



33U Series

DFK 33UX178

- IMX178 CMOS STARVIS Sensor
- 6.3 MP
- USB3 Vision / UVC compliant
- Trigger and I/Os
- C/CS mount



The 33U series camera DFK 33UX178 with a Sony IMX178 sensor delivers 60 frames per second with a resolution of 3072x2048 (6.3 MP).

33U Series: The Imaging Source's largest selection of industrial cameras offers developers and integrators a broad selection of resolutions (up to 20 MP) and frame rates to meet diverse application needs and are ideal for continuous operation in industrial environments. The cameras' USB 3 interface (Micro-B connector) ensures efficient data transfer with high frame rates.

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.

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1 Quick Facts

General	
Vision Standard	USB3 Vision (UVC compliant)
Dynamic Range	12 bit
Resolution	3072x2048
Frame Rate at Full Resolution	60

Optical Interface	
IR-Cut filter	Yes
Sensor Type	Sony IMX178LQJ-C
Shutter Type	Rolling
Sensor Format	1/1.8 inch
Pixel Size	2.4 μm
Lens Mount	C/CS

Electrical Interface	
Interface	USB 3.0
Supply Voltage	4.75 VDC to 5.25 VDC
Current Consumption	approx 600 mA @ 5 VDC
I/O Connector	12-pin connector for trigger and strobe or general purpose input/output

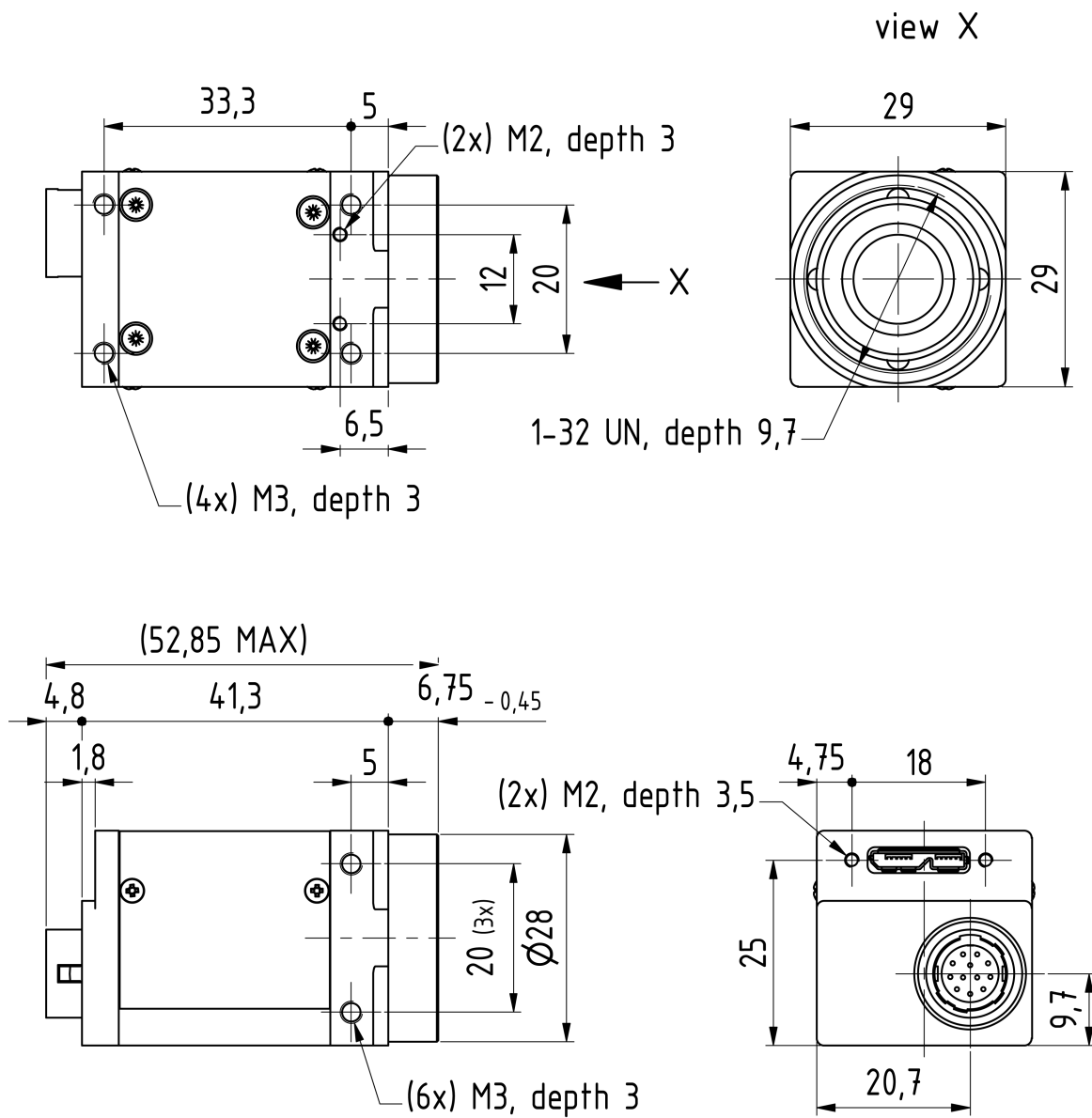
Mechanical Data	
Dimensions	H: 29 mm, W: 29 mm, L: 43 mm
Mass	65 g

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)

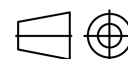


2 Dimensional Diagrams

2.1 DFK 33UX178 C-Mount without Tripod Adapter



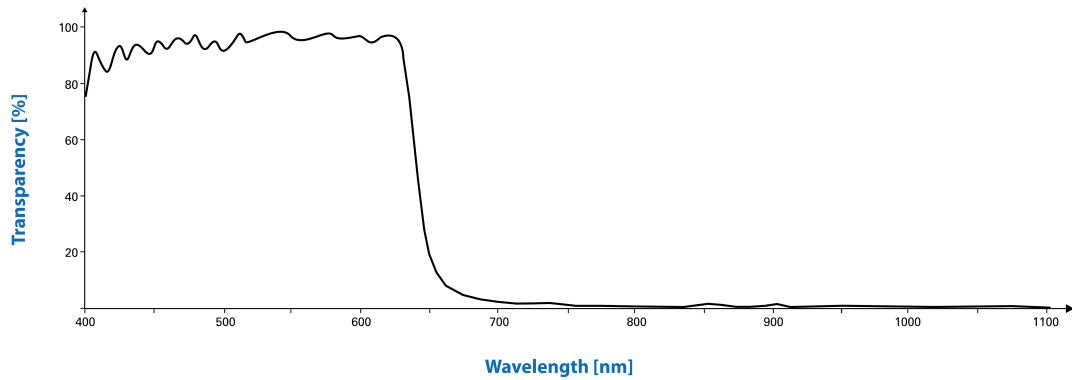
Dimensions: mm
Tolerances: DIN ISO 2768-f





3 Spectral Characteristics

3.1 IR-Cut Filter



3.2 Spectral Sensitivity - IMX178LQJ-C

Sensor: Sony IMX178 - courtesy of Sony Deutschland GmbH

