

# Fluke 705, 707 and 715 Loop Calibrators

## Complete family of volt/mA calibrators



### Fluke 707 and 705

Two powerful models to choose from

- Innovative output adjustment dial on 707 provides 1  $\mu$ A and 100  $\mu$ A resolution and one-hand operation
- Large display and simple interface for ease of use
- Simultaneous mA and % readout for quick, easy interpretation of readings
- mA accuracy of 0.015 % on the Fluke 707 and 0.02 % on the 705
- HART™ mode on 707 connects 250 ohm resistor in series with 24 V loop for compatibility with HART communicators
- Push button 25 % steps for fast, easy linearity checks
- "Span Check" for fast confirmation of zero and span
- Selectable slow and fast linear step ramp provide ramping outputs for valve slewing, remote testing and loop functional tests
- 24 V internal loop supply, so you can power and read a transmitter at the same time without carrying a DMM
- 0 to 20 mA or 4 to 20 mA default start up modes.

**Intrinsically safe 707 version available** (see page 38)



### Troubleshooting process loops:

#### Application note

(Literature code 1989137)

In process systems, problems with the loop can bring things to a screeching halt. In this application note, find out how to use Fluke test tools to identify current loop problems such as noise, ripple and drift.



### Fluke 715 Volt/mA Calibrator

- Source voltage to 100 mV or 10 V
- Measure loop current (0 to 20 mA, 4 to 20 mA) signals with 0.01 % accuracy and 1  $\mu$ A resolution
- Measure voltage output process signals from PLCs, transmitters
- Source or simulate 24 mA loop current
- 24 V loop supply with simultaneous current measurement

## Specifications - 705, 707 and 715

Functions	Fluke 705 and 707	Fluke 715
<b>Voltage measurement</b>		
Range	0 to 28 V	0 to 200 mV    0 to 25 V
Resolution	1 mV	10 $\mu$ V    1 mV
Accuracy	705: 0.025 % Rdg + 1 LSD 707, 707Ex: 0.015 % Rdg + 2 LSD	0.01 % Rdg + 2 LSD
<b>Current measurement</b>		
Range	0 to 24 mA	0 to 24 mA
Resolution	0.001 mA	0.001 mA
Accuracy	705: 0.02 % Rdg + 2 LSD 707, 707Ex: 0.015 % Rdg + 2 LSD	0.01 % + 2 LSD
<b>Current sourcing</b>		
Range	0 to 20 mA or 4 to 20 mA <sup>1</sup>	0 to 20 mA or 4 to 20 mA <sup>1</sup>
Accuracy	705: 0.025 % Rdg + 2 LSD 707, 707Ex: 0.015 % Rdg + 2 LSD	0.01 % Rdg + 2 LSD
Drive capability	705: 1000 $\Omega$ @ 24 mA 707: 1200 $\Omega$ @ 24 mA 707Ex: 700 $\Omega$ @ 20 mA	1000 $\Omega$ @ 24 mA
Loop power while measuring mA	24 V	24 V
<b>Voltage sourcing</b>	N/A	0 to 200 mV or 0 to 20 V
Display current and % of span	Yes	mA or %
Auto step, auto ramp	Yes	Yes
Span Check	Yes	Yes
Battery life	18 hours typical, at 12 mA	18 hours typical, at 12 mA

<sup>1</sup>Will over-range to 24 mA



### Included accessories

#### Fluke 705, 707 and 707Ex:

Protective holster, TL75 Test Leads, AC72 Test Clips, instruction sheet (14 languages).

**Fluke 715:** Protective yellow holster, test leads and alligator clips, single 9 V alkaline battery, instruction sheet (14 languages).

### Ordering information

Fluke-705    Loop Calibrator  
Fluke-707    Loop Calibrator  
Fluke-707Ex    IS Loop Calibrator  
Fluke-715    Volt/mA Calibrator

## Recommended accessories - 705, 707, 707Ex and 715 Calibrators



**TL28A**  
Heavy Duty  
Test Lead Set  
See page 46



**TL220**  
SureGrip Industrial  
Test Lead Set  
See page 45



**C25**  
Large Soft Case  
See page 54



**C550**  
Tool Bag  
See page 54



**PV350**  
Pressure Vacuum  
Module  
See page 49

For more information and detailed specifications, go to [www.fluke.com/loop](http://www.fluke.com/loop)