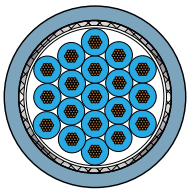


Reference Guides

Wire Bundle Diameter Calculator



Calculating Wire Bundle Diameter

Use this calculator to find the approximate diameter of a wire bundle. The wire bundle diameter is used to select the proper accessory cable entry size. Add .025 inches to the diameter if the bundle has an overall braid shield, plus 2X the jacket thickness. If the bundle diameter almost exceeds the maximum allowable diameter for an entry size, then it is a good idea to move up to the next larger entry size. Undersize bundles can be enlarged with bushings or silicone tape to fit the cable clamp.

Wire Diameter Bundle Calculator

	Steps	Example
All wires in bundle are the same diameter	Multiply wire diameter by the appropriate multiplication factor shown in table below	20 wires @ .058 inch diameter Multiplication Factor from Table = 5.6 $(.058) \times (5.6) = .33$ bundle diameter
	<ol style="list-style-type: none"> Multiply each diameter by the number of wires of that diameter 	20 wires @ .058 inch diameter $20 \times .058 = 1.160$ 4 wires @ .111 inch diameter $4 \times .111 = .444$
Wires in bundle are different diameters	<ol style="list-style-type: none"> Add the results of Step 1 	$1.160 + .444 = 1.604$
	<ol style="list-style-type: none"> Divide the sum by the total number of wires 	$1.604 \div 24 = .067$ average diameter
	<ol style="list-style-type: none"> Multiply average diameter by the factor in table 	$(.067) \times 6.0 = .40$ bundle diameter

Wire Bundle Diameter Factors

Number of Wires	Multiplication Factor	Number of Wires	Multiplication Factor
1	1.0	36	7.4
2	2.0	40	7.7
3	2.2	45	8.1
4	2.4	50	8.5
5	2.7	55	8.9
6	2.9	60	9.3
7	3.0	65	9.7
8	3.3	70	10.1
9	3.8	75	10.5
10	4.0	80	10.9
12	4.3	90	11.6
14	4.6	100	12.2
16	5.0	125	13.7
18	5.3	150	15.0
20	5.6	175	16.1
24	6.0	200	17.2
28	6.5	250	19.3
32	6.9	300	21.0