

Explosion-Proof Advanced Ultraviolet Flame Detector | AUD500C11000

The AUD500C11000 Explosion-Proof Advanced Ultraviolet Flame Detector is designed to detect ultraviolet radiation from an oil or gas burner flame, for use with both batch and continuous operation. The AUD500C11000 is used in combination with a dedicated burner controller. By means of a built-in shutter, any malfunction of the UV flame detector or burner controller is detected by the continuous self-checking (Dynamic Self-Check) function, ensuring highly reliable combustion safety control.



Specifications

Explosion-proof housing	Ex d IIC T4 (explosion protection: Ex, type of protection: d, flameproof electric group: II, gas subdivision: C, temperature class: T4)
Explosion-protection certification	Product certified by the Technology Institution of Industrial Safety (TIIS) and the National Supervision and Inspection Center for Explosion Protection and Safety Instrumentation (NEPSI).
Applicable types of flame*	City gas, natural gas, propane gas, kerosene, heavy oil, coke oven gas, hydrogen, chlorine, ammonia, naphtha, ethylene, etc.
Shutter voltage	Approx. 24 Vdc (supplied from burner controller)
Self-checking cycle	Approx. 75 cycles/min.
Insulation resistance	Between flange unit mounting conduit and F-terminal (or blue lead wire) Between flange unit mounting conduit and S1-terminal (or white lead wire) Between flange unit mounting conduit and G-terminal (or yellow lead wire) Between flange unit mounting conduit and S2-terminal (or white lead wire) 50 MΩ min. by 500 Vdc megger at each of above locations. (However, the tube unit must be removed.)
Dielectric strength	Between flange unit mounting conduit and F-terminal (or blue lead wire) Between flange unit mounting conduit and S1-terminal (or white lead wire) Between flange unit mounting conduit and G-terminal (or yellow lead wire) Between flange unit mounting conduit and S2-terminal (or white lead wire) There must be no abnormality when 1,500 Vac is applied for 1 minute or 1,800 Vac for 1 second at each of above locations. (However, the tube unit must be removed.)
Ambient operating temperature	-20 to +60 °C
Ambient storage temperature	-20 to +70 °C
Ambient storage humidity	90%RH at 45 °C (without condensation)
Vibration resistance	4.9 m/s ² or less (10 to 55 Hz for 2 hours in each in X, Y, and Z directions)
Pressure resistance for sighting pipe mounting part	690 kPa
Protection	IP67
Mounting posture	-45 to +90° (vertical mounting)
Mounting screw dimension	Parallel screw for pipe G2-1/4 (sighting pipe mounting part) * R1 male screw when a dedicated combination adapter is used
Lead wires	AWG18 heat-resistant silicone cables approx. 3 m, number of cores: 4 (yellow: G, blue: F, white: S1, white: S2)
Electric wire pipe mounting conduit	Explosion-proof packing type cable gland (G1/2)
Allowable wiring length	IV wires with 2.0 mm ² and max. 200 m in length
Materials	Mounting section: aluminum
Main body color	Purple (equivalent to DIC257)
Weight	Approx. 2.5 kg
Expiration date of tube unit and shutter unit	3 years

* 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 the flame monitoring is reliable.

Maintenance part (sold separately)

Name	Model No.
AUD maintenance kit (for AUD500)	AUD60A1010
AUD maintenance kit (for AUD500) with inspection results	AUD60A101D

AUD maintenance kit

<Model No.: AUD60A1010>

The AUD60A1010 maintenance kit includes the assembled shutter unit and tube unit. It also comes with consumables such as the AU500C main unit flange and tight-fitting cover O-ring, expiration date label*1, etc.



*1. Expiration date label



Example of an attached label



Model No. configuration

Name	Supplied cable length	Lens	Model No.
Explosion-proof Advanced Ultraviolet Flame Detector	3 m	Standard	AUD500C1100□□
	10 m		AUD500C1110□□
	3 m	Condenser	AUD500C1101□□
	10 m		AUD500C1111□□

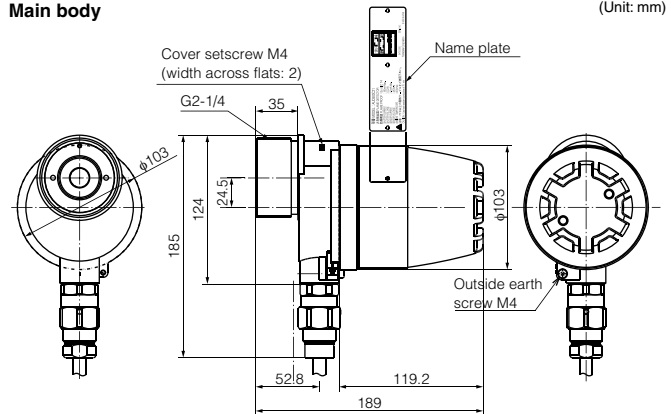
- 0 Standard product
- D Inspection results included
- OT Tropical treatment
- DT Inspection results included + tropical treatment
- Y Traceability certificate included
- E Heavy duty coating + inspection results
- H Heavy duty coating + inspection results + traceability certificate

Optional parts (sold separately)

Name	Model No.
Adapter for G2-1/4 female screw to R1 male screw with R1/8 hole for air purge	81441151-001

External dimensions

Main body (Unit: mm)



Adapter

