# HYAMP<sup>®</sup> III

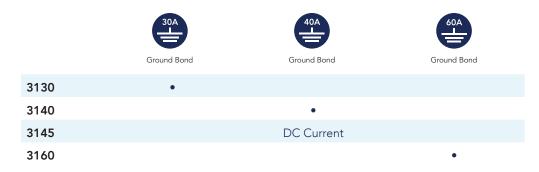
PRODUCTION LINE GROUND BOND INSTRUMENT



Our HYAMP<sup>®</sup> III Series of manual Ground Bond instruments verifies the integrity of your product's ground circuitry in a convenient benchtop design. Choose from 4 different models with varying output current capabilities in compliance with international standards on the production line or in the lab. Choose to operate the HYAMP<sup>®</sup> III from our intuitive user interface or utilize the PLC I/O. Accurate 4-wire measurement and milliohm offset capability ensure your test results are accurate. Use the HYAMP<sup>®</sup> III stand-alone or interconnect with a Hypot<sup>®</sup> III or HypotULTRA<sup>®</sup> to form a complete safety compliance test system.



Find the Right Model that Fits Your Testing Needs



# AVAILABLE INTERFACES



### SAFETY & PRODUCTIVITY FEATURES





Remote Safety Interlock Easily disable HV output

PLC Remote Basic PLC relay control

VeriCHEK® Includes preset verification tests







Cal-Alert® Int Tracks and Int alerts for calibration for

Interconnection Interconnect with Hypot<sup>®</sup> III to form a complete test system Accredited Cal Accredited calibration options available

# HYAMP<sup>®</sup> III

### INPUT SPECIFICATIONS

Voltage Model 3145 Only:	115/230 VAC ± 10%, user selectable 100-120 / 200-240 VAC ± 10%, auto-detection
Frequency	50/60 Hz ± 5%
Fuse - 3130	6.3 A, Slow Blow 250 VAC
Fuse - 3140	10 A, Slow Blow 250 VAC
Fuse - 3145	10 A, Slow Blow 250 VAC
Fuse - 3160	15 A, Slow Blow 250 VAC

## **GROUND BOND TEST MODE**

Output Rating	Current 3130: Voltage 3130: Current 3140: Voltage 3140: Current 3145: Voltage 3145: Current 3160: Voltage 3160:	1.00 - 30.00 AAC 6 VAC, fixed 1.00 - 40.00 AAC 8 VAC, fixed 1.00 - 40.00 Amps DC 8 Volts DC, maximum 1.00 - 60.00 AAC 9 VAC, fixed
Output Frequency 3130/3140/3160	Range: 50/60 H	lz, User Selectable
Dwell Time Setting	Range: Resolution: Accuracy:	0 and 0.5 - 999.9 secs 0 for continuous running 0.1 sec ± (0.1% of setting + 0.05 secs)
Maximum & Minimum Limits	Range 3130: Accuracy 3130: Range 3140: Accuracy: Range 3145: Accuracy: Range 3160: Accuracy 3160:	$\begin{array}{l} 0-120\ m\Omega\ for\ 1-30.00\ A\\ 0-510\ m\Omega\ for\ 1-10.00\ A\\ \pm\ (2\%\ of\ setting\ +\ 2\ m\Omega)\\ 0-150\ m\Omega\ for\ 30.01\ -\ 40.00\ A\\ 0-200\ m\Omega\ for\ 10.01\ -\ 30.00\ A\\ 0-600\ m\Omega\ for\ 1.00\ -\ 10.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-150\ m\Omega\ for\ 1.00\ -\ 10.00\ A\\ 0-600\ m\Omega\ for\ 1.00\ -\ 10.00\ A\\ 0-600\ m\Omega\ for\ 1.00\ -\ 10.00\ A\\ 0-600\ m\Omega\ for\ 1.00\ -\ 10.00\ A\\ 0-300\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ 0-300\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-150\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-150\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-300\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\\ 0-600\ m\Omega\ for\ 1.00\ -\ 15.00\ A\\ Same\ as\ Ohmmeter\ Display\ Same\ Same$
Offset Capability	Range: Resolution: Accuracy:	0 - 100 mΩ 1 mΩ ± (2% of setting + 2 mΩ)
Current Display 3130	Range: Resolution: Accuracy:	0.00 - 30.00 A 0.01 A / step ± (3% of reading + 0.03 A)
Current Display 3140	Range: Resolution: Accuracy:	0.00 - 40.00 A 0.01 A ± (3% of reading + 0.03 A)
Current Display 3145	Range: Resolution: Accuracy:	0.00 - 40.00 A 0.01 A ± (3% of reading + 0.03 A)
Current Display 3160	Range: Resolution: Accuracy:	0.00 - 60.00 A 0.01 A ± (3% of reading + 0.03 A)

## **GROUND BOND TEST MODE (CONTINUED)**

Ohmmeter Display 3130	Range: Resolution:	0 - 510 mΩ 1 mΩ		
Ohmmeter Display 3140	Accuracy: Range:	± (2% of reading + 2 mΩ) 0 - 150 mΩ for 30.01 - 40.00 A 0 - 200 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 6.00 - 10.00 A		
Ohmmeter Display 3145	Resolution: Accuracy: Range: Resolution: Accuracy: Range:	$ \frac{1}{1} m\Omega $ ± (2% of reading + 2 mΩ) 0 - 600 mΩ for 1.00 - 5.99 A 1 mΩ ± (3% of reading + 3 mΩ) 0 - 150 mΩ for 30.01 - 40.00 A 0 - 200 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 5.00 - 10.00 A		
	Resolution: Accuracy: Range: Resolution: Accuracy:	1 mΩ ± (2% of reading + 2 counts) 0 - 600 mΩ for 1.00 - 5.99 A 1 mΩ ± (3% of reading + 3 mΩ)		
Ohmmeter Display 3160	Range: Resolution: Accuracy: Range: Resolution: Accuracy:	$\begin{array}{l} 0 - 150 \mbox{ m}\Omega \mbox{ for } 30.01 - 60.00 \mbox{ A} \\ 0 - 300 \mbox{ m}\Omega \mbox{ for } 15.01 - 30.00 \mbox{ A} \\ 0 - 600 \mbox{ m}\Omega \mbox{ for } 6.00 - 15.00 \mbox{ A} \\ 1 \mbox{ m}\Omega \\ \pm (2\% \mbox{ of reading } + 2 \mbox{ m}\Omega) \\ 0 - 600 \mbox{ m}\Omega \mbox{ for } 1.00 - 5.99 \mbox{ A} \\ 1 \mbox{ m}\Omega \\ \pm (3\% \mbox{ of reading } + 3 \mbox{ m}\Omega) \end{array}$		
Timer Display	Range: Resolution: Accuracy:	0.0 - 999.9 secs 0.1 secs ± (0.1% of reading + 0.05 secs)		
GENERAL SPECIFICATIONS				
Mechanical	Bench or rack mo	unt with tilt up feet.		
Dimensions 3130 (W x H x D)	8.5 x 4.0 x 15.5 in.	(216 x 103 x 390 mm) includes fee		
Dimensions 3140 (W x H x D)	8.5 x 4.0 x 16.9 in.	(216 x 103 x 430 mm) includes feet		
Dimensions 3145 (W x H x D)	8.5 x 3.5 x 15.0 in.	(216 x 89 x 370 mm) includes feet		
Dimensions 3160 (W x H x D)	16.9 x 5.1 x 15.7 in.	(430 x 130 x 400 mm) includes fee		
Weight 3130	1915 lbs (87 kg)			

Mechanical	Bench or rack mount with tilt up feet.	
Dimensions 3130 (W x H x D)	8.5 x 4.0 x 15.5 in. (216 x 103 x 390 mm) includes feet	
Dimensions 3140 (W x H x D)	8.5 x 4.0 x 16.9 in. (216 x 103 x 430 mm) includes feet	
Dimensions 3145 (W x H x D)	8.5 x 3.5 x 15.0 in. (216 x 89 x 370 mm) includes feet	
Dimensions 3160 (W x H x D)	16.9 x 5.1 x 15.7 in. (430 x 130 x 400 mm) includes feet	
Weight 3130	19.15 lbs (8.7 kg)	
Weight 3140	30.9 lbs (14 kg)	
Weight 3145	11.55 lbs (5.23 kg)	
Weight 3160	49.40 lbs (22.40 kg)	
Remote Control & Signal Output	<ul> <li>The following input and output signals are provided through two 9 pin</li> <li>D type connectors:</li> <li>1. Remote control: Test, Reset, Interlock, and Withstand Processing</li> <li>2. Remote recall of memory program #1, #2, and #3</li> <li>3. Outputs: Pass, Fail, Test-in-process, Start Out and Reset Out</li> </ul>	
Program Memory	10 Memories, 3 steps per memory	
Interface	Optional: External RS-232 (Model 3130 only)	
Why We Use Counts		

Associated Research publishes some specifications using "counts" which allows us to provide a better indication of the instrument's capabilities across measurement ranges. A count refers to the lowest resolution of the display for a given measurement range. For example, if the resolution for voltage is 1V then 2 counts=2V.

Specifications subject to change without notice.