1A87-71D			Diode + Mag. shield	220	05	500	50	3.75	0.5

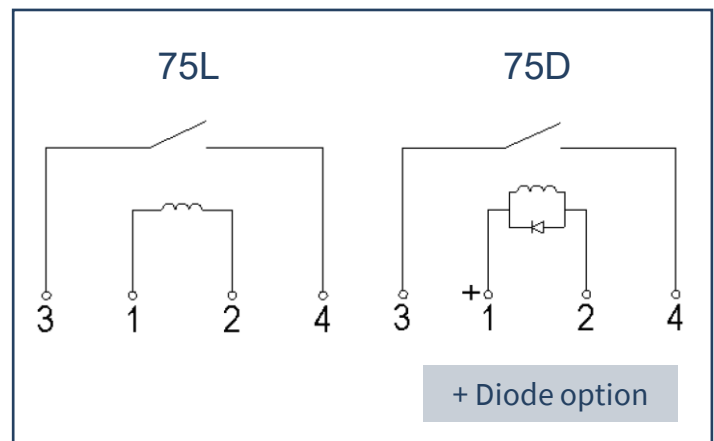
Pull-in Voltage, Drop-out Voltage, and Coil Resistance change by approximately 0.4% per °C relative to their values at 20 °C.
 Nominal Coil Resistance tolerance at 20 °C is ±10%
 Maximum coil voltage: 7.5 VDC for 5 V coils, 16 VDC for 12 V coils, 30 VDC for 24 V coils.

Dimensions (mm):

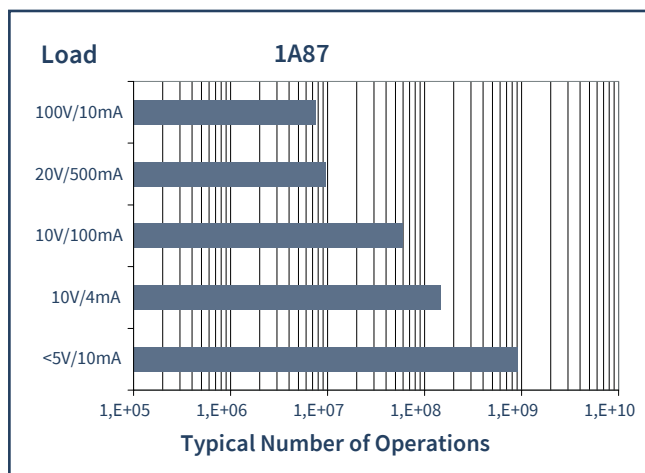
Tolerances acc. to DIN ISO 2768-m



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



Lifecycles: 



Handling and 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, ex. dropping the relays, may cause immediate or post-installation failure.
- Suppressing coil diode can have a negative influence on total number of switching cycles, especially by switching high voltage.
- Wave soldering: maximum 260°C / 5 seconds.

Disclaimer:

Specifications refer to the standard product range and are provided for general guidance only. Product details may change without notice as part of ongoing technical development. While every effort is made to ensure accuracy, this document may contain typographical or technical errors. For complete, current, and application-specific information, refer to the product datasheet or contact your local sales representative.