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# AXIS 209FD-R/209MFD-R Network Cameras

Compact, rugged network cameras for mobile video surveillance.

AXIS 209FD-R and AXIS 209MFD-R are compact, rugged network cameras designed specifically to withstand tough environments. Their tamper-resistant casing stands up to the vibrations, humidity, dust and fluctuating temperatures found, for example, in buses and trains.

AXIS 209FD-R and AXIS 209MFD-R are palm-sized, discreet network cameras specifically designed for mass transit vehicles. The flat, tamper-resistant casing makes them ideal for installation in, for example, buses or trains.

Progressive scan technology provides full resolution images of moving objects with no distortion. AXIS 209FD-R provides VGA resolution, whereas AXIS 209MFD-R is a 1.3-megapixel network camera.

The rugged design is adapted for handling the vibrations, humidity, dust and temperature fluctuations typical for mass transit vehicles. AXIS 209FD-R and AXIS 209MFD-R feature intelligent capabilities such as the active tampering alarm, which offers effective casing protection by sending an alarm when tampering attempts such as blocking or spraypainting are detected.

Power over Ethernet (IEEE 802.3af) supplies power to the cameras via the network, eliminating the need for power cables and reducing installation costs.







- > Progressive scan and megapixel
- > Vibration, humidity and dust resistant
- Active tampering alarm
- > Power over Ethernet

## Technical specifications – AXIS 209FD-R/209MFD-R Network Cameras

Camera	
Models	AXIS 209FD-R: VGA AXIS 209MFD-R: Megapixel Both are available in two variants with different connectors: - Rugged RJ-45 connector - Rugged M12 connector
Image sensor	AXIS 209FD-R: 1/4" Progressive Scan RGB CMOS VGA AXIS 209MFD-R: 1/3" Progressive Scan RGB CMOS 1.3 Megapixel
Lens	AXIS 209FD-R: 3.0 mm, F2.0, fixed iris , horizontal angle of view: 66° AXIS 209MFD-R: 3.6 mm, F1.8, fixed iris , horizontal angle of view: 74°
Light sensitivity	AXIS 209FD-R: 1.5 - 10000 lux, F2.0 AXIS 209MFD-R: 3 - 10000 lux, F1.8
Shutter time	AXIS 209FD-R: 1/10000 s to 1/4 s AXIS 209MFD-R: 1/15000 s to 1/4 s
Camera angle adjustment	Pan $\pm 10^\circ$ , tilt 0 - 90°, rotation $\pm 10^\circ$
Pan/Tilt/Zoom	AXIS 209MFD-R: Digital PTZ, preset positions, guard tour
Video	
Video compression	MPEG-4 Part 2 (ISO/IEC 14496-2) Motion JPEG
Resolutions	AXIS 209FD-R: 160x120 - 640x480 AXIS 209MFD-R: 160x90 - 1280x1024
Frame rate MPEG-4	AXIS 209FD-R: Up to 30 fps in all resolutions AXIS 209MFD-R: Up to 8 fps in max resolution, higher frame rate in lower resolutions
Frame rate Motion JPEG	AXIS 209FD-R: Up to 30 fps in in all resolutions AXIS 209MFD-R: Up to 12 fps in max resolution, higher frame rate in lower resolutions
Video streaming	Simultaneous MPEG-4 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR MPEG-4
lmage settings	Compression, color, brightness, sharpness, white balance, exposure control, mirroring, exposure zones, fine tuning of behavior at low light Text and image overlay Privacy mask

Network	
Security	Password protection, IP address filtering, HTTPS encryption, Digest Authentication, User access log
Supported protocols	IPv4/v6, HTTP, HTTPS, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS
System integration	
Application Programming Interface	Open API for software integration, including VAPIX <sup>®</sup> from Axis Communications available at www.axis.com
Intelligent video	Video motion detection, active tampering alarm
Alarm triggers	Intelligent video , temperature
Alarm events	File upload via FTP, HTTP and email Notification via email, HTTP and TCP
Video buffer	AXIS 209FD-R: 9 MB pre- and post alarm AXIS 209MFD-R: 20 MB pre- and post alarm
General	
Casing	IP66-rated, rugged casing
Processors and memory	ARTPEC-A AXIS 209FD-R: 32 MB RAM, 8 MB Flash AXIS 209MFD-R: 64 MB RAM, 8 MB Flash
Power	Power over Ethernet IEEE 802.3af Class 1
Connectors	RJ-45 variants: Rugged, female RJ-45 connector M12 variants: Rugged, male D-coded M12 connector
Operating	–20 – 50 °C (–4 – 122 °F)
conditions	Humidity 20 - 80% RH (non-condensing)
	Humidity 20 – 80% RH (non-condensing)
Storage conditions	Humidity 20 - 80% RH (non-condensing) -30 - 70 °C (-22 - 158 °F) Automotive environment (CE), EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 55025, FCC Part 15, Subpart B Class B, ICES-003 Class B, VCCI Class B, C-tick AS/NZS CISPR 22, MIC Class A, EN 60950-1, IP66 EN 50155: vibration, mechanical shock and temperature

#### More information is available at www.axis.com

### **Connector variants**

AXIS 209FD-R/209MFD-R Network Cameras are available in two variants with different connectors.

M12 connector

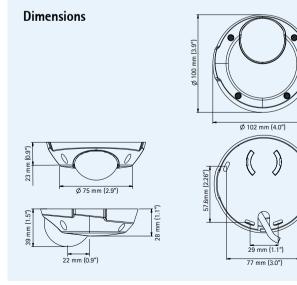
RJ-45 connector



## **Optional accessories**



For information on AXIS Camera Station and video management software from Axis' Application Development Partners, see www.axis.com/products/video/software/



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