



SERIES 4000 REMOTE PHOTO-SWITCHES



Remote Design utilizing 400°C Optic Leads & Remote Lenses.

- **Ideal sensor for monitoring hot and cold product**
- **Through Beam, Retro Reflect and Diffuse all with one unit.**
- **Utilizes remote stainless lenses and silicone or fiber optic leads.**
- **Exceptional steam penetration.**
- **Accommodates 50mm misalignment.**
- **Robust stainless lenses and fiber optic leads withstand up to 400°C.**
- **One tubular lens housing for all lens options.**
- **Air purged and water cooled lens mounts available.**

Preliminary

General Description

These series 4000 photo-switches are specifically designed for detection of both hot and cold product in extreme hostile areas. Particularly useful where the product is normally too hot to permit use of Proximity or normal Photo-switches, yet radiating insufficient Infrared energy for detection by hot metal detectors.

As these switches utilize powerful Gallium Arsenide cells, their pulsed infra-red beams penetrate substantial steam over long distances and operate with the heavy lens contamination. They will also accommodate substantial lens miss-alignment.

Total flexibility in view of the many options available. Namely, single or dual controllers with sender and receiver lenses connected via silicone lead/or armored fiber-optic leads. A combination of both connection techniques enables mounting of the lenses close to the production line and the controller in an accessible area.

Controllers comprise of a watertight metal enclosure rated IP66. Lenses are robust hybrid constructions in stainless steel with both Air Purge and Water Cooling mounting facilities available.

A variety of lens mounting options are available to accommodate installation requirements. Mounting technique may be selected on the basis of purge, cooling and adjustment requirements.

Six models are available to allow the user to select exactly the right mounting and connection technique to suit individual installation parameters. All lenses are in standard 25mm diameter tubular stainless housings. Connections are via common style plug/socket to ensure straightforward inter-changeability of components.

Lenses, Remote Modules, Fiber Optic leads and Silicone interconnecting leads are ordered separately in addition to the specified controller arrangement. The fiber optic and silicone interconnecting leads are ordered according to length required. The silicone interconnecting leads (2 conductor shielded) can be extended on site up to 30 meters in length.

MODULOC Technology - The Total Sensor Solution

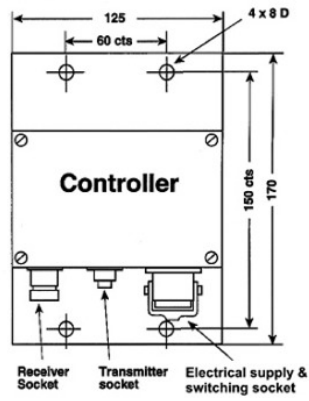
MODULOC Control Systems Ltd.

Wheathamstead, Hertfordshire, AL4 8SB United Kingdom
Phone: +44 (0)1727 821313 FAX: +44 (0)1727 826804
E-Mail: sales@moduloc-intl.com Website: www.moduloc-intl.com

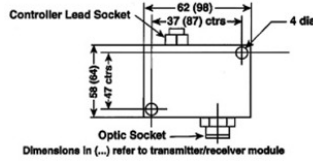
MODULOC Control Systems, Inc.

500 Garden City Drive. - Suite 2B, Monroeville, PA 15146 USA
Phone: 412-824-1260 FAX: 412-824-8890
E-Mail: sales@moduloc-usa.com Website: www.moduloc-usa.com

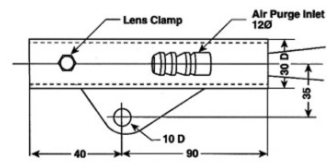
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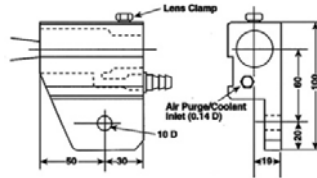
Remote Transmitter/Receiver Module



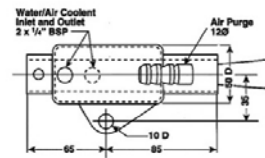
Purged Transmitter Mount PST-07



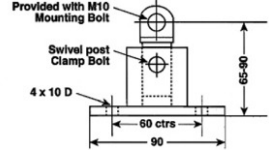
Purged/Cooled Lens Mounting Bracket BPA-27



Purged/Cooled Transmitter Mount PWST-07



Universal Swivel Stand LSS - 36



General Specifications

Receivers	
Receiver Cell-Silicon Photo Transistor	
Extraneous Light Immunity	40,000 LUX
Maximum Sensitivity	880nm
Filter	I.R. cut-off
Maximum Cable resistance	10Ω
Estimated Working Life at 55°C	10,000 hrs.
Maximum Peak Temp.	75°C
Maximum Operating Temp.	55°C
Electronic Receiver Lens- IP65	
Receiving Angle	12° Approximately 80%
Maximum Peak Temp.	75°C
Maximum Operating Temp.	55°C
Optic receiver Lens	
Receiving Angle	5 meter range head - 14°, 80% 15 meter range head - 7°, 80%
Temp. Rating	FCS head - 180°C F7 head - 180°C F7H head - 400°C

Transmitters	
Transmitter Cell -Ga AIA's	
Modulation	4Hz
Output	12 mW
Maximum Cable Resistance	10Ω
Impact Resistance	500 m/s ²
Estimated Working Life at 30°C	100,000 hrs.
Maximum Peak Temp.	90°C
Maximum Operating Temp.	55°C
Electronic Transmitter Lens - IP65	
Emission Angle	5 meter head - 8°, 80% 25 meter head - 3°, 80%
Maximum Peak Temp.	90°C
Maximum Operating Temp.	55°C
Optic Transmitter Lens	
Emission Angle	7°C, 80%
Temp. Rating	F7 head - 180°C F7H head - 400°C

Controller & Switching Modules	
Receiver Cell-Silicon Photo Transistor	
Supply Voltage	110 VAC ± 15% 50/60 Hz
Power Consumption	1.5 VA
Function LED	Green
Alignment LED	Red
Relay Rating	250 VAC, 5A maximum
Relay Response	40 msec
Operating Temperature	-20°C to +55°C
NPN Transistor Rating	NPN, 30V, 60 mA (where provided)
Controller Housing	
All Other Housings	Oven baked painted aluminum to IP66

Performance data established/estimated by in-house test procedures. The information presented herein is, to the best of our knowledge accurate. However, please ensure that this information has not been amended or superseded.

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Control Systems

We reserve the right to alter specifications without prior notice. Specifications without tolerances are typical values.

Your Local Sales Representative:



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PRELIMINARY