

## 1362 Precision Digital Multimeter



- 6.5 digit resolution
- DCV, ACV, and Resistance functions
- Ratio and current options
- 1000 readings/second
- MATE (CIIL) version
- Backplane triggers
- SCPI-compatible command
- Language
- Single-slot, C-size VXIbus module
- VXI *Plug&play* driver provided

The Fluke 1362 is a message-based, single-width, C-size card DMM conforming to VXI specification revision 1.4. It provides DCV, ACV, and  $\Omega$ , with resolutions between 4.5 and 6.5 digits and read rates up to 1000 per second. At high read rates where the system controller may

limit the speed of continuous operation, an internal data store can be set to record a block of between 1 and 1000 readings. Additional options provide DCI and ACI functions to 2 A and a second ratio input channel. Dual triggering is provided, using either an internal system trigger or an external TTL level at the front panel or through use of the VXI backplane trigger lines.

### Specifications

#### DC voltage

**Ranges:** 100 mV to 300V in decades.  
**Resolution:** 100 nV, 6.5 digits.  
**Accuracy:** 90 days,  $23^{\circ} \pm 5^{\circ} \text{C}$ ,  $\pm$  (ppmR + ppmFS). FS = 2 x Range.  
**100 mV range:** 30 + 6.  
**1V Range:** 20 + 3.  
**10V range:** 20 + 2.  
**100V & 300V ranges:** 30 + 3.  
**Read rate:** 5/s at 6.5 digits, 1000/s at 4.5 digits.  
**Input impedance:** 10 G $\Omega$  (0.1V to 10V ranges) 10 M $\Omega$  (100V & 300V ranges).  
**CMRR (1 k $\Omega$  unbalance):** >146dB at DC > 80dB + NMRR at 1-60Hz.  
**NMRR:** Filter out > 54dB at 50/60Hz +0.1 % filter in add 20dB to above.  
**Protection all ranges:** 300V RMS.

#### True RMS AC voltage

**Ranges:** 100 mV to 300V in decades.  
**Resolution:** 1  $\mu$ V, 5.5 digits.  
**Accuracy:** 90 days,  $23^{\circ} \pm 5^{\circ} \text{C}$ , Signal >1 %FS,  $\pm$  (%R + %FS); FS = 2 x Range.

**10 - 40 Hz range:** 0.4 + 0.1.  
**40 Hz - 20 kHz range:** 0.035 + 0.01.  
**20 - 50 kHz range:** 0.1 + 0.02.  
**50 - 100 kHz range:** 0.16 + 0.03.  
**Hf accuracy:** (1V and 10V ranges, typical).  
**100 - 300 kHz:**  $\pm$  1 %R + 0.1 %FS.  
**300 kHz - 1 MHz:**  $\pm$  2 %R + 1 %FS.  
**Read rate:** 12 readings/sec max.  
**Input impedance:** 1M $\Omega$ /100pF  
**CMRR (1 k $\Omega$  unbalance):** >80 dB at DC to 60 Hz.  
**Crest factor:** 5:1 at full range.  
**Protection at all ranges:** 300V RMS.

#### Resistance

**Ranges:** 100  $\Omega$  to 10 M $\Omega$  in decades.  
**Resolution:** 10  $\mu$  $\Omega$ , 6.5 digits.  
**Accuracy:** 90 days,  $23^{\circ} \pm 5^{\circ} \text{C}$ ,  $\pm$  (ppmR + ppmFS); FS = 2 x Range.  
**100  $\Omega$  range:** 35 + 6.  
**1 k $\Omega$  & 10 k $\Omega$  range:** 30 + 3.  
**100 k $\Omega$  range:** 40 + 3.  
**1 M $\Omega$  range:** 80 + 3.  
**10 M $\Omega$  range:** 200 + 4.  
**Read rate:** As DCV function.  
**Protection all ranges:** 250V RMS  
**Max. lead resistance:** 100  $\Omega$  in any or all leads.  
**Open circuit voltage:** 10V.

#### DC current

**Range:** 1000 mA.  
**Resolution:** 1  $\mu$ A, 6.5 digits.  
**Accuracy:** 90 days,  $23^{\circ} \pm 5^{\circ} \text{C}$ ,  $\pm$  (ppmR + ppmFS); FS = 2 X range.  
**Range:** 200 + 10.  
**Read rate:** as DCV function.

# 1362 Precision Digital Multimeter

## AC current

**Ranges:** 1000 mA.

**Resolution:** 1 nA, 5.5 digits.

Accuracy: 90 days, 23° ± 5° C, ± (%R + %FS):

**10 - 40 Hz:** 0.4 + 0.1.

**40 Hz - 3 kHz:** 0.08 + 0.03.

**Read rate:** As ACV function.

## Triggering

1362S: Selectable front-panel or VXI backplane triggers, including measurement complete.

Conforms to VXI synchronous and asynchronous protocol.

## Remote programming

IEEE-488.2 & SCPI.

## General

**Operating temp:** 0° to +50° C.

## Dimensions:

Single-slot, C-size: 234 mm (9.2 in) high, 340 mm (13.4 in) wide, 30 mm (1.2 in) deep.

**Weight:** 1.6 kg (3.5 lb).

## Power:

1.5A (5V), 0.5A (± 12V) approx.

## Configuration:

VXIbus SCPI-compatible DMM (DCV, ACV, & Ω).

## Ordering information

**Model 1362S:** VXIbus Precision digital Multimeter and VXI *Plug&play* driver.

### 1362S-30:

DCI & ACI current converter.  
Current to 2 Amps.

### 1362S-40:

Comprehensive ratio.

### Accessory 1505:

Single input lead.

### Accessory 1506:

Ratio input lead.

Fluke publishes additional catalogs, CD-ROMs and brochures with information about its ranges of products. For more information, contact your Fluke representative.

**Fluke.** *Keeping your world up and running.*

**Fluke Corporation**  
Po Box 9090, Everett, WA  
USA 98206-9090

**Fluke Precision Measurement**  
Hurricane Way, Norwich, Norfolk  
NR6 6JB, United Kingdom

Fluke Europe B.V.  
PO Box 1186, 5602 BD  
Eindhoven, The Netherlands

For more information call:  
USA (800) 443-5853 or Fax (425) 356-5116  
Europe (31 40) 2 675 200 or Fax (31 40) 2 675 222  
Canada (800) 36-FLUKE or Fax (905) 890-6866  
Other countries (425) 356-5500 or Fax (425) 356-5116  
Internet: [www.calibration.fluke.com](http://www.calibration.fluke.com)

©2000 Fluke Corporation.