

TECH TIP #1 • Cable Bundle Wire Information

A formula to calculate the maximum number of wires recommended for a cable bundle is shown below. Using this formula, the table below shows a sampling of the maximum number of wires that will fit in the oblong bushing; for example the oblong bushing will hold a maximum of 622 Signal (20 AWG) wires **OR** 199 Coaxial (RG316) wires.

Formula to calculate approximate number of wires in a cable bundle:

$N = (1.55/d - 1)^2(.907)$		
N = # of Wires	1.55 = Inside Diameter of Converted Oblong Bushing	d = Outside Diameter of Wire

NOTE: If the wiring bundle is too small to secure with the adjustable bushing, remove the clamp assembly within the bushing by removing the two adjustment screws. Reverse the direction of the clamp assembly and secure with the two screws. This provides a reduced diameter within the bushing and allows smaller wire bundles to be held securely.

Oblong Bushing Effective Diameter* = 1.55"

Wire Type	Outside Diameter	1 Cable Clamp Number of Wires
20 AWG Signal- Teflon	.057	622
10 AWG Power - PVF	.142	89
RG316 Coaxial - 50 Ohm	.098	199

NOTE: Addition of shrink tubing or braid will reduce maximum number of wires through bushing.

* Oblong Opening Area Converted to Simple Diameter

