

Wire - Type MTW

Applications

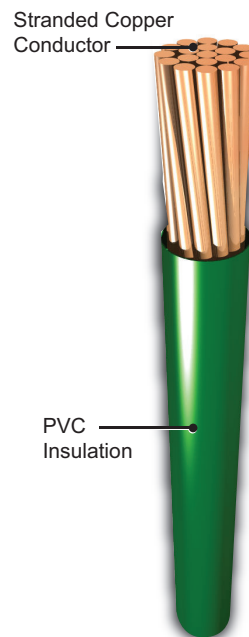
Type MTW conductors are primarily used in control cabinets, in machine tool applications, and in appliance wiring applications. For use in accordance with the National Electrical Code (NEC) and NFPA Standard 79. Voltage rating for all applications is 600 volts.

MTW wire is sold in a variety of colors and gauges on 500ft, 1000ft and 2500ft spools.

Features

- Gauges from 22 AWG to 10 AWG
- Bare copper conductor
- Color-coded Polyvinyl Chloride (PVC) outer jacket
- Striped version available for some colors and gauges
- Multiple ratings and approvals
- 500ft, 1000ft and 2500ft spools or reels available for most gauges & colors
- Made in the USA

Type MTW Wire



Type MTW Wire Specifications												
Size (AWG or kcmil)	Number of Strands	mm ² Equivalent	Insulation Thickness (inches)	Overall Outside Diameter		Allowable Ampacities*			Agency Approvals	Temperature Rating per UL1015	Approximate Weight (lbs) 500ft	Standard Packaging (Spool/Reel)
				(inches)	(mm)	60°C (140 °F)	75°C (167 °F)	90°C (194 °F)				
22	7	0.34	0.030	0.092	2.34	3	3	3	UL 758 UL 1015 UL 1032 UL 1230 UL 1011 UL 1013 UL 1335 CSA TEW or AWM I A/B UL File No E80256	105°C (221°F)	3.9	500ft or 1000ft
20	10	0.50	0.030	0.099	2.51	5	5	5			4.0	
18	16	0.75	0.030	0.110	2.79	7	7	14			4.6	1000ft or 2500ft. Some colors not offered in 1000ft and 2500ft reels.
16**	26	1.5	0.030	0.121	3.07	10	10	18	6.5			
14**	41	2.5	0.030	0.137	3.48	20	20	25	9.5			
12**	65	4	0.030	0.157	3.99	25	25	30	13.9			
10**	105	6	0.030	0.182	4.62	30	35	40	CSA TEW or AWM I A/B UL 758 UL 1015 UL 1032 UL 1230 UL 1011 UL 1013 UL 1335 UL 1426 UL File No E215651	20.5	500ft	

***Note:** Allowable ampacity shown above is per the NFPA79 Electrical Standard for Industrial Machinery 2018 Table 12.5.1 Conductor Ampacity Based on Copper Conductors with 60 °C [140 °F], 75 °C [167 °F], and 90 °C [194 °F] Insulation in an Ambient Temperature of 30 C [86F]. The above data is approximate and subject to normal manufacturing tolerance.

Product Color Disclaimer: The product photos shown are representative of our wire colors. The actual wire colors may vary from the images shown. Although our suppliers maintain a high-quality standard, there can be color variation from production. As a result, we cannot guarantee color spools will match up perfectly.

****Note:** Unless specifically permitted elsewhere in NFPA 70 overcurrent protection should not exceed 10 amps 16 AWG, 15 amps for 14 AWG, 20 amps for 12 AWG, and 30 amps for 10 AWG. To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.automationdirect.com

Please Note: Our prices on wire are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

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Part Number	Insulation Color	Gauge	Description	Spool/Reel Length	Approx. Weight	Price
MTW22BK	Black	22 AWG	Type MTW wire, bare copper, 7 strands, 600 Volts	500ft	[3.9 lb] [1.76 kg]	\$27.00
MTW22WH	White					\$27.00
MTW22RD	Red					\$27.00
MTW22BL	Blue					\$27.00
MTW22GN	Green					\$27.00
MTW22YL	Yellow					\$27.00
MTW22OR	Orange					\$27.00
MTW22BN	Brown					\$27.00
MTW22PL	Purple					\$27.00
MTW22GY	Gray					\$27.00
MTW22BW	Blue with White spiral stripe					\$31.00
MTW22WB	White with Blue spiral stripe					\$31.00
MTW22WO	White with Orange spiral stripe					\$31.00
MTW22GYL	Green with Yellow spiral stripe					\$31.00
MTW20BK	Black	20 AWG	Type MTW wire, bare copper, 10 strands, 600 Volts	500ft	[4.0 lb] [1.81 kg]	\$32.00
MTW20WH	White					\$32.00
MTW20RD	Red					\$32.00
MTW20BL	Blue					\$32.00
MTW20GN	Green					\$32.00
MTW20YL	Yellow					\$32.00
MTW20OR	Orange					\$32.00
MTW20BN	Brown					\$32.00
MTW20PL	Purple					\$32.00
MTW20GY	Gray					\$32.00
MTW20BW	Blue with White spiral stripe					\$41.50
MTW20WB	White with Blue spiral stripe					\$41.50
MTW20WO	White with Orange spiral stripe					\$41.50
MTW20GYL	Green with Yellow spiral stripe					\$41.50
MTW18BK	Black	18 AWG	Type MTW wire, bare copper, 16 strands, 600 Volts	500ft	[4.6 lb] [2.08 kg]	\$47.00
MTW18WH	White					\$47.00
MTW18RD	Red					\$47.00
MTW18BL	Blue					\$47.00
MTW18GN	Green					\$47.00
MTW18YL	Yellow					\$47.00
MTW18OR	Orange					\$47.00
MTW18BN	Brown					\$47.00
MTW18PL	Purple					\$47.00
MTW18GY	Gray					\$47.00
MTW18BW	Blue with White spiral stripe					\$53.00
MTW18WB	White with Blue spiral stripe					\$53.00
MTW18WO	White with Orange spiral stripe					\$53.00
MTW18GYL	Green with Yellow spiral stripe					\$58.00
MTW16BK	Black	16 AWG	Type MTW wire, bare copper, 26 strands, 600 Volts	500ft	[6.5 lb] [2.94 kg]	\$67.00
MTW16WH	White					\$67.00
MTW16RD	Red					\$67.00
MTW16BL	Blue					\$67.00
MTW16GN	Green					\$67.00
MTW16YL	Yellow					\$67.00
MTW16OR	Orange					\$67.00
MTW16BN	Brown					\$67.00
MTW16PL	Purple					\$67.00
MTW16GY	Gray					\$67.00
MTW16BW	Blue with White spiral stripe					\$73.00
MTW16WB	White with Blue spiral stripe					\$59.00
MTW16GYL	Green with Yellow spiral stripe					\$73.00

Wire - Type MTW

Type MTW Wire						
Part Number	Insulation Color	Gauge	Description	Spool/Reel Length	Approx. Weight	Price
MTW14BK	Black	14 AWG	Type MTW wire, bare copper, 41 strands, 600 Volts	500ft	[9.5 lb] [4.31 kg]	\$96.00
MTW14WH	White					\$96.00
MTW14RD	Red					\$96.00
MTW14BL	Blue					\$96.00
MTW14GN	Green					\$96.00
MTW14YL	Yellow					\$96.00
MTW14OR	Orange					\$96.00
MTW14BN	Brown					\$96.00
MTW14PL	Purple					\$96.00
MTW14GY	Gray					\$96.00
MTW14BW	Blue with White spiral stripe					\$102.00
MTW14WB	White with Blue spiral stripe					\$102.00
MTW14GYL	Green with Yellow spiral stripe					\$102.00
MTW12BK	Black					12 AWG
MTW12WH	White	\$142.00				
MTW12RD	Red	\$142.00				
MTW12BL	Blue	\$142.00				
MTW12GN	Green	\$142.00				
MTW12YL	Yellow	\$142.00				
MTW12OR	Orange	\$142.00				
MTW12BN	Brown	\$142.00				
MTW12GY	Gray	\$142.00				
MTW10BK	Black	10 AWG	Type MTW wire, bare copper, 105 strands, 600 Volts	500ft	[20.5 lb] [9.30 kg]	
MTW10WH	White					\$227.00
MTW10GN	Green					\$227.00
MTW10YL	Yellow					\$227.00
MTW10OR	Orange					\$227.00
MTW10BN	Brown					\$227.00
MTW22BK10	Black	22 AWG	Type MTW wire, bare copper, 7 strands, 600 Volts	1000ft	[6.8 lb] [3.08kg]	\$48.50
MTW22BL10	Blue					\$48.50
MTW22BN10	Brown					\$48.50
MTW22BW10	Blue with White spiral stripe					\$59.00
MTW22GN10	Green					\$48.50
MTW22GYL10	Green with Yellow spiral stripe					\$59.00
MTW22OR10	Orange					\$48.50
MTW22RD10	Red					\$48.50
MTW22WB10	White with Blue spiral stripe					\$59.00
MTW22WH10	White					\$48.50
MTW22YL10	Yellow					\$48.50

Wire - Type MTW

Type MTW Wire						
Part Number	Insulation Color	Gauge	Description	Spool/Reel Length	Approx. Weight	Price
MTW20BK10	Black	20 AWG	Type MTW wire, bare copper, 10 strands, 600 Volts		[8.3lb] [3.76kg]	\$59.00
MTW20BL10	Blue					\$59.00
MTW20BN10	Brown					\$58.00
MTW20BW10	Blue with White spiral stripe					\$65.00
MTW20GN10	Green					\$59.00
MTW20GYL10	Green with Yellow spiral stripe					\$65.00
MTW20OR10	Orange					\$59.00
MTW20RD10	Red					\$59.00
MTW20WB10	White with Blue spiral stripe					\$65.00
MTW20WH10	White					\$59.00
MTW20YL10	Yellow					\$59.00
MTW18BK10	Black					18 AWG
MTW18BL10	Blue	\$91.00				
MTW18BN10	Brown	\$91.00				
MTW18BW10	Blue with White spiral stripe	\$98.00				
MTW18GN10	Green	\$91.00				
MTW18GYL10	Green with Yellow spiral stripe	\$99.00				
MTW18GY10	Gray	\$91.00				
MTW18OR10	Orange	\$91.00				
MTW18PL10	Purple	\$91.00				
MTW18RD10	Red	\$91.00				
MTW18WB10	White with Blue spiral stripe	\$99.00				
MTW18WH10	White	\$91.00				
MTW18YL10	Yellow	\$91.00				
MTW16BK10	Black	16 AWG	Type MTW wire, bare copper, 26 strands, 600 Volts		[14.6lb] [6.62kg]	
MTW16BL10	Blue					\$127.00
MTW16BW10	Blue with White spiral stripe					\$141.00
MTW16GN10	Green					\$127.00
MTW16GYL10	Green with Yellow spiral stripe					\$141.00
MTW16RD10	Red					\$127.00
MTW16WB10	White with Blue spiral stripe					\$141.00
MTW16WH10	White					\$127.00
MTW16YL10	Yellow					\$127.00
MTW14BK10	Black	14 AWG	Type MTW wire, bare copper, 41 strands, 600 Volts		[19.0lb] [8.62kg]	\$192.00
MTW14BL10	Blue					\$192.00
MTW14GN10	Green					\$192.00
MTW14GYL10	Green with Yellow spiral stripe					\$196.00
MTW14RD10	Red					\$192.00
MTW14WH10	White					\$178.00
MTW18BK25	Black					18 AWG
MTW18RD25	Red	\$217.00				
MTW18BL25	Blue	\$217.00				
MTW18BW25	Blue with White spiral stripe	\$249.00				

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Type MTW Wire						
Part Number	Insulation Color	Gauge	Description	Spool/Reel Length	Approx. Weight	Price
MTW16BK25	Black	16 AWG	Type MTW wire, bare copper, 26 strands, 600 Volts	2500ft	[36.5lb] [16.5kg]	\$286.00
MTW16WH25	White					\$286.00
MTW16RD25	Red					\$286.00
MTW16BL25	Blue					\$286.00
MTW16BW25	Blue with White spiral stripe					\$286.00
MTW14BK25	Black	14 AWG	Type MTW wire, bare copper, 41 strands, 600 Volts	2500ft	[47.5lb] [21.55kg]	\$461.00
MTW14BN25	Brown					Retired
MTW14BW25	Blue with White spiral stripe					Retired

Gauge Conversion Table

American Wire Gauge Conversion Chart*			
This cross reference shows equivalent nominal values. Actual cross sections may vary.			
AWG	mm2	AWG	mm2
30	0.05	6	16
28	0.08	4	25
26	0.14	2	35
24	0.25	1	50
22	0.34	1/0	55
21	0.38	2/0	70
20	0.50	3/0	95
18	0.75	4/0	120
17	1.00	300MCM	150
16	1.50	350MCM	185
14	2.50	500MCM	240
12	4	600MCM	300
10	6	750MCM	400
8	10	1000MCM	500

*Note: Table shows commercially used equivalent values.

Conductor Ampacity Table

Allowable Ampacity			
AWG	60°C [140°F]	75°C [167°F]	90°C [194°F]
30	—	0.5	0.5
28	—	0.8	0.8
26	—	1	1
24	2	2	2
22	3	3	3
20	5	5	5
18	7	7	14
16**	10	10	18
14**	20	20	25
12**	25	25	30
10**	30	35	40
8	40	50	55
6	55	65	75
4	70	85	95
3	85	100	110
2	95	115	130
1	110	130	150
1/0	125	150	170
2/0	145	175	195
3/0	165	200	225
4/0	195	230	260
250MCM	215	255	290
300MCM	240	285	320
350MCM	260	310	350
400MCM	280	335	380
500MCM	320	380	430
600MCM	355	420	475
700MCM	385	460	520
750MCM	400	475	535
800MCM	410	490	555
900MCM	435	520	585
1000MCM	455	545	615

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