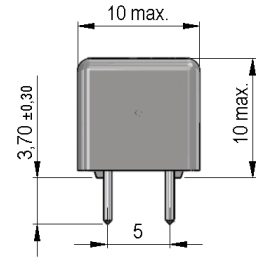
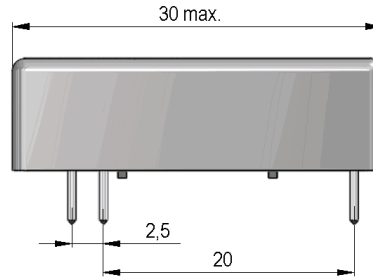


# MRX Series Reed Relays



- Features: Ex-Approved for Intrinsic Safety Circuits
- Applications: Process Automatization in Refineries, Mining and Chemical Industry & Others
- Markets: Explosive Environment & Others

Part Description: **MRX 00-0X00**

Nominal Voltage	Contact QTY	Contact Form	Switch Model
05, 12, 24	1, 2, 4	A, C	21, 71, 79, 90

Customer Options	Switch Model				Unit
	21	71	79	90	
<b>Contact Data</b>					
<b>Rated Power (max.)</b> Any DC combination of V&A not to exceed their individual max.'s	5	10	10	7	W
<b>Switching Voltage (max.)</b> DC or peak AC	100	200	250	28	V
<b>Switching Current (max.)</b> DC or peak AC	0.25	0.5	0.5	0.24	A
<b>Carry Current (max.)</b> DC or peak AC	0.5	1.25	1	0.5	A
<b>Contact Resistance (max.)</b> @ 0.5V & 50mA	150	150	150	150	mOhm
<b>Breakdown Voltage (min.)</b> According to EN60255-5	0.25	0.3	0.4	0.25	kVDC
<b>Operating Time (max.)</b> Incl. Bounce; Measured with w/ Nominal Voltage	2.5	0.5	0.5	2	ms
<b>Release Time (max.)</b> Measured with no Coil Excitation	2	0.1	0.2	2	ms
<b>Insulation Resistance (typ.)</b> Rh<45%, 100V Test Voltage	10 <sup>9</sup>	10 <sup>10</sup>	10 <sup>11</sup>	10 <sup>9</sup>	Ohm
<b>Capacitance (typ.)</b> @ 10kHz across open Switch	0.8	0.3	0.4	1.0	pF

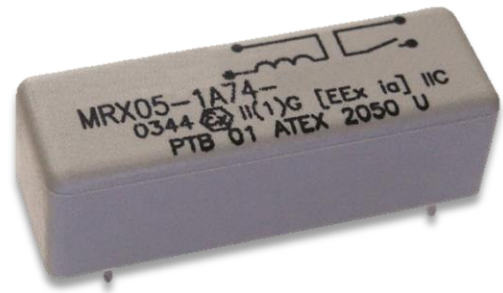
Coil Data		Coil Voltage (nom.)	Coil Resistance (typ.)	Pull-In Voltage (max.)	Drop-Out Voltage (min.)	Nominal Coil Power (typ.)
Contact Form	Switch Model					
Unit		VDC	Ohm	VDC	VDC	mW
1A	71 79*	05	360	3.8	1.0	70
		12	305	9	2	110
		24	5,880	18	3.5	100
2A	71 79**	05	250	3.8	1.0	100
		12	890	9	2	260
		24	1,000	18	3.5	165
4A	71	24	1,780	18	3.5	320
1C	21*** 90	05	360	3.8	1.0	70
		12	305	9	2	110
		24	5,880	18	3.5	100

The Pull-In / Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C.

\*1A79 only available with Coil Voltage 12 \*\* 2A79 only available with Coil Voltage 24 \*\*\*1C21 only available with Coil Voltage 05 & 12

Environmental Data		Unit
<b>Shock Resistance (max.)</b> 1/2 sine wave duration 11ms	50	g
<b>Vibration Resistance (max.)</b>	20	g
<b>Operating Temperature</b>	-20 to 85	°C
<b>Storage Temperature</b>	-40 to 105	°C
<b>Soldering Temperature (max.)</b> 5 sec. max.	260	°C

#### MRX Reed Relay

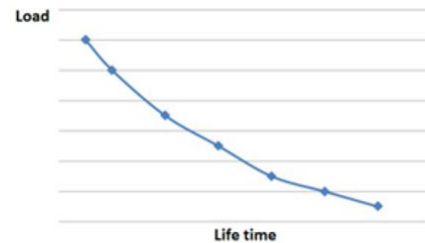


#### Handling & Assembly Instructions

- Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay. Protective circuits need to be used.
- External magnetic fields needs to be taken into consideration, including a too high packing density. This may influence the relays' electrical characteristics.
- Mechanical shock impacts e.g. dropping the relays may cause immediate or post-installation failure.
- Wave soldering: maximum 260°/5 seconds.
- Reflow soldering: Recommendations given by the soldering paste manufacturer need to be considered as well as the temperature limits of other components/processes.

#### Life Test Data

\*Load increase reduces life expectancy of Reed Switches



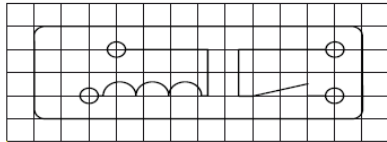
Glossary Contact Form		
Form A	NO = Normally Open Contacts SPST = Single Pole Single Throw	
Form B	NC = Normally Closed Contacts SPST = Single Pole Single Throw	
Form C	Changeover SPDT = Single Pole Double Throw	



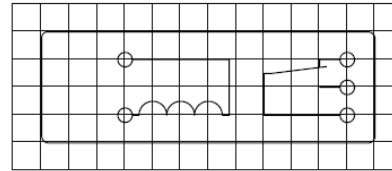
Pin Out

Top View

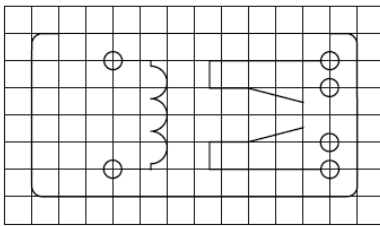
1A



1C



2A



4A

