FOR STANDARD BODY AND FIBER-OPTIC VARIANTS

SPOT
MOUNTINGS
AND ACCESSORIES

A PRODUCT OF THE SYSTEM 5 FAMILY
AMETEK LAND HAS BEEN MANUFACTURING PRECISION MEASURING EQUIPMENT SINCE 1947.

WE ARE SPECIALISTS IN NON-CONTACT TEMPERATURE MEASUREMENT AND COMBUSTION MONITORING WITH APPLICATIONS ACROSS DIVERSE INDUSTRIES SUCH AS STEEL AND GLASS MAKING, POWER GENERATION AND CEMENT MANUFACTURE.

As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from the worldwide AMETEK sales and service team.

The following information is intended as a guide to the range of optional mountings and accessories available to ensure you get the best possible service from the investment you have made when specifying SPOT pyrometers for your application solution.

For specific recommendations on the choice of mountings, brackets, cables, or any other accessories, that may suit your specific industry or installation, please contact an AMETEK Land sales manager or representative for further advice before ordering.

SOFTW ARE

SPOT VIEWER

Specifically developed to work seamlessly with the latest generation of industry leading single point thermometers. SPOT Viewer’s simple installation means that the operator can quickly connect, configure and view data from any of AMETEK Land’s SPOT range of pyrometers.

Easy view and analysis of long term data displayed in both graphical and tabular views. Clearly highlights trends and patterns allowing the user a greater understanding of the temperatures involved in their process.

Simple configuration of thermometer settings from a remote location giving the operator total control over temperature measurement on their process without the need to be at the instrument location.

For full details see our SPOTViewer Brochure.

THE INSTRUMENT VIEW

A graphical representation of the SPOT pyrometer control panel. Temperature values are displayed and the menu system can be accessed here. This view also allows you to take a snapshot image of the target being viewed by the pyrometer on the lensed variants.

THE GRID VIEW

A data-logger view of temperature readings in date/time order

THE TREND VIEW

Gives a graphical trace of temperature readings, also in date/time order

THE MENU BAR

Provides access to additional options such as data-logger and User Management

THE STATUS BAR

Shows an overview of the system connections and displays error messages in the event of a fault.

PART NUMBERS:
SPOTVIEWER USER PACK 808279
SPOT SDK USER PACK 808299
TYPICAL APPLICATION - BLAST FURNACE
SPOT MOUNTINGS AND ACCESSORIES

FIBER OPTIC MOUNTINGS

QUICK RELEASE PURGE ASSEMBLY
The purge assembly features a quick release mount and short Inconel sighting tube. The air purge is used where a clear sight path has to be maintained, by using the purging air to maintain the lens free from dust, dirt, etc. The purge connects to the optic head with a quick release adapter (supplied) which allows rapid, no tools removal of the optic head for routine maintenance. The purge is secured on the installation using either a mounting adapter or plate.

PART NUMBER: 029.870

QUICK RELEASE PURGE & ADJUSTABLE MOUNTING FLANGE
The adapter, air purge and mounting plate assembly attaches to the optic head, and provides a mounting using the four holes through the circular plate. The quick-release adapter which forms an integral part of this assembly allows rapid, no tools removal of the optic head for routine maintenance.

PART NUMBER: 029.871

QUICK RELEASE PURGE & ANGLE MOUNTING BRACKET
The adapter, air purge and mounting bracket assembly attaches to the optic head, and provides mounting using the single hole in the base of the bracket. Alternatively, the bracket will attach to the large ball-mounting (S4 LB) to provide adjustment to ensure accurate alignment to the target surface; particularly useful when sighting onto a small target. The quick-release adapter which forms an integral part of this assembly allows rapid, no tools removal of the optic head for routine maintenance.

PART NUMBER: 029.873

SMALL BALL MOUNT
The small ball mount can be used with the fiber-optic adapter (809901). It can be used with any standard tripod or using a 1/4" UNC bolt to a surface.

PART NUMBER: 150.560

FIBER OPTIC ADAPTER
The fiber-optic adapter enables the optic-head to be mounted as a stand-alone, in applications which require no purging, protection or special mounting considerations. A single 1/4 in. thread bolt hole can attach to the Small Ball Mounting or a standard tripod mounting. Two further holes in the base permit mounting to a flat surface.

PART NUMBER: 809901
SIGHTING TUBES

Sighting tubes are made from metal or refractory materials and are either open ended (Type STO) or closed (Type STC).

Type STO tubes are used when viewing a solid target through flame, smoke, fumes etc. The closed end of the type STC tube is used as the target. A thermometer used with an STC tube can replace a sheathed thermocouple.

To attach the sighting tubes to a mounting plate a steel adapter (Type STA) is cemented into the refractory sighting tubes. The STA is drilled to fit the studs on the mounting plate (PN 095.091). Replacement Sighting Tubes can be purchased without the STA adapter fitted. Contact Land for details.

There are 3 types of tube material with various lengths. For exact dimensions and ordering references please refer to the table adjacent.

Silicon Carbide Tubes (STO & STC)
These are either open ended or closed, and can be used in temperatures up to 1500°C. They have high mechanical strength, good resistance to thermal shock and very high thermal conductivity.

Sillimanite Tubes (STO only)
These are suitable for use in temperatures up to 1550°C and are fairly resistant to thermal shock.
Sillimanite liner tubes are also available.

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions in mm</th>
<th>Adapter Type</th>
<th>Part No</th>
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</thead>
<tbody>
<tr>
<td>Silicon Carbide STC</td>
<td>450, 600, 750, 900, 1050</td>
<td>STA</td>
<td>091.410, 091.411, 091.412, 091.413, 091.414</td>
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<tr>
<td>Sillimanite STO</td>
<td>600, 700, 900, 1050</td>
<td>STA</td>
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<tr>
<td>Sillimanite liner tubes</td>
<td>355, 510</td>
<td>STA</td>
<td>118.270, 118.271</td>
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<td>Stainless Steel FS6</td>
<td>150</td>
<td>F</td>
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<tr>
<td>FS36</td>
<td>910</td>
<td>F</td>
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</table>

Dimensions on drawings are in mm.
AMETEK LAND OFFERS A RANGE OF SPOT FIXED SINGLE POINT PYROMETERS.

Designed to operate flawlessly in most demanding industrial environments, the SPOT range is perfect for applications across many industries including iron and steel, glass, metal forging, heat treatment, cement, and many more.

The various models in the SPOT pyrometer range are available in temperatures between 250-1800 °C / 482-3272 °F.

SPOT Fixed pyrometers are part of the System 5 family of products, continuing AMETEK Land's fine history in industrial non-contact temperature measurement. Featuring both single wavelength and multi-mode instruments all available in lensed and fiber-optic versions.

The SPOT range are high technology radiation pyrometers designed to produce the most accurate temperature measurements for numerous industrial manufacturing applications. SPOT includes many innovative technologies to simplify setup and use, reduce installation and operational costs together with ensuring high accuracy and long life. Adaptors exist to enable SPOT sensors to be easily retrofitted into Land System 4 and UNO mountings.

MOUNTINGS

MOUNTING BRACKET & LOCK NUT

The Mounting Bracket forms the basis of the Light Purge, but can be used on its own where there is no requirement for a purge air supply to keep the pyrometer lens clean. It is straightforward to install, and has a hole for mounting on a tripod. It can also be fitted to ball mount allowing 360° rotation for precision alignment.

PART NUMBER: 808468

WATER COOLED MOUNTING

This incorporates the integrated Protection Jacket and Purge plus the hinged back cap. (Shown with optional small pan and tilt bracket)

PART NUMBER: 808100

Mountings and Accessories

SEALED TO PROCESS WATER COOLED MOUNTING

The Mounting includes a Protection Window which separates the process from the pyrometer, enabling safe removal of the pyrometer from its jacket at any time.

Note: The Sapphire Protection Window has an effect on the signal strength, due to transmission losses. By specifying the process window in the instrument software, it will automatically correct for the transmission loss. (Shown with optional small pan and tilt bracket)

PART NUMBER: 808862

SEALED TO PROCESS UPGRADE KIT

This kit includes all parts necessary to upgrade the Water cooled mounting into the sealed to process version.

PART NUMBER: 808336

MOUNTING PLATE

The Mounting Plate has four process attachment holes and three studs for the jacket. This is an optional interface between the process and and the front flange of the water cooled mounting.

PART NUMBER: 095.091

ADJUSTABLE MOUNTING PLATE

The mounting plate has four process attachment holes and three studs to attach the water cooled mounting. This is easily adjustable to allow precise alignment with the target.

PART NUMBER: 095.168
**DIGITAL CABLES**

Digital Power Cable - A specific length cable with an M12PoE connector, the other end a RJ45 fitting for a network control switch or Control PC.

**PART NUMBERS:**
- 5m M12-RJ45 cable 807944
- 20m M12-RJ45 cable 807945
- 100m M12-RJ45 cable 807946

**ANALOG CABLES**

Eight conductor analog connector cable one end terminated to an 8-way SPOT connector, the other end stripped flying leads.

**PART NUMBERS:**
- M16-Free 8 Way Cable 807950
- M16-Free 8 Way Cable 807951
- M16-Free 8 Way Cable 807952

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**SYSTEM 4 ADAPTER KIT**

The System 4 to SPOT Adapter Kit allows you to install a Land SPOT Pyrometer in an S4-J. This means that you can replace an existing System 4 Pyrometer with a Land SPOT pyrometer without having to replace any existing pyrometer protection jackets or mountings. The System 4 to SPOT Adapter Kit consists of an Adapter Sleeve, a Lock Ring and a Replacement Cable Assembly.

**PART NUMBER:** 808018

**LIGHT PURGE**

The Light Purge is designed to keep the pyrometer lens clean, when installed in less-hostile environments such as light industry or research. Supplied with mounting bracket and lock nut as standard.

**PART NUMBER:** 808015

**SMALL PAN & TILT BRACKET**

This dual axis mounting bracket can be used with the water cooled mounting where the mounting front flange is inappropriate.

**PART NUMBER:** 806761

**CABLES**

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### SOFTWARE

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<thead>
<tr>
<th>PART NAME</th>
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<tr>
<td>SPOTViewer User Pack</td>
<td>808279</td>
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<td>SPOT SDK User Pack</td>
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### MOUNTINGS

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<th>PART NAME</th>
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<tr>
<td>Mounting Bracket and Lock Nut</td>
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<td>Water Cooled Mounting</td>
<td>808100</td>
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<tr>
<td>Pan and Tilt Bracket</td>
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<tr>
<td>Sealed to Process Water Cooled Mounting</td>
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<tr>
<td>Sealed to Process Upgrade Kit</td>
<td>808336</td>
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<tr>
<td>Light Purge</td>
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<tr>
<td>Mounting Plate</td>
<td>095.091</td>
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<tr>
<td>Adjustable Mounting Plate</td>
<td>095.168</td>
</tr>
</tbody>
</table>

### CABLES

#### Digital

- 5m M12-RJ45 Cable with straight connector    | 807944      |
- 20m M12-RJ45 Cable with straight connector  | 807945      |
- 100m M12-RJ45 Cable with straight connector | 807946      |

#### Analog

- M16-Free 8 Way Cable 5 m Str Connector        | 807950      |
- M16-Free 8 Way Cable 20 m Str Connector       | 807951      |
- M16-Free 8 Way Cable 100 m Str Connector      | 807952      |

#### Analog connection PCB/kit                  | 807942s     |

### FIBER OPTIC MOUNTINGS

- Quick Release Purge Assembly                  | 029.870     |
- Quick Release Purge and Adjustable Mounting Flange | 029.871 |
- Quick Release Purge and Mounting Plate         | 029.872     |
- Quick Release Purge and Angle Mounting Bracket | 029.873     |
- Small Ball Mount                               | 150.560     |
- Fiber Optic Adaptor                            | 809901      |

See our other literature for the SPOT R100 and SPOT mountings and accessories.