Technical Details

AcC 36DX568-I67
Technical Reference Manual

THE IMAGINGSOURCE
TECHNOLOGY BASED ON STANDARDS

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1 Quick Facts

General	
Dynamic Range	10 bit
Resolution	2448x2048
Frame Rate at Full Resolution	55 *
Pixel Formats	10-Bit Bayer (BG)

*) Assuming the deserializer is connected to the host with 4 data lanes at 2500 Mbps each.

Optical Interface	
Sensor Type	Sony IMX568-AAQJ-C
Shutter Type	Global
Sensor Format	1/1.8 inch
Pixel Size	2.74 µm

Electrical Interface	
Interface	GMSL2 via FAKRA connector
Supply voltage	10-27V
Current consumption	approx 95 mA @ 12 VDC

Mechanical Data	
Dimensions	H: 36 mm, W: 36 mm, L: 60.3 mm
Mass	80 g
Protection Class	IP6K6, IP6K7 (ISO 20653) *

*) Protection only while The Imaging Source IP67 FAKRA cable is connected to the camera.

Adjustments	
Shutter	1 µs to 1 s
Gain	0 dB to 48 dB

Environmental	
Temperature (operating)	-5 °C to 45 °C
Temperature (storage)	-20 °C to 60 °C
Humidity (operating)	20 % to 80 % (non-condensing)
Humidity (storage)	20 % to 95 % (non-condensing)

2 Electrical Characteristics

2.1 Absolute Maximum Ratings

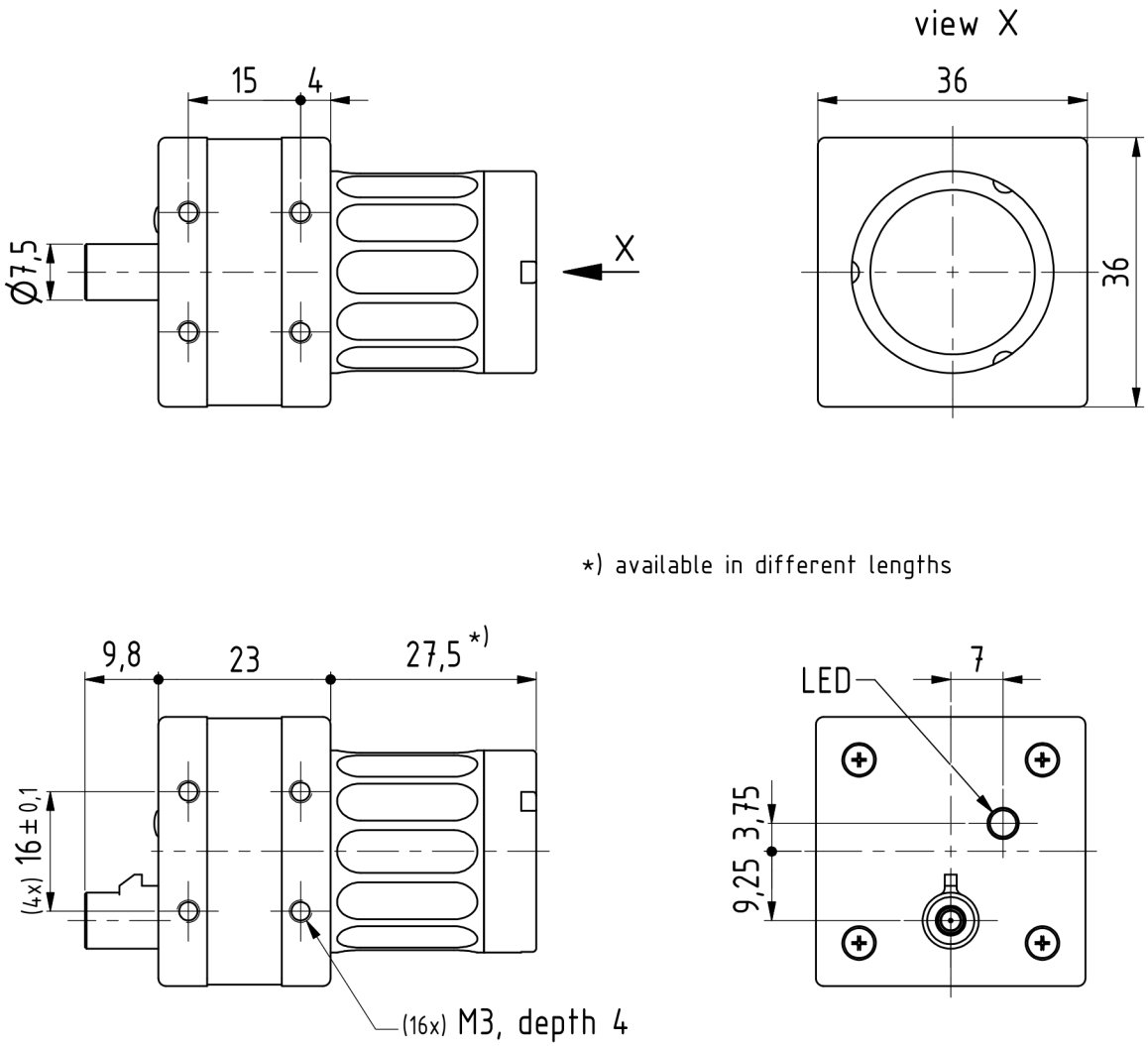
Item	Symbol	Pins	Min	Max	Unit
Supply voltage	V_COAX		-0.3	+27.0	V

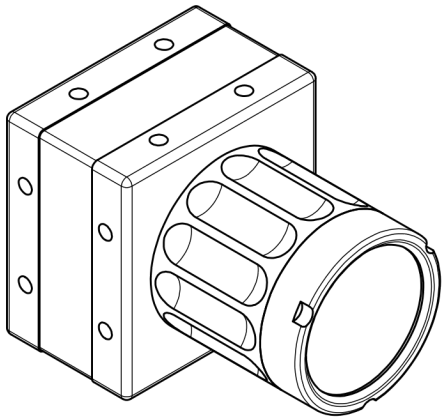
2.2 Recommended Operating Conditions

Item	Symbol	Pins	Min	Typ	Max	Unit
Supply voltage	V_COAX		10.0	12.0	24.0	V

3 Dimensional Diagrams

3.1 AcC 36DX568-I67 without Tripod Adapter

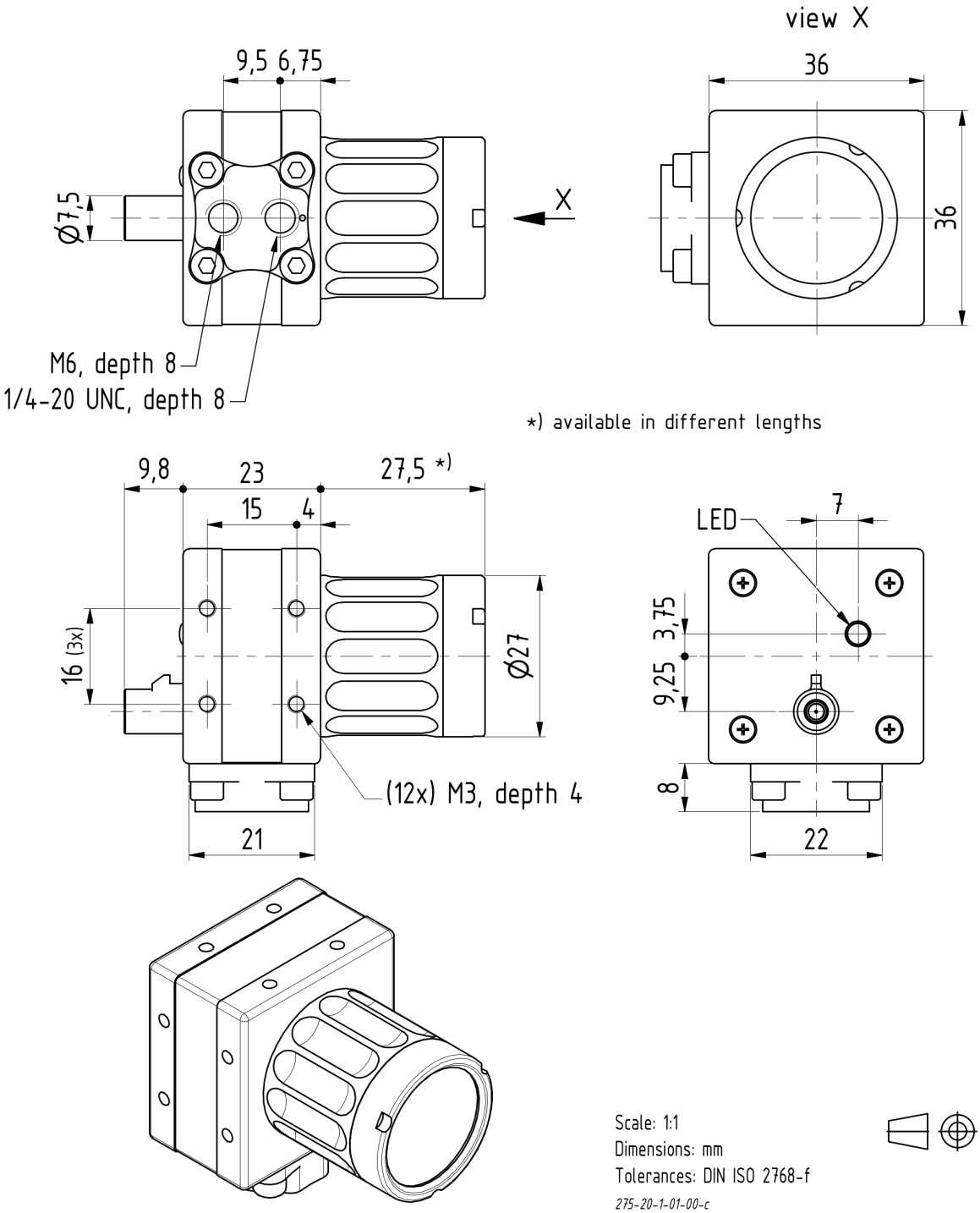




Scale: 1 : 1
Dimensions: mm
Tolerances: DIN ISO 2768-m

275-20-1-01-00-c (w/o tripod-adapter)

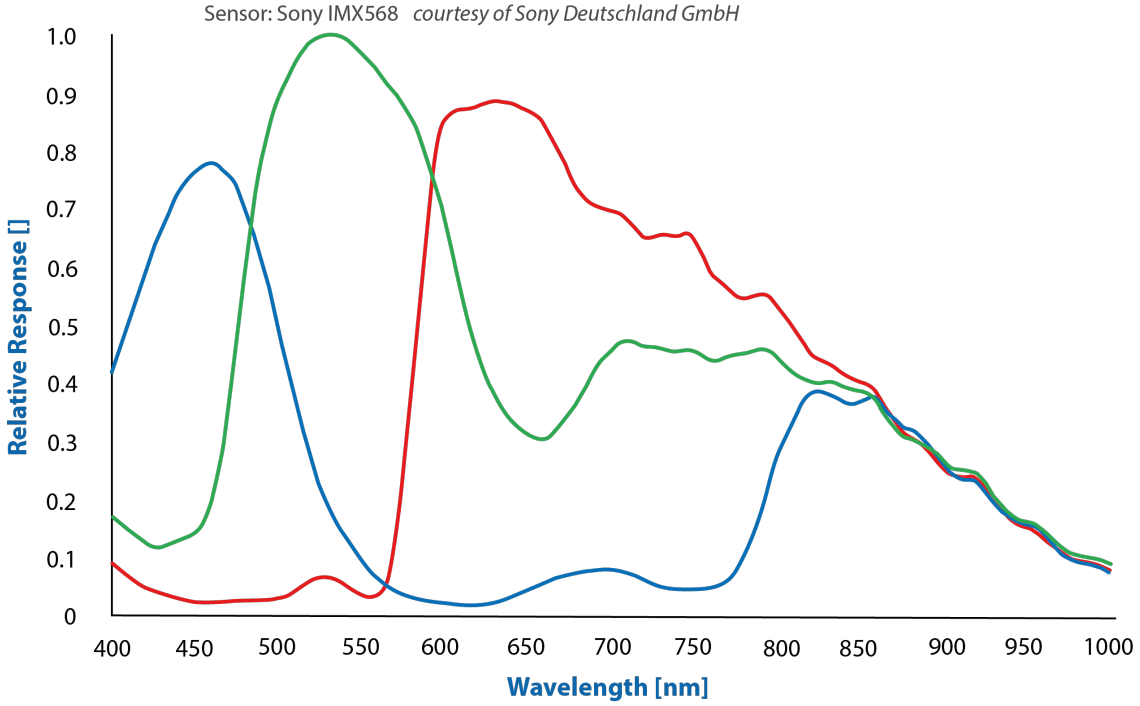
3.2 AcC 36DX568-I67 with Tripod Adapter



4 Spectral Characteristics

4.1 Spectral Sensitivity - IMX568-AAQJ-C

Sensor: Sony IMX568 *courtesy of Sony Deutschland GmbH*



5 I2C Devices

There are multiple I2C devices on the AcC 36DX568-I67 sensor board. The following table describes the parts and their I2C addresses:

Address (7-bit)	Device	Description
0x1A	IMX568-AAQJ-C	Image Sensor
0x40	MAX9295A	GMSL2 Serializer
0x40	LCMXO3L-1300E	Trigger Control FPGA (configuration)
0x42	LCMXO3L-1300E	Trigger Control FPGA (control)
0x44	LCMXO3L-1300E	I2C Mapping and Sensor Control FPGA
0x50	AT24C256C	EEPROM

6 Software Support

The Imaging Source provides driver packages for camera access on supported platforms. The driver documentation for the JetPack driver can be found here: theimagingsource-drivers Documentation.

6.1 Further Assistance

For more detailed information, register settings and using the camera on other platforms, please contact The Imaging Source.

7 Trigger Control FPGA

In order to handle complex trigger/strobe functions of the image sensor, a FPGA is present the on sensor board.

A reference driver implementation is available upon request.

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Last update: October 2025

All weights and dimensions are approximate. Unless otherwise specified, the lenses shown in the context of cameras are not shipped with these cameras.

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