

# 174x IP65 Voltage Adapter

## *Instructions*

The IP65 Voltage Adapter (the Product or Adapter) enables safe and reliable operation of the 174x Logger family in harsh environments. The adapter seals and protects the terminals of the voltage measurement inputs and power supply from water and dust.

### ***How to Contact Fluke***

To contact Fluke, use one of these telephone numbers:

- USA: 1-800-760-4523
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Brazil: +55-11-3530-8901
- Europe: +31 402-675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- China: +86-400-810-3435
- Anywhere in the world: +1-425-446-5500

Go to [www.fluke.com](http://www.fluke.com) to register your Product and find more information.

To view, print, or download the latest manual supplement, visit <http://us.fluke.com/usen/support/manuals>.

---

PN 4947664 November 2017

©2017 Fluke Corporation. All rights reserved.

Specifications are subject to change without notification.

All product names are trademarks of their respective companies.

Fluke Corporation  
P.O. Box 9090  
Everett, WA 98206-9090  
U.S.A.

Fluke Europe B.V.  
P.O. Box 1186  
5602 BD Eindhoven  
The Netherlands

ООО «Флюк СИАЙЭС»  
125167, г. Москва,  
Ленинградский проспект дом 37,  
корпус 9, подъезд 4, 1 этаж

# Safety Information

A **Warning** identifies conditions and procedures that are dangerous to the user.

## Warning

To prevent possible electrical shock, fire, or personal injury:

- Read all safety information before you use the Product.
- Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.
- Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.
- Use Product-approved measurement category (CAT), voltage, and amperage rated accessories (probes, test leads, and adapters) for all measurements.
- Do not use test leads if they are damaged. Examine the test leads for damaged insulation and measure a known voltage.
- Do not use the Product if it is altered or damaged.
- Do not work alone.
- Do not make connections on hazardous live conductors in damp or wet environments.
- Do not use the Product around gas or vapor.
- Protect the Product against direct solar radiation.
- De-energize the circuit or wear personal protective equipment (PPE) when you remove test leads installed outdoors because the insulation properties can be compromised by dust and moisture.
- Do not apply or remove test leads on energized circuits under wet conditions.
- Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.
- Keep fingers behind the finger guards on the probes.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Do not apply more than the rated voltage, between the terminals or between each terminal and earth ground.
- Measure a known voltage first to make sure that the Product operates correctly.
- Do not touch the metal parts of one test lead when the other is still connected to hazardous voltage.
- Have an approved technician repair the Product.
- Remove the input signals before you clean the Product.

Table 1 is a list of symbols used on the Product or in these instructions.

Table 1. Symbols

| Symbol                                                                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Consult user documentation.                                                                                                                                                                                                                                                                                                                                                                                                          |
|    | WARNING. RISK OF DANGER.                                                                                                                                                                                                                                                                                                                                                                                                             |
|    | WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>CAT III</b>                                                                      | Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.                                                                                                                                                                                                                                                                           |
| <b>CAT IV</b>                                                                       | Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.                                                                                                                                                                                                                                                                                       |
| <b>CE</b>                                                                           | Conforms to European Union directives.                                                                                                                                                                                                                                                                                                                                                                                               |
|  | Certified by CSA Group to North American safety standards.                                                                                                                                                                                                                                                                                                                                                                           |
|  | Conforms to relevant Australian EMC standards.                                                                                                                                                                                                                                                                                                                                                                                       |
|  | This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste. |

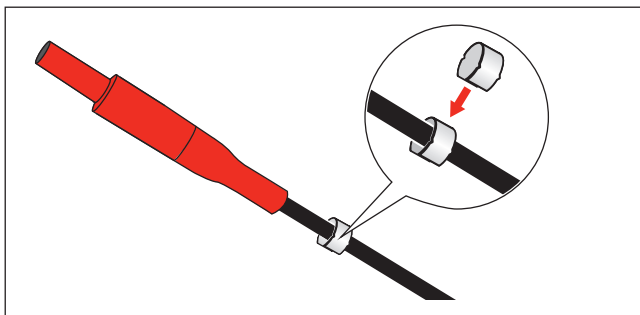
## Before You Start

Below is a list of the items included with purchase. Carefully unpack and inspect each item.

- 1x IP65 Voltage Adapter
- 3x Screw M3 X 12 mm
- 2x Coupler F/F 4 mm
- 2x Alligator Clips (blue)
- 1x Wire Clip Set

To prepare the Adapter for installation:

1. Attach the cable marker clips to the test leads for the three phases and neutral N at the plug end.
2. Use the markers A, B, C, N or 1, 2, 3, N as appropriate for the region. See Figure 1.



**Figure 1. Cable Marker Clips**

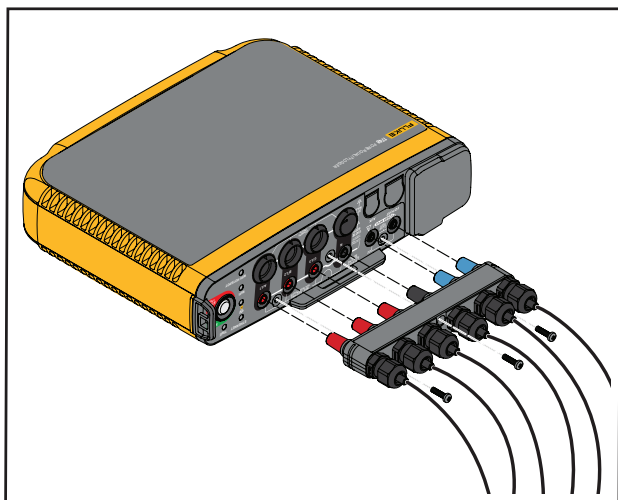
## Installation

1. Insert the Adapter into the input terminals of the Logger.

### *Note*

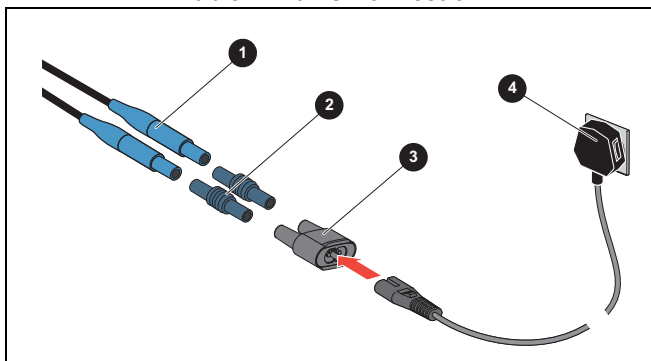
*Apply force to the Adapter body only. Do not push on the test leads.*

2. Attach the Adapter with the three screws (M3 x 12 mm). See Figure 2.
3. Use the mains adapter MA-C8 and the included couplers to connect the Logger to a mains outlet. See Table 2.



**Figure 2. Adapter Attachment**

**Table 2. Mains Connection**



| Item | Description  |
|------|--------------|
| 1    | Safety Plugs |
| 2    | Couplers     |
| 3    | MA-C8        |
| 4    | Power Cord   |

## Removal

### Note

*For frequent use in IP65 environments, keep the Adapter installed on the Logger.*

To remove the Adapter from the Logger:

1. Unfasten the screws.

2. Pull on both the left and the right sides simultaneously to avoid damage to the Adapter.
- As an option, insert a screwdriver 3/16 inch (5 mm) into the slots on the left and right side and twist to lift the Adapter.

*Note*

*Do not pull on the test leads.*

**Maintenance**

Clean the Adapter with a soft cloth, mild soap, and water. To avoid damage, do not clean with abrasives or solvents.

**Safety Specifications**

**General**

- Test lead length..... 2.5m (8.2 ft)  
Test lead gauge..... 1 mm<sup>2</sup> (AWG 18)

**Temperature**

- Operating..... -25 °C to +50 °C (-13 °F to +122 °F)  
Storage..... -25 °C to +60 °C (-13 °F to +140 °F)

- Operating Humidity** ..... IEC60721-3-3: 3K6:  
-25 °C to +30 °C (-13 °F to +86 °F): ≤100 %  
40 °C (104 °F): 55 %  
50 °C (122 °F): 35 %

**Altitude**

- Operating..... 2000 m (up to 4000 m derate to 1000 V  
CAT II/600 V CAT III/300 V CAT IV)  
Storage..... 12 000 m

**Safety**

- Overvoltage ..... IEC 61010-1: Overvoltage Category IV  
500 V, Pollution Degree 2  
Measurement ..... IEC 61010-031: CAT IV 600 V / CAT III  
1000 V

**LIMITED WARRANTY AND LIMITATION OF LIABILITY**

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that Service Center with a description of the problem.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

11/99