



COE71MCLIR-F | DATASHEET

Area scan camera CHR70M, CMOS, Rolling shutter, 10000 x 7096, 71 MP, 3.1 µm/pix, 2.4", Mono, 4.2 fps, Camera Link, Medium, 85 MHz, F mount, IR cut



KEY ADVANTAGES

High quality rugged design

Using the latest industrial components, these cameras are built to last and allow for extended temperature ranges.

Available in USB3 and Camera Link

USB3 offers high speed and easy installation, while Camera Link guarantees maximum performance and direct access to the camera sensor.

Excellent image quality

Built-in features include pixel correction, column defect correction, white balancing, flat-field correction.

Optics to match

Many Opto Engineering® Telecentric lenses match these 35mm sensors for the best optical performance.

COE High Resolution Area Scan cameras are designed to provide high-resolution images, using the latest High Res sensors that offer both quality and speed.



SPECIFICATIONS

Sensor Specification

Megapixel		71
Resolution		10000 x 7096
Sensor format		2.4"
Sensor diagonal	(mm)	38.0
Pixel size	(µm)	3.1
Sensor model		CHR70M
Sensor type		CMOS
Shutter		Rolling
Chroma		Mono

Camera Specification

Filter		IR cut
Framerate	(fps)	4.2
Exposure time		> 133 µsec
ADC resolution	(bit)	12
Dynamic range	(dB)	64
Gain range		1-4x

Image Processing ROI, Shading and flat field correction, Image Storage, Defect pixel correction

Synchronization Free run, software trigger, hardware trigger

Connectivity

Data connector		SDR
Data interface		Camera Link, Medium, 85 MHz
I/O connector		6-pin Hirose
I/O interface		1x input, 1x output
Serial interface		no
Econder interface		no
Power requirements	(V)	6-14
Max power consumption ¹	(W)	8

Compliance

Client software		COE-HR-USB3 Demo viewer, Camera Control Application
Operating systems		32/64-bit Windows XP/7/10
Shock and vibration		10G (20-200Hz) XYZ; 70G 10ms
Warranty	(years)	1

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

Mechanical Specifications

Mount	F	
Dimensions ²	(mm)	85 x 80 x 80
Clamping system	8x M3 threaded holes (on 4 sides)	

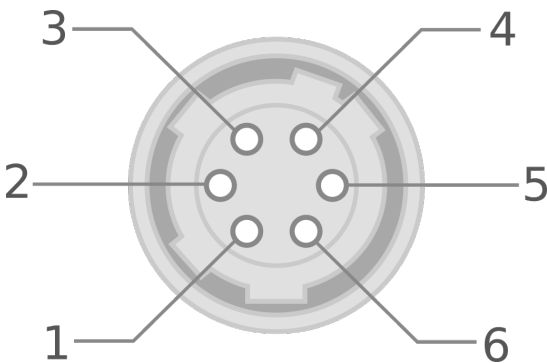
Environment

Operating temperature	(°C)	0-60
Storage temperature	(°C)	-40-+85
Operating relative humidity	(%)	20-80, non condensing

¹ Measured at 12 VDC

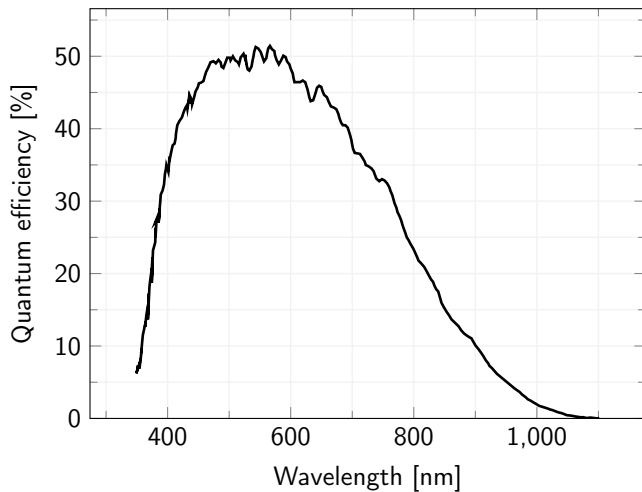
² Width measured without fan grid

HIROSE PINOUT



Pin	Signal Name
1	+12V
2	DC Ground
3	Trigger IN
4	STROBE OUT
5	NO CONNECT
6	NO CONNECT

SENSOR QUANTUM EFFICIENCY



RECOMMENDED POWER SUPPLY

Opto-Engineering® suggests the following accessories to power the camera:

- **COE-6P-MALE**, 6 pin Male cable for COE HR AS series, 2 meters.
- **COE-PS-UNIVERSAL**, Power supply for COE HR AS series cameras.

COMPATIBLE PRODUCTS

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

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