



26 February 2021

Declaration of Reliability and Compliance Test Results for the MPS™ S4 Series of Gas Sensor Products

Through a combined series of third-party and internal evaluations, the S4 sensor has met or exceeded the following national and international test methods and standards.

Test Description	Standard
Electromagnetic compatibility (EMC) - Radiated, radio-frequency, electromagnetic field immunity test	EN61326-1:2013, Test Method EN61000-4-3: 2006
Electromagnetic compatibility (EMC) - Power frequency magnetic field immunity test	EN61326-1:2013, Test Method EN61000-4-8: 2010
Electromagnetic compatibility (EMC) - Electrostatic discharge immunity test	EN61326-1:2013, Test Method EN61000-4-2: 2009
Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	EN61326-1:2013, Test Method EN55011: 2010
Ingress Protection	IP2X ATEX-default rating plus MIL-STD-810G method 510.5 for dust resistance
IECEx Protection – Intrinsically safe “i”	IEC 60079-0:2017, IEC 60079-11:2011
US Ex Protection - Intrinsically safe “i”	FM Class 3600: 2018, FM Class 3610:2018, ANSI/UL 60079-0:2019, ANSI/UL 60079-11:2014
Canada Ex Protection - Intrinsically safe “i”	CSA 22.2 No. 60079-0:19:2019, CSA C22.2 No. 60079-11:14:2014
ATEX Ex Protection - Intrinsically safe “i”	EN IEC 60079-0:2018 and EN60079-11:2012
RoHS	2011/65/EU & 2015/863; includes China RoHS - SJT/T 11363 & 11364
REACH	EC 1907/2006 (33 & 67)
Poisoning Resistance	Meets or exceeds UL60335-2-40:2019; immune from poisoning and inhibition from common pollutants found in industrial and ambient air (NO ₂ , HCN, SO ₂ , Cl ₂ , NH ₃ , silicones, H ₂ S).

Test Description	Standard
Drop - Free Fall	IEC 60068-2-31: 2008
Mechanical Shock	IEC 60068-2-27: 2008
Mechanical Vibration	IEC 60068-2-6: 2008
High Temp Operating Life	IEC 60068-2-2: 2007
Cold Temp Operating Life	IEC 60068-2-1: 2007
Damp Heat - steady state	IEC 60068-2-78: 2012
Sand/Dust	MIL-STD-810G Method 510.5
Mean Time To Failure (MTTF)	MIL-HDBK 217F, Notice 2, Parts Count Method > 50 years

For additional information regarding MPST™ sensor products and test results, contact NevadaNano at info@nevedanano.com.



Mark Pietz
Director, Quality



Ronnie Mack
Vice-President, Manufacturing