Fluke 1621 Earth Ground Tester

General specifications	
Measuring functions	3-pole earth ground resistance, 2-pole ac resistance of a conductor, Interference voltage
Intrinsic error	Refers to the reference temperature range and is guaranteed for one year
Measuring rate	2 measurements/second
Battery[1]	One 9 volt alkaline (LR61)
Battery condition	LO-BAT is displayed if voltage drops below 6.5 V
Voltages	**Between jacks H/C2 and E/C1:** 250 Veff maximum (effective voltage) **Between jacks S/P2 and E/C1:** 250 Veff maximum
Climatic class	VDE/VDI 3540 RZ (conforming to KWG as per DIN 40040, 4/87)
Temperature performance[2]	**Working:** -10 °C to +50 °C (+14 °F to +122 °F) **Operating:** 0 °C to +35 °C (+32 °F to +95 °F) **Storage:** -20 °C to +60 °C (+68 °F to +140 °F) **Reference:** +23 °C ± 2 °C (+73 °F ± 4 °F)
Temperature coefficient	± 0.1 % of range per degree Kelvin
Safety	IEC/EN 61010-1, 600 V CAT II, pollution degree 2
Dimensions	113 mm x 54 mm x 216 mm (4.5 in x 2.1 in x 8.5 in), including holster
Weight	850 g (1.9 lb), including standard accessories, volume approximately 600 cm^3
Note:	[1]If the tester is not going to be used, or is being stored for a long period, remove the battery and store separately from the tester to avoid damage from battery leakage.
Note:	[2]The four temperature ranges for the tester exists to satisfy European Standards requirements; the instrument can be used over the full working temperature range by using the temperature coefficient to calculate accuracy at the ambient temperature of use.

Electrical specifications	
Maximum deviations:	**E_1 Influence factor** Position **E_1 Deviation influence** 0 % **E_2 Influence factor** Supply voltage **E_2 Deviation influence** 0 % **E_3 Influence factor** Temperature E_3 **E_3 Deviation influence** 2.3 % **E_4 Influence factor** Serial interference voltage (20 V) **E_4 Deviation influence** 0.6 % **E_5 Influence factor** Probe- and auxiliary probe resistance **E_5 Deviation influence** 10 %
Test voltage	3.7 kV
Protection type	IP 40; IEC/EN 60529
Electromagnetic	Emission: IEC/EN 61326 Class B

compatibility	Immunity: IEC/EN 61326 Annex C	
R_E resistance measurement	**Measuring method**	Current-voltage measurement with improved cross-talk attenuation, no compensation of measuring lead resistance, with probe (3-pole) or without probe (2-pole), as per IEC/EN 61557-5
	Open circuit voltage	23 to 24 V ac
	Short circuit current	> 50 mA ac
	Measuring frequency	128 Hz
	Maximum permissible overload	250 Veff
Measuring time	8 seconds (average from when START is pressed)	
Limit input	Tester retains set value even if instrument is turned off (assuming battery power supply is sufficient)	
Automatic changeover of resolution	**R_H**	< 7 kΩ
	Resolution	0.01 Ω
	R_H	< 50 kΩ
	Resolution	0.1 Ω
	R_H	> 50 kΩ
	Resolution	1 Ω
Interference voltage display dc + ac	**Vmax**	30 Veff
	Common mode rejection	> 80 dB at 50 Hz and 60 Hz
	Ri	680 kΩ
	Measuring uncertainty	< 10 % for pure ac and dc signals

Measuring range

0.15 Ω to 20 Ω	**Resolution**	0.01 Ω
	Display range	0 to 19.99 Ω
200 Ω	**Resolution**	0.1 Ω
	Display range	20 to 199.9 Ω
2 kΩ	**Resolution**	1 Ω
	Display range	200 to 1999 Ω
Intrinsic uncertainty	± (6 % of measured value + 5D)	
Operating uncertainty IEC 61557[1]	± (18 % of measured value + 5D)	
Notes:	[1] Covers all deviations caused by influence quantities E_1-E_5. If the deviation E_4 caused by high probe or auxiliary probe resistance is higher than specified flashes. Measured values are outside of the specified operating uncertainty.	