

DCC BRIDGE "HIGH CURRENT" CLASSIC RANGE EXTENDER

EXTENDS GUILDLINE BRIDGES CURRENT FOR INCREASED CAPABILITY



MODEL 6623 FEATURES

- ◆ Enables 6675A DCC Bridge to Measure at the 1 $\mu\Omega$ Level
- ◆ Easily Controlled from 6675A Direct Current Comparator Bridge
- ◆ Built in Reversing Switch to Reduce Thermal EMF effects
- ◆ Improved Accuracy and Reduced Costs
- ◆ Transformation Ratio Accuracy of ± 0.5 ppm to 1 ppm
- ◆ Extends Current Capability to 100 Amps in 3 Ranges
- ◆ 2 Year Standard Warranty

GUILDLINE INSTRUMENTS 6623 DCC BRIDGE RANGE EXTENDER is a high current adapter, including an integral reversing switch, designed specifically for use with the 6675A or 9975 Direct Current Comparator bridges. The 6623 allows currents of up to 100 Amperes to pass through the resistor under test, and extends the measurement range of the 6675A down to 1 $\mu\Omega$.

The 6623 Range Extender is a dc transformer with three primary windings. The three windings divide the input current by a ratio of 10:1, 100:1, and 1000:1. The internal high current reversing relay allows measurements to be made with greatly reduced effects from thermal EMFS. This is made possible by reversing all four connections to the resistors under test. The switching frequency is controlled from the 6675A.

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The high current reversing relay included in the 6623 design to allow measurements to be made that reduce the effect of thermal emf's. This relay is a make-before-break, double-pole, double-throw switch. Control of the relay is achieved through the application of an externally applied dc voltage that can be switched at rates up to 0.5 Hz. The relay contacts can carry currents up to 100 A.

When used with the Guildline 9975 Bridge, a 66231 Adapter is required. This adapter is used to connect the 6623 Range Extender output to the 9975 Bridge

A comprehensive lead set is provided for connection to 6675A DCC Bridge, the power supply and current shunts. This lead set includes 1 meter SCW lead trimmed at both ends, Set of 2; 0.9m long shielded leads with double banana jacks on each end. Set of two; 0.9m long 20A black and red leads with low EMF spade lugs on each end and four - 100A rated leads 1m long with terminal lugs on each end.

In addition to its application to standards laboratory resistance measurements, the 6675A/6623 combination offers unparalleled versatility and performance in resistance, thermometry and research applications.

FOR THE ULTIMATE IN RANGE EXTENDERS, LOOK AT THE **NEW 6623A SERIES** OF MODULAR EXTENDERS WITH BUILT-IN CURRENTS FROM 150 AMPS TO 3000 AMPS.



MODEL 6623 DCC BRIDGE RANGE EXTENDER

6623 SPECIFICATIONS

Transformation Ratio	Transformation Ratio Accuracy (± ppm)	Maximum Input Current (A)	Maximum Output Current (mA)	Maximum Load (Ω)	Maximum Output Voltage (V)
10:1	0.5	1.0	100	10,000	33.0
100:1	0.5	10.0	100	10,000	33.0
1000:1	1.0	100.0	100	10,000	33.0

Note: The high current source is not included with the 6623. The Model 66233 100A Power Supply can be ordered as an accessory.

GENERAL SPECIFICATIONS					
Measurement Range (Ω)	150mA to 100 A	1uΩ to 1 Ω			
Operating Temperature to Full Specifications	23°C ± 5°C		73°F ± 9°F		
Operating Temperature Maximum Range	0°C to 40°C		32°F ± 104°F		
Temperature Storage Range	-20°C to +60°C		-4°F to +140°F		
Operating Humidity	18°C to +28°C	<70% RH	28°C to +40°C	<50% RH	
Storage Humidity	15% to 80% RH				
Voltage Requirements	90 to 135 VAC		180 to 270 VAC		50Hz or 60 Hz
Weight	kg	13.6	Lbs	30.0	
Dimension (H x W x D)	mm	130 x 440 x 500		Inches	5.2" x 17.3" x 19.6"

WARRANTY

Over 50 Years of Guildline innovation in engineering and design has resulted in very reliable products. This is reflected in Guildline's industry leading **2-Year Warranty** for all 6623A Range Extender Series and covers both parts and labor.

ORDERING INFORMATION	
6623	100A Range Extender for DCC Resistance Bridge
/TM	Technical Manual (included)
/CC	Calibration Certificate (Included)
/Report	Report of Calibration with Data (Charge)
	Accessories
66231	9975 Resistance Bridge Adapter
66232	6675A Lead Set (replacement)
66233-1	External 100A Power Supply, Bench Mount
66233-1	External 100A Power Supply, Rack Mount (IEEE Controllable)
SM6623	Service Manual (Extra Charge)
Many other types of test and communication leads and accessories are available	

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