

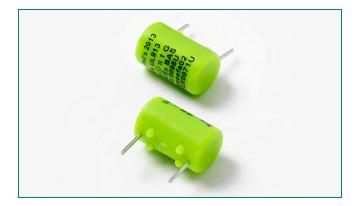
## PICO® 259-UL913 Series Intrinsically Safe Fuse











## **Agency Approvals**

Agency	Agency File Number	Ampere Range
<b>€</b> x <b>&gt;</b>	Baseefa02ATEX0071U	0.62A - 5A
71	E10480 E358130	0.62A - 5A
IEC IECEX	IECEx BAS 10.0098U	0.62A - 5A

#### **Electrical Characteristics for Series**

% of Ampere Rating	Opening Time	
100%	4 Hours, Minimum	
200%	5 Seconds, Maximum	

#### **Description**

The 259-UL913 Series offers a range of encapsulated fuses certified under the UL 913, the standard for intrinsically safe electrical equipment, to operate in hazardous locations. Ideal for use in the oil, gas, mine, chemical process, and pharmaceutical industries, the 259-UL913 fuse was designed to limit the energy and temperature generated during its operation. In addition to UL913, these fuses meet ATEX and IECEx requirements. The fuse design and its encapsulant are suitable for use in intrinsically safe appartatus and associated apparatus for voltage not exceeding 125V rms (190V peak).

#### **Features**

- Encapsulated and sealed (1mm minimum)
- 0.62A 5A range options
- Designed to operate within hazardous environments
- Global hazardous location certifications

#### **Applications**

• Testing, measuring or processing electronic and electrical equipment

#### **Reference Standards**

Agency	Standards		
ATEX	EN 60079-0, EN 60079-11		
IECEx	IEC 60079-0, IEC 60079-11		

#### **Electrical Specifications by Items**

Ampere Amp Interrupting		Interrupting	Nominal	Minimum Cold Resistance at	Minimum Cold	Nominal Cold Resistance at	Agency Approvals		
(A)	Code	Rating	Melting I²t (A² Sec.)	-20°C (Ohms)	Resistance at -40°C (Ohms)	25°C (Ohms)	⟨Ex⟩	IEC TECEX	AI.
0.062	.062		0.00011	4.89	4.39	7.00	X	X	Х
0.125	.125		0.0012	1.35	1.26	1.70	×	X	Х
0.250	.250		0.0095	0.51	0.48	0.67	X	X	Х
0.375	.375	50A @ 125 VAC	0.025	0.32	0.29	0.395	Х	X	Х
0.500	.500	300A @ 125 VDC	0.0598	0.24	0.22	0.302	X	X	Х
0.750	.750		0.153	0.14	0.12	0.175	X	X	Х
1.00	001.		0.256	0.10	0.07	0.128	X	X	Х
3.00	003.		1.27	0.03	0.01	0.03	Х	X	Х
5.00	005.	50A @ 125 VAC 300A @ 63 VDC	4.14	0.01	0.005	0.0158	х	х	Х

Schedule of limitations:

- 1) The fuse must be mounted in such a way that creepage and clearance distances aren't impaired in any way.
- 2) The fuse is suitable for use in intrinsically safe equipment for voltages not exceeding 190V peak
- 3) Maximum surface temperature rise at 170% rated current: ≤750mA=40°C, 1A=55°C, 3A=118°C and 5A=135°C.

#### **Additional Information**







# **Special Application Fuses**

PICO® 259-UL913 Series Intrinsically Safe Fuse for Hazardous Locations

#### **Product Characteristics**

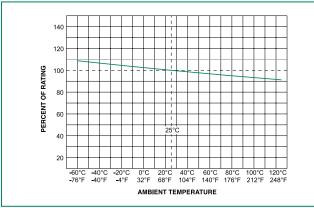
Operating Temperature			
Current Rating	Ambient Temperature		
≤ 0.750 A	- 40°C to +81°C		
1 A	- 40°C to +73°C		
3 A	- 40°C to +74°C		
5 A	- 40°C to +45°C		

#### Notes

- 1. Any use of the 259-UL913 Series fuse outside of the ambient temperature ranges specified in the table is subject to additional investigation.
- 2. Specified ambient temperature range is for intrinsic safety certification.

Materials	Body : Polyamide Terminals -Tin Plated Copper Alloy Maximum operating temperature of Materials is 130°C		
Operating Temperature	For operating temperature see table above (Consider re-rating)		
Thermal Shock	Withstands 5 cycles of – 55°C to 125°C		
Vibration	Per MIL-STD-202, Method 201		
Insulation Resistance (After Opening)	Greater than 10,000 ohms (at 250V DC)		

#### **Temperature Re-rating Curve**



#### Note:

#### **Soldering Parameters**

#### **Recommended Process Parameters:**

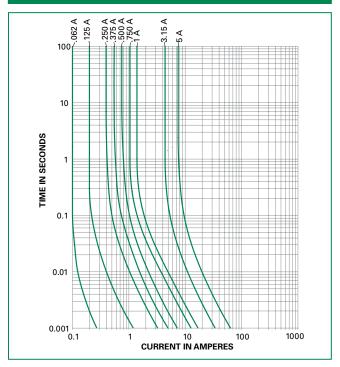
Wave Parameter	Lead-Free Recommendation	
Preheat:		
(Depends on Flux Activation Temperature)	(Typical Industry Recommendation)	
Temperature Minimum:	100°C	
Temperature Maximum:	150°C	
Preheat Time:	60-180 seconds	
Solder Pot Temperature:	260°C Maximum	
Solder DwellTime:	2-5 seconds	

#### **Recommended Hand Soldering Parameters:**

Solder Iron Temperature: 350°C +/- 5°C Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process

### **Average Time Current Curves**



#### **Part Numbering System**

### 0259.062M X913

#### **SERIES**

#### AMP Code -

The dot is poisitioned before the Packaging Suffix with whole ratings and within the numbering sequence for fractional ratings. Refer to Amp Code column in the Electrical Specifications table.

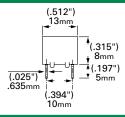
### PACKAGING Code

M = Bulk pack, 1000 pcs T = Bulk pack, 10 pcs

#### Example:

1 amp product is 0259**001.**MX913 (.062 amp product shown).

#### **Dimensions**



### **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
Bulk	N/A	1000	M = Bulk 1000 pieces, T = Bulk 10 pieces
Bulk	N/A	10	Please refer to available quantities above in "Part Numbering System"

Re-rating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

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