

Fluke 707Ex Intrinsically Safe Loop Calibrator

The fast, one-handed tool for loop checks in Ex zones

The 707Ex is an intrinsically safe loop calibrator for use in explosion endangered areas. The Fluke 707Ex is certified in accordance with the ATEX directive (Ex II 2 G Eex ia IIC T4) in Zones 1 and 2. The 707Ex is also certified to operate in accordance with Factory Mutual N.I. Class 1, Division 2 areas Group A-D.

- Large display and simple, quick-click push rotary button for easy one-handed operation.
- Simultaneous mA and % readout for quick, easy, interpretation of readings.
- mA accuracy of 0.015%, superior to other loop calibrators.
- 1 μ A resolution for mA source, simulate and measure.
- Push button with 25% steps for fast, easy linearity checks.
- 0-100% "span check" for fast confirmation of zero and span.
- Selectable slow ramp, fast ramp, and step ramp to provide smooth outputs for valve slewing and loop functional tests.
- Internal loop supply, so you can power and read a transmitter at the same time without carrying a DMM.
- Measures V dc to 28 V.
- Single 9 V battery that is easily changed.
- 0-20 mA or 4-20 mA default start up modes.
- Innovative output adjustment dial with 1 μ A and 100 μ A resolution.
- HART® compatible resistance is connected in series with the loop supply for compatibility with HART communicators.



Specifications

Summary Specifications (18° to 28°C, one year)

Function	Range	Resolution	Accuracy
Voltage measure	0 to 28 V	0.001 V	\pm (0.015% Rdg + 2 counts)
mA measure	0 to 24 mA	0.001 mA	\pm (0.015% Rdg + 2 LSD)
mA source ¹	0 to 24 mA	0.001 mA	\pm (0.015% Rdg + 2 LSD)
mA simulate ²	0 to 24 mA	0.001 mA	\pm (0.015% Rdg + 2 LSD)
Loop supply	24 V dc	n/a	24 V \pm 1 V dc, no load

Temperature Coefficient, -10 to 18 °C, 28 to 55 °C, \pm .005% of range per °C;

¹ Max load, 700 Ohms at 20 mA

² Max applied voltage for simulation, 28V

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General Specifications

Maximum voltage	28 volts
Non-operating temperature	-30 to 60 °C
Operating temperature	-10 to 50 °C
Relative humidity	0 to 95% (0 to 30 °C); 0 to 75% (30 to 40 °C); 45% up to 50 °C
Operating altitude	3,000 meters max.
Shock and vibration	Per MIL-T-28800 for a Class 2 Instrument
Safety	CSA C22.2 No. 1010.1: 1992
EMC	EN50082-1:1992 and EN55022:1994 Class B
ATEX Certification	Ex II 2 G Eex ia IIC T4 Zones 1 and 2, ZELM 02 ATEX 0120 X
FM Certification	N.I. Class 1, Division 2, Groups A-D
CE certification	EN61010-1 and EN61326
Size (HxWxD)	152 mm x 70 mm x 41 mm (6.0 in x 2.8 in x 1.6 in)
Size (HxWxD) with Holster	164 mm x 75 mm x 47 mm (6.4 in x 2.9 in x 1.9 in)
Weight	224 g (8 oz) 350 g (12.3 oz); With Holster
Battery	One 9 V alkaline
Battery life	18 hours typical, at 12 mA
Warranty	1 year



Operating Modes

Measure current
Measure current/Loop power
Measure voltage
Simulate current; manual adjust; scroll up/down
Simulate current; 25% steps; 0 - 100% steps
Simulate current; Auto ramp (smooth/step)
Source current; manual adjust; scroll up/down
Source current; 25% steps; 0 - 100% steps
Source current; Auto ramp (smooth/step)

ATEX Certified

Fluke. *Keeping your world up and running.*

Ordering Information

Fluke-707Ex Intrinsically Safe Loop Calibrator

Each calibrator includes: Safety designed test leads, alligator test Clips, Holster, Instruction manual on CD (English, French, German, Spanish, Italian, Dutch, Norwegian, Danish, Swedish, Finnish, Portuguese, Korean, Chinese, Japanese), 707Ex CCD Content Control Drawing, CE, CSA, FM and ATEX markings.



S J ELECTRONICS
POWER • TEST & MEASUREMENT

0800 583 44 55

Tel: +44 1536 416 200

Fax: 0800 583 55 66

sales@sjelectronics.co.uk

www.sjelectronics.co.uk



Fluke Corporation
P.O. Box 9090
Everett, WA USA 98206

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

For more information call:
In the U.S.A. (800) 443-5853
or Fax (425) 446 -5116
In Europe/M-East/Africa +31 (0)40 2 675 200
or Fax +31 (0)40 2 675 222
In Canada (905) 890-7600
or Fax (905) 890-6866
From other countries +1 (425) 446 -5500
or Fax +1 (425) 446 -5116

Visit us on the world wide web at:
<http://www.fluke.com>

Fluke (UK) Ltd.
52 Hurricane Way
Norwich
Norfolk
NR6 6JB
United Kingdom
Tel.: 0207 942 0700
Fax: 0207 942 0701
E-mail: industrial@uk.fluke.nl

Visit us on the world wide web at:
<http://www.fluke.co.uk>

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