Inline TTL Shutter

INLINE-TTL-S

Installation and Operation Manual

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About This Manual

Document Purpose and Intended Audience

This document provides you with an installation section to get your system up and running.

What's New in this Document

This version of the *Inline TTL Shutter Inline-TTL-S Installation and Operation Manual* adds mechanical diagrams.

Document Summary

Chapter	Description
Chapter 1: *Setup*	Contains instructions for setting up your Inline TTL Shutter.
Chapter 2: *INLINE-TTL-S Specifications*	Contains operating specifications and pinout information.

Product-Related Documentation

You can access documentation for Ocean Optics products by visiting our website at **http://www.oceanoptics.com**. Select *Technical → Operating Instructions*, then choose the appropriate document from the available drop-down lists. Or, use the **Search by Model Number** field at the bottom of the web page.

You can also access operating instructions for Ocean Optics products on the *Software and Technical Resources* CD included with the system.

Engineering-level documentation is located on our website at *Technical → Engineering Docs.*

Upgrades

Occasionally, you may find that you need Ocean Optics to make a change or an upgrade to your system. To facilitate these changes, you must first contact Customer Support and obtain a Return Merchandise Authorization (RMA) number. Please contact an Ocean Optics for specific instructions when returning a product.

Chapter 1

Setup

Overview

INLINE-TTL-S Inline TTL Shutter is a small mechanical laser-cut shutter that is positioned between two UV/VIS-optical components. The INLINE-TTL-S is an OEM part for use in other equipment.

The shutter is controlled by a small circuit board that is powered by a 12 VDC signal. The maximum frequency at which the INLINE-TTL-S can operate is 5Hz (5 shutter cycles per second).

Inline TTL Shutter (15-pin input component and control circuitry not shown)

Inline TTL Shutter (bottom) with 15-pin input component and control circuitry (top)

Unpacking

► *Procedure*

1. Unpack your lamp assembly carefully. Although the deuterium lamp is rigidly mounted, dropping this instrument can cause permanent damage.

2. Inspect the outside of the instrument and make sure that there is no damage. Do not use the instrument if damage is present. Contact your dealer for repair or replacement information, if necessary.

3. Use this instrument in a clean laboratory environment (see *Operating Environment*).

Contents

Your package should contain the following:

- ❑ Inline-TTL-S Inline TTL Shutter
- ❑ One IC-DB15-2 interface cable for shutter operation

Additionally, you will need an approved power supply for the LS-475, such as the Mikropack PS-12V/1.25A power supply.

► *Procedure*

To set up your Inline TTL Shutter review the figures on the previous page and perform the following procedure:

1. Plug in the power supply.

2. Plug the power supply connector into the INLINE-TTL-S sleeve.

3. Remove the SMA connector caps.

4. Connect the SMA connectors on your fibers to the SMA plugs on each end of the INLINE-TTL-S shutter.

5. Plug the SUB-D 15-pol. connector into the sleeve for automatic TTL operation (cable included).

You have now configured the INLINE-TTL-S for use.

Chapter 2

INLINE-TTL-S Specifications

This section provides information on the operating environment and physical specifications of the INLINE-TTL-S. It also provides pinouts for the 15-pin connector.

Operating Environment

The following table provides information on optimizing the operating environment of your INLINE-TTL-S.

Operating Environment	The INLINE-TTL-S Unit . . .
Moisture	Is designed for operation in dry rooms only.
Ventilation	Should be situated so that its location or position does not interfere with proper ventilation.
Heat	Should be situated away from any device that emits excessive heat.
Object and Liquid Entry	Should be positioned so that objects do not fall on top of the unit. Additionally, ensure that no liquids are spilled into the enclosure through openings.
Power Sources	Should be connected to an approved power supply, such as the Mikropack 12 VDC 1250mA analog regulated power supply (PS-12V/1.25A)

Specifications

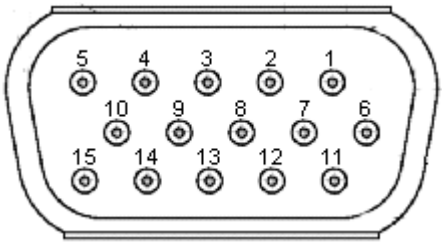
Specifications	Criteria
Spectral Range	UV-VIS
Shutter Input	TTL maximum 5 Hz
Power Requirements	12 VDC
Power Consumption	Maximum 100 mA
Weight	Approximately 600 g
Size	140 x 50 x 50 mm

Pinout Information

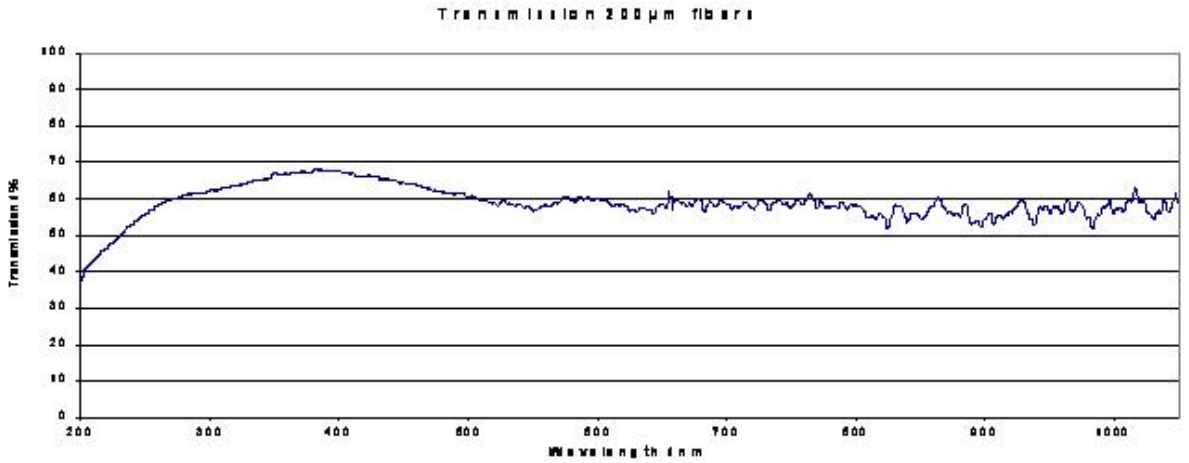
The following table contains pinout information for the INLINE-TTL-S:

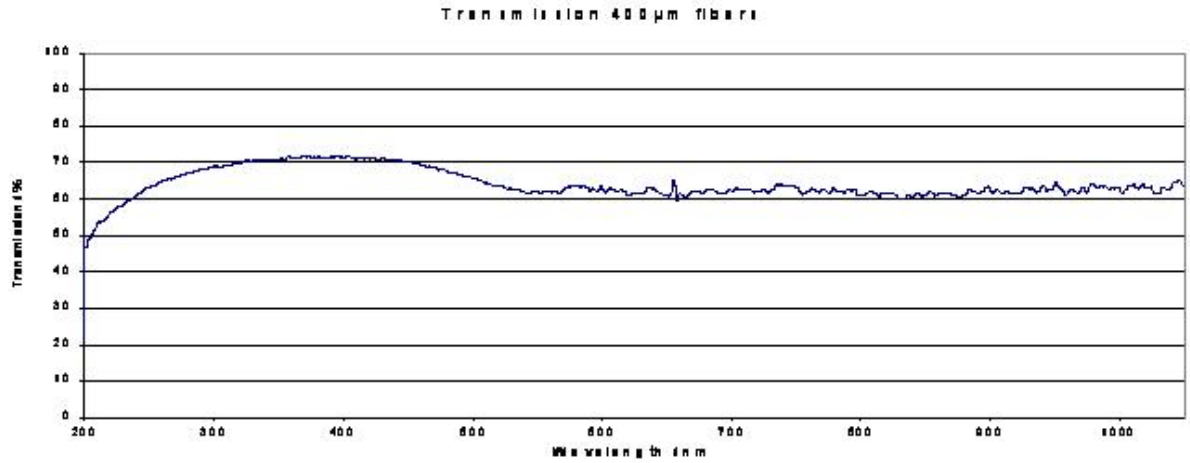
Pin	Description
1	na
2	na
3	na
4	na
5	na
6	na
7	na
8	na
9	na
10	Ground
11	na
12	na
13	TTL Signal
14	na
15	na
na = not applicable	

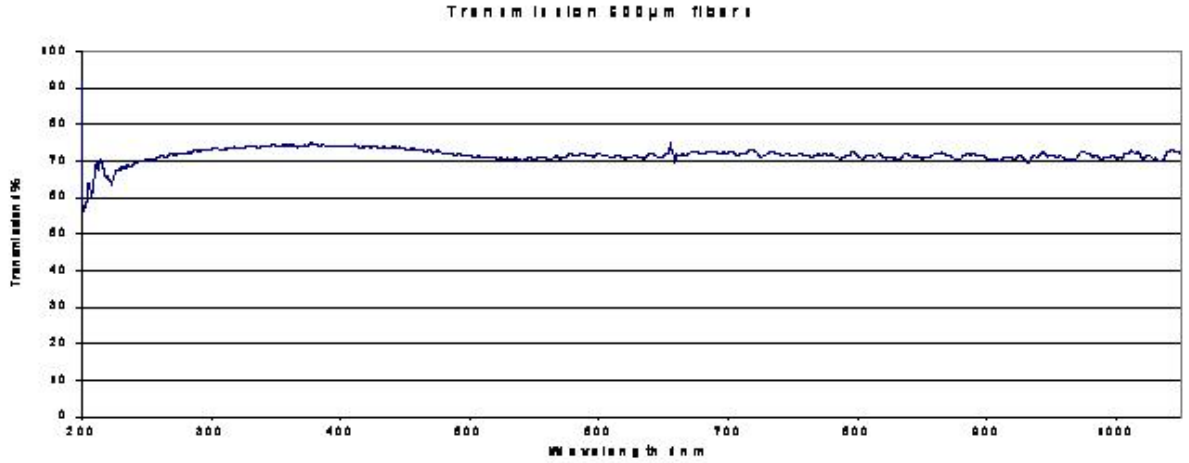
Pinout Diagram



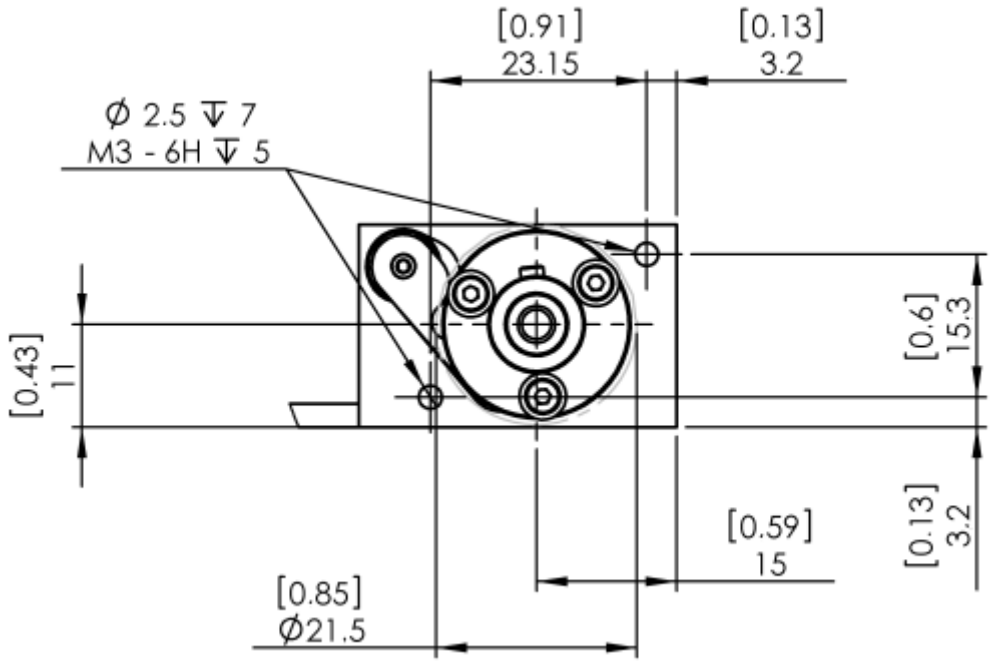
Transmission



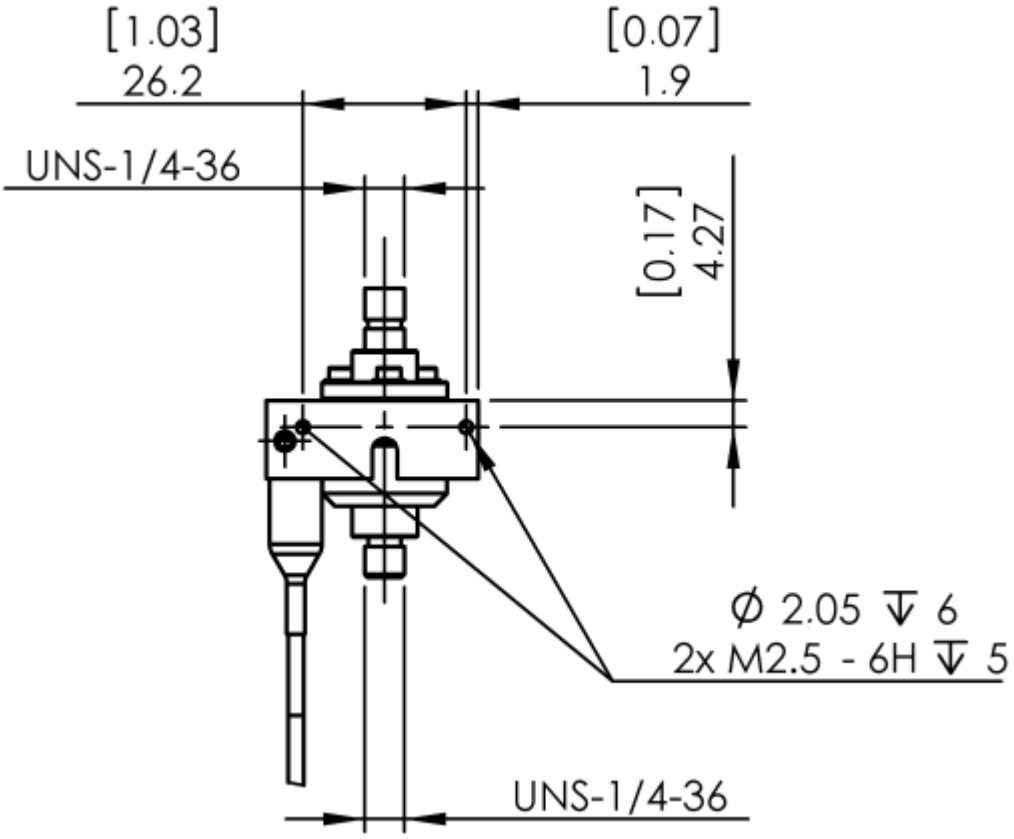




Mechanical Diagrams



Front View -- Mounting Point on Front Plate (dimensions in mm)



Bottom View -- Mounting Point on Base Plate (dimensions in mm)

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