



## 37U Series

### DFK 37BUX290

- IMX290 CMOS STARVIS Sensor
- 2.1 MP
- USB3 Vision / UVC compliant
- Trigger and I/Os
- C/CS mount



The 37U series camera DFK 37BUX290 with a Sony IMX290 sensor delivers 143 frames per second with a resolution of 1920x1080 (2.1 MP).

37U Series: Featuring a range of Sony and onsemi sensors with resolutions up to 12MP, these cost-optimized, single-board industrial cameras are available in several form factor variants, providing a flexible customization concept for systems engineers and OEMs. These streamlined, standard-feature cameras offer a reduced hardware footprint with USB-C connector and optional hardware trigger and I/Os.

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](http://www.theimagingsource.com)



## 1 Quick Facts

General	
Vision Standard	USB3 Vision (UVC compliant)
Dynamic Range	10 bit
Resolution	1920x1080
Frame Rate at Full Resolution	143

Optical Interface	
IR-Cut filter	Yes
Sensor Type	Sony IMX290LQR-C
Shutter Type	Rolling
Sensor Format	1/2.8 inch
Pixel Size	2.9 $\mu\text{m}$
Lens Mount	C/CS

Electrical Interface	
Interface	USB 3.1gen1
Supply Voltage	4.75 VDC to 5.25 VDC
Current Consumption	approx 260 mA @ 5 VDC
I/O Connector	4-pin connector for trigger and strobe or general purpose input/output

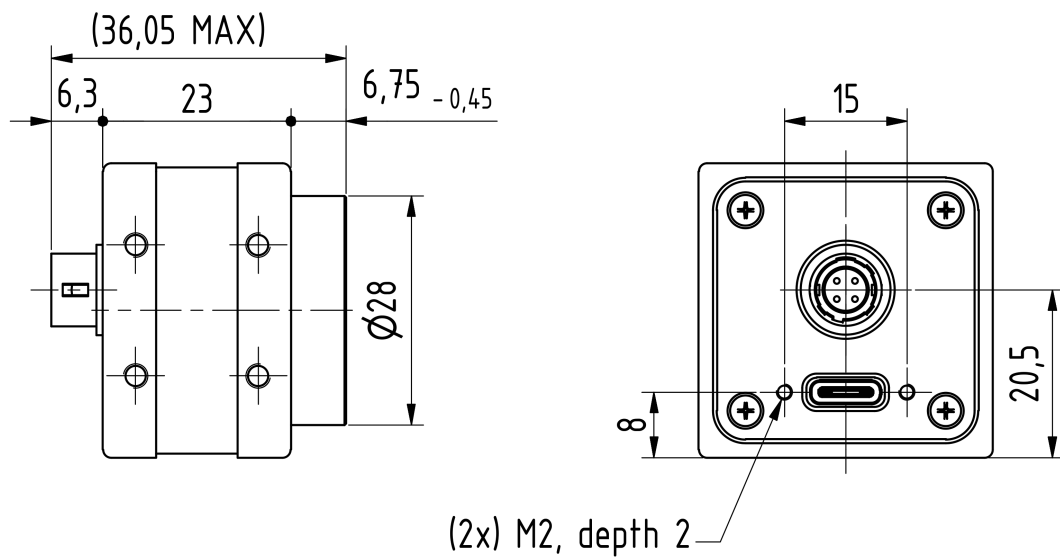
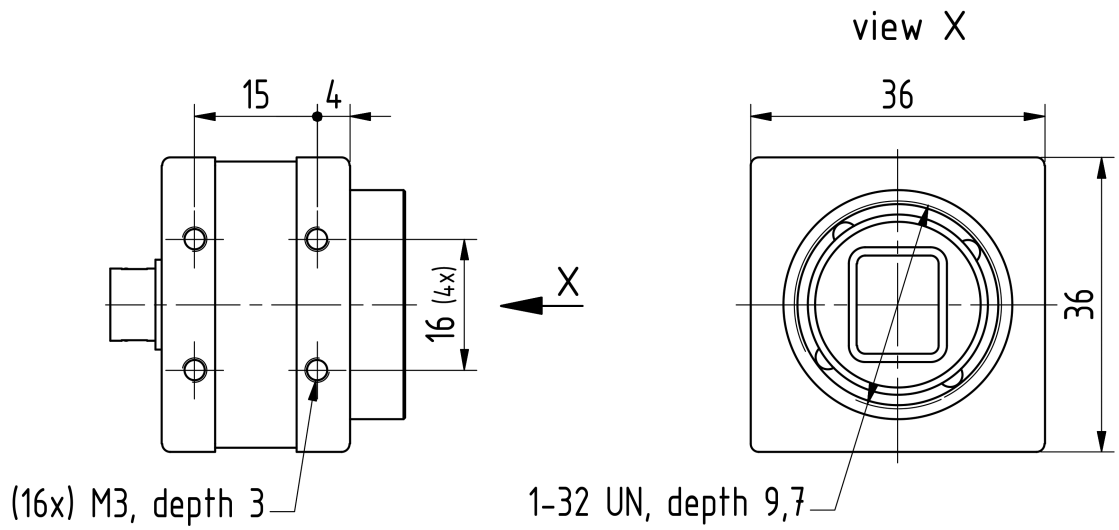
Mechanical Data	
Dimensions	H: 36 mm, W: 36 mm, L: 25 mm
Mass	70 g

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)

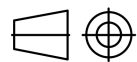


## 2 Dimensional Diagrams

### 2.1 DFK 37BUX290 C-Mount without Tripod Adapter



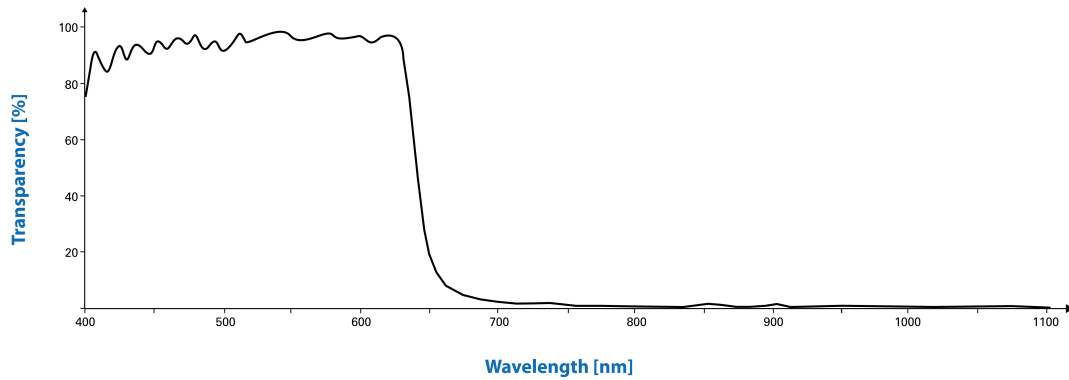
Dimensions: mm  
Tolerances: DIN ISO 2768-f





## 3 Spectral Characteristics

### 3.1 IR-Cut Filter



### 3.2 Spectral Sensitivity - IMX290LQR-C

Sensor: Sony IMX290 - courtesy of Sony Deutschland GmbH

