

A. System Overview

Wire Size Selection Guide

B1. Cable Ties

To use this guide place your wire or cable in the appropriate circle to determine wire, outside diameter.

The charts below indicate the approximate cable outside diameter or various electrical and communication cables.

B2. Cable Accessories

Diameter .10" (2.50mm)

Diameter .20" (5.10mm)

B3. Stainless Steel Ties

Diameter .28" (7.10mm)

C1. Wiring Duct

Diameter .54" (13.70mm)

C2. Surface Raceway

Diameter .94" (23.90mm)

C3. Abrasion Protection

C4. Cable Management

D1. Terminals

Diameter 1.40" (35.50mm)

D2. Power Connectors

D3. Grounding Connectors

E1. Labeling Systems

Diameter 1.90" (48.30mm)

E2. Labels

E3. Pre-Printed & Write-On Markers

E4. Permanent Identification

E5. Lockout/Tagout & Safety Solutions

F. Index

Diameter 2.40" (61.00mm)

Electrical Cables

Size	Approximate Wire Outside Diameter In. (mm)			
	TF	THW	TW	TFN/THHN/THWN
18 AWG	.11 (2.80)	.11 (2.80)	.11 (2.80)	.09 (2.30)
16 AWG	.12 (3.00)	.12 (3.00)	.12 (3.00)	.10 (2.50)
14 AWG	.13 (3.30)	.16 (4.10)	.16 (4.10)	.10 (2.50)
12 AWG	.15 (3.80)	.18 (4.60)	.18 (4.60)	.12 (3.00)
10 AWG	.17 (4.30)	.20 (5.10)	.20 (5.10)	.15 (3.80)
8 AWG	.24 (6.10)	.28 (7.10)	.28 (7.10)	.22 (5.60)
6 AWG	.32 (8.10)	.32 (8.10)	.32 (8.10)	.26 (6.60)
4 AWG	.37 (9.40)	.37 (9.40)	.37 (9.40)	.33 (8.40)
3 AWG	.40 (10.20)	.40 (10.20)	.40 (10.20)	.36 (9.10)
2 AWG	.43 (10.90)	.43 (10.90)	.43 (10.90)	.39 (9.90)
1AWG	.51 (12.90)	.51 (12.90)	.51 (12.90)	.45 (11.40)
1/0	.55 (14.00)	.55 (14.00)	.55 (14.00)	.49 (12.40)
2/0	.59 (15.00)	.59 (15.00)	.59 (15.00)	.54 (13.70)
3/0	.65 (16.50)	.65 (16.50)	.65 (16.50)	.59 (15.00)
4/0	.70 (17.80)	.70 (17.80)	.70 (17.80)	.65 (16.50)
250 MCM	.79 (20.10)	.79 (20.10)	.79 (20.10)	.72 (18.30)
300 MCM	.84 (21.30)	.84 (21.30)	.84 (21.30)	.77 (19.60)
350 MCM	.89 (22.60)	.89 (22.60)	.89 (22.60)	.82 (20.80)
400 MCM	.94 (23.90)	.94 (23.90)	.94 (23.90)	.87 (22.10)
500 MCM	1.03 (26.20)	1.03 (26.20)	1.03 (26.20)	.95 (24.10)
600 MCM	1.14 (29.00)	1.14 (29.00)	1.14 (29.00)	1.06 (26.90)
700 MCM	1.21 (30.70)	1.21 (30.70)	1.21 (30.70)	1.13 (28.70)
750 MCM	1.25 (31.80)	1.25 (31.80)	1.25 (31.80)	1.16 (29.50)
800 MCM	1.28 (32.50)	1.28 (32.50)	1.28 (32.50)	1.20 (30.50)
900 MCM	1.34 (34.00)	1.34 (34.00)	1.34 (34.00)	1.26 (32.00)
1000 MCM	1.40 (35.60)	1.40 (35.60)	1.40 (35.60)	1.32 (33.50)
1250 MCM	1.58 (40.10)	1.58 (40.10)	1.58 (40.10)	
1500 MCM	1.70 (43.20)	1.70 (43.20)	1.70 (43.20)	
1750 MCM	1.82 (46.20)	1.82 (46.20)	1.82 (46.20)	
2000 MCM	1.92 (48.80)	1.92 (48.80)	1.92 (48.80)	

Category 3, Category 5/5e/6 and 6a Cable

Size	Category 3		Category 5/5e/6		
	Voice Grade 24 AWG UTP	Data Grade 24 AWG UTP	Data Grade 24 AWG STP	Data Grade 22 AWG UTP	Data Grade 22 AWG STP
2-Pair	.12 (3.00)				
3-Pair	.15 (3.80)				
4-Pair	.19 (4.80)	.22 (5.60)	.25 (6.30)	.23 (5.80)	.29 (7.40)
25-Pair		.42 (10.70)	.51 (12.90)	.54 (13.70)	.63 (16.00)
50-Pair	.46 (11.70)	.66 (16.80)			
100-Pair	.63 (16.00)	.96 (24.40)			
300-Pair	1.07 (27.20)				

Coaxial Cable

Size	Coax
RG58/u	.19 (4.80)
RG59/u	.24 (6.10)
RG62A/u	.24 (6.10)
RG6/u	.27 (6.80)
RG11/u	.40 (10.20)

Fiber Optic Distribution (62.5/125)

Size	Non-Plenum	Plenum
6 Strand	.26 (6.60)	.18 (4.60)
8 Strand	.27 (6.90)	.18 (4.60)
12 Strand	.28 (7.10)	.21 (5.30)
18 Strand	.49 (12.4)	.47 (11.90)
24 Strand	.54 (13.70)	.52 (13.2)
36 Strand	.54 (13.70)	.52 (13.2)
48 Strand	.59 (15.00)	.56 (14.2)
72 Strand	.72 (18.30)	.71 (18.0)