The MIO Series Intelligent I/O solutions are designed to turn FLIR thermal imaging cameras into complete remote monitoring systems. Easy to set up and easy to configure, the MIO Series is your remote monitoring solution for process control, condition monitoring, and fire prevention.

The MIO Series is an intelligent module that can be easily configured via the built-in web server. Once connected with up to seven FLIR cameras, the MIO module can target designated regions or areas of interest (ROI) and start monitoring. The module can be programmed through the web server to alarm when a temperature threshold is breached, updating in real time. The MIO can also output an analog 4 to 20 mA current loop signal per each region of interest, providing the user with process control options.

Key features
- Compatible with FLIR® FC-Series R Cameras
- Monitor 1 to 7 Cameras
- Configure Alarms via built-in Web Server
- Digital Outputs (24 VDC)
- 4-20 mA Outputs
- Ethernet Connectivity

Typical applications
- Critical Vessel Monitoring
- Condition Monitoring
- Process Monitoring
- Early Fire Detection

FLIR FC-Series R
The FC-Series R features on-board, non-contact temperature measurement capabilities for fire detection, safety, and thermal monitoring of substations, waste disposal, and valuable equipment. FC-Series R combines state-of-the-art image detail and on-board video analytics. FC-Series R provides reliable detection and flexible alarming options by email, web and mobile apps, edge image storage, digital outputs, or VMS event notifications.

On-board temperature measurement & alarms
Calibrated for fire detection, safety, and thermal monitoring of equipment
- On-screen temperature value displays
- Up to four temperature measurement tools – spots or boxes
- Flexible integration tools allow temperature data and alarms to be integrated into a wide variety of external monitoring and control systems

Feature-rich edge analytics
Powerful on-board analytics capable of classifying human or vehicle intrusions
- Multiple alarm notification options, including email, digital outputs or VMS alarms
- Ideal for use with third-party analytics, including those provided by FLIR’s partners around the world
- Camera configuration via web interface, FSM PC application or mobile apps
- ONVIF compliant – interoperable with most video management systems

Rugged industrial design
Durable enclosure protects camera from dust, water, and is submersible up to one meter
- Thermal cameras with both IP66 and IP67 ratings. Plus it’s shock, vibration, and corrosion-resistant
- Multiple fields of view and resolution options; supports optimal camera selection and deployments
- PoE, AC and DC inputs, analog and network outputs

www.flir.com
## Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>MIO-FCR-1</th>
<th>MIO-FCR-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part number</td>
<td>T130088</td>
<td>T130089</td>
</tr>
</tbody>
</table>

### Product Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>MIO-FCR-1</th>
<th>MIO-FCR-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Cameras Supported</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Ethernet Connection</td>
<td>100Base-T</td>
<td>100Base-T</td>
</tr>
<tr>
<td>Communication Protocol</td>
<td>Modbus TCP/IP</td>
<td>Modbus TCP/IP</td>
</tr>
<tr>
<td>4-20 mA Transmitter Channels</td>
<td>2 CH, Loop Powered, Isolated</td>
<td>8 CH, Loop Powered, Isolated</td>
</tr>
<tr>
<td>Digital Output Channels</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Digital Output Current</td>
<td>0.5A per Channel, 1.5A All Channels</td>
<td>0.5A per Channel, 1.5A All Channels</td>
</tr>
<tr>
<td>Digital Output Voltage</td>
<td>10-30 VDC</td>
<td>10-30 VDC</td>
</tr>
<tr>
<td>Power Supply Voltage</td>
<td>24 VDC</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Maximum Power Consumption</td>
<td>3 W</td>
<td>7 W</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5.7 x 3.6 x 1.6 in (145 x 90 x 40 mm)</td>
<td>8.8 x 3.9 x 1.2 in (223 x 99 x 31 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.5 lbs (0.23 kg)</td>
<td>0.7 lbs (0.32 kg)</td>
</tr>
<tr>
<td>Enclosure Material</td>
<td>ABS</td>
<td>Anodized Aluminum</td>
</tr>
</tbody>
</table>

### Shipping Information

<table>
<thead>
<tr>
<th>Feature</th>
<th>MIO-FCR-1</th>
<th>MIO-FCR-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging Type</td>
<td>Cardboard box</td>
<td>Cardboard box</td>
</tr>
<tr>
<td>List of Contents</td>
<td>MIO-FCR-1 Unit, Din Rail Mountable, Manual on USB drive</td>
<td>MIO-FCR-7 Unit, Manual on USB drive, Din Rail Adapter Clip</td>
</tr>
<tr>
<td>Packaging Weight</td>
<td>0.66 lbs (0.3 kg)</td>
<td>0.84 lbs (0.38 kg)</td>
</tr>
<tr>
<td>Packaging Size</td>
<td>7.125 x 4.4375 x 2 in (181 x 113 x 50 mm)</td>
<td>8.875 x 4.125 x 1.375 in (226 x 105 x 35 mm)</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>USA</td>
<td>USA</td>
</tr>
</tbody>
</table>

### Example 1: Basic Thermal Monitoring with alarms using the MIO-FCR-1

![Diagram of minimal setup example]

**Example 1:** Basic Thermal Monitoring with alarms using the MIO-FCR-1

### Example 2: Advanced Multi-camera Thermal Monitoring with alarms, automated notification, datalogging, PLC connectivity and real-time video archiving using the MIO-FCR-7

![Diagram of multi-camera setup example]

**Example 2:** Advanced Multi-camera Thermal Monitoring with alarms, automated notification, datalogging, PLC connectivity and real-time video archiving using the MIO-FCR-7

---

**PORTLAND**
Corporate Headquarters
FLIR Systems, Inc.
27700 SW Parkway Ave.
Wilsonville, OR 97070
USA
Ph: +1 866.477.3687

**EUROPE**
FLIR Systems
Luxemburgstraat 2
2321 Meer
Belgium
Ph: +32 (0) 3665 5100

**NASHUA**
FLIR Systems, Inc.
9 Townsend West
Nashua, NH 03063
USA
Ph: +1 866.477.3687

**LATIN AMERICA**
FLIR Systems Brasil
Av. Antonio Bardella, 320
Sorocaba, SP 18085-852
Brasil
Ph: +55 15 3238 7080

**CANADA**
FLIR Systems Ltd.
920 Sheldon Court
Burlington, ON L7L 5K6
Canada
Ph: +1 800.613.0507

**CHINA**
FLIR Systems Co., Ltd
Rm 1613-16, Tower II
Grand Central Plaza
138 Shatin Rural Committee Rd.
Shatin, New Territories
Hong Kong
Ph: +852 2792 8955

www.flir.com
NASDAQ: FLIR

Equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2017 FLIR Systems, Inc. All rights reserved. 17-0047