

TO WHOM IT MAY CONCERN

IQSIGHT LLC
1706 Hempstead Road
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United States

Product Test Report

Product

MIC fusion 9100s

MIC-9803S-Z30B18Q	PTZ thermal QVGA 12° 4MP 30x bl GenAI+
MIC-9803S-Z30W18Q	PTZ thermal QVGA 12° 4MP 30x wh GenAI+
MIC-9803S-Z30G18Q	PTZ thermal QVGA 12° 4MP 30x gy GenAI+
MIC-9803S-Z30B06V	PTZ thermal VGA 70° 4MP 30x bl GenAI+
MIC-9803S-Z30W06V	PTZ thermal VGA 70° 4MP 30x wh GenAI+
MIC-9803S-Z30G06V	PTZ thermal VGA 70° 4MP 30x gy GenAI+
MIC-9803S-Z30B14V	PTZ thermal VGA 31° 4MP 30x bl GenAI+
MIC-9803S-Z30W14V	PTZ thermal VGA 31° 4MP 30x wh GenAI+
MIC-9803S-Z30G14V	PTZ thermal VGA 31° 4MP 30x gy GenAI+
MIC-9803S-Z30B42V	PTZ thermal VGA 10° 4MP 30x bl GenAI+
MIC-9803S-Z30W42V	PTZ thermal VGA 10° 4MP 30x wh GenAI+
MIC-9803S-Z30G42V	PTZ thermal VGA 10° 4MP 30x gy GenAI+

The above mentioned products have been tested in accordance and were found to comply with the tests listed below which were carried out during the development phase of the product.

Safety approvals

Directive or standard	Description
IEC 62368-1:2018	Audio/video, information and communication technology equipment - Part 1: Safety requirements
EN IEC 62368-1:2020 +A11:2020	Audio/video, information and communication technology equipment - Part 1: Safety requirements
AS/NZS 62368.1:2022	Audio/video, information and communication technology equipment - Part 1: Safety requirements
GB 4943.1-2022	Audio/video, information and communication technology equipment - Part 1: Safety requirements
J62368-1(2023)	Audio/video, information and communication technology equipment - Part 1: Safety requirements
KC 62368-1:2021	Audio/video, information and communication technology equipment - Part 1: Safety requirements
SASO-IEC 62368-1:2020	Audio/video, information and communication technology equipment - Part 1: Safety requirements
UL 62368-1, 3rd Edition, Issue Date: 2019-12-13, Revision Date: 2021-10-22	Audio/video, information and communication technology equipment - Part 1: Safety requirements
CSA C22.2 No. 62368-1:19, 3rd Edition, Issue Date: 2019-12-13, Revision Date: 2021-10-22	Audio/video, information and communication technology equipment - Part 1: Safety requirements

Environmental tests

BS EN 50130-5:2011 Alarm systems Part 5: Environmental test methods	Specific Test Description (Temperatures stated are outside of the camera housing,)
Dry heat Operational IEC 60068-2-2:2025 edition 6	Temp. +70 °C, duration 48 hours
Dry heat Storage IEC 60068-2-2:2025 edition 6	Temp. +70 °C, duration 4 hours
Cold Storage IEC 60068-2-1:2025 edition 7	Temp. -45 °C, duration 4 hours
Cold operational IEC 60068-2-1:2025 edition 7	Temp. -40 °C, duration 48 hours
Cold start test (IEC 60068-2-1:2025 edition 7)	Power off, soak overnight (8 hours) @ -40 °C, with 4 hours minimum without power and warm-up period of 1 hour.
Cold Endurance IEC 60068-2-1:2025 edition 7	Temp. -40 °C, duration 48 hours
IEC 60529 Ingress Protection Rating (IP66) Degrees of protection provided by enclosures (IP Code) [Dust, water ingress (operational)]	Dust tight (no dust ingress; complete protection against contact). Hose down 100 L per minute
IEC 60529 Ingress Protection Rating (IP68) Degrees of protection provided by enclosures (IP Code) [Dust, water ingress (operational)]	(Camera with mounting adaptor) Dust tight (no dust ingress; complete protection against contact). Water immersion: 24 hours Water depth: 1.8 meters
IEC 60529 Ingress Protection Rating (IP67) Degrees of protection provided by enclosures (IP Code) [Dust, water ingress (operational)]	(Camera with MIC-IP67-5PK kit) Dust tight (no dust ingress; complete protection against contact). Water immersion: 30 minutes Water depth: 1 meter
UL Type rating (similar to NEMA XX)	Water immersion: 24 hours Water depth: 1.8 meters Type 6P (UL)
Condensation Test	1 day (1 cycle) operational: • 25°C at 50% RH (2 hours) • 5°C at 50% RH (1 hour) • -30°C at 50% RH (2 hours) • 25°C at 50% RH (1 hour) 2 day (2 cycles) operational / non-operational: • 25°C at 90% RH (2 hours) • 45°C at 90% RH (4 hours) • 5°C at 90% RH (4 hours) • 25°C at 90% RH (1 hour)
Salt Spray (Corrosion Test) EN 50130-5: IEC 60068-2-52	Salt Spray Test: • 2 Hours Salt Mist at 35°C ± 2K • 166 Hours Damp Heat at 40°C ± 2K; 93±3% RH • Repeat 4 times, 4 cycle(s)
Sulfur Dioxide EN 50130-5: IEC 60068-2-42.	Sulfur Dioxide (SO ₂): • SO₂: 25 X 10⁻⁶) - o Other sulfur oxides: < 1% • Temperature: 25°C ± 2°C • Humidity: 93% +/- 3% • Duration: 21 Days
External Mechanical Impact (IK Code or Impact rating) IEC 62262:2002-02	IK10- Energy 20J, 5.05 kg steel mass test slug, 50 mm striking radius, drop height 0.4037 m 5 drops per side, impact 5 sides, 25 total impacts. Excludes window.

BS EN 50130-5:2011 Alarm systems Part 5: Environmental test methods	Specific Test Description (Temperatures stated are outside of the camera housing,)
Vibration sinusoidal operational IEC 60068-2-6 Test Fc: Vibration (sinusoidal), 10m/s ² (1.0G)	Freq. Range 10-150Hz, 10m/s ² , 3 axes, sweep rate 1 octave/m 20 sweeps/axis, (1.0g)
Shock operational IEC 60068-2-27	Shock, Half Sine Impulse, 6ms, 40G, non-repetitive shocks (three shocks in each axis and in each direction)
Wind speed	Sustained 120-150 mph winds for a 40-minute period without structural damage, loss of video, or PTZ function. Camera will hold its position in gusts up to 220 mph.
Sound level (audible noise)	< 59 dB at 1m distance

Additional Reliability test

Activity	Specific Test Description
MTBF (Mean Time Between Failures)	234,617 hours Calculation of used components according Siemens SN29500.
Operating Temperature	-40 °C - 65 °C / -40 °F - 149 °F
NEMA TS-2 Traffic Controller Assemblies with NTCIP Requirements (Section 2.2.7.2 - 2.2.7.7, 2.2.10)	-34 °C and 74 °C
NEMA TS-2 Traffic Controller Assemblies with NTCIP Requirements	TS 2 Section 2.2.8 Vibration - 5-30 Hz, 0.5g, Resonant Frequency Search 1 hour endurance test
NEMA TS-2 Traffic Controller Assemblies with NTCIP Requirements	TS 2 Section 2.2.9 Shock (Impact) Test Half Sine Impulse, 11ms, 10g
Quality (Q) and Reliability (Z) testing	Annual product compliance. Verification tests to secure that products remain compliant to the specified requirements.
MIL-STD-167-1A	Vibrations

Environmental approvals

Directive or standard	Description
RoHS EU, 2011/65/EU EN IEC 63000:2018	Restriction of the use of certain hazardous substances (RoHS)
WEEE EU, 2012/19/EU	Waste Electrical and Electronic Equipment (WEEE)
N2580-1 (Bosch standard)	Central directive Bosch-Norm N 2580-1: "Prohibition and declaration of substances" Bosch-Norm N 2580-1 regulates prohibited substances and those rated declarable in materials, and it is part of the requirements for materials.
Defrosting testing	1/8" ice build defrosted
MIL-STD-810H 501.7	High Temperature
MIL-STD-810H 502.7	Low Temperature

MIL-STD-810H 505.7 Procedure 1	Solar Radiation
MIL-STD-810H 506.6 Procedure 1	Wind Driven Rain
MIL-STD-810H 509.7	Salt Fog
MIL-STD-810H 510.7	Dust & Sand. Procedure I & II, Storage: 70oC, Sand Concentration b & c)

Approvals Safety and EMC

Specific Approval	Description
EMC Europe	
Directive 2014/30/EU	EMC Directive- Electromagnetic compatibility (recast) Text with EEA relevance
EN 50130-4:2011+A1:2014	Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems.
EN 61000-4-2	ESD Susceptibility
EN 61000-4-3	Radiated electromagnetic fields
EN 61000-4-4	Electrical Fast Transient (EFT) Burst
EN 61000-4-5	Surge levels ± 0.5 , 1 and 2kV common mode. ± 0.5 , 1 and 2kV differential mode. To ALL input / output - and supply-wiring.
EN 61000-4-6	Conducted Immunity
EN 61000-4-11	Voltage Dip and Short Interruption
EN 50121-4:2017	Railway applications
EN 55032:2015+A11:2020 (Class A)	Radiated and Conducted Emissions
CISPR 32:2015 (Class A)	Radiated and Conducted Emissions
EMC USA	
CFR 47 FCC part 15 Class A	Conducted + Radiated Emission based on VERIFICATION procedure
Mains Voltage Tolerance Test (Brown out supply voltage test)	Camera fully operational down to 105V (230 V PSU) and 55V (120V PSU). Below this voltage, the camera is not operational. Camera must be power- cycled for the camera block to reset.

Management system

Directive or standard	Description
ISO 9001:2015	Quality management systems -- Requirements Scope: Development, production, installation and sales.
ISO 14001:2015	Environmental management systems -- Requirements with guidance for use Scope: Development, Production, Sales and After Sales.

Cybersecurity

Directive or standard	Description
IEC 62443-4-1	Industrial Cyber Security Capability Secure product development lifecycle (SDL) for control system components.
IEC 62443-4-2	Technical cybersecurity requirements for Industrial Automation and Control Systems (IACS) components

FIPS 140-2 Level 3	Federal Information Processing Standard Publication 140-2 for physical tamper resistance and identity-based authentication of cryptographic hardware
FIPS 140-3 Level 3	Successor to FIPS 140-2 Level 3

Data subject to change without notice.

Lancaster, September 2026