

DFK ECU010-M12 Color Camera

The Imaging Source "Extremely Low Cost" Series USB 2.0 Camera



Only 22 x 13 x 60 mm

Lens not included

The Imaging Source DFK ECU010-M12 color camera has a USB 2.0 interface and is the perfect solution for many industrial automation, quality assurance, security, surveillance and medical applications. With up to 30 images per second, the DFK ECU010-M12 is a low cost, yet highly versatile imaging solution. The camera is equipped with an M12 mount and ships with three different extension tubes. This allows you to take advantage of low cost M12 lenses in your particularly price sensitive applications.

The Imaging Source authors and supports drivers, SDKs, extensions and end-user software for Microsoft Windows, which can be freely downloaded from our web site. Extensions for Microsoft Windows enable the DFK ECU010-M12 to be integrated in to common machine vision software libraries, such as LabView and OpenCV. Furthermore, we author and support open source Linux drivers and software (Apache License 2.0) to integrate the camera into popular distributions. Download the Linux source code at [GitHub](#).

Features

- Extremely low cost machine vision camera.
- USB 2.0 interface.
- 1/4 " CMOS sensor.
- Rolling shutter.
- 1,280 x 720 (0.9 MP).
- Up to 30 images per second.
- M12 lens mount.
- 3x M12 extension tubes.
- Only 22 x 13 x 60 mm.
- 1.1 m USB 2.0 fixed cable.

Accessories

- M12 board lenses.

Software Development Kits (SDKs) for Microsoft Windows

IC Imaging Control .NET Component, C++ Class Library, IC Imaging Control C Library, IC Imaging Control ActiveX and IC Imaging Control ActiveX Runtime Setup.

Programming Samples for Microsoft Windows

1D and 2D Barcode Scanner for IC Imaging Control.

Extensions for Microsoft Windows

TWAIN Source for IC Imaging Control, Cognex VisionPro AIK Plugin for IC Imaging Control, ActivVisionTools Driver for IC Imaging Control, HALCON Extension for IC Imaging Control, LabVIEW Extension for IC Imaging Control, IC Matlab Plugin for Matlab 10.0 R2010 and IC Matlab Plugin for Matlab R2013b.

End User Software for Microsoft Windows

IC Capture, Image Acquisition and Footswitch software for IC Capture.

Software Tools for Microsoft Windows

Processor Idle State Manager.

DFK ECU010-M12 Specification

GENERAL BEHAVIOR

Video formats @ frame rate
 1,280 x 720 (0.9 MP), YUY2 @ 9 FPS
 800 x 600 (0.5 MP), YUY2 @ 20 FPS
 640 x 480 (0.3 MP), YUY2 @ 30 FPS
 352 x 288 (0.1 MP), YUY2 @ 30 FPS
 320 x 240 (0.1 MP), YUY2 @ 30 FPS
 1,280 x 720 (0.9 MP), MJPG @ 30 FPS
 800 x 600 (0.5 MP), MJPG @ 30 FPS
 640 x 480 (0.3 MP), MJPG @ 30 FPS
 352 x 288 (0.1 MP), MJPG @ 30 FPS
 320 x 240 (0.1 MP), MJPG @ 30 FPS

Color format	YUY2, MJPG
Dynamic range	8 bit

INTERFACE (OPTICAL)

IR cut filter	no
Sensor specification	CMOS sensor
Shutter	Rolling
Format	1/4 "
Resolution	H: 1,280 pixel, V: 720 pixel
Pixel size	H: 3.0 µm, V: 3.0 µm
Lens mount	M12x0.5

INTERFACE (ELECTRICAL)

Interface	USB
Supply voltage	4.5 VDC to 5.5 VDC
Current consumption	approx 250 mA at 5 VDC

INTERFACE (MECHANICAL)

Dimensions	H: 13 mm, W: 22 mm, L: 60 mm
Mass	30 g

ADJUSTMENTS (MANUAL)

Shutter	1/5,000 s to 1 s
Image processing	sharpness, brightness, contrast, gamma
Color processing	saturation, hue

ADJUSTMENTS (AUTOMATIC)

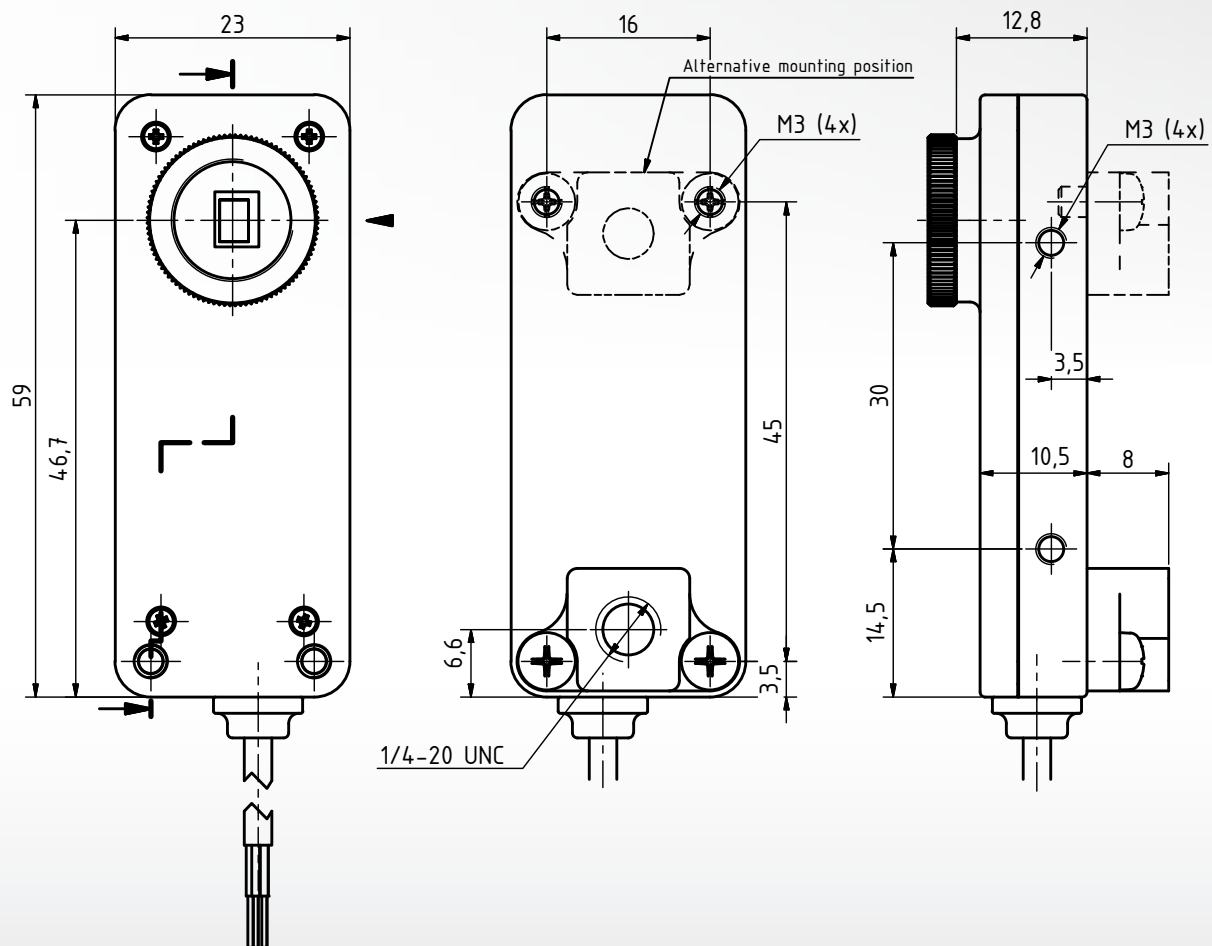
Shutter	1/5,000 s to 1 s
White balance	on, off

ENVIRONMENTAL

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

Subject to change

DFK ECU010-M12 Dimensional Diagram



Machine Vision - Designed in Germany



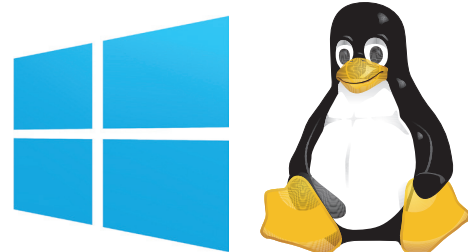
Ever since The Imaging Source was founded in 1990, it has been one of the leading manufacturers of industrial cameras, frame grabbers and video converters for automation, quality assurance, logistics, medicine, science and security.

Our extensive range of industrial cameras ships with USB 3.0, USB 2.0, GigE, FireWire 800 and FireWire 400 interfaces. Thanks to their multi-purpose features and extremely high quality standards, the cameras are commonly used in demanding applications.

The software support offered by the cameras fulfill the requirements of demanding end-users and programmers. The cameras can be put into operation within a few minutes, or integrated into new or existing applications with only a few lines of code. All camera drivers are Microsoft certified. The ease of which the cameras can be integrated, the corresponding low integration costs, and the high quality of the software set the industry standard.

All cameras, frame grabbers and video converters, manufactured by The Imaging Source, are the result of decades of experience, uncompromisingly high quality standards, and continual development. Developers and system engineers prefer The Imaging Source cameras due to their ease of system integration.

World-Class Software and Customer Care



What really separates The Imaging Source from its competitors is the comprehensive Windows and Linux software available free of charge with all its products, and the unsurpassed level of customer service.

The Imaging Source authors and supports device drivers, software development kits (SDKs), programming samples, extensions, end-user software and software tools for Microsoft Windows. All Windows software can be download directly from our web site:

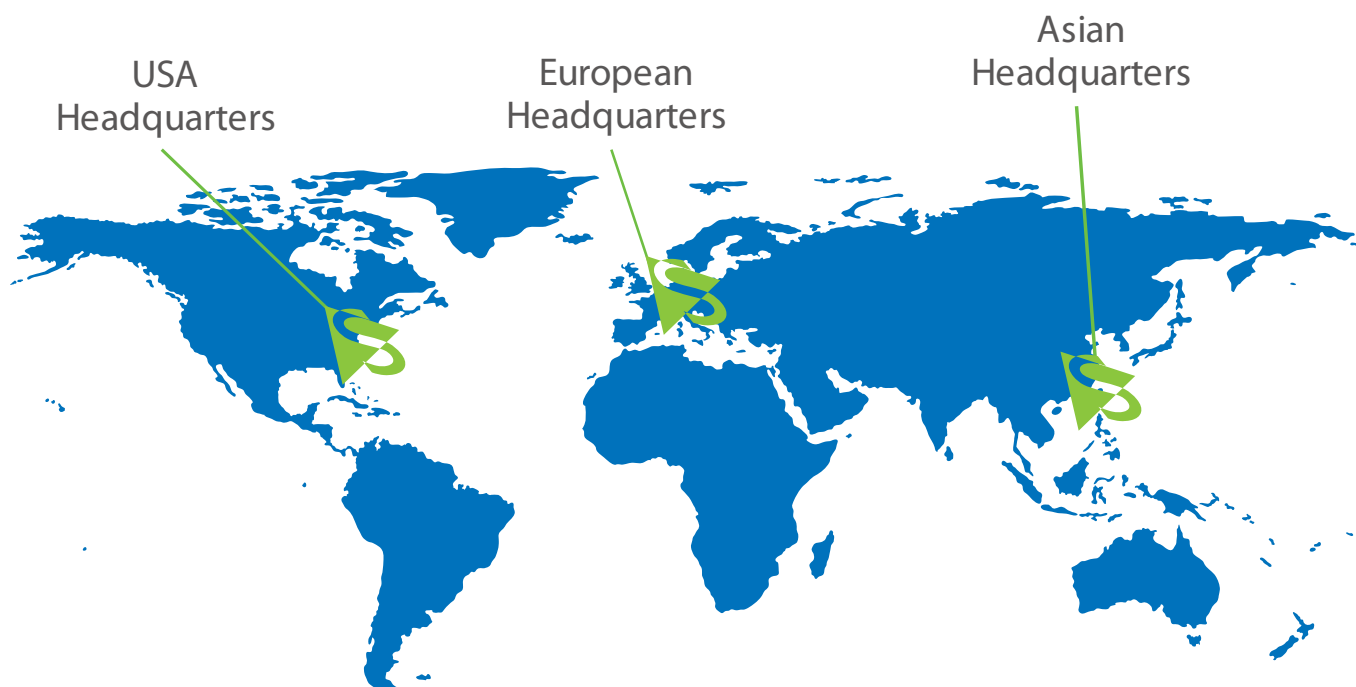
<http://www.theimagingsource.com>

Additionally, The Imaging Source authors and supports open source drivers and end-user software for Linux. The Linux source code, which is released under the Apache License 2.0, enables you to integrate all machine vision cameras into popular Linux distributions. The Open Source code is available to download from GitHub:

<http://www.github.com>

The Imaging Source guarantees fast and efficient customer service for all hardware and software issues via our skilled customer service representatives. Not only will we provide support regarding technical issues, but we will also work with you to implement our components into your project. Contact customer service at:

<http://www.theimagingsource.com>



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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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