# **UML-324-90 32 inch FHD LED monitor**

www.boschsecurity.com













- ▶ Precise color reproduction and anti-image retention
- ▶ DisplayPort, HDMI, DVI and VGA inputs
- SECC steel metal housing for better robustness, heat dissipation and shielding
- ► Complies with voltage dip immunity standards
- ► Easy to use controls with remote and on-screen menu display

The Bosch High Performance LED monitors are high resolution color monitors ideal for use in a video surveillance environment. The monitors feature a color LCD flat-screen panel and are available with 27-inch, 32-inch, 43-inch or 55-inch viewable picture areas. Each monitor features wide horizontal and vertical viewing angles, precise color reproduction and antimage retention.

#### **Functions**

#### **Excellent image quality**

The Bosch High Performance LED monitors automatically adapt to the input resolution of the incoming video signal, up to 1920 x 1080 resolution (Full HD) on the 27-inch, 32-inch and 43-inch models, and even up to 3840 x 2160 resolution (4k) on the 55-inch model. The monitors' analog VGA input easily accommodates the widespread use of PCs in today's security surveillance systems. Their high contrast ratio and a high brightness setting offers excellent color accuracy and imaging for easier viewing and interpretation of images. With the monitors' fast refresh rates you get crisp, clear images with less smearing - and less image "ghosting" in fast-motion video.

#### Anti-image retention

The monitors' anti-image retention capability helps prevent image sticking or image burning that may occur in situations of displaying static scenes over a long period of time.

#### True color enhancement

The monitors provide true color performance. The monitors automatically focus on setting the correct color, temperature, and gamma curve settings to deliver the highest possible picture quality.

#### **Industrial grade monitors**

The monitor is built from an industrial grade panel suitable for 24/7 usage.

#### **USB** for firmware upgrade

The firmware of the monitor can be upgraded by using the USB port.

#### DPMS

The monitor supports Display Power Management Signaling (DPMS) for power saving.

#### **HDCP**

The monitor supports High-bandwidth Digital Content Protection (HDCP) to allow playback off HDCP-encrypted content.

# **Certifications and approvals**

Region	Safety Certification
Canada	cUL60950-1
Europe	EN60950-1, CE Declaration of Conformity, CB scheme
USA	UL60950-1

# **Electromagnetic Compatibility (EMC)**

Emission	EN55032:2015 class B, FCC part 15 class B
Immunity	EN55024:2015, EN50130-4:2014

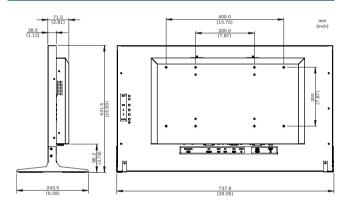
#### **Environmental**

Vibration and Shock Level 7.1 Energy Star Certificate

#### Display class

ISO 13406-2 Class II

# Installation/configuration notes



# Parts included

Quant ity	Component
1	Bosch high performance LED monitor
1	Power Cord, 3-wire grounded plug with a U.S plug type
1	Power Cord, 3-wire grounded plug with a European Continental plug type
2	Desktop stand: left side and right side
6	Mounting screws
1	HDMI to HDMI cable
1	VGA to VGA cable
1	DisplayPort to DisplayPort cable
1	DisplayPort to miniDisplayPort converter
1	Audio-in cable

Quant ity	Component
1	Remote control
2	AAA batteries for remote control
1	Quick Installation Guide

# **Technical specifications**

#### **Electrical**

UML-324-90
ONL OLT OU

Rated Voltage	100-240 VAC, 50/60 Hz	
Voltage Range	100-240 VAC, 50/60 Hz	
Power consumption		
On	<60 W	

< 0.5 W

# Standby **Video**

#### UML-324-90

LCD Panel	LED
Viewable Picture Area	31.5 in.
Active Display Area (H x V)	698.4 x 392.85 mm (27.5 x 15.5 in.)
Resolution <sup>1</sup>	1920 x 1080
Aspect Ratio	16:9
Display Colors	16.7 million
Response Time	8 ms (typical)
Backlight	50,000 hours

<sup>1.</sup> Pixel Policy: Bosch monitors follow the ISO 13406-2 Class II standard.

## **Audio**

Input	3.5 mm stereo jack
Output	2 x 2 W built-in speakers

# **Optical**

### UML-324-90

Luminance	500 cd/m² (typical)
Contrast Ratio	3000:1 (typical)
Viewing Angle	Horizontal/Vertical: 178°, typical

# **Timing modes**

# UML-274-90 / UML-324-90 / UML-434-90

Resolution F	Frequency
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640 x 400	85 Hz
640 x 480	60 Hz
800 x 600	60 Hz
1024 x 768	60 Hz
1152 x 864	75 Hz
1280 x 960	60 Hz
1280 x 1024	60 Hz
1360 x 768	60 Hz
1440 x 1050	60 Hz
1440 x 900	60 Hz
1600 x 1200	60 Hz
1680 x 1050	60 Hz
1920 x 1080	60 Hz

#### Mechanical

#### UML-324-90

Cabinet Material	SECC
Finish	RAL 9017 Traffic black
Mount	Wall mounting compatible with standard bracket
VESA Mounting Compliance	200 x 200 mm (7.87 x 7.87 in.) 400 x 200 mm (15.75 x 7.87 in.)

Dimensions (W x H x D)	
Monitor	737.9 x 431.5 x 71.5 mm (29.05 x 16.99 x 2.81 in.)
With Packaging	873 x 573 x 223 mm (34.37 x 22.56 x 8.78 in.)

#### Weight

Monitor Weight	11.6 kg (25.6 lbs)
Shipping Weight	15.6 kg (34.4 lbs)

#### **Environmental**

Operating Temperature	0°C to +50°C (32°F to 122°F)
Storage Temperature	0°C to +50°C (32°F to 122°F)
Humidity	0% to 90% Relative

# **Ordering information**

#### UML-324-90 32 inch FHD LED monitor

High-performance full HD (1080p) 32-inch LED monitor.

Order number UML-324-90

#### Accessories

UMM-WMT-32 wall mount for monitor 32 inch, tilt Tilt wall mount for a monitor (32 inch). Black Order number UMM-WMT-32

#### Represented by:

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