

# §INDUCED LIGHTNING DETECTION ARRESTERS§

## SIGNAL ARRESTER (2-WIRE SIGNAL)

## UV-2 SERIES



(Mounted on FSTT)



Indication after detecting operation  
UV-2-1 (24×43.5×15m)



Mounted on TRS)

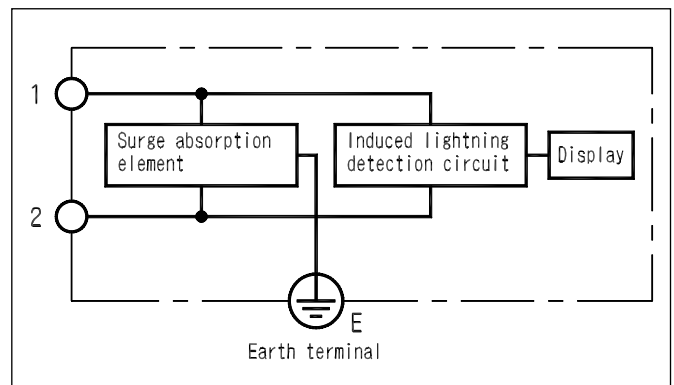
### Use

This device is an indoor installation type arrester that can absorb voltage of induced lightning surge caused on a signal line by lightning discharge, thus protects connected instruments.

### Features

1. Detects induced lightning occurred, changes the color of front indication from black to red to notify the operation of arrester and keeps the indication red after detection.
2. Exchange time for arrester is easily understandable because the operation result of arrester is visible.
3. Power source-free type.
4. Because the device can be installed in terminals directly, not only it is space saving, but also reduction of man-hour for wiring is possible.

### Block diagram



### Performance and common specifications

|  |       |   |
|--|-------|---|
| Spark over voltage                     | Line  | DC130V  |
|  | Earth | DC65V   |
| Clamping voltage                       | Line  | 500V (at 1,000A)  |
|  | Earth | 250V (at 1,000A)  |
| Response time                          |       | 0.1μs   |
| Discharge withstand current rating     |       | 1, 000A (8×20μs) IMAX=2, 500A 2 times   |
| Leakage current                        | Line  | 60μA (at DC130V)  |
|  | Earth | 60μA (at DC65V)   |
| Maximum line voltage                   |       | DC130V  |
| Induced lightning detection level      |       | Detection voltage 1, 000-2, 000V (1.2×50μs) 1 time<br>Detection current 200A 1 time |
| Operating temperature & humidity range |       | -10- + 55 , 5-90%RH   |
| Storage temperature range              |       | -40- + 70   |
| Appearance color                       |       | Munsell N1.5 (black)  |
| Weight                                 |       | 20g   |

### Precautions

In the case of using a magnetized driver at the time of wiring work, though display may move to some extent, there is no problem in operation. The display possibly changes if an object with strong magnetism is brought close to the device.

- A discharge element in the device may initiate a discharge and causes defective withstand voltage of the device if a withstand voltage test of the panel having the device installed in was carried out. Detach the device from the panel before implementing a withstand voltage test.

### Related equipment

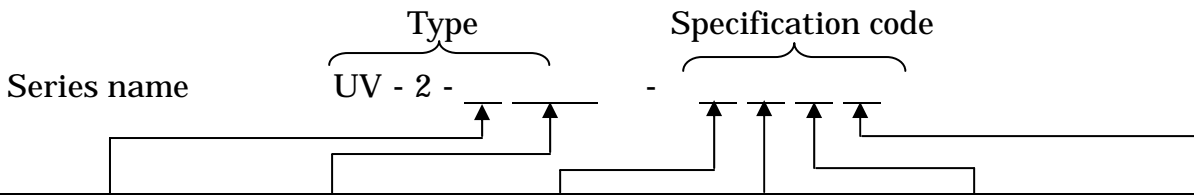
Tentative name: arrester checker  
Arrester life diagnosis function  
Detection indication reset function

# INDUCED LIGHTNING DETECTION ARRESTERS

## SIGNAL ARRESTER (2-WIRE SIGNAL)

## UV-2 SERIES

Specification code



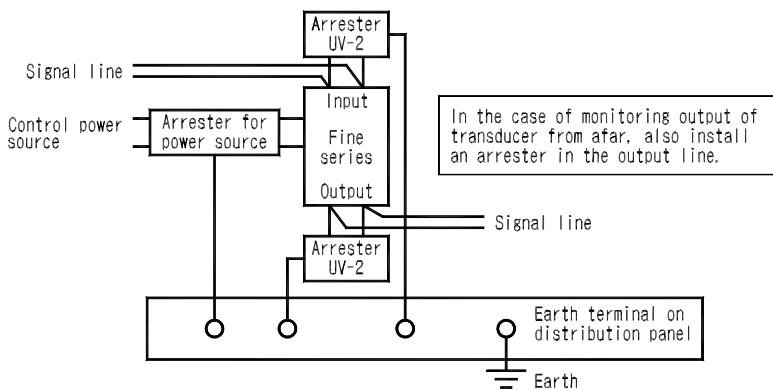
| Series name | Clamping voltage | Model compatible for installation                         | Protection circuit  | Length of earth lead wire     | Handling of earth lead terminal  | Shape of terminal joint |
|-------------|------------------|---|---|-------------------------------|--|-------------------------|
| UV-2        | 1:250V           | E1:<br>Small sized plug-in Fine series<br>One-output type | 1: input circuit protection<br>2: output circuit protection | 1: 40mm (Standard)<br>2: 0.5m | 1: with crimping terminal<br>(Crimping terminal used:<br>Maker:<br>Nippon Tanshi Co., Ltd.<br>Type: VDAV-1.25-4) | 1: U shape              |
|             |                  | E2:<br>Small sized plug-in Fine series<br>Two-output type | 1: input circuit protection                                 | 3: 1.0m                       |  | 2: circular hole shape  |
|             |                  | FL:<br>Rack-in RS series                                  | 1: input circuit protection<br>2: output circuit protection | Z: by specification           | 2: without crimping terminal   |                         |

### Example of use

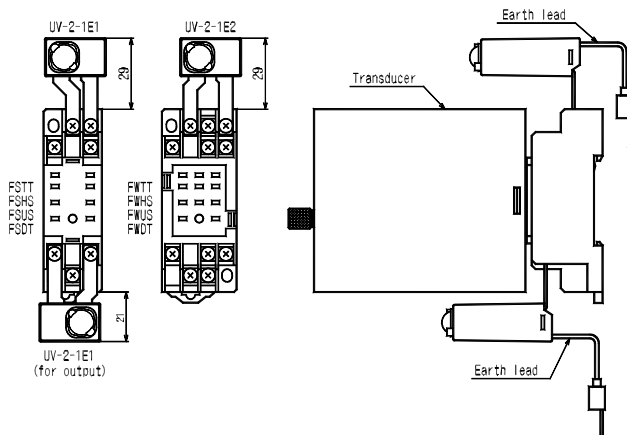
To enhance the effectiveness, please connect the ground wire in the shortest way.

#### Small sized plug-in Fine series

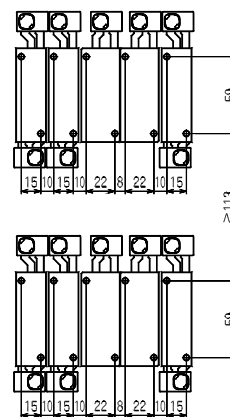
Because there is no earth terminal on small-sized plug-in arrester, connect earth lead of arrester to earth terminal of distribution panel in the shortest way before using it.



### State diagram



### Multiple unit installation



### Cautions on installation

It can not be installed in output side of small-sized two-output type. Use DA series signal arrester.

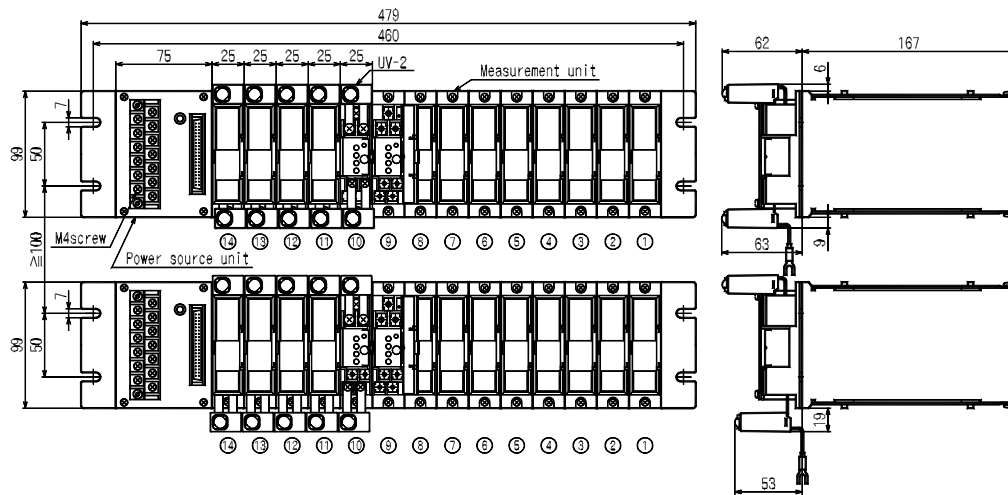
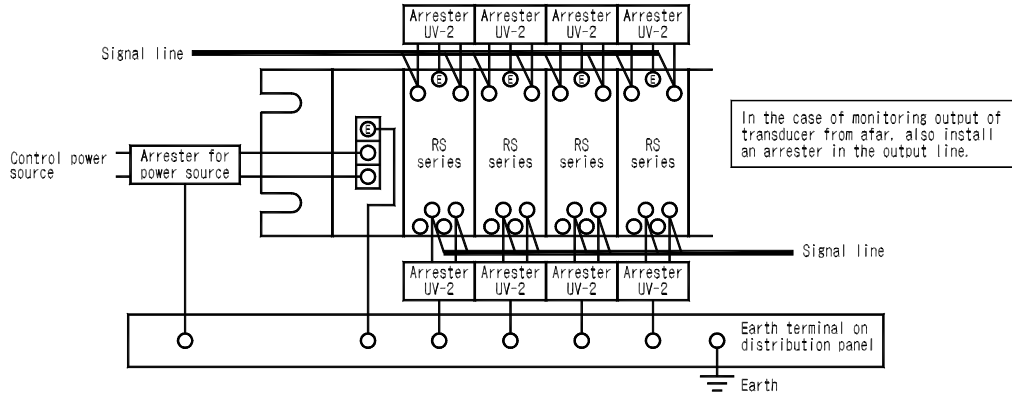
# INDUCED LIGHTNING DETECTION ARRESTERS

## SIGNAL ARRESTER (2-WIRE SIGNAL)

## UV-2 SERIES

### Rack-in transducer

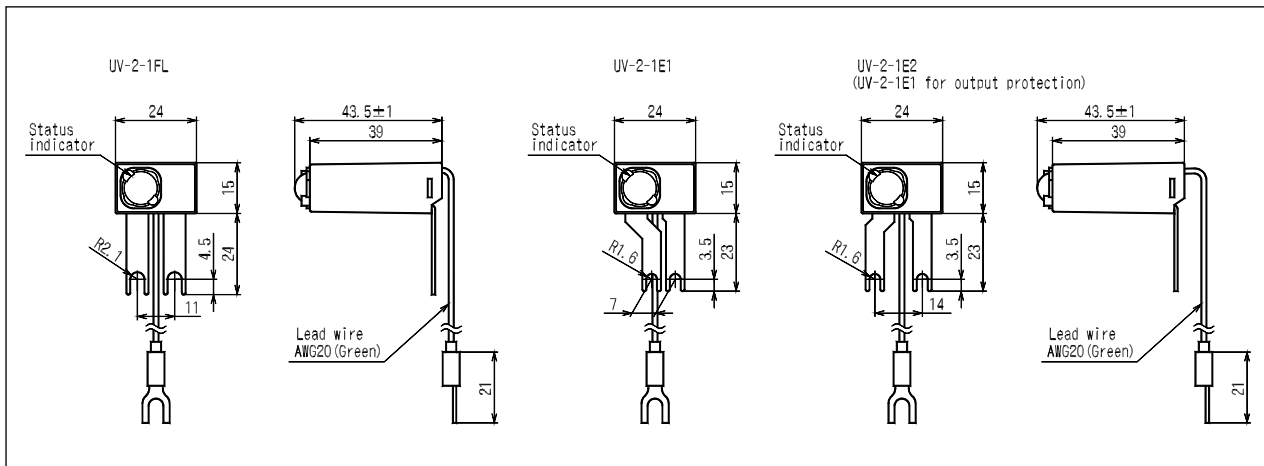
On the input side of rack-in transducer, connect earth lead of arrester to earth terminal (E) of each unit. In the case of installing on the output side, connect to earth terminals of distribution panel in the shortest way. In this case, connect it to the same earth terminal (E) to which earth terminal of power source unit is connected.



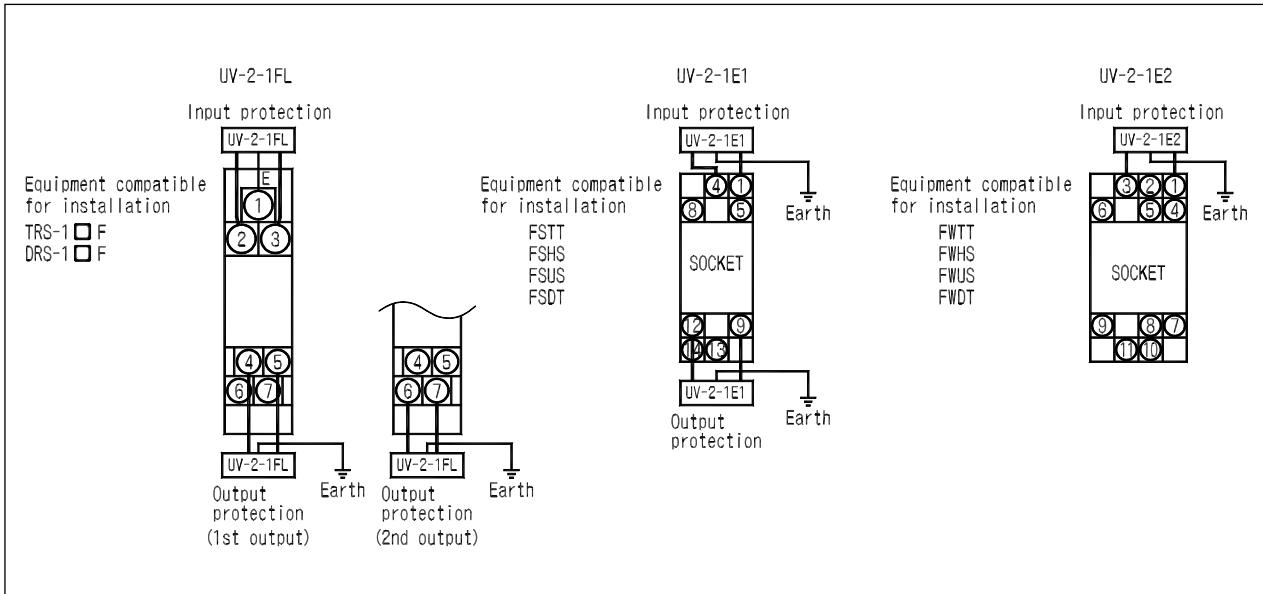
### Cautions on installation

It can only be installed in either one of 1st and 2nd output of small-sized two-output type rack-in transducer. Also, in the case of multiple unit installation in a rack case, connect all transducers collectively to either 1st or 2nd terminals.

### Dimensions



**Connection diagram**



**Model compatible for installation**

| Compatible product             | Type    | Arrester type | Input | Output |
|--------------------------------|---------|---------------|-------|--------|
| Small sized plug-in transducer | FSTT    | UV-2-1E1      |       |        |
|                                | FSHS    |               |       |        |
|                                | FSUS    |               |       |        |
|                                | FSDT    |               |       |        |
|                                | FWTT    | UV-2-1E2      |       | x      |
|                                | FWHS    |               |       | x      |
|                                | FWUS    |               |       | x      |
|                                | FWDT    |               |       | x      |
| Rack-in transducer             | TRS-11F | UV-2-FL       |       |        |
|                                | TRS-12F |               |       | *1     |
|                                | TRS-13F |               |       |        |
|                                | TRS-14F |               |       | x      |
|                                | DRS-11F |               |       |        |
|                                | DRS-12F |               |       | *1     |
|                                | DRS-14F |               |       | x      |

\*1: Can only be installed in either one of 1st and 2nd output of small-sized two-output type rack-in transducer.

**Purchase specifications**

Specifications

Type                      Specification code

UV - 2 - 1 E 1    1 1 1 1

Type name  
Specification code  
Quantity

Please specify the length in the case that specification code of earth wire is Z.