



# Wire Guide

## Maximum Wire Length for 0.5 Voltage Drop

\*Include return wire length (i.e. ground path)

WIRE GAUGE	Maximum Current In Amps													
	1	2	3	4	5	7.5	10	15	20	25	30	35	40	50
<b>18</b>	91	45	30	23	18	12	9	6	5					
<b>16</b>	116	58	39	29	23	16	12	8	6	5				
<b>14</b>	185	93	62	46	37	25	19	12	9	7	6	5		
<b>12</b>	294	147	98	74	59	39	29	20	15	12	10	8	7	6
<b>10</b>	455	227	152	114	91	61	45	30	23	18	15	13	11	9
<b>8</b>	714	357	238	179	143	95	71	48	36	29	24	20	18	14
ATO Fuse Color	Black	Gray	Violet	Pink	Tan	Brown	Red	Blue	Yellow	White	Green	Blu/Gm	Orange	Red

Maximum wire length in feet [multiply by 0.3048 to convert to meters]

## Wire Insulation O.D.

WIRE GAUGE	Metric Wire Size [mm <sup>2</sup> ]	Insulation Diameter in Inches [MM]		
		TXL	GXL	SXL
<b>18</b>	0.80	0.08 [2.0]	0.09 [2.3]	0.11 [2.7]
<b>16</b>	1.00	0.09 [2.3]	0.10 [2.6]	0.12 [3.0]
<b>14</b>	2.00	0.10 [2.5]	0.12 [3.0]	0.14 [3.6]
<b>12</b>	3.00	0.12 [2.9]	0.14 [3.6]	0.16 [4.1]
<b>10</b>	5.00	0.15 [3.8]	0.17 [4.4]	0.19 [5.0]
<b>8</b>	8.00	0.18 [4.6]	0.21 [5.3]	0.23 [5.8]



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## Voltage Drop Through Connectors\*

TERMINAL	Current in Amps RESULTS BELOW in Millivolts DC								
	5	7.5	10	15	20	25	30	35	40
<b>0.250" Blade</b>	2	4	5	7	10	12	15	17	20
<b>630 Metri-Pack</b>	5	7	10	15	20	25	30	35	
<b>280 Metri-Pack</b>	6	9	12	18	23	29	35		
<b>Weather-Pack</b>	9	14	18	27	36				
<b>150 Metri-Pack</b>	13	20	26	39					
<b>100 Micro-Pack</b>	19	29	38						
<b>Deutsch Size 12</b>	2	3	4	7	9	11			
<b>Deutsch Size 16</b>	4	6	8	13					
<b>Deutsch Size 20</b>	9	13							
<b>Thermostat</b>	61	70							
<b>ISO Relay</b>	46	54	62	79	95	111	128	144	161
<b>Butt Splice</b>	1	2	2	3	4	5	6	7	8
<b>Ring Terminal</b>	2	3	3	5	7	9	10	12	14

\* Millivolt drop through connector terminals/components @ 20°C  
 Estimate only - values may vary due to condition and age of terminal/component and other ambient conditions.  
 Consult manufacturer for specific information and usage limitations.