

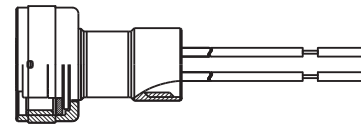
# AUD100/110 Series

## Advanced Ultraviolet Flame Detector Socket for the AUD15 Tube Unit

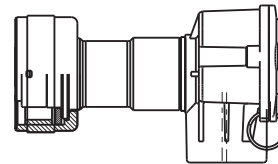
### Overview

The AUD100/110 is a dedicated socket for the AUD15 tube unit, and is designed for monitoring batch operation oil or gas burner combustion.

Two models, the AUD100 lead-wire model and the AUD110 terminal block model, are available to meet wiring or installation requirements.



AUD100C100\_



AUD110C100\_

### Features

- Excellent environmental specifications.
  - Ambient temperature 120 °C
  - IP65 Protection
- Wiring distance 200 m max.

### Specifications

| Item                                  | Description   |   |
|---------------------------------------|---|---|
| Applicable type of fuel <sup>*1</sup> | City gas, natural gas, propane gas, kerosene, heavy oil, coke oven gas, hydrogen, chlorine, ammonia, naphtha, ethylene, etc.                                |   |
| Mass                                  | AUD100C   | AUD110C   |
|                                       | Approx. 120 g<br>(with the AUD15: approx. 140 g)  | Approx. 120 g<br>(with the AUD15: approx. 140 g)  |
| Materials                             | Aluminum  | Socket: Aluminum<br>Terminal block: Heat-resistant resin<br>(PBT + GF30)(black)   |
| Insulation resistance                 | 50 MΩ min by 500 Vdc megger<br>(between each lead wire and the metal part of socket<br>when the AUD15 is removed)   | 50 MΩ min by 500 Vdc megger<br>(between each of terminals F and G and the metal part<br>of socket when the AUD15 is removed)            |
| Dielectric strength                   | 1500 Vac for 1 min or 1800 Vac for 1 s<br>(between each lead wire and the metal part of socket<br>when the AUD15 is removed)                                | 1500 Vac for 1 min or 1800 Vac for 1 s<br>(between each of terminals F and G and the metal part<br>of socket when the AUD15 is removed) |
| Ambient temperature                   | -20 to +120 °C  |   |
| Ambient storage temperature           | -20 to +70 °C   |   |
| Ambient humidity                      | 90 % RH at 40 °C (without condensation)   |   |
| Allowable pressure                    | 35 kPa  |   |
| Vibration resistance                  | 5 m/s <sup>2</sup> max. (10 to 60 Hz for 2 hours each in X, Y and Z directions)   |   |
| Protection                            | IP65 (JIS C 0920/IEC 60529) with pipes and wires connected  |   |
| Mounting nut                          | G1 (R1 and 1-11BSP are connectable)   |   |
| Lead wires                            | AWG #18 (approx. 1.2 mm <sup>2</sup> ) stranded wire with heat-resistant silicone rubber insulation,<br>approx. 1800 mm long (blue and white) (only AUD100) |   |
| Conduit                               | G1/2 (1/2-14BSPP is connectable)  |   |
| Flame signal wire                     | Standard: 2.0 mm <sup>2</sup> , 600 Vac cable with PVC insulation ("IV cable"). Max. length: approx. 200 m  |   |

\*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                            |
|-----------------|--|
| AUD100C100_     | Lead-wire model without the AUD15      |
| AUD100C100_-A15 | Lead-wire model with the AUD15         |
| AUD110C100_     | Terminal block model without the AUD15 |
| AUD110C100_-A15 | Terminal block model with the AUD15    |

- \_: 0 ; Standard  
 D; Inspection certificate  
 T; Tropicalization treatment (only AUD 110)  
 B; Inspection certificate + tropicalization treatment (only AUD 110)

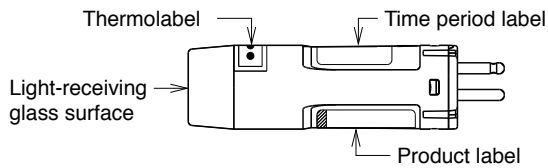
## Combined burner controller

| Model No.      | Description                             |
|----------------|---|
| RX-R20, RX-R22 | Burner Control module                   |
| FRS100C        | Multiburner Controller                  |
| R4750C         | Burner Controller (FSG50 Protectorelay) |
| R4780C, R4781C | Burner Controller (FSG80 Protectorelay) |
| RA890G         | Burner Controller (Protectorelay)       |

## Maintenance/optional parts

| Model No.  | Description  |
|------------|--|
| AUD15C1000 | Tube unit (ultraviolet photoelectric tube) <sup>*1</sup> |
| 81403159   | Seal adapter <sup>*2</sup>                               |
| FSP136A100 | Analog flame meter                                       |
| FSP300C100 | Flame simulator  |

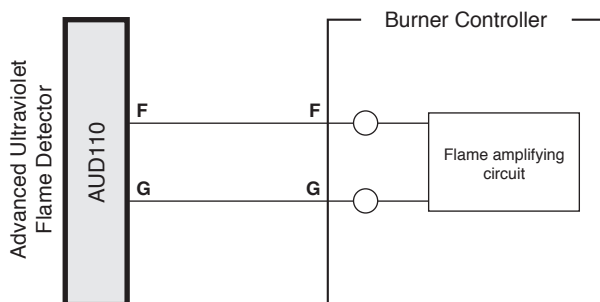
\*1. AUD15C1000



\*2. Seal adapter (model No. 81403159)

Refer to the next page

## Wiring



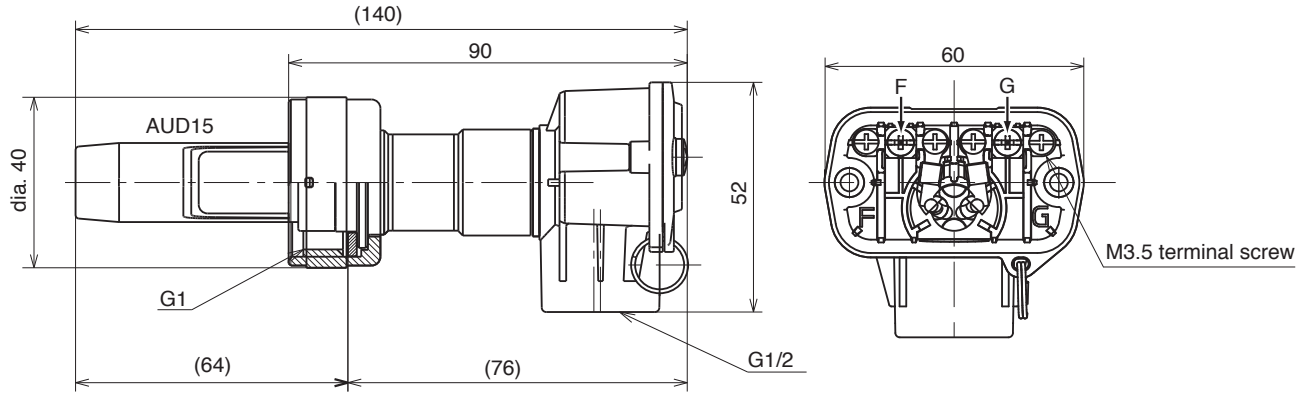
### ! Handling Precautions

- The flame detector has polarity. Correctly connect the wiring to the terminals indicated on the device (F and G). For the AUD100C, the attached blue cable is for terminal F, and the white cable is for terminal G.

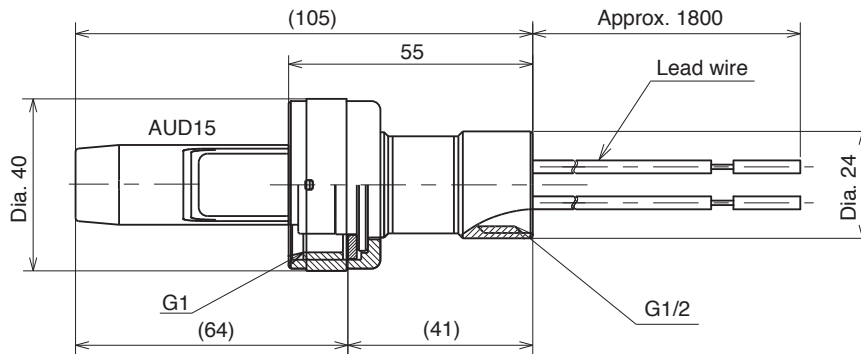
## Dimensions

Unit: mm

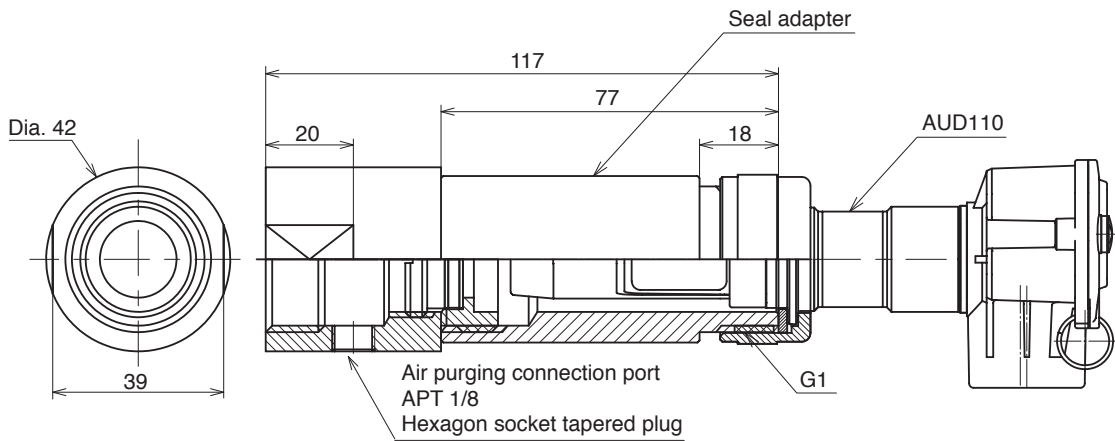
- AUD110C100\_ with the AUD15



- AUD100C100\_ with the AUD15



- Seal adapter (model No.: 81403159)



## Cautions

- (1) The AUD100 Series Advanced Ultraviolet Flame Detector has an important role for safety in monitoring the burner flame. Please observe the procedures for safe usage stated in the user's manual.
- (2) 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 subject to continuous vibration.
- (3) 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.
- (4) Before wiring, be sure to turn the power off. Touching terminals by mistake while the power is on might result in electric shock or malfunction.
- (5) The flame sensor has polarity. Correctly connect the wiring to the terminals indicated on the device (F and G). The attached blue cable is for terminal F, and white cable is for terminal G.
- (6) Use a dedicated packing case when transporting or storing this detector.
- (7) Do not put the flame sensor signal wires in the same cable with other signal wires or power wires.
- (8) Make sure that the ignition transformer high-voltage cables are properly connected in order to prevent faulty contact. If there is poor contact, radio frequency waves may be generated and this could cause radio interference. Install the ignition transformer directly onto a metal portion electrically connected to the burner.
- (9) The AUD15C tube unit of the AUD100 Series is made of a glass. Do not subject it to vibration or shock. In particular, when transporting combustion equipment, be sure to pack the flame detector in a dedicated packing case.

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

<http://www.azbil.com/products/bi/order.html>

*Specifications are subject to change without notice.*

The logo for azbil, featuring the word "azbil" in a bold, red, lowercase sans-serif font.

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