




**THE DATASHEET OF**  
**0305.160H**



### PICO® 305 Series - 277V UL913 Intrinsically Safe Fuse



#### Agency Approvals

Agency	Agency File Number
ATEX	DEMKO 13 ATEX 1200U
	E358130
IECEX	IECEX UL 13.0077U

#### Reference Standards

Agency	Standards
ATEX	EN 60079-0, EN 60079-11, EN 60079-26
IECEX	IEC 60079-0, IEC 60079-11, IEC 60079-26
UL	UL 913, UL 60079-0, UL 60079-11
cUL	CAN/CSA C22.2 No. 157, CAN/CSA C22.2 No. 60079-0, CAN/CSA C22.2 No. 60079-11

#### Description

The PICO 305-Series fuse offer a range of encapsulated fuses approved under UL 913 standard for Intrinsically Safe Electrical Equipment to operate in hazardous locations. Ideal for use in oil, gas, mine, chemical, and pharmaceutical industries, the PICO 305-Series fuse was designed to limit the energy and temperature generated during its operation. The fuse design and its encapsulant are suitable for use in an intrinsically safe apparatus and associated apparatus for voltage not exceeding 277V.

#### Features

- High Interrupting Rating of 1500A
- Well suited for 277V application
- Current rating options from 0.050 to 0.750A
- Designed for operation in a range of hazardous environments
- Sealed


#### Applications

- Testing, measuring or processing electronic and electrical equipment
- Motor controllers
- Communication handsets
- Process control and automations
- Sensors
- Lighting
- Flowmeters

#### Electrical Characteristics for Series

% of Ampere Rating	Opening Time
110%	4 Hours, Minimum
300%	10 Seconds, Maximum
1000%	0.002 Seconds, Maximum

#### Electrical Specifications by Items

Ampere Rating (A)	Interrupting Rating	Amp Code	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> Sec.)	Agency Approvals		
					ATEX		IECEX
0.050	1500A @ 277VAC/DC	.050	11.34	0.00019	x	x	x
0.080		.080	8.19	0.00035	x	x	x
0.100		.100	3.60	0.00138	x	x	x
0.160		.160	3.00	0.00202	x	x	x
0.200		.200	2.68	0.00288	x	x	x
0.250		.250	1.6	0.00662	x	x	x
0.500		.500	0.46	0.04462	x	x	x
0.750		.750	0.27	0.13448	x	x	x

1) The fuse must be mounted so that creepage and clearance distances aren't impaired in any way.  
 2) The fuse is suitable for use in intrinsically safe equipment and associated apparatus for voltage not exceeding 375V peak.  
 3) Maximum surface temperature rise at 170% rated current 200mA=80°C, 250mA = 84°C, 500mA = 56°C, and 750mA = 84°C.

**Product Characteristics**

Operating Temperature

Current Rating	Ambient Temperature
≤ 0.200 A	- 40 °C to +50 °C
0.250 A	- 40 °C to +46 °C
0.500 A	- 40 °C to +74 °C
0.750 A	- 40 °C to +46 °C

Note:

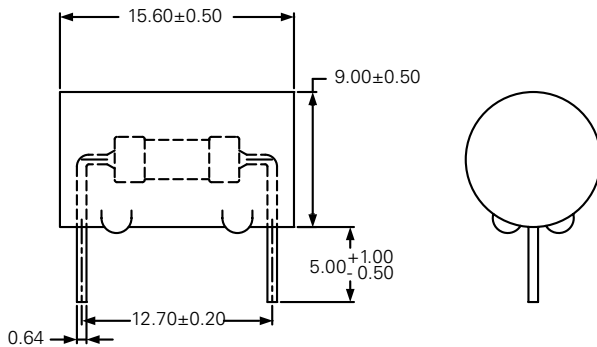
1) Any use of the 305 Series fuse outside of the ambient temperature ranges specified in the table is subject to additional investigation.

<b>Thermal Shock</b>	Withstands 5 cycles of -55°C to 125°C
<b>Vibration</b>	Per MIL-STD-202F
<b>Insulation Resistance (After Opening)</b>	Greater than 10,000 ohms (at twice rated DC voltage)

**Soldering Parameters**

<b>Wave Soldering</b>	260°C, 10 seconds max.
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**Dimensions**



**Part Numbering System**

**0305 .050 M**

**SERIES**

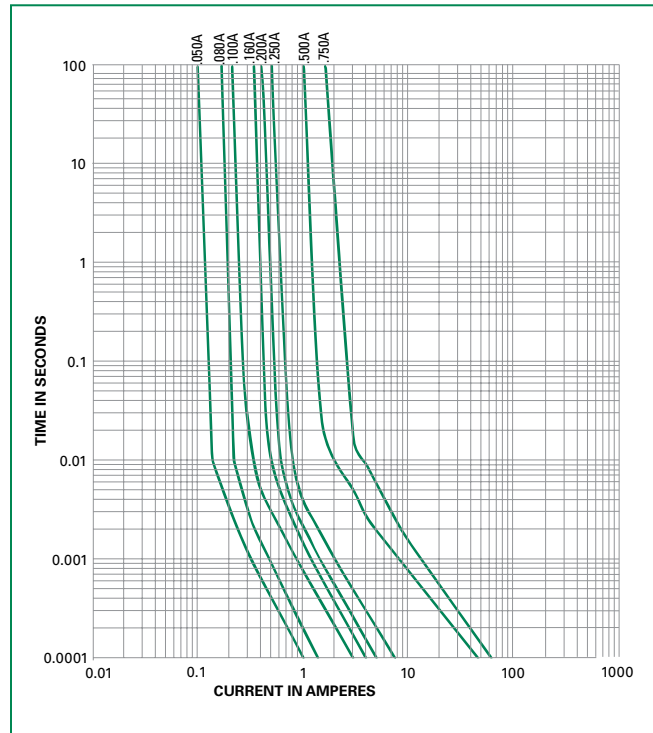
**AMP CODE**

Refer to Amp Code column in the Electrical Specifications table.

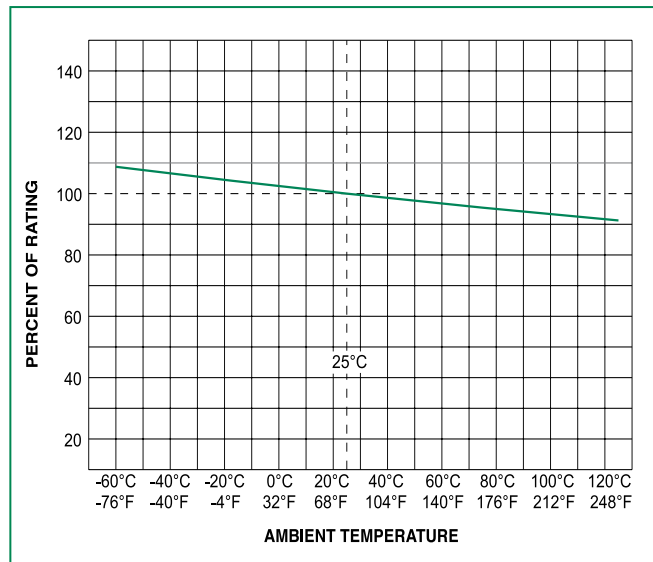
**QUANTITY & PACKAGING CODE**

M = Bulk pack, 1000 pcs  
V = Bulk pack, 5 pcs

**Average Time Current Curves**



**Temperature Rerating Curve**



Note:

1) Rerating depicted in this curve is in addition to the standard rerating of 25% for continuous operation.

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