

## Light Source module for NIR spectroscopy

M018-01

**A light source for component analysis to obtain near-infrared absorption from diffusely reflected light by irradiating the measurement object with near infrared rays(NIR).**

## Overview

Interactance mode \* can be measured by irradiating the measurement object with near infrared rays, receiving diffuse reflected light with an optical fiber, and outputting it from the SMA optical connector on the back.

By inputting the light output to a spectrophotometer, etc., component analysis can be performed by non-destructive near-infrared absorption.

## Features

- Easy measurement with two light sources and fibers optimally arranged
- Effective for objects with low reflectance due to the high output lamp
- The optical output can be changed according to the measurement object
- Achieves long life and high stability by air-cooling the light source
- Small size with tap holes for easy fixing to optical system

## Usage

- Analysis of components of plastics and resin materials
- Analysis of fats and oils in fish and meat
- Moisture measurement



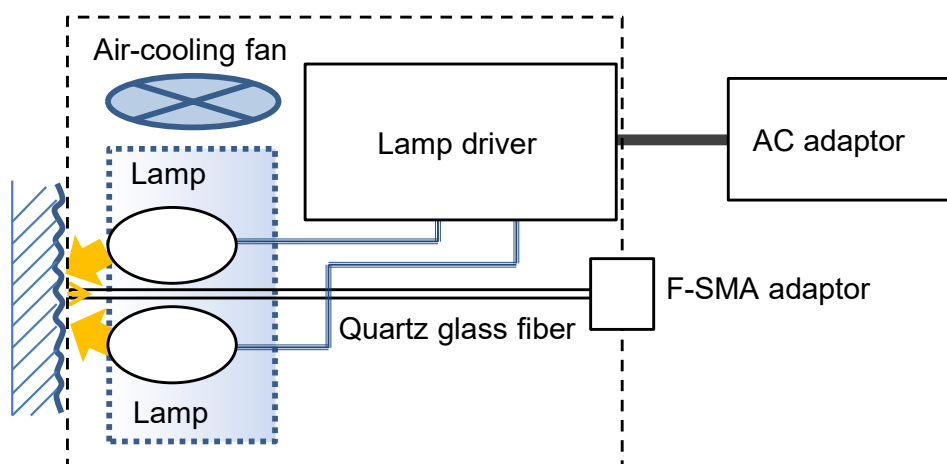
Size :  
51mm(W)×53mm(H)×92mm(D)



spectrophotometer

Used by connecting to a spectrophotometer with fiber.

## Device configuration

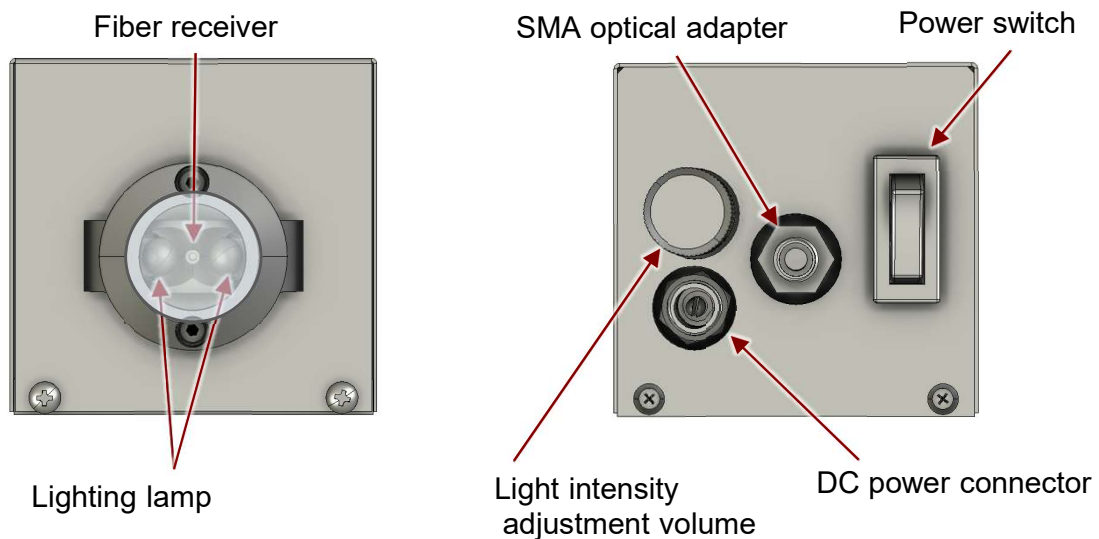


\* The interactance mode is a method in which the light source side and the detector side are in contact with the sample, and only the light diffusely reflected inside the sample is measured.

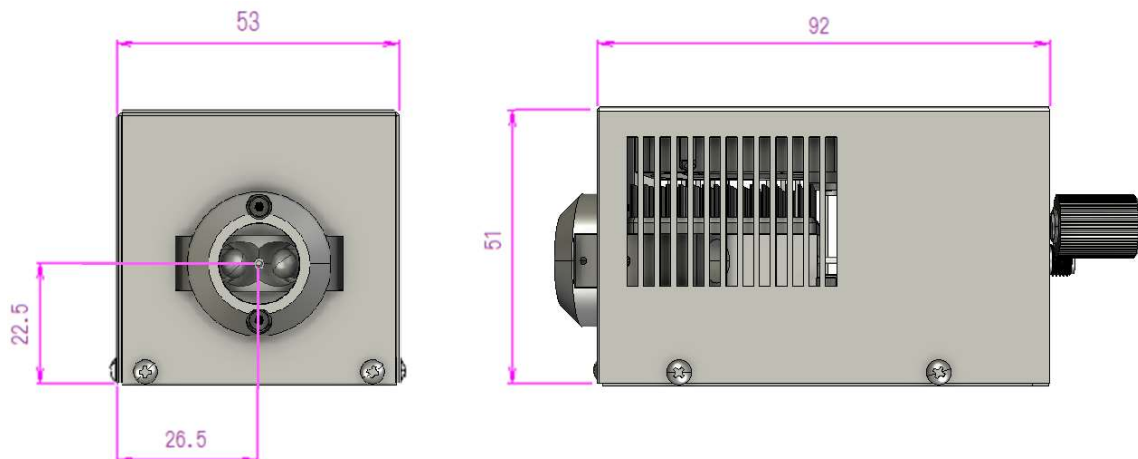
## Specifications

Parameter	Specification value
Equipment performance	
Optical fiber	Quartz glass multimode fiber (core diameter 0.91 mm / clad diameter 1 mm)
Optical connector	SMA905 optical connector
Maximum output radiant flux	1 W (measured value of calorimeter)
Variable current range	0.45 A to 1.0 A maximum
Peak wavelength	1.1 $\mu\text{m}$ (reference value)
light source	2 near-infrared light bulbs (power consumption 10 W)
Estimated light source life	10000 hours / 0.9 A 1000 hours at 1A maximum
Warm-up time	3 minutes
Power supply	AC 100 V, 50/60 Hz
power consumption	Up to 11 W
Dimensions / weight	51 (W) x 53 (H) x 92 (D) mm · Approx. 500 g
Operating environment	
Operating temp. / humidity	10-40 $^{\circ}\text{C}$ , 85% or less (no condensation)
storage temperature	0-60 $^{\circ}\text{C}$

## Panel layout



## External dimensions



● Specification and external appearance are subject to change without prior notice



**OMT Optomechatronik, Inc.** TEL.053-401-2070 FAX.053-401-2071

7F Hamamatsu Act Tower

Mail : [info@opt-mt.com](mailto:info@opt-mt.com) URL : <http://www.opt-mt.com>

111-2 Itaya-cho, Naka-ku, Hamamatsu city, 430-7707, Japan

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