MIRION TECHNOLOGIES

INPROTEC IRT

High Temperature. **Safety.**

# M535

## Lynx High Temperature Color Camera Series

Nuclear Power

Homeland Security & Defense

Industrial and Manufacturing

Healthcare

Labs and Education

## OVERVIEW

The IST-Quadtek M535 Lynx Series of Visible Light High-Temperature Color Cameras is designed to give you the flexibility to customize electronics, lenses, filters and other options to provide continuous monitoring of your high-temperature processes. Straight or oblique lenses are available in order to give the end user greater flexibility in mounting arrangements.

The camera includes temperature sensors to provide status information and control of a retract system when fitted.

A serial interface allows the camera to be controlled and its status to be checked remotely from the comfort of the control room. Features include:

- Automatic exposure adjustment
- Image adjustment (brightness, white balance, contrast and color saturation)
- Color or mono display modes
- Camera temperature monitoring (lens tip, imager and main enclosure)
- Over-temperature alarms (user adjustable)
- Retract demand status
- Event log

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## KEY FEATURES

- **Coal Fired Utility Boilers**
  Monitor flame shape to adjust burners for maximum combustion and minimum fuel usage
- **Rotary Kilns and Coolers**
  Provide continuous product quality monitoring. Observe ring formation, burner flame and product as it moves down the kiln or cooler. Potential upset conditions can be detected early
- **Bark Fired Boiler**
  Observe fuel distribution, bed and feeder monitoring, combustion and flame characteristics
- **Cost Effective Solution**
  Ideal for multiple camera installations
- **Compatible with Existing IST-Quadtek Retract Installations**
  Can be retro-fitted on existing M353/M354/M356 retraction systems

Imaging Systems

## SPECIFICATIONS AND PERFORMANCE

| Materials/Dimensions/Weight | |
|---|---|
| Housing Material | Stainless Steel and Aluminium. Corrosion resistant |
| Lens Material | Stainless Steel shroud with Sapphire window for optics |
| Weight | 9kg (20lb) typical, varies with lens lengths |
| Housing | To NEMA 4 standards |
| Dimensions | Refer to outline drawing |

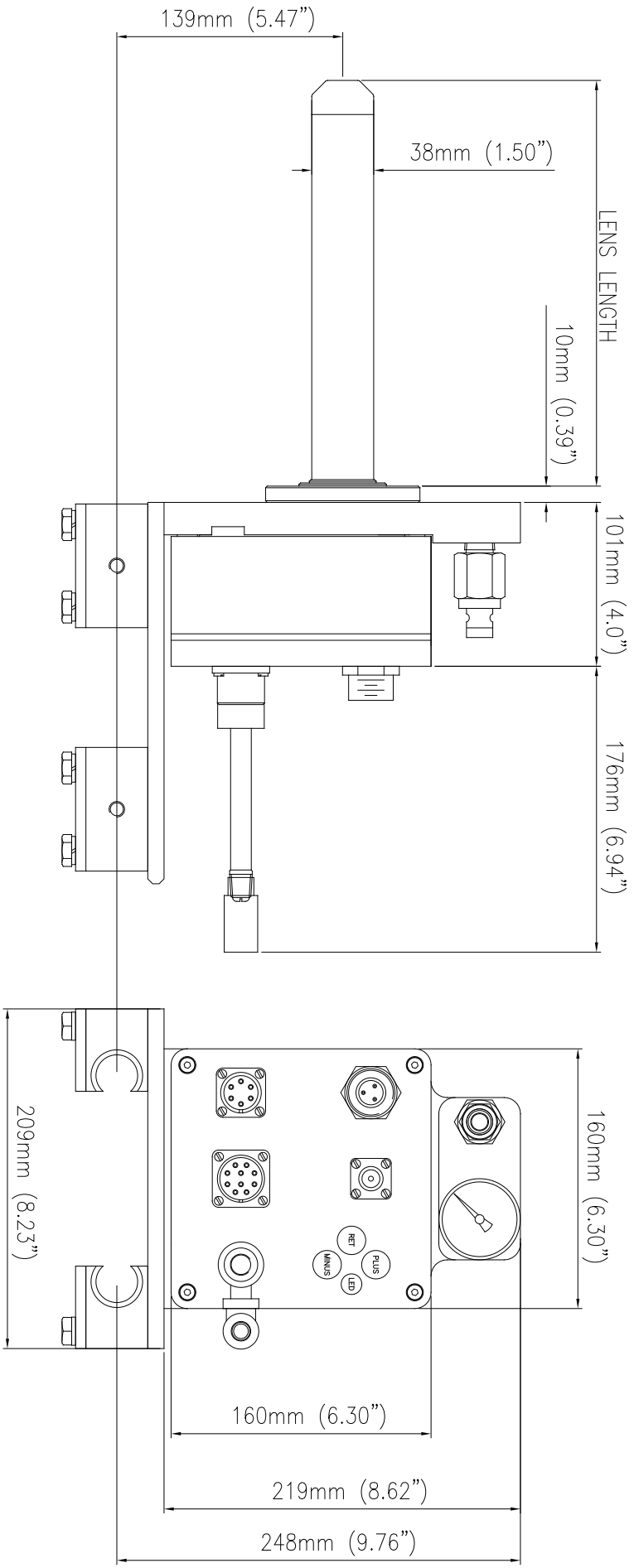
| Image Sensor | |
|---|---|
| Camera Detector | Solid State CMOS image sensor |
| Resolution (Effective Pixels) | PAL: 720(h)*576(v), NTSC: 720(h)*480(v) |
| Video Output | 1.0Vp-p 75 ohm, PAL or NTSC, colour |
| Exposure Control | Automatic exposure control, with remote adjustment |

| Lens | |
|---|---|
| Lens Lengths | Nominal lengths from 18” to 48” in 6” increments |
| Viewing Directions | Straight<br>Offset angle (OAL), 45° (up, down, left or right) |
| Field of View | Narrow: 35° horizontal<br>Medium: 55° horizontal<br>Wide: 75° horizontal<br>Super Wide: 90° horizontal |
| Diameter | Straight: 38mm (1.5”)<br>OAL: 51mm (2.0”) |
| Filters | Options for ND Filters |

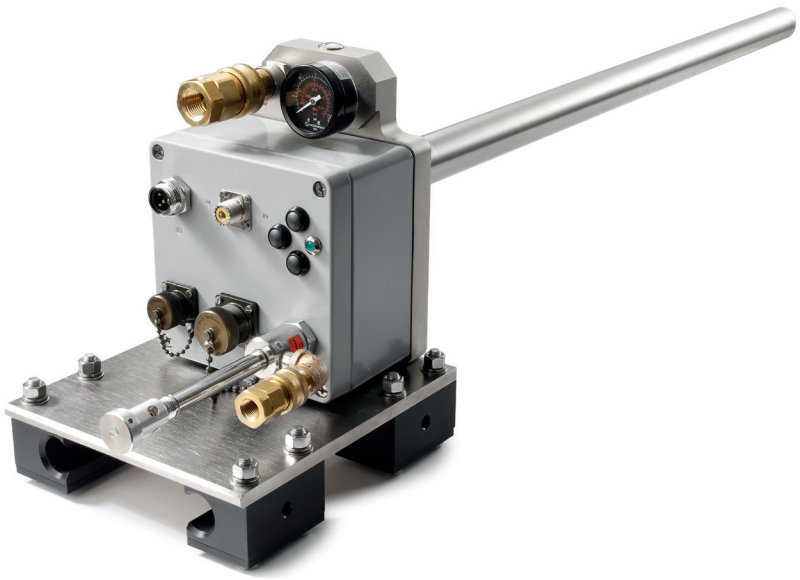
| Cooling and Environmental | |
|---|---|
| Operating Temperature | 0°C to 60°C (32°F to 140°F) with negligible radiant heat load<br>Lens tip up to 1621°C (2950°F) with correct cooling |
| Storage Temperature | 0°C to 70° C (32°F to 158°F) |
| Cooling Air Quality | Instrument quality ISO 8573-1 Class 1.7.2 |
| Enclosure Cooling | Options for purge air or vortex cooling<br>Air purged 0.5 $dm^3$/sec @ 14 kPa (1 SCFM @ 2 PSI)<br>Vortex cooling 12 $dm^3$/sec @ 690 kPa (25 SCFM @ 100 PSI) |
| Lens Cooling | Purge air only<br>12-19 $dm^3$/sec (25-40 SCFM) @ 34-103 kPa (5-15 psig) required for straight lens, but will vary for others |
| Enclosure Cooling Connector | ¼” brass quick-disconnect nipple. Mating coupler provided. |
| Lens Cooling Connector | ½” brass quick-disconnect nipple. Mating coupler provided. |

| Electrical Interfaces | |
|---|---|
| Mains Supply | 100-240V AC, 50/60Hz, 25VA maximum |
| Mains Connector | Waterproof Miniplug (JOY type TP, 3 pin) |
| Video Connector | Female PL-259 UHF (coaxial) |
| Retract Connector | Provides power and control for a retract system |
| Remote Control Connector | Provides remote control via RS485 serial bus |
| User Controls | 3 push-buttons, to provide control via on-screen menus |
| Indicator | LED to indicate power and status |

## ADDITIONAL PICTURES



## ADDITIONAL PHOTOS



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Please contact your Mirion Technologies representative to advise any specific vibration or seismic qualification.



**The management system governing the manufacture of this product is ISO 9001:2008 certified.**

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