

# MIL-W-16878/12 (Type KK) equivalent wire—extruded FEP insulation



## Construction Details

**Insulation:** Extruded FEP, wall thickness .015 (.38 mm).

**Conductor:** Tin-plated copper.

**Colors:** Color coded to MIL-STD-104 (See page 26).

**Options:** Silver- or nickel-plated copper conductor; silver or nickel-plated high-strength copper alloy conductor; sodium naphthalene etched insulation for bondability. Also available to NEMA HP-4-KK.

**Ordering Information:** Specify Thermax part number and color.

To order with optional conductor materials:

For silver-plated copper conductor, change **XXZ** in Thermax part number to **XXD**.

For silver-plated high-strength copper conductor, change **XXZ** in Thermax part number to **XXDTF**.

For nickel-plated copper conductor, change **XXZ** in Thermax part number to **XXN**.

For nickel-plated high-strength copper conductor, change **XXZ** in Thermax part number to **XXTFN**.

**MIL-W-16878/12 (type KK) equivalent** wires have extruded FEP insulation (heavy wall thickness) for high-temperature applications. These wires have tin-plated copper conductors for economy. MIL-spec versions (silver-plated conductors) are also available.

For medium-wall (type K) versions of these wires, see M16878/11 equivalent (previous page); for thin-wall (type KT) versions, see M16878/13 equivalent (next page).

## Performance:

**Voltage rating:** 1,000V.

**Temperature rating:** Tin-plated conductor: -55 to 150° C;  
Silver-plated conductor: -55 to 200° C;  
Nickel-plated conductor: -55 to 200° C.

## Dimensions, Resistance, and Weights—M16878/12 equivalent—tin plated conductor

AWG Size	Stranding	Conductor Diameter	Insulation Diameter		Weight	Maximum Resistance	Thermax P/N
			Minimum	Maximum			
2	665/30	.330 (8.38)	.395 (10.03)	.415 (10.54)	268 (399)	.183 (.600)	2-XDXZ-66530
4	133/25	.260 (6.60)	.349 (8.86)	.369 (9.37)	175 (260)	.280 (.918)	4-XDXZ-13325
6	133/27	.202 (5.13)	.286 (7.26)	.301 (7.65)	116 (173)	.445 (1.46)	6-XDXZ-13327
8	133/29	.162 (4.11)	.199 (5.05)	.219 (5.56)	63.4 (94.4)	.701 (2.30)	8-XDXZ-13329
10	37/26	.108 (2.74)	.137 (3.48)	.153 (3.89)	36.0 (53.6)	1.26 (4.13)	10-XDXZ-3726
12	19/25	.084 (2.13)	.117 (2.97)	.133 (3.38)	24.8 (36.9)	1.92 (6.30)	12-XDXZ-1925
14	19/27	.067 (1.70)	.098 (2.49)	.114 (2.90)	16.4 (24.4)	3.06 (10.0)	14-XDXZ-1927
16	19/29	.053 (1.35)	.083 (2.11)	.095 (2.41)	11.1 (16.5)	4.81 (15.8)	16-XDXZ-1929
18	19/30	.047 (1.19)	.074 (1.88)	.084 (2.13)	8.67 (12.9)	6.23 (20.4)	18-XDXZ-1930
18	7/26	.048 (1.22)	.074 (1.88)	.084 (2.13)	8.10 (12.1)	6.70 (22.0)	18-XDXZ-726
20	19/32	.038 (.97)	.064 (1.63)	.072 (1.83)	6.10 (9.08)	9.88 (32.4)	20-XDXZ-1932
20	7/28	.038 (.97)	.064 (1.63)	.072 (1.83)	5.84 (8.69)	10.7 (35.1)	20-XDXZ-728
20	SOLID	.032 (.81)	.058 (1.47)	.066 (1.68)	5.22 (7.77)	10.9 (35.8)	20-XDXZ-120
22	19/34	.030 (.76)	.056 (1.42)	.064 (1.63)	4.32 (6.43)	16.2 (53.1)	22-XDXZ-1934
22	7/30	.030 (.76)	.056 (1.42)	.064 (1.63)	4.18 (6.22)	17.1 (56.1)	22-XDXZ-730
22	SOLID	.025 (.64)	.051 (1.30)	.060 (1.52)	3.74 (5.57)	17.7 (58.1)	22-XDXZ-122
24	19/36	.024 (.61)	.050 (1.27)	.058 (1.47)	3.18 (4.73)	26.2 (85.9)	24-XDXZ-1936
24	7/32	.024 (.61)	.050 (1.27)	.058 (1.47)	3.12 (4.64)	27.0 (88.6)	24-XDXZ-732
24	SOLID	.020 (.51)	.046 (1.17)	.054 (1.37)	2.80 (4.17)	27.8 (91.2)	24-XDXZ-124
26	19/38	.019 (.48)	.045 (1.14)	.053 (1.35)	2.48 (3.69)	41.3 (135)	26-XDXZ-1938
26	7/34	.019 (.48)	.045 (1.14)	.053 (1.35)	2.40 (3.57)	43.1 (141)	26-XDXZ-734
26	SOLID	.016 (.41)	.042 (1.07)	.050 (1.27)	2.16 (3.21)	45.3 (149)	26-XDXZ-126
28	7/36	.015 (.38)	.041 (1.04)	.049 (1.24)	1.89 (2.81)	68.6 (225)	28-XDXZ-736
28	SOLID	.013 (.33)	.039 (.99)	.047 (1.19)	1.74 (2.59)	71.6 (235)	28-XDXZ-128
30	7/38	.012 (.31)	.038 (.97)	.046 (1.17)	1.55 (2.31)	114 (374)	30-XDXZ-738
30	SOLID	.010 (.25)	.036 (.91)	.044 (1.12)	1.43 (2.13)	116 (380)	30-XDXZ-130
32	7/40	.009 (.22)	.035 (.89)	.043 (1.09)	1.29 (1.92)	189 (620)	32-XDXZ-740

Dimensions in inches (mm). Weights in pounds/1000 feet (Kg/1000 m). Resistance in Ω/1,000 feet (Ω/Km), @20° C.

All values are nominal unless otherwise indicated.