

Cable Tray Separation Calculator

Calculate required tray width and remaining margin from cable-group widths, inter-group separation, edge clearance, and usable tray width.

Generated October 10, 2026

<https://www.elecatrix.com/wire-raceway-ampacity/cable-tray-separation-calculator/>

Inputs

Input	Value	Unit
Cable group count	3	groups
Cable group width	4	in
Minimum separation	2	in
Edge clearance	1	in
Usable tray width	20	in

Results

Result	Value	Unit
Required tray width	18	in
Tray width margin	2	in
Total separation allowance	4	in

Calculation details

Detail	Value	Unit
Calculation basis	Tray separation screen uses entered group count, group width, separation, edge clearance, and usable tray width.	
Review boundary	Planning worksheet only; no tray spacing, fill, ampacity, segregation, or code-compliance approval is made.	

Formulas

$$S_{total} = (N_{groups} - 1) \times S_{minimum}$$

$$W_{required} = N_{groups} \times W_{group} + S_{total} + 2C_{edge}$$

$$M_{tray} = W_{usable} - W_{required}$$

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Warnings and limitations

This cable tray separation worksheet does not approve cable tray spacing, fill, ampacity, segregation, support, manufacturer installation requirements, or code compliance.