Kaspersky IoT Secure Gateway 100

Product data sheet

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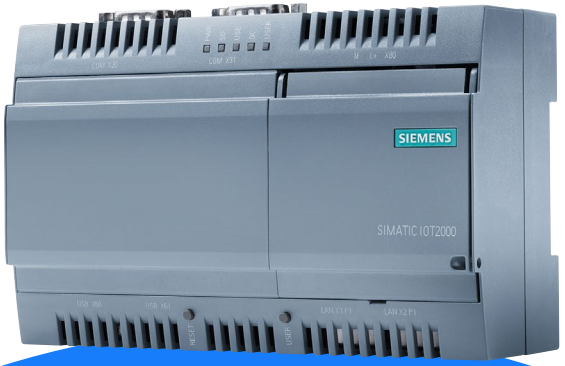
Kaspersky
IoT company

Kaspersky IoT
Secure Gateway (KISG) 100

Developed on the basis of the KasperskyOS operating system and the Siemens SIMATIC IOT2040 hardware platform.

Cyber Immune data gateway for the industrial internet of things and a key tool for building end-to-end digital services for the digital transformation of enterprises.



Cyber Immunity against threats

OS-level security by design. The device performs its critical functions even in aggressive environments.

Software data diode

The flow of information through the gateway goes only in the direction of the cloud. Connected equipment is protected against external influence by potential cybercriminals.

Works with an IIoT cloud

KISG 100 can be connected to the Siemens MindSphere industrial cloud platform. Compatible with other MQTT-supported platforms in demo mode.

Operating system

KasperskyOS:

- All OS entities/domains are strictly isolated and therefore cannot impact each other
- Proprietary microkernel blocks unauthorized interactions based on security verdicts by default
- Verdicts are determined by the Kaspersky Security System engine based on security policies enabling fine-tune configuration

Protocol

OPC UA on the connected equipment side

Cloud platform connection

- Siemens MindSphere (thanks to MindConnect Library support)
- Other platforms that support data exchange over MQTT protocol (additional verification required)

KasperskyOS is open for development. New components can be added to Kaspersky IoT Secure Gateway 100 components if necessary.

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Hardware platform

Siemens SIMATIC IOT2040 technical specifications

Type of supply voltage	24 V DC (9...36 V)
Mains/voltage failure stored energy time	5 ms
Processor type	Intel Quark X1020
Drive	microSD 16 GB
Type of memory	DDR3-SDRAM
RAM	1 GB
Industrial Ethernet interfaces (100 Mbps)	2x Ethernet (RJ45)
Degree and class of protection – IP (front)	IP20

EMC

Interference immunity against discharge of static electricity	±4 kV contact discharge according to IEC 61000-4-2; ±8 kV air discharge according to IEC 61000-4-2
Interference immunity against high-frequency electromagnetic fields	10 V/m for 80-1,000 MHz, 80% AM according to IEC 61000-4-3; 3 V/m for 1.4-2 GHz, 80% AM according to IEC 61000-4-3; 1 V/m for 2-2.7 GHz, 80% AM according to IEC 61000-4-3; 10 V for 150 kHz–80MHz, 80% AM according to IEC 61000-4-6
Interference immunity against voltage surge:	
· Asymmetric connection	±2 kV according to IEC 61000-4-5, surge asymmetric
· Symmetric connection	±1 kV according to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields at 50 Hz	100 A/m; according to IEC 61000-4-8
Emission of conducted and non-conducted interference via network cables/AC lines	EN 61000-6-4:2007 + A1:2011

AMBIENT CONDITIONS

Ambient temperature during operation	from 0 °C to 50 °C
Relative humidity	Tests according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to 85% at 30 °C (no condensation); Storage/transportation: 5% to 95% at 22/55 °C (no condensation)
Vibration resistance during operation	Tests according to IEC 60068-2-6: 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 200 Hz: 9.8 m/s²
Shock load during operation	Tests according to IEC 60068-2-27: 150 m/s², 11 ms
Dimensions	Width 144 mm, height 90 mm, depth 53 mm

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