

1.2 SPECIFICATIONS

		Ranges							
		0	1	2	3	4	5	6	7
Full Scale Values	L _s	200 μH	2 mH	20 mH	200 mH	2 H	20 H	200 H	200 H
	C _p	200 pF	2 nF	20 nF	200 nF	2 μF	20 μF	200 μF	2000 μF
	R _s	2 Ω	20 Ω	200 Ω	2000 Ω	20 kΩ	200 kΩ	2000 kΩ	2000 kΩ
	G _p	2 μS	20 μS	200 μS	2000 μS	20 mS	200 mS	2000 mS	20 S
	D	1.999							
Accuracy (15°C to 35°C)	L _s	±[0.25% + (1 + 0.002R _s *) digits]**	±[0.25% + (1 + 0.001R _s *) digits]					±[0.25% + (1 + 0.010R _s *) digits]	±[0.25% + (1 + 0.010R _s *) digits]
	C _p	±[0.25% + (1 + 0.002G _p *) digits]**	±[0.25% + (1 + 0.001G _p *) digits]					±[0.25% + (1 + 0.010G _p *) digits]	±[0.25% + (1 + 0.010G _p *) digits]
	R _s	±[0.25% + (1 + 0.002L _s *) digits]	±[0.25% + (1 + 0.001L _s *) digits]					±[0.25% + (1 + 0.010L _s *) digits]	±[0.25% + (1 + 0.010L _s *) digits]
	G _p	±[0.25% + (1 + 0.002C _p *) digits]	±[0.25% + (1 + 0.001C _p *) digits]					±[0.25% + (1 + 0.010C _p *) digits]	±[0.25% + (1 + 0.010C _p *) digits]
	D	±(1% + 0.002) for L or C ≥ 200 counts ±(2% + 0.010) for L or C 50 to 199 counts							±(2% + 0.010)
Test Signal	Voltage C _p , G _p	1.0 VRMS		0.1 VRMS					0.01 VRMS
	Current L _s , R _s	100 mA	10 mA	1 mA	100 μA	10 μA		1 μA	

*Digit count, same range.

**After correction for test lead zero reading.

0°C to 15°C and 35°C to 50°C: add 0.1 (rated accuracy)/°C.

Table 1-1. Model 253 Specifications

Test Frequency: 1kHz \pm 1%

Unknown Excitation: The 1kHz voltage (V_x) and current (I_x) levels listed in Table 1-1 are held constant by an internal amplitude control circuit.

Measurement Rate: Four per second; one second is required for first reading after connecting unknown to terminals.

Measurement Display: 3-1/2 digit LED with decimal point. Blanked for overload conditions.

Unit Display: Unit of measurement being displayed by the LED readout is indicated by front panel LED lamps used in conjunction with the desired function button and the front panel range switch or autoranging mode.

External Bias: Rear panel terminals are provided for connection of external supply. 0V to 50VDC, 0.1A maximum. (Read Section 2.2.6 before using external bias.)

Static Charge Protection: Diode and resistor discharge network.

Connection to Unknown: Four-terminal, shielded, connections are provided by the KELVIN KLIPS® cable assembly (Tegam Part Number 43072) supplied with the Model 253.

Outputs: Analog signals of 1V per 1,000 counts, 1k Ω source resistance is available at rear panel. L, C, R, or G, with simultaneous output of D for L or C.

Power Consumption: 4 watts typical.

Power Requirements: 100 to 125V or 200 to 250V, 50/60Hz.

Fuse: 110V: 1/16A, 250VAC Slow-Blow

220V: 1/20A, 250VAC Slow-Blow

Size: Height (with feet) - 100mm (4 in.)

Width - 260mm (10 in.)

Depth (overall) - 370mm (14.6 in.)

Weight: 3.2kg (7 lb.)

Accessories supplied with Model 253:

KELVIN KLIPS® Four-Terminal Clips

Instruction Manual

Tegam Part No.

43072

43761

Options Available:

Tegam Part No.

Sorting Fixture Model 2001 (low frequency)

32001

Cable Assembly (for Model 2001 connection)

43586

Front Panel Dust Cover

43374