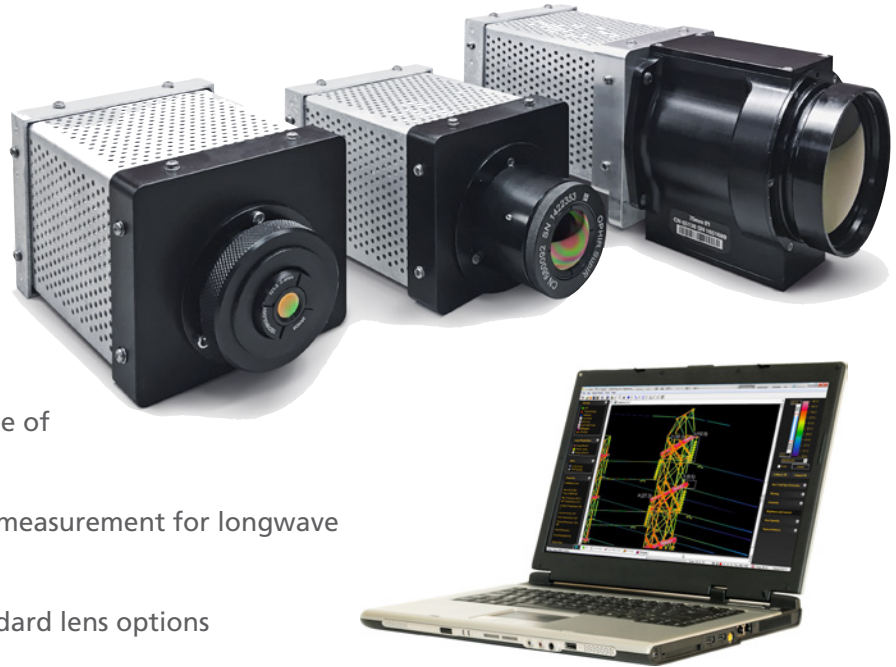


High Resolution Infrared Camera for Demanding Imaging Applications

MCL640

- Designed to operate in harsh environments
- High resolution 640 x 480 pixel thermal imager for process control and monitoring
- Measures from -40 °C up to 1600 °C
- Serves the industry's broadest range of process control applications
- Superior images and temperature measurement for longwave applications
- Offers the best view with five standard lens options



LumaSense Technologies, Inc., has been an innovative leader in the field of infrared non-contact temperature measurement since 1969. LumaSense specializes in turnkey solutions consisting of complete engineering, design, and installation services to meet the most severe and challenging thermal imaging system requirements.

The MIKRON MCL640 represents another milestone in innovative infrared thermometry. Designed with advanced maintenance-free electronics and Industrial Protective Packaging, the MCL640 offers unparalleled accuracy for demanding industrial and manufacturing applications.

The MCL640 is a cost-effective, high performance non-contact infrared imager that serves a broad range of process

monitoring applications. The unique design produces superior images and temperature measurement (± 2 °C).

With an unmatched array of protective accessories, the MCL640 demonstrates LumaSense's commitment to long-term trouble-free process monitoring in harsh, industrial applications.

Available options:

- Wide angle and telephoto lenses
- Industrial enclosures
- Hazardous area enclosures
- Pan-tilt positioner
- I/O modules
- Process control & automation software

Typical Applications:

- High-voltage electrical equipment & substation fault detection
- Metals process control
 - Furnaces
 - Stamping
 - Rolling
 - Casting
- Safety monitoring
 - Gasifiers
 - Pipelines
- Predictive maintenance
 - Metal ladles
 - Refractory lined furnaces and kilns
- Flare monitoring

MCL640 Variations

Model	Filter	Range 1 (°F)	Range 2 (°F)	Range 1 (°C)	Range 2 (°C)
MCL640L	8 - 14 μm	-40 °F to 248 °F	32 °F to 932 °F	-40 °C to 120 °C	0 °C to 500 °C
MCL640HT	8 - 14 μm	392 °F to 2912 °F		200 °C to 1600 °C	

Optics

The MCL640 is available with different lenses suitable for most applications.

The table below shows the correlation between different standard lens options and the resulting field of view and different distances from the object. The LumaSense website hosts an online tool for calculating a field of view for a specific measurement distance.



Distance of object [m (ft)]	Measurement field W x H				
	8° (75 mm) lens	14° (50 mm) lens	26° (25 mm) lens	57° (11 mm) lens	77° (8.2 mm) lens
10 m (32.8')	1.4 m x 1.1 m (4.7' x 3.5')	2.2 m x 1.6 m (7.1' x 5.3')	4.3 m x 3.3 m (14.2' x 10.7')	9.8 m x 7.4 m (32.4' x 24.3')	13.6 m x 10.2 m (44.6' x 33.5')
25 m (82')	3.6 m x 2.7 m (11.9' x 8.9')	5.4 m x 4.1 m (17.8' x 13.4')	10.9 m x 8.2 m (35.7' x 26.7')	24.7 m x 18.5 m (81.1' x 60.8')	34 m x 25.5 m (111.5' x 83.7')
50 m (164')	7.2 m x 5.4 m (23.8' x 17.8')	10.9 m x 8.2 m (35.7' x 26.7')	21.7 m x 16.3 m (71.3' x 53.5')	45.5 m x 37.1 m (162.3' x 121.7')	68 m x 51 m (223' x 167.3')

Technical Data

Performance

Measurement Accuracy:	±2 °C or 2% of reading
Image Update Rate:	9 Hz or 50 Hz
A/D Resolution:	16 bit
Pixel Pitch:	17 μm
Detector:	640 x 480 Uncooled Micro Bolometer Array
Emissivity Correction:	0.1 to 1.0
Transmittance:	0.1 to 1.0

Optical Specifications

Focus:	75 mm autofocus, others manual
Focus Range:	Lens dependent. See website for details.
Digital Zoom:	1-8x using LumaSpec RT software

Interface

Digital:	Gigabit Ethernet
Connections:	4-Pin Power ("pigtail" included), RJ45 Ethernet Communication

Environmental Specifications

Operating Temperature:	0 °C to 50 °C (32 to 122 °F) (at housing)
Storage Temperature:	-20 °C to 70 °C (-4 to 158 °F)
Relative Humidity:	Non condensing conditions
Weight:	2.55 lbs. (1 kg) (excludes any protective housing or optional lenses)
Operating Position:	Any operating position
Housing:	6063 T5 Aluminum Alloy. Finish is alodine, clear, MIL-DTL-5541F
Compliance:	CE, RoHS
Dimensions (without lens):	127 mm x 101.6 mm x 101.6 mm (5 in x 4 in x 4 in)

Electrical

Power Input:	12 VDC
Power Consumption:	10W

Available Options (see website for details):

- Industrial power supply (meets CE standard at 10 V/m)
- Table top power supply (meets CE standard 3 V/m)
- Vortex Air Cooled (VC) industrial enclosure

Scope of delivery:

Includes power connector with 30 mm pigtail, manual (electronic format), carrying case, and LumaSpec RT Viewer software.

LumaSense Technologies

Awakening Your 6th Sense

**Americas and Australia
Sales & Service**
Santa Clara, CA
Ph: +1 800 631 0176
Fax: +1 408 727 1677

**Europe, Middle East, Africa
Sales & Service**
Frankfurt, Germany
Ph: +49 69 97373 0
Fax: +49 69 97373 167

**India
Sales & Support Center**
Mumbai, India
Ph: +91 22 67419203
Fax: +91 22 67419201

**China
Sales & Support Center**
Shanghai, China
Ph: +86 133 1182 7766
Ph: +86 21 5877 2383

info@lumasenseinc.com

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www.lumasenseinc.com

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