

Polarity Test Calculator

Estimate voltage magnitude and margin, then compare the measured sign and magnitude with the entered test criteria.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/polarity-test-calculator/>

Inputs

Input	Value	Unit
Signed measured voltage	24	V
Expected polarity	Positive	
Minimum expected magnitude	12	V

Results

Result	Value	Unit
Voltage magnitude	24	V
Magnitude margin	12	V
Actual polarity	positive	
Polarity comparison	Matches entered expected polarity	
Magnitude comparison	At or above entered minimum magnitude	

Calculation details

Detail	Value	Unit
Calculation basis	Polarity worksheet uses the sign and magnitude of the entered signed DC/control voltage.	
Testing boundary	Signed-voltage comparison only; wiring correctness, safe probing, and code compliance remain external.	

Formulas

`voltage magnitude = abs(signed measured voltage)`

`actual polarity = sign of signed measured voltage`

`magnitude margin = voltage magnitude - entered minimum expected magnitude`

Warnings and limitations

Polarity Test Calculator

Estimate voltage magnitude and margin, then compare the measured sign and magnitude with the entered test criteria.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/polarity-test-calculator/>

This narrow worksheet does not certify receptacle polarity, grounding continuity, wiring correctness, or safe energization.