



38U Series

DFK 38UX540

- IMX540 CMOS Pregius S Sensor
- 24.5 MP
- USB3 Vision / UVC compliant
- Trigger and I/Os
- C mount



The 38U series camera DFK 38UX540 with a Sony IMX540 sensor delivers 15 frames per second with a resolution of 5320x4600 (24.5 MP).

With resolutions up to 24.5 MP, the 38U Series industrial cameras deliver high resolution and exceptional image quality for demanding manufacturing and factory automation applications. 38U Series cameras combine USB's superior data transfer rates with advanced feature sets including USB-C connector, external trigger control, advanced readout functions as well as image and color processing.

The USB3 Vision standard allows for rapid integration into new and existing applications via The Imaging Source's [IC Imaging Control 4 SDK](#) as well as most other third-party image processing libraries.

Note: This Data Sheet is intended to provide a summary overview for an individual camera model. The Imaging Source's website also offers information on spectral sensitivity, dimensional diagrams, sensor data sheets, STEP files as well as our full product catalog. For comprehensive technical information, please refer to the Technical Reference Manual specific to each camera model.

www.theimagingsource.com



1 Quick Facts

| General | |
|-------------------------------|-----------------------------|
| Vision Standard | USB3 Vision (UVC compliant) |
| Dynamic Range | 12 bit |
| Resolution | 5320x4600 |
| Frame Rate at Full Resolution | 15 |

| Optical Interface | |
|-------------------|--------------------|
| IR-Cut filter | Yes |
| Sensor Type | Sony IMX540-AAQJ-C |
| Shutter Type | Global |
| Sensor Format | 1.2 inch |
| Pixel Size | 2.74 μm |
| Lens Mount | C (CS optional) |

| Electrical Interface | |
|----------------------|---|
| Interface | USB 3.1gen1 |
| Supply Voltage | 4.75 VDC to 5.25 VDC |
| Current Consumption | approx 880 mA @ 5 VDC |
| I/O Connector | 12-pin connector for trigger and strobe or general purpose input/output |

| Mechanical Data | |
|-----------------|------------------------------|
| Dimensions | H: 29 mm, W: 44 mm, L: 60 mm |
| Mass | 110 g |

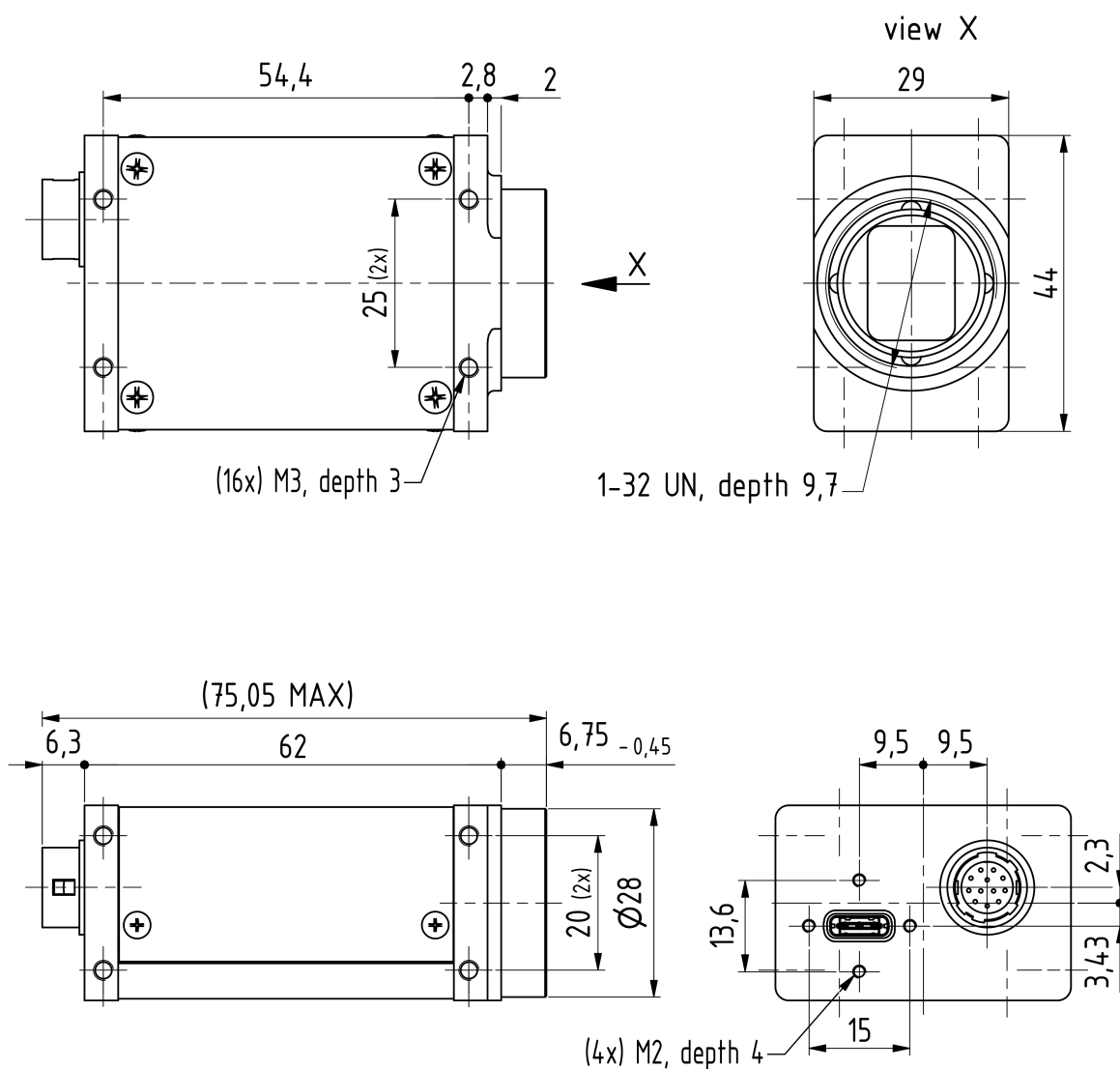
| Environmental Conditions | |
|---------------------------------|-------------------------------|
| Housing Temperature (operating) | -5 °C to 50 °C |
| Temperature (storage) | -20 °C to 80 °C |
| Humidity (operating) | 20 % to 80 % (non-condensing) |
| Humidity (storage) | 20 % to 95 % (non-condensing) |



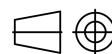
Dimensional Diagrams

2 Dimensional Diagrams

2.1 DFK 38UX540 C-Mount without Tripod Adapter



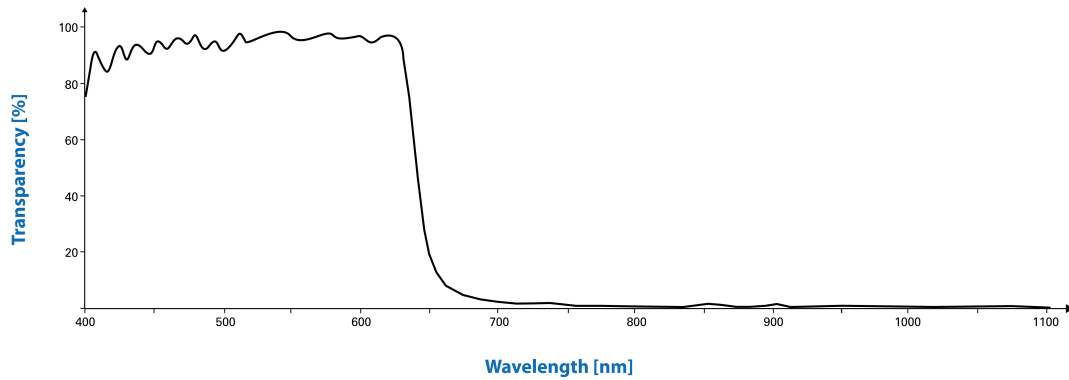
Dimensions: mm
Tolerances: DIN ISO 2768-f





3 Spectral Characteristics

3.1 IR-Cut Filter



3.2 Spectral Sensitivity - IMX540-AAQJ-C

Sensor: Sony IMX540/541/542 *courtesy of Sony Deutschland GmbH*

