

**FLUKE**®

# 725Ex

Multifunction Process Calibrator

## Safety Information

PN 2151996

January 2005 Rev. 3, 5/18

© 2005-2018 Fluke Corporation. All rights reserved. Specifications are subject to change without notice.

All product names are trademarks of their respective companies.

### **LIMITED WARRANTY AND LIMITATION OF LIABILITY**

This Fluke product will be free from defects in material and workmanship for three years 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.

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

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













# 725Ex

## Multifunction Process Calibrator

### Safety Information

Read the entire Users Manual and the 725Ex Multifunction Process Calibrator CCD (Concept Control Drawing) before using the Calibrator. A **Warning** identifies conditions and actions that pose hazard(s) to the user; a **Caution** identifies conditions and actions that may damage the Calibrator or the equipment under test. Safety and electrical symbols used in this sheet and on the Calibrator are displayed in Table 1.

**Table 1. Symbols**

Symbol	Meaning	Symbol	Meaning
	WARNING. RISK OF DANGER.		Consult user documentation.
	Power ON/OFF		Double insulated
	Earth ground		Pressure
	Battery		Certified by CSA Group to North American safety standards. Certification # LR110460-2.
	Direct current		Conforms to relevant Australian Safety and EMC standards.
	Conforms to relevant South Korean 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.		

### **⚠ Warnings and Cautions**

To prevent fire, explosion, or personal injury:

- Use the Calibrator only as described in the User Manual and the Fluke 725Ex CCD (Concept Control Drawing) or the protection provided by the Calibrator may be impaired.
- Inspect the Calibrator before use. Do not use it if it appears damaged.
- Check the test leads for continuity, damaged insulation, or exposed metal. Replace damaged test leads.
- When using probes, keep fingers behind the finger guards on the probes
- Never apply more than 30.0 V between the input terminals, or between any terminal and earth ground.
- Applying more than 30.0 V to the input terminals invalidates the Calibrator's Ex Approval and may result in permanent damage to the Calibrator so it can no longer be used.
- Use the proper terminals, mode, and range for the measuring or sourcing application.
- To prevent damage to the device under test, be sure the Calibrator is in the correct mode before connecting the test leads.
- Never open the Calibrator case. Opening the case invalidates the Calibrator's Ex Approval.
- Make sure the battery door is closed and latched before entering an Ex hazardous area or using the Calibrator. See *Ex Hazardous Areas* in the Users Manual.
- Remove the Calibrator from the Ex hazardous area before opening the battery door. See *Ex Hazardous Areas* in the Users Manual.

- When servicing the Calibrator, use only specified replacement parts. Do not open the Calibrator case. Opening the case invalidates the Calibrator's Ex Approval.
- Do not allow water inside the case.
- Do not operate the Calibrator around explosive dust.
- When using a pressure module, make sure the process pressure line is shut off and depressurized before connecting it or disconnecting it from the pressure module.
- Use only 4 AA batteries listed in Table 2. Approved Batteries, properly installed in the Calibrator case, to power the Calibrator.
- Disconnect test leads from the circuit under test before changing to another measure or source function.
- When measuring the pressure of toxic or flammable gases, care must be taken to minimize the possibility of leakage. Confirm that all pressure connections are properly sealed.
- Do not use in a damp or wet environment.

### **⚠ Caution**

To avoid possible damage to Calibrator or to equipment under test:

- Disconnect the power and discharge all high-voltage capacitors before testing resistance or continuity.
- Use the proper jacks, function, and range for the measurement or sourcing application.

- The MEASURE/SOURCE terminals on the Calibrator are sensitive to Electro-static discharge (ESD) at levels above  $\pm 2$  kV. The Calibrator can experience temporary loss of measurement or source functionality. This can require you to restore product function, or cause permanent damage to the Calibrator. Usually, a disruptive ESD event occurs only when you connect the test leads to the circuits being measured or if you have a large static charge and touch the Calibrator terminals. The most common cause of ESD is a user that carries the Calibrator across a carpet, or other similar triboelectric activity, before they connect to the circuit being measured.

### **Faults and Damage**

Applying a voltage  $>30$  V to the input of the Calibrator invalidates its Ex Approval and may impair its safe operation in an Ex hazardous area. See *Ex Hazardous Areas* in the Users Manual. If there is any reason to suspect that the safe operation of the Calibrator has been affected, it must be immediately withdrawn from use, and precautionary measures must be taken to prevent any further use of the Calibrator in an Ex hazardous area. See *Ex Hazardous Areas* in the Users Manual.

Fully observe all instructions, warnings, and cautions contained in this manual. In case of doubt due to translation and/or printing errors, refer to the original English Users manual.

The safety features and integrity of the unit may be compromised by any of the following:


- External damage to the case
  - Internal damage to the Calibrator
  - Exposure to excessive loads
  - Incorrect storage of the Calibrator
  - Damage sustained in transit
  - Certification markings are illegible
- Functioning errors occur
  - Permitted limitations are exceeded
  - Functioning errors or obvious measurement inaccuracies occur which prevent further measurement by the Calibrator
  - Opening the case

### **Safety Regulations**

The use of the Calibrator meets the requirements of the regulations providing that the user observes and applies the requirements as stated in the regulations and that improper and incorrect use of the Calibrator is avoided.

- Use must be restricted to the specified application parameters.
- Do not open the Calibrator.
- Do not remove or install the batteries within the Ex hazardous area. See *Ex Hazardous Areas* in the Users Manual.
- Do not carry additional batteries within the Ex hazardous area. See *Ex Hazardous Areas* in the Users Manual.
- Use only type-tested batteries. The use of any other batteries will invalidate the Ex-certification and present a safety risk.
- Do not use the Calibrator in any circuit where the voltage or transients may exceed 30 V.
- Only use the Calibrator in circuits with compatible entity parameters. When the calibrator is used in an Ex hazardous area, unless the area is known to be safe, do not connect to any circuits that exceed the entity parameters defined on the 725Ex CCD. See *Ex Hazardous Areas* in the Users Manual.

**Certification Information**

-  Class I Div. 1 Groups B, C, and D  
Class I Zone 0 AEx/Ex ia IIB 171 °C
- Ta = -10 °C... +55 °C
- Manufactured by Fluke Corporation  
6920 Seaway Blvd.  
Everett, WA 98203, USA

**Table 2. Approved Batteries**

<b>Battery Manufacturer (All Batteries Alkaline- AA 1.5 V)</b>	<b>Type</b>
Duracell	MN1500
Eveready (Energizer)	E91

**Contact Fluke**

To contact Fluke, call one of the following telephone numbers:

- Technical Support USA: 1-800-44-FLUKE (1-800-443-5853)
- Calibration/Repair USA: 1-888-99-FLUKE (1-888-993-5853)
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31 402-675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- China: +86-400-921-0835
- Brazil: +55-11-3530-8901
- Anywhere in the world: +1-425-446-5500

Or, visit Fluke's website at [www.fluke.com](http://www.fluke.com). To register your product, visit <http://register.fluke.com>. To view, print, or download the manual or latest manual supplement, visit <http://us.fluke.com/usen/support/manuals>.