

# Z440 HE Management Workstation

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Invented for life



- ▶ High-performance workstation with Intel's next-generation microarchitecture
- ▶ Dual-monitor support (NVIDIA Quadro P4000, 8 GB graphics card)
- ▶ Silent running with HP low acoustics chassis
- ▶ Protected by HP Hardware Services, including a 3 years Next Business Day on-site support

This HP Z440 management workstation with its latest processing and I/O power from Intel, and the latest graphics technology from leading graphics providers is designed for video-oriented applications that require high performance and most advanced visualization. HP Z440 features a sleek 4U chassis with built-in handles that offers tool-less access to the inside and easy configurability for seamless deployment. This brand new tool-free chassis boasts low acoustics and single integrated Gigabit Ethernet to deliver whisper-quiet performance. HP Z440 is built to minimizing power and cooling costs with ENERGY STAR qualified configurations featuring 90% efficient power supplies while taking on bigger computing challenges with the latest Intel vPro technology and the next generation Intel Xeon quad-core processor:

- Intel Xeon E5-1620 v3 (3.5 GHz, 10 MB cache, 2133 MHz memory speed, Quad-Core, HT, Turbo)
- 8 GB (2 x 4 GB) DDR4 2400 ECC Registered Memory

HP Z440 is a workstation solution based on the Intel C612 Chipset using Intel's vPro technology and on 8 DIMM slots in 4-channel memory architecture.

With 2 x PCI Express Gen3 x16, 1 x PCI Express Gen3 x8, 1 x PCI Express Gen2 x4, 1 x PCI Express Gen2 x1 and 1 x Legacy PCI slots, HP Z440 delivers high performance bandwidth interfaces and future expandability:

- The architecture of this management workstation delivers next generation I/O throughput to achieve high throughput and visualization requirements.
- The high-end NVIDIA Quadro P4000 (8 GB) graphics card ensures highest performance and resolution for fast presentation of displayed video data.

## System overview

Z440 HE Management Workstation is the high-performance workstation suitable for running the security systems software applications offered by Bosch.

Please refer to the respective application data sheets to get detailed information.

Intel Microarchitecture offers the latest in processor innovation, including:

- Design and performance scalability with **Intel Hyper-Threading Technology** (Intel HT Technology), scalable cache sizes, system interconnects, and integrated memory controllers.

- Intel Hyper-Threading Technology brings high-performance applications into mainstream computing with 1 - 16+ threads optimized for new generation multi-core processor architecture. Intel Xeon E5-1620 v3 provides up to 8 threads.
- **Intel Turbo Boost Technology** delivers additional performance automatically when needed by taking advantage of the processor's power and thermal headroom. Intel Xeon E5-1620 v3 with 1.1 turbo boost stepping (3.6 GHz max).
- **Intel vPro Technology** for maximized, hardware-assisted security and manageability.

### Certifications and approvals

RoHS	Compliant with the European Union's Restrictions of Hazardous Substances (RoHS) Directive 2011/65/EU
WEEE	Designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive– 2002/96/EC
ISO 11469 ISO 1043	Plastic parts used in the product weighing over 25 g are marked per ISO 11469 and ISO 1043
	Contains 0% recycled materials (by weight)
	Product is >90% recyclable when properly disposed of at end-of-life

### Approvals

Region	Regulatory compliance/quality marks
Europe	CE Z440 Declaration of Conformity

### Installation/configuration notes

#### Language selection

This management workstation comes in a standard localization:

MHW-WZ4R4-HEUS American English localization/  
keyboard

Additional optional keyboards listed under **Ordering Information** are available.



#### Notice

The Bosch management workstation comes with Microsoft Windows 10 pre-installed.



#### Notice

The Next Business Day on-site service level can only be provided if the respective system has been registered within eight weeks after receipt. Otherwise, service will be provided based on best effort.

Information about registration details is available in every shipment (registration form) or from the Bosch online product catalogue.

Next Business Day Services cannot be provided in every country everywhere. For limitations and exceptions see the registration details in the registration form.

### Technical specifications

Electrical	
Power supply	700 W, 90% efficient, custom PSU (wide ranging, active Power Factor Correction)
Operating voltage range	90 to 269 VAC
Rated voltage range	100 to 240 VAC
	118 VAC
Rated line frequency	50/60 Hz (at 100 to 240 VAC)
	400 HZ (at 118 VAC)
Operating line frequency range	47 to 66 Hz (at 100 to 240 VAC)
	393 to 407 HZ (at 118 VAC)
Rated input current	100 to 240 V at 9.5 A
	118 V at 9.5 A
Power consumption in sleep mode (as defined by ENERGY STAR) - Suspend to RAM (S3) (instantly available PC)	<15 W
Heat dissipation (configuration and software dependent)	1648 BTU/h typical (415 kcal/h)
	2746 BTU/h max (692 kcal/h)
Power supply fan	92 x 25 mm variable speed
ENERGY STAR qualified	Yes
80 PLUS compliant	Yes, 90% efficient
FEMP standby power compliant at 115 V (<2 W in S5 – power off)	Yes
EuP compliant at 230 V	Yes

**Mechanical**

Form factor	Rackable minitower
Chassis dimensions	
<ul style="list-style-type: none"> <li>Standard minitower orientation (H x W x D)</li> </ul>	43.2 x 16.9 x 44.5 cm (17.0 x 6.65 x 17.5 in)
<ul style="list-style-type: none"> <li>Rack dimensions</li> </ul>	4U

**Environmental**

Temperature	
<ul style="list-style-type: none"> <li>operating</li> <li>non-operating</li> </ul>	5 °C to 35 °C (40 °F to 95 °F) -40 °C to 60 °C (-40 °F to 140 °F)
Humidity	
<ul style="list-style-type: none"> <li>operating</li> <li>non-operating</li> </ul>	8 to 85% relative humidity, non-condensing 8 to 90% relative humidity, non-condensing
Maximum altitude (non-pressurized)	
<ul style="list-style-type: none"> <li>operating</li> <li>non-operating</li> </ul>	3,048 m (10,000 feet) 9,144 m (30,000 feet)

**Notes:**

- General technical specifications for the workstation are provided in the HP Z440 QuickSpecs (DA - 15098 Worldwide - Version 34 - November 1, 2017).

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**Ordering information****MHW-WZ4R4-HEUS Workstation, High Performance, EN-US**

High-performance management workstation for video-oriented applications.

American English localization/keyboard.

Order number **MHW-WZ4R4-HEUS**

**Accessories****MHW-AWLCK-ESP Localization (Keyboard) Spain - Spanish**

Localization (Keyboard): Spain - Spanish

Order number **MHW-AWLCK-ESP**

**MHW-AWLCK-FR Localization (Keyboard) France - French**

Localization (Keyboard): France - French

Order number **MHW-AWLCK-FR**

**MHW-AWLCK-UK Localization (Keyboard) United Kingdom -**

Localization (Keyboard): United Kingdom - British English

Order number **MHW-AWLCK-UK**

**MHW-AWLCK-DE Localization (Keyboard) Germany - German**

Localization (Keyboard): Germany - German

Order number **MHW-AWLCK-DE**

**MHW-AWLCK-IT Localization (Keyboard) Italy - Italian**

Localization (Keyboard): Italy - Italian

Order number **MHW-AWLCK-IT**

**MHW-AWLCK-NL Localization (Keyboard) Netherlands - Du**

Localization (Keyboard): Netherlands - Dutch

Order number **MHW-AWLCK-NL**

**MHW-AWLCK-SE Localization (Keyboard) Sweden - Swedish**

Localization (Keyboard): Sweden - Swedish

Order number **MHW-AWLCK-SE**

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