Datasheet

Industrial TRMS AC Multimeter

SEFRAM7214

SEFRAM7214: Dedicated for industry, reliability and performance without compromise.



KEY FUNCTIONS

- **TRMS measurements**: Optimal accuracy for voltages and currents, especially on non-sinusoidal signals
- **NCV (non-contact voltage) detection**: Sensor at the top of the device and LIVE mode via the test probe for more accurate voltage measurements
- **Display**: Backlit LCD / 6000 measurement counts
- **Integrated LED lighting**: For working in poorly lit or dark areas
- **Integrated test probe holder**: holds probes in place when taking measurements in electrical cabinets, for greater safety and ergonomics
- **Safety**: CAT III 1000 V / CAT IV 600 V

The **SEFRAM7214** is a TRMS digital multimeter designed for use in both commercial and industrial environments, offering great versatility and optimal safety thanks to its CAT IV 600 V rating.

It allows accurate measurements of voltage (up to 1000 V DC and 750 V AC), current (up to 10 A), resistance, capacitance, frequency, and temperature, all in a compact format.
Equipped with integrated LED lighting, the SEFRAM7214 is perfectly suited to low-light environments.

Its test lead attachment points facilitate measurements in electrical cabinets by holding the probes securely in place, for faster and safer work.

The NCV (non-contact voltage detection) sensor, located at the end of the device, makes it easy to detect the presence of voltage without direct contact.

For more accurate measurements, the LIVE function can be activated via the test probe, and the voltage level is then indicated both on the screen and by LED indicators.

The SEFRAM7214 combines reliability, compactness, and accuracy, making it an indispensable tool for all professionals looking for a robust, comprehensive, and accurate multimeter.

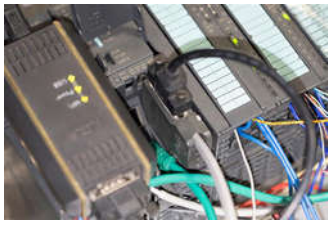
FEATURES

- **AC/DC voltage**: From a few mV up to 1000 V DC and 750 V AC
- **AC/DC current**: From a few µA up to 10 A
- **Resistance**: Up to 60 MΩ
- **Capacitance**: Up to 100 mF
- **Frequency**: Up to 10 MHz
- **Duty cycle**: From 1% to 99%
- **Temperature**: Supports type K thermocouples
- **Diode and continuity test**: With built-in audible signal (buzzer)
- **AC bandwidth**: Up to 1 kHz

APPLICATIONS



Industry



Automatism



Tertiary

Industrial TRMS AC Multimeter
SEFRAM7214

Overview



Non-contact voltage detection probe

Voltage level bargraph

6000-count backlit LCD display

Shockproof protective sleeve

Function buttons

Rotary switch for accessing measurement functions

Input terminal for measuring voltage, continuity, resistance, temperature

Inputs ranging from a few mA to 10 A

Specifications

Model	SEFRAM7214
DC voltage	
Measurement range	600 mV to 1000 V (in 5 ranges)
Resolution	0.1 mV to 1V (in 5 ranges)
Basic accuracy	± (0.5 % of reading + 3 digits)
Input impedance	10 MΩ
Maximum input voltage	1000 V DC or 750 V AC RMS
AC voltage	
Measurement range	6 V to 750 V (in 4 ranges)
Resolution	1 mV to 1 V (in 4 ranges)
Basic accuracy	± (0.8 % of reading + 3 digits)
Input impedance	10 MΩ
Frequency	40 Hz to 1000 Hz TRMS
Maximum input voltage	1000 V DC or 750 V AC RMS
DC current	
Measurement range	60 µA to 10 A (in 6 ranges)
Resolution	0.01 µA to 10 mA (in 6 ranges)
Basic accuracy	±(0.8 % of reading + 3 digits)
Overload protection	Fuse for the mA measurement range: FF 600 mA / 1,000 V Fuse for the 10 A measurement range: FF 10 A / 1,000 V The fuse must be replaced if it blows
Maximum input current	mA position: 600 mA DC/AC 10 A position: 10 A DC/AC

Model	SEFRAM7214
AC current	
Measurement range	60 µA to 10 A (in 6 ranges)
Resolution	0.01 µA to 10 mA (in 6 ranges)
Basic accuracy	±(1 % of reading + 3 digits)
Overload protection	Fuse for the mA measurement range: FF 600 mA / 1,000 V Fuse for the 10 A measurement range: FF 10 A / 1,000 V The fuse must be replaced if it blows
Maximum input current	mA position: 600 mA DC/AC 10 A position: 10 A DC/AC
Frequency response	40 Hz to 1 kHz TRMS
Frequency	
Measurement range	9.999 Hz to 9.999 MHz (in 7 ranges)
Resolution	0.001 Hz to 0.001 MHz (in 7 ranges)
Basic accuracy	± (1 % of reading + 3 digits)
Protection	600V AC/DC
Resistance	
Measurement range	600 Ω to 60 MΩ (in 6 ranges)
Resolution	0.1 Ω to 10 kΩ (in 6 ranges)
Basic accuracy	± (0.8 % of the reading + 3 digits)
Protection	600 V DC or AC RMS
Open-circuit voltage	1 V

Specifications

Model	SEFRAM7214
Capacitance	
Measurement range	6 nF to 0.01 mF (in 8 ranges)
Resolution	0.001 nF to 0.1 mF (in 8 ranges)
Basic accuracy	±(4 % of reading + 3 digits)
Protection	600 V DC or AC RMS
Temperature	
Measurement range	-20 °C to 1000 °C
Resolution	1 °C
Basic accuracy	±(1 % of reading + 3 digits)
Diode	
Measurement range	0-3 V
Resolution	0.001 V
Test conditions	Direct current: approximately 1 mA; open circuit voltage: approximately 3.2 V. The display unit indicates the approximate value of the forward voltage drop across the diode.
Continuity	
Measurement range	600 Ω
Resolution	0.1 Ω
Description	The device emits an audible signal when the measured resistance value is less than 35 Ω.
Test conditions	Test current: approximately 1 mA Open circuit voltage: 2.4 V

Model	SEFRAM7214
General characteristics	
Display	LCD type, backlit
	6000 counts
Measurement rate	3 measurements/s
Out-of-range indication	“OL” display
Polarity indication	The “-” symbol is automatically displayed.
Operating temperature	0 °C to 40 °C, RH < 80%
Storage temperature	-10°C to 60°C (without batteries), RH < 70%
Temperature coefficient	0.1 × accuracy / °C (<18 °C or >28 °C). Maximum permissible voltage between the terminal to be measured and ground: 1000 V DC or 750 V AC.
Safety	CAT IV 600 V / CAT III 1000 V
Standards	IEC/EN 61010-1
Degree of pollution	2
Auto shut-off	After about 10 minutes
Low battery indicator	The “battery” symbol is displayed
Power supply	4 AA 1.5 V batteries
Dimensions	190 x 89 x 50 mm
Weight	380 g

Includes: Carrying case, manual, test leads, temperature probe, 4 AA batteries.







About SEFRAM INSTRUMENTS

Sefram Instruments is a French designer and manufacturer of electronic test and measurement equipment. Founded in 1947 and based in Saint-Étienne, the company provides reliable, user-friendly tools for professionals in telecommunications, electrical engineering, and industrial maintenance. Its product range includes data recorders, multimeters, electrical testers, and thermal cameras. Sefram offers comprehensive after-sales support, including technical assistance, repairs, and in-house calibration. Part of the B&K Precision organization since 2004, Sefram combines international reach with strong local expertise.
With decades of experience and a focus on innovation, Sefram continues to deliver high-performance solutions backed by expert support.



Quality management system

SEFRAM INSTRUMENTS is an ISO 9001-certified company using traceable quality management practices for all processes, including product development, service and calibration.

ISO 9001 : 2015
ISO 14001 : 2015

Video library

View product presentations, demonstrations and application videos in English and French
https://www.youtube.com/@SEFRAMINSTRUMENTS/videos

Social networks

LinkedIn :
https://www.linkedin.com/company/sefram-instruments

YouTube :
https://www.youtube.com/@SEFRAMINSTRUMENTS

About B&K Precision

For more than 70 years, **B&K Precision** has provided reliable and value-priced test and measurement instruments worldwide. The company's headquarters in Yorba Linda, California, houses its administrative and executive functions as well as sales and marketing, design, service, and repair. European customers are most familiar with B&K through its French subsidiary, Sefram. Engineers in Asia know the brand through the B+K Precision Taiwan operation. Independent service centers in Singapore and Brazil service customers in Singapore, Malaysia, Vietnam, Indonesia, and South America, respectively.

SEFRAM INSTRUMENTS
32, rue Edouard Martel
BP55 F42009 - Saint-Etienne-Cedex
Tel : +33 (0)4 77 59 01 01
sales@sefram.com
www.sefram.com