

# CIP-5316W-00N

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Invented for life



- ▶ FRU - key unit field replaceable, modular design reduces maintenance cost
- ▶ High dense storage - cost effective, supporting up to 96 hard drives through SAS JBOD expansion
- ▶ Front hot-swappable SATA/SAS/SSD hard drives
- ▶ Dual 550 W power supplies - hot-swappable N+1 Design (80 PLUS certified energy efficient AC/DC switching)
- ▶ Hardware RAID card - RAID level 0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60, with any combination to exist at the same time

The CIP5000 series storage is an affordable, easy maintenance, reliable storage device. As dedicated to Bosch intelligent video surveillance management platform, the storage is specially engineered for medium to large scale IP video surveillance deployment with strict Bosch standard test. Performance on video surveillance writing / reading that limited by storage equipment bottlenecks is optimized fundamentally via smart stripe/smart playback/smart continuity technology, and via specific video surveillance based writing / reading features. The storage is a rack mount unit that can combine streaming media service/iSCSI direct recording and storage resources into a single hardware device. With the optimized software features and FRU modular hardware design, you can have the best stability and storage performance with the best C/P ratio.

## System overview

The storage utilizes an energy efficient, embedded design which reduces possible points of failure and boasts a global standard Bosch quality.

The device is equipped with standard hardware parts of RAID cards utilizing "enterprise-rated" hard drives in a fault tolerant RAID-5/RAID-6 configuration, dual port Gigabit Ethernet network interface, 8 GB system memory and an Intel Core processor. Combining streaming media service/iSCSI direct recording and storage resources into a single hardware device at a competitive price, the device can ensure powerful integration performance of calculation and storage, and provide customers of video management and storage solutions with the best C/P ratio.

## Functions

The storage features highly energy-efficient hot-swappable redundant power supplies, as well as front-swappable SATA hard drives. Single system can support up to 96 hard drives, and ensure data redundancy protection based on the hardware RAID card with RAID level 0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60. Key unit (processor, RAID card, mainboard, fans

and power supplies) is field replaceable, no need to return to the repair center in case of hardware fails, which can reduce maintenance cost significantly. Microsoft Windows Storage Server 2016 is pre-installed in the storage, and streaming media service or iSCSI direct recording is optional for specific applications.

### Expandable capacity

For larger storage system requirements, the system is cost effect using the JBOD product to extend capacity without the added expense of an additional RAID server.

### Reduce the complexity of Maintenance

One Plug Auto Service (OPAS), a feature unique offers user convenience, reduced complexity, lower maintenance cost and streamlined technical support. OPAS enables users to easily collect all the necessary logs and data used by the Bosch support team to analyze.

### Monitoring

The storage provides SNMP, Remote Desktop and HTTP monitoring support for the system's hardware and for the video management applications. Increased reliability of high-availability hardware, embedded design as well as system-wide monitoring and management ensure maximum uptime.

### Bosch quality

Bosch subjects all its products to the most comprehensive and rigorous battery of quality endurance tests in the industry. Our recording products are subjected to extreme temperatures, voltages and vibrations to determine reliable operating limits, so you can be assured of long-term reliable operation. And Bosch firmly stands behind every product it sells with a 3 year warranty backed by technical support.

## Certifications and approvals

Region	Regulatory compliance/quality marks	
Europe	CE	EC_Declaration_CIP5000
China	CCC	2019010911257783

## Installation/configuration notes

### Notice

#### Environmental conditions

Install the system in a clean, dust-free, dry and weather-protected area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. The standard warranty coming with the system will be void if evidence is seen that the system was exposed to conditions contradicting the environmental conditions mentioned here.

### Notice

Uninterruptable Power Supply (UPS). We strongly recommend using an "Online UPS" with an always active battery. The UPS must support Microsoft Windows Storage Server 2016 and must be sufficient to allow time to bring an auxiliary power source on line, or to properly shut down the disk array(s).

### Notice

Bosch is not liable for system failures of units equipped with third-party hard drives if the third-party hard drives are source of the issues. Such drives are not covered by the 3 years warranty.

## Parts included

Quantity	Component
1	storage enclosure
2	1.83 m (6 ft) power cord
1	Front panel bezel cover
1	Screws set for disk drives
1	Quick installation guide

## Technical specifications

### Storage

Drive support	Up to 16 3.5" drives
Controller	Single
System processor	Intel® Core™
System memory	8 GB Default (Max 64 GB)
I/O interface	2 x Gigabit Ethernet
Internal storage (M.2)	128 GB
Number of USB ports	Front: two USB 2.0 Rear: four USB 3.0
PCI express ports	1x8-lane gen3 1x1-lane gen3 1x4-lane gen3
Graphics	D-sub x 1, DVI x 1, HDMI x 1
Microphone	5x 3.5 mm + 1xSPDIF Audio Jack
RAID levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60. Any combination can exist at the same time
Hot spares	Multiple global or dedicated hot-spare drives with revertible option

Max. LUNs per system/array	256/32
OS supported (64-bit)	Windows Storage Server 2016 Standard

**Electrical**

AC input	100 ~ 240 VAC, 60 ~ 50 Hz
Current (maximum)	8 - 4 A
Power supply	Redundant 550 W for each power, hot-swappable N+1 design

**Mechanical**

Form factor	3U, 19" Rackmount
Dimensions	131 mm x 503 mm x 447 mm (5.2 in. x 19.8 in. x 17.6 in.)
Weight	System W/O HDD: 16.11 kg;

System W/ HDD: 26.84 kg

**Environmental**

Operational temperature	+5 °C to +40 °C
Non-operational temperature	-40 °C to +60 °C
Relative humidity	Operational: 10% to 80%, non-condensing Non-operational: 10% to 95%, non-condensing

**Ordering information**

**CIP-5316W-00N CIP5000 series storage, 16-Bay, W/O HDD**

Support up to 96 hard drives through SAS JBOD expansion.

Order number **CIP-5316W-00N**

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