AXIS F4105-SLRE Dome Sensor

Stainless steel mini dome sensor with IR

Enclosed in a stainless steel casing, this robust sensor unit is resistant to hot pressure water and harsh detergents. Certified for use in food processing and catering facilities, it can handle temperatures from -30°C to 45°C (-22°F to 113°F). With NEMA TS2 rating, it can be used in temperatures up to 74°C for 15 hours. It delivers great image usability and Forensic WDR provides clarity when there's both dark and light areas in the scene. Plus, IR illumination enables surveillance in complete darkness. Designed for use with AXIS F91 main units, it's possible to connect up to four sensors to the main unit.

- > Up to 60 fps at 1080p and 180 fps at 720p
- > Stainless steel casing (SS 316L)
- > NFS/ANSI Standard 169 certified
- > IR illumination up to 10 m (33 ft.)
- > Exchangeable M12 lenses

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Camera

Image sensor
1/2.8" (effective) progressive scan RGB CMOS

Lens
2.8 mm, F1.6
For 1080p:
Horizontal field of view: 110°
Vertical field of view: 60°
For 720p:
Horizontal field of view: 70°
Vertical field of view: 39°

Day and night
Automatically removable infrared-cut filter

Minimum illumination
Color: 0.3 lux at 50 IRE, F2.0
0 lux with IR illumination on

Frame rate
Up to 60/50 fps (60/50 Hz) in 1080p and up to180/175 fps (60/50 Hz) in 720p[1]

Camera adjustment
Pan: ±180°
Tilt: 120°
Rotation: ±90°

Resolution
Maximum 1920x1080 HDTV 1080p

Approvals

Product markings
UL, CE, KC, NFS, VCCI, RCM, WEEE

Supply chain
TAA Compliant

EMC
EN 55035, EN 55032 Class B, EN 50121-4,
EN 61000-6-1, EN 61000-6-2,
FCC Part 15 Subpart B Class B, IEC 62236-4
Australia/New Zealand: RCM AS/NZS CISPR 32 Class B
Canada: ICES-3(A)/NMB-3(B)
Japan: VCCI Class B
Korea: KS C 9835, KS C 9832 Class B
USA: FCC Part 15 Subpart B Class B

Safety
CAN/CSA C22.2 No. 62368-1 ed. 3,
IEC/EN/UL 62368-1 ed. 3, IEC/EN 62471 risk group exempt

Environment
IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6,
IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-64,
IEC 60068-2-78, IEC/EN 62262 IK10, IEC 60529 IP66,
IEC 60529 IP67, IEC 60529 IP69, NEMA 250 Type 4X

Certifications
NFS/ANSI Standard 169
Certificate: C0759806

General

Casing
IP66-, IP67-, and IP69-rated, IK10 impact-resistant stainless steel casing
Polycarbonate hard-coated dome and dehumidifying membranes
Electropolished SS 316L stainless steel
Encapsulated electronics
Captive stainless steel screws

Mounting
Mounting bracket with junction box holes (single-gang)

Sustainability
PVC and BFR/CFR free

Power
Typical 1.9 W, max 4.16 W

Connectors
SMA connector

1. For sensor units and main units capture mode specifications, see capture mode table.

IR illumination
IR with power-efficient, long-life 940 nm IR LEDs
Two individually adjustable IR LEDs
Range of reach 10 m (33 ft) or more depending on the scene

Operating conditions
With IR illumination off
-30 °C to 55 °C (-22 °F to 131 °F)
With IR illumination on
-30 °C to 45 °C (-22 °F to 113 °F)
Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)
Start-up temperature: -40 °C (-40°F)
Humidity 10–100% RH (condensing)

Storage conditions
-40 °C to 65 °C (-40 °F to 149 °F)
Humidity 5–95% RH (non-condensing)

Dimensions
Depth: 57.8 mm (2.3 in)
ø 114 mm (4.5 in)
Cable length: 100 mm (3.9 in)
Effective Projected Area (EPA): 0.0045 m^2 (0.048 ft^2)

Weight
452 g (1 lb)

Required hardware
AXIS TU6004–E Cable, or AXIS TU6005 Plenum Cable, or AXIS TU6007–E Cable
AXIS F91 Main Unit

Included accessories
Installation Guide, lens tool

Optional accessories
Lenses
Lens M12 2.1 mm F1.8 IR: horizontal field of view 151°
Lens M12 3.6 mm F1.8 IR: horizontal field of view 88°
Lens M12 6 mm, F1.9 IR: horizontal field of view 58°
Lens M12 8 mm F1.8 IR: horizontal field of view 42°
Other
AXIS TU6002 Right-angle SMA Adaptor
For more accessories, see *axis.com*

Warranty
5-year warranty, see *axis.com/warranty*

Part numbers
Available at *axis.com/products/axis-f4105-slre-dome-sensor#part-numbers*

Sustainability

Substance control
PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709
RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *echa.europa.eu*

Environmental responsibility
axis.com/environmental-responsibility
Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org*

Capture mode

Capture mode includes frame rate and shutter speed for the sensor unit in combination with different main units.

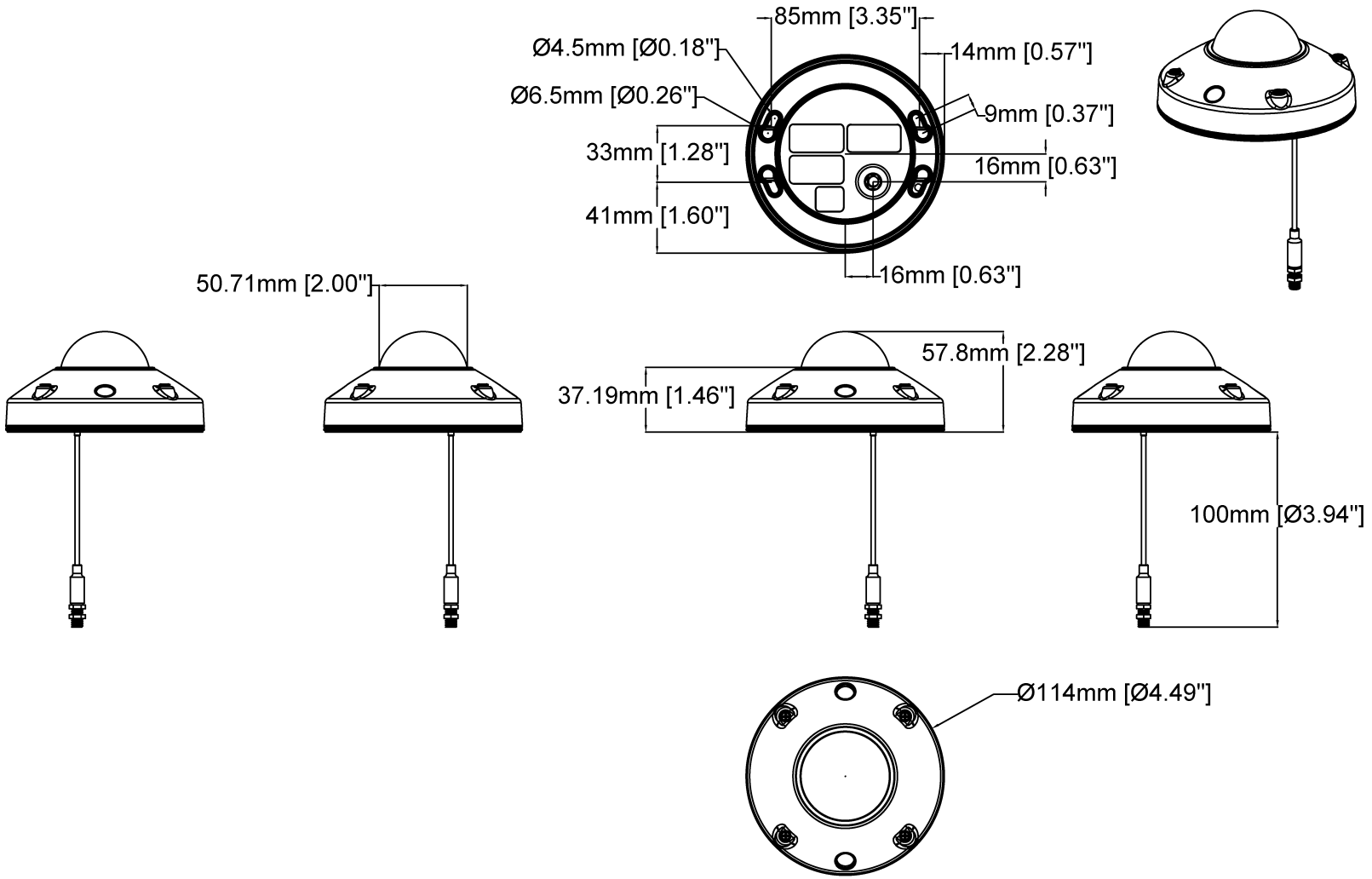
Main unit	Resolution	Exposure	Frame rate (fps) (60/50Hz)	Shutter speed (seconds)
AXIS F9111	1080p: 1920x1080	Without WDR	60/50	1/27000 to 1 s
		WDR	30/25	1/20000 to 1.5 s
	720p: 1280x720[2]	Without WDR	180/175	1/32500 to 1/2 s
AXIS F9111-R Mk II	1080p: 1920x1080	Without WDR	60/50	1/43500 to 1 s
		WDR	30/25	1/20000 to 1.5 s
	720p: 1280x720[2]	Without WDR	180/175	1/32500 to 1/2 s
AXIS F9114, AXIS F9114-B, AXIS F9104-B, AXIS F9114-R Mk II, AXIS F9114-B Mk II, AXIS F9104-B Mk II	1080p: 1920x1080	Without WDR	30/25	1/20000 s to 1 s
		WDR	30/25	1/20000 s to 1 s
	720p: 1280x720[2]	Without WDR	60/50	1/32500 to 1/2 s

2. No WDR support. To get WDR, use 1080p: 1920x1080 and scale down.

Detect, Observe, Recognize, Identify (DORI)

Center	DORI definition	Distance
Detect	25 px/m (8 px/ft)	27.5 m (90.2 ft)
Observe	63 px/m (19 px/ft)	15.6 m (51.2 ft)
Recognize	125 px/m (38 px/ft)	7.8 m (25.6 ft)
Identify	250 px/m (76 px/ft)	4.2 m (13.8 ft)

The DORI values are calculated using the default 2.8 mm lens. The values use pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the center of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such as object motion, video compression, lighting conditions, and camera focus. Use margins when planning. The pixel density varies across the image, and the calculated values can differ from the distances in the real world.



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Revision	v.01	Revision date	2024-02-12
Paper size	A4	Release date	2024-02-12
Created by	MS	Scale	1:3

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Highlighted capabilities

Exchangeable lenses

Different lens options offer the opportunity to adjust the field of view (FoV) of the product, and thereby adapt it to your chosen area of use. The lens can be easily changed, for example to make the product cover wider areas, or to make it focus on details or objects of interest.

IP69

IP ratings (ingress protection) are defined as a two-digit code where the first digit is the level of protection against the intrusion of solid foreign objects and the second digit is the level of protection against the intrusion of water.

IP69 – the product is dust-tight and hot pressure water can´t harm the product.

IR illumination

IR illumination is a power-efficient, artificial light source with infrared light that achieves high-quality video even in pitch black environments.

Rugged

Rugged is a term that for Axis modular and onboard products describes a device's endurance and stability in high vibration environments – over time. High vibration environments could be inside or close to machinery or inside vehicles. Rugged products from Axis are constructed to keep operating in these challenging conditions for the entire lifetime of the product.

Stainless steel casing

Stainless steel (SS 316L) is a material with a high resistance to rusting and corrosion with a lower proportion of carbon in its composition. The Electropolished surface is free from imperfections and micro roughness's ensuring the stainless steel casing to remain resistant to rust, staining and environmental degradation.