

# Socket

## Model AUD120C120 \_ / AUD120C121 \_ for Flame Detector Tube Unit Model AUD15C1000

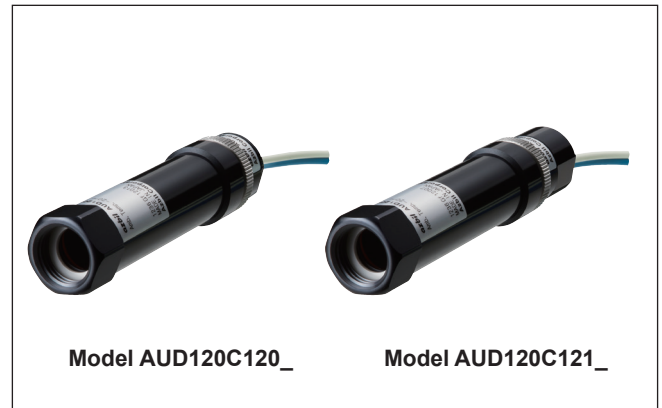
### Overview

Model AUD120C120 \_ / AUD120C121 \_ is a dedicated socket for tube unit model AUD15C1000 for batch operation, and is designed for monitoring combustion by detecting ultraviolet rays from oil or gas burner flames.

Model AUD120C121 \_ has a G1/2 conduit adapter, which allows direct connection to a conduit.

### Features

- Excellent environmental specifications.
  - Ambient temperature 105 °C
  - IP65 Protection
- Wiring distance 200 m max.



Tube unit model AUD15C1000 is not included with this product. Please purchase it in addition to this product.

### Specifications

Item	Description	
Applicable type of fuel *1	City gas, natural gas, propane gas, kerosene, heavy oil, coke oven gas, hydrogen, chlorine, ammonia, naphtha, ethylene, etc.	
Mass	AUD120C120 _	AUD120C121 _
	Approx. 130 g (with the AUD15: approx. 150 g)	Approx. 140 g (with the AUD15: approx. 160 g)
Materials	Aluminum	
Insulation resistance	50 MΩ min by 500 V DC megger (between each lead-wire and the metal part of the socket, with the AUD15 removed)	
Dielectric strength	1500 V AC for 1 min or 1800 V AC for 1 s (voltage between each lead-wire and the housing)	
Ambient temperature	-20 to +105 °C	
Ambient storage temperature	-20 to +70 °C	
Ambient humidity	40 °C, 90 % RH (without condensation)	
Allowable pressure	35 kPa	
Protection	IP65 (JIS C 0920/IEC 60528): when connected to a pipe, for the exterior of the AUD120 only	
Vibration resistance	4.9 m/s <sup>2</sup> max. (10 to 55 Hz for 2 hours each in X, Y and Z directions)	
Mounting nut	G1/2 mounting nut (R1/2 is connectable)	
Lead wires	AWG #18 (approx. 1.2 mm <sup>2</sup> ) flame retardant cross-linked polyethylene insulated cable. approx. 1800 mm long (blue and white)	
Conduit	Not connectable	G1/2 (R1/2 is connectable) For connection to a conduit or a flexible pipe
Flame signal wire	Standard: 2.0 mm, 600 V AC cable with PVC insulation ("IV cable"). Max. length: approx. 200 m	
Certification	CE and UL certification	
	Check the specifications of the burner controller that is used with this product.	

\*1. For applications using coke oven gas, hydrogen, chlorine, ammonia, naphtha, ethylene, etc., in which the burner structure may impose restrictions on the mounting of the flame detector, it is necessary to check that flame monitoring is reliable.

## Model No.

Model No.	Description
AUD120C120_	Socket for AUD15 tube unit, without a conduit adapter
AUD120C121_	Socket for AUD15 tube unit, with a G1/2 conduit adapter

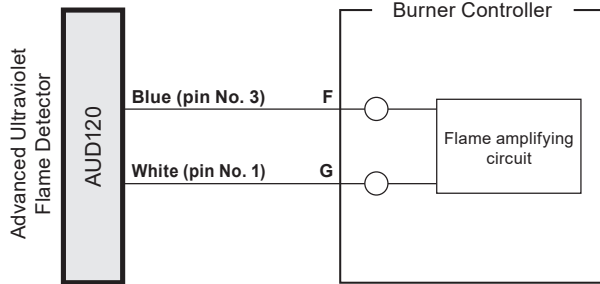
Replace the blank ( \_ ) in the model number with one of the for choices below.

- 0: Standard
- D: Inspection certificate

## Maintenance/optional parts

Model No.	Description
AUD15C1000	Tube Unit (Ultraviolet Ultraviolet photoelectric tube)
81442347-001	Packing set (a nut packing and an O-ring are included) for the AUD120

## Wiring



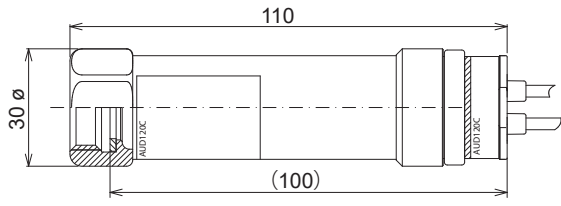
### ! Handling Precautions

- The flame detector has polarity. Wire the AUD120 and the burner controller correctly by connecting the blue lead-wire to terminal F and the white lead-wire to terminal G.

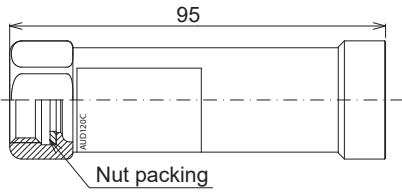
## Dimensions

Unit: mm

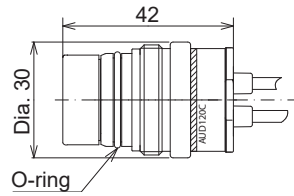
### • AUD120C120\_



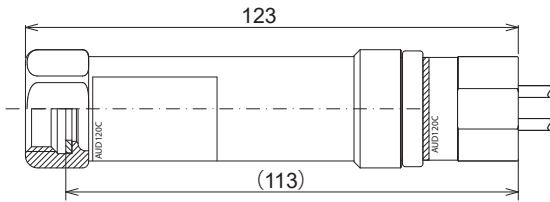
#### • Adapter unit



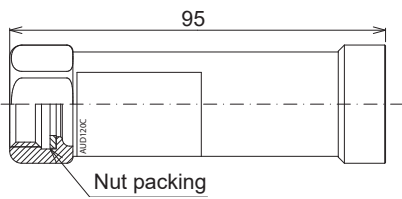
#### •Socket unit



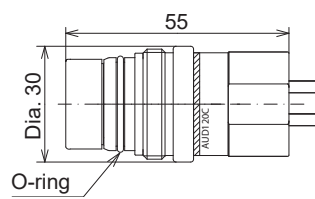
### • AUD120C121\_



#### • Adapter unit



#### •Socket unit



## Cautions

- Before mounting or replacing the socket for the AUD15 tube unit, please read the user's manual carefully.
- Before mounting, wiring, or replacing the socket for the AUD15 tube unit, and before mounting or replacing the tube unit, turn off the power to all connected devices. There is a danger of electric shock.
- Before mounting or replacing the tube unit, please read the user's manual carefully.  
Do not use this device for connection to a tube unit other than the AUD15.
- Do not connect this device to a combustion safety device or a burner controller that is not made by Azbil Corporation.  
If this device is used with a device from another manufacturer, malfunction or device failure may result, possibly leading to a serious accident.  
Azbil's combustion safety devices and burner controllers are equipped with a drive circuit appropriate for the AUD15 and with functions required for batch-operation combustion equipment, such as a start-check sequence to check for sensor failure, etc., at startup.
- Do not mount the flame detector in the following locations:
  - Locations near certain chemicals or their fumes, such as ammonia, sulfur, chlorine, ethylene compounds, acid, or any other corrosive gases.
  - Locations where petroleum solvents are used
  - Locations subject to continuous vibration.
- When used in atmospheres where a UV ray source exists other than the flame, take countermeasures so that no UV ray other than that of the burner is detected.

### Examples of sources of ultraviolet rays other than flames

- Red-hot chamber walls (1371 °C or higher)
- Spark from an ignition transformer or welding arc
- Gas laser
- Sun lamp, sterilization lamp, ultraviolet lamp, fluorescent lamp
- Strong flash of light

### Examples of gamma ray and X-ray sources

- Diffraction analyzer
  - Electron microscope
  - High-voltage vacuum switch
  - High-voltage capacitor
  - Radioactive isotope
- Check the thermolabel on the tube unit, and if the indicated temperature is too high, take measures for cooling using an air purge, heat shield, etc.
  - The tube unit has polarity. Connect the wires from this device correctly to terminals F and G of the burner controller. The included blue lead-wire is for terminal F and the white wire is for terminal G.
  - Run the signal cable of the flame detector independently. Do not bundle it with other signal wires or power wires.
  - When transporting or storing this device, be sure to put it in its original shipping box .
  - The sensor in the tube unit is housed in a glass tube . Take care to protect it from vibration and shock.  
When transporting the burner or combustion equipment, remove the tube unit, and put it in its original shipping box.

Please read "Terms and Conditions" from the following URL before ordering and use.

<https://www.azbil.com/products/factory/order.html>

*Specifications are subject to change without notice.*



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