



TECHNICAL SPECIFICATIONS

# Guardian Sensors

Large Enterprise, Mid-Enterprise, Specialized Requirements,  
Virtual Environments, Federal Systems, Embedded Offerings

# Guardian Sensors for the Large Enterprise



## NSG-HS Series

Rack-mounted sensors for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 300,000 - 500,000 Nodes
- ◆ 6 Gbps Max. Throughput



## NSG-H Series

Rack-mounted sensors for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 100,000 - 200,000 Nodes
- ◆ 3 Gbps Max. Throughput

|   | NSG-HS 3500  | NSG-HS 3000 | NSG-H 2500   | NSG-H 2000 |
|---|--|-------------|--|------------|
| <b>Max. Protected Nodes</b>                         | 500,000  | 300,000     | 200,000  | 100,000    |
| <b>Max. Protected Network Elements<sup>1</sup></b>  | 2,000,000  | 1,500,000   | 1,200,000  | 1,000,000  |
| <b>Max. Protected Smart IoT Devices<sup>2</sup></b> | 3,000,000  | 1,800,000   | 1,200,000  | 600,000    |
| <b>Max. Throughput<sup>3</sup></b>                  | 6 Gbps   |             | 3 Gbps   |            |
| <b>Max. Remote Collectors<sup>4</sup></b>           | 50   |             | 50   |            |
| <b>Monitoring Ports</b>                             | Modular, 12 customizable<br>4 x SFP+ available by default<br>(SFP+ transceivers not included)<br>1 x RJ45 available by default<br>Up to 17 total ports |             | Modular, 4 customizable<br>4 x SFP+ available by default<br>1 x RJ45 available by default<br>Up to 9 total ports |            |
| <b>Management Ports</b>                             | 1x1000BASE-T   |             | 1x1000BASE-T   |            |
| <b>Expansion Slots</b>                              | 3 slots available:<br>3 x 1000BaseT   3 x SFP   3 x SFP+   |             | 1 slot available:<br>1 x 1000BaseT   1 x SFP   1 x SFP+  |            |
| <b>Storage</b>                                      | 512 GB for OS and Data   |             | 512 GB for OS and Data   |            |
| <b>Form Factor</b>                                  | 1 rack unit  |             | 1 rack unit  |            |
| <b>Max. Power Consumption</b>                       | 750 W  |             | 750 W  |            |
| <b>Power Supply</b>                                 | Dual<br>100-240V AC<br>36 - 72V DC   |             | Dual<br>100-240V AC<br>36 - 72V DC   |            |
| <b>Temperature Range (°F/°C)</b>                    | 32 - 104 / 0 - 40  |             | 32 - 104 / 0 - 40  |            |
| <b>HxWxL (in/mm)</b>                                | 1.73 x 17.24 x 23.60 / 44 x 438 x 600  |             | 1.73 x 17.24 x 23.60 / 44 x 438 x 600  |            |
| <b>Weight (lb/kg)</b>                               | 39.68 / 18   |             | 37.47 / 17   |            |
| <b>Certifications</b>                               | CE, FCC, UL  |             | CE, FCC, UL  |            |

<sup>1</sup> Network Elements: The sum of nodes, links, and variables. <sup>2</sup> Smart IoT Devices: The concept of "Smart IoT device" covers devices communicating in an intermittent way and resulting in low throughput. <sup>3</sup> All performance values are "up to" and vary depending on the analyzed traffic. <sup>4</sup> See Remote Collector tech specs for more details. For complete and current tech specs, visit: [nozominetworks.com/products/technical-specifications](https://nozominetworks.com/products/technical-specifications), or contact us.

# Guardian Sensors for the Mid-Enterprise



## NSG-M Series

Rack-mounted sensors for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 10,000 - 40,000 Nodes
- ◆ 1 Gbps Max. Throughput

|   | NSG-M 1000   | NSG-M 750 |
|---|--|-----------|
| <b>Max. Protected Nodes</b>                         | 40,000   | 10,000    |
| <b>Max. Protected Network Elements<sup>1</sup></b>  | 600,000  | 200,000   |
| <b>Max. Protected Smart IoT Devices<sup>2</sup></b> | 200,000  | 50,000    |
| <b>Max. Throughput<sup>3</sup></b>                  | 1 Gbps   |           |
| <b>Max. Remote Collectors<sup>4</sup></b>           | 50   |           |
| <b>Monitoring Ports</b>                             | 7x1000BASE-T + 4xSFP                                     |           |
| <b>Management Ports</b>                             | 1x1000BASE-T   |           |
| <b>Expansion Slots</b>                              | 1 slot available:<br>4 x 1000BASE-T   4 x SFP   4 x SFP+ |           |
| <b>Storage</b>                                      | 256 GB for OS and Data                                   |           |
| <b>Form Factor</b>                                  | 1 rack unit  |           |
| <b>Max. Power Consumption</b>                       | 360W   |           |
| <b>Power Supply</b>                                 | Single<br>100 - 240V AC                                  |           |
| <b>Temperature Range (°F/°C)</b>                    | 0 - 113 / 0 - 45   |           |
| <b>HxWxL (in/mm)</b>                                | 1.73 x 17.24 x 16.89 / 44 x 438 x 429                    |           |
| <b>Weight (lb/kg)</b>                               | 30.8 / 14  |           |
| <b>Certifications</b>                               | CE, FCC, UL  |           |

<sup>1</sup> Network Elements: The sum of nodes, links, and variables. <sup>2</sup> Smart IoT Devices: The concept of "Smart IoT device" covers devices communicating in an intermittent way and resulting in low throughput. <sup>3</sup> All performance values are "up to" and vary depending on the analyzed traffic. <sup>4</sup> See Remote Collector tech specs for more details. For complete and current tech specs, visit: [nozominetworks.com/products/technical-specifications](https://nozominetworks.com/products/technical-specifications), or contact us.

# Guardian Sensors for the Mid-Enterprise



## NS20 Series

Rack-mounted sensors for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 10,000 - 40,000 Nodes
- ◆ 1 Gbps Max. Throughput



## NS1 Series

Rack-mounted sensor for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 1,000 - 5,000 Nodes
- ◆ 500 Mbps Throughput

|   | NS20 1000  | NS20 750 | NS1 250                                  | NS1 100 |
|---|--|----------|--|---------|
| <b>Max. Protected Nodes</b>                         | 40,000   | 10,000   | 5,000                                    | 1,000   |
| <b>Max. Protected Network Elements<sup>1</sup></b>  | 600,000  | 200,000  | 90,000                                   | 20,000  |
| <b>Max. Protected Smart IoT Devices<sup>2</sup></b> | 200,000  | 50,000   | 20,000                                   | 5,000   |
| <b>Max. Throughput<sup>3</sup></b>                  | 1 Gbps   |          | 500 Mbps                                 |         |
| <b>Max. Remote Collectors<sup>4</sup></b>           | 50   |          | 20                                       |         |
| <b>Monitoring Ports</b>                             | 9x1000BASE-T + 4xSFP                               |          | 7x1000BASE-T                             |         |
| <b>Management Ports</b>                             | 1x1000BASE-T                                       |          | 1x1000BASE-T                             |         |
| <b>Expansion Slots</b>                              | 2 slots available<br>4x1000BASE-T   4xSFP   4xSFP+ |          | 1 slot available<br>4x1000BASE-T   4xSFP |         |
| <b>Storage</b>                                      | 32GB for OS<br>2 x 256GB for Data (RAID 1)         |          | 128 GB for OS and Data                   |         |
| <b>Form Factor</b>                                  | 1 rack unit  |          | 1 rack unit                              |         |
| <b>Max. Power Consumption</b>                       | 300W   |          | 220W                                     |         |
| <b>Power Supply</b>                                 | Dual<br>100 - 240V AC                              |          | Single<br>100 - 240V AC                  |         |
| <b>Temperature Range (°F/°C)</b>                    | 32 - 104 / 0 - 40                                  |          | 32 - 104 / 0 - 40                        |         |
| <b>HxWxL (in/mm)</b>                                | 1.73 x 17.3 x 19.74 / 44 x 438 x 501               |          | 1.75 x 17.3 x 12.7 / 44 x 438 x 321      |         |
| <b>Weight (lb/kg)</b>                               | 36.37 / 16.5                                       |          | 19.4 / 8.8                               |         |
| <b>Certifications</b>                               | CE, FCC, UL, CB                                    |          | CE, FCC, UL, CB                          |         |

<sup>1</sup> Network Elements: The sum of nodes, links, and variables. <sup>2</sup> Smart IoT Devices: The concept of "Smart IoT device" covers devices communicating in an intermittent way and resulting in low throughput. <sup>3</sup> All performance values are "up to" and vary depending on the analyzed traffic. <sup>4</sup> See Remote Collector tech specs for more details. For complete and current tech specs, visit: [nozomionetworks.com/products/technical-specifications](https://nozomionetworks.com/products/technical-specifications), or contact us.

# Guardian Sensors for Specialized Requirements



## Ruggedized Series

Ruggedized sensors for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 500 - 5,000 Nodes
- ◆ 100 - 250 Mbps Max. Throughput



## Portable

Portable sensor for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 2,500 Nodes
- ◆ 200 Mbps Max. Throughput

|   | NG-500R  | NSG-R 50   | P550  |
|---|--|--|---|
| <b>Max. Protected Nodes</b>                         | 5,000  | 500  | 2,500   |
| <b>Max. Protected Network Elements<sup>1</sup></b>  | 80,000   | 10,000   | 50,000  |
| <b>Max. Protected Smart IoT Devices<sup>2</sup></b> | 30,000   | 2,500  | 12,500  |
| <b>Max. Throughput<sup>3</sup></b>                  | 800 Mbps                                       | 100 Mbps   | 200 Mbps  |
| <b>Max. Remote Collectors<sup>4</sup></b>           | 30   | 10   | Not available                                       |
| <b>Monitoring Ports</b>                             | 3x1000BASE-T                                   | 4x1000BASE-T   | 5x1000BASE-T  |
| <b>Management Ports</b>                             | 1x1000BASE-T                                   |  | 1x1000BASE-T  |
| <b>Expansion Slots</b>                              | 2 slots available:<br>4 x 1000BASE-T   4 x SFP | Not available  | Not available                                       |
| <b>Storage</b>                                      | 32GB for OS<br>2 x 256GB for Data (RAID 1)     | 64 GB for OS and Data                                | 256 GB for OS and Data                              |
| <b>Form Factor</b>                                  | 3 rack unit                                    | DIN mountable  | Desktop with wall mount kit                         |
| <b>Max. Power Consumption</b>                       | 115W   | 60W  | 38W   |
| <b>Power Supply</b>                                 | Dual<br>100 - 240V AC<br>16.6 - 160V DC        | Single (External)<br>100 - 240V AC or<br>12 - 36V DC | Single (External)<br>90 - 240V AC or<br>12 - 30V DC |
| <b>Temperature Range (°F/°C)</b>                    | -40 - 158 / -40 - 70                           | -40 - 167 / -40 - 75                                 | 32 - 140 / 0 - 60                                   |
| <b>HxWxL (in/mm)</b>                                | 5.18 x 17.2 x 11.8 / 132 x 438 x 300           | 3.15 x 5.11 x 5.74 / 80 x 130 x 146                  | 2.75 x 7.08 x 9.44 / 70 x 180 x 240                 |
| <b>Weight (lb/kg)</b>                               | 18.74 / 8.5                                    | 6.61 / 3   | 5.5 / 2.5   |
| <b>Certifications</b>                               | CE, FCC, UL, CB                                | CE, FCC, UL  | CE, FCC, UL   |

<sup>1</sup> Network Elements: The sum of nodes, links, and variables. <sup>2</sup> Smart IoT Devices: The concept of "Smart IoT device" covers devices communicating in an intermittent way and resulting in low throughput. <sup>3</sup> All performance values are "up to" and vary depending on the analyzed traffic. <sup>4</sup> See Remote Collector tech specs for more details. For complete and current tech specs, visit: [nozominetworks.com/products/technical-specifications](https://nozominetworks.com/products/technical-specifications), or contact us.

# Guardian Sensors for Virtual Environments



## Virtual Series

Virtual sensors for real-time OT/IoT visibility, cybersecurity and monitoring.

- ◆ 1,000 - 40,000 Nodes
- ◆ 1 Gbps Max. Throughput

|   | V1000                         | V750    | V250   | V100   |
|---|-------------------------------|---------|--------|--------|
| <b>Max. Protected Nodes</b>                         | 40,000                        | 10,000  | 5,000  | 1,000  |
| <b>Max. Protected Network Elements<sup>1</sup></b>  | 600,000                       | 200,000 | 90,000 | 20,000 |
| <b>Max. Protected Smart IoT Devices<sup>2</sup></b> | 200,000                       | 50,000  | 20,000 | 5,000  |
| <b>Max. Throughput<sup>3</sup></b>                  | 1 Gbps                        | 1 Gbps  | 1 Gbps | 1 Gbps |
| <b>Scenarios</b>                                    | Enterprise                    | Large   | Medium | Small  |
| <b>Deployment Options</b>                           | VMware, Hyper-V, KVM, and XEN |         |        |        |
| <b>Max. Remote Collectors<sup>4</sup></b>           | 50                            | 50      | 20     | 20     |

<sup>1</sup> Network Elements: The sum of nodes, links, and variables. <sup>2</sup> Smart IoT Devices: The concept of "Smart IoT device" covers devices communicating in an intermittent way and resulting in low throughput. <sup>3</sup> Performance is dependent upon hardware configuration and resource allocation. <sup>4</sup> See Remote Collector tech specs for more details. For complete and current tech specs, visit: [nozominetworks.com/products/technical-specifications](https://nozominetworks.com/products/technical-specifications), or contact us.

# Guardian Sensors for Federal Systems

## FIPS 140-2 Compliant Edition

Feature add-on where all encrypted communications will be done with a FIPS 140-2 compliant library.

- ◆ **The FIPS 140-2 compliant Guardian platform will not be able to communicate with non-FIPS compliant Nozomi Networks platforms.**

# Embedded Offerings

## Siemens Platforms

Embedded container sensor for switches, routers and other security infrastructure.

- ◆ **Fast, flexible deployment options that leverage your existing devices.**

|            | Guardian                                     | Remote Collector |
|------------|--|------------------|
| Bare Metal | Siemens Ruggedcom APE*                       | Not available    |
| Container  | Any platform that supports Docker containers | Siemens LPE      |

\*Ruggedcom RX Platform is capable of hosting the APE module

|   | Siemens Ruggedcom APE 1808 on 1500/1501 rack-mountable multi-service platforms | Siemens LPE                      |
|---|--|----------------------------------|
| Max. Protected Nodes                          | 1,000  | Not applicable                   |
| Max. Protected Network Elements <sup>1</sup>  | 14,000   | Not applicable                   |
| Max. Protected Smart IoT Devices <sup>2</sup> | 5,000  | Not applicable                   |
| Max. Throughput <sup>3</sup>                  | 100 Mbps   | 30 Mbps                          |
| Max. Remote Collectors <sup>4</sup>           | Not rated  | Not applicable                   |
| Monitoring Ports                              | 4x1000BASE-T   | 3x1000Base-T                     |
| Management Ports                              | 1x1000BASE-T   | 1x1000BASE-T                     |
| Expansion slots                               | Not available  | Not available                    |
| Form Factor                                   | 1 rack unit  | DIN mountable                    |
| Max. Power Consumption                        | 12 W   | 16 W                             |
| Power Supply                                  | Up to 2 Power Supplies<br>48 VDC and/or 88 VDC<br>12 VDC and 24 VDC            | Up to 2 Power Supplies<br>24 VDC |
| Operating Temperature Range (°F/°C)           | -40 - 185 / -40 - 85   | -40 - 140 / -40 - 60             |
| HxWxL (in/mm)                                 | 1.74 x 11.68 x 17.36 / 44.2 x 296.7 x 440.9                                    | 5.8 x 5.3 x 5 / 147 x 134 x 127  |
| Weight (lb/kg)                                | 10.36 / 4.7  | 3.5 / 1.6                        |

<sup>1</sup> Network Elements: The sum of nodes, links, and variables. <sup>2</sup> Smart IoT Devices: The concept of "Smart IoT device" covers devices communicating in an intermittent way and resulting in low throughput. <sup>3</sup> Performance is dependent upon hardware configuration and resource allocation. <sup>4</sup> See Remote Collector tech specs for more details. For complete and current tech specs, visit: [nozominetworks.com/products/technical-specifications](https://nozominetworks.com/products/technical-specifications), or contact us.



## Cybersecurity for OT, IoT and Critical Infrastructure

Nozomi Networks protects the world's critical infrastructure from cyber threats. Our platform uniquely combines network and endpoint visibility, threat detection, and AI-powered analysis for faster, more effective incident response. Customers rely on us to minimize risk and complexity while maximizing operational resilience.