



MOLECULAR PROPERTY SPECTROMETER™ (MPS™) HAZARDOUS LOCATIONS USER GUIDE

Notices

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1395 Greg Street, Suite 102

Sparks, Nevada 89431

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

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1. Product Approval

Certification Body				
Test Standard	IEC 60079-0:2017 IEC 60079-11:2011	EN 60079-0:2018 EN 60079-11:2012	FM 3600:2018 FM 3610:2018	CSA 22.2 60079-0:19 CSA 22.2 60079-11:14
Protection Categories	Ex ia IIC Ga Ex ia IIIC Da Ta = -40°C to 75°C	  Ta = -40°C to 75°C	Class I, Division 1, Group A,B,C,D Class II and III, Division 1, Group E,F,G Class I, Zone 0 AEx ia IIC Ga Zone 20 AEx ia IIIC Da Ta = -40°C to 75°C	Class I, Division 1, Group A,B,C,D Class II and III, Division 1, Group E,F,G Class I, Zone 0 Ex ia IIC Ga Zone 20 Ex ia IIIC Da Ta = -40°C to 75°C
Certificate	IECEx FMG 19.0028U	FM19ATEX0184U	FM19US0145U	FM19CA0077U

2. Integration Guidelines

- 2.1. The Molecular Property Spectrometer™ (MPS™) has been approved as component-type piece of equipment and therefore may not be used as a standalone unit in hazardous locations.
- 2.2. The sensor may be used with combustible gases with apparatus groups IIA, IIB and IIC and with temperature classifications T1, T2, T3, and T4. It may also be used in dust atmospheres IIIA, IIIB, and IIIC with temperature classifications greater than or equal to T135C.
 - 2.2.1. For all temperature classifications, this component is certified for use in ambient temperatures of -40°C to +75°C.
- 2.3. The MPS™ has been assessed under mass-fault conditions with the resulting entity parameters:

$$P_i = 870 \text{ mW} \quad U_i = 5.25 \text{ V} \quad I_i = 1.8 \text{ A} \quad C_i = 19.5 \mu\text{F} \quad L_i = 0$$

4. Schedule of Limitations

- 4.1. The function of the component shall be verified in accordance with IEC 60079-29-1 or an equivalent performance standard.
- 4.2. The MPS™ is approved for an installation with minimum ingress protection rating of IP20. It is the responsibility of the system integrator to design the end-product for conditions that exceed the aforementioned enclosure rating.
- 4.3. The intrinsically safe parameters for the sensor shall be applied to the intrinsically safe device to which the sensor is connected.



1395 Greg Street, Suite 102
Sparks, Nevada 89431
United States
Tel: 1-775-972-8943
Fax: 1-775-972-8078
info@nevedanano.com
www.nevedanano.com