

Hook-Up Wire Data by Wire Type

Application		Electronics				Construction		Marine	Automotive					
Wire Type		UL1007	UL1015	MIL PVC (MIL-W-16878/1)	MIL PTFE (MIL-W-16878/4)	THHN		GPTM (UL1426)	GPT (SAE J1128)	SXL (SAE J1128)	GXL (SAE J1128)	TXL (SAE J1128)		
Voltage Rating		300 V	600 V	600 V	600 V	600 V		60 V	60 V	60 V	60 V	60 V		
Temperature Rating		105°C	105°C	105°C	200°C	90°C Dry, 75°C Wet		100°C Dry, 80°C Wet	85°C	125°C	125°C	125°C		
Conductor Material		Tinned Copper	Tinned Copper	Tinned Copper	Silver-Plated Copper	Bare Copper		Tinned Copper	Bare Copper	Bare Copper	Bare Copper	Bare Copper		
Insulation Material		PVC	PVC	PVC	PTFE	PVC with Nylon Jacket		PVC	PVC	XLPE	XLPE	XLPE		
STR/SLD ¹	Bare ²	STR	SLD	STR	STR	STR	STR	SLD	STR	STR	STR	STR	STR	
Overall Diameter (in) by AWG	8	0.1285	—	—	—	—	0.2130	—	0.2150	0.2150	0.2270	0.2180	0.1910	
	10	0.1019	0.1450	—	0.1940	—	0.1610	0.1500	0.1730	0.1750	0.1920	0.1740	0.1550	
	12	0.0808	0.1270	0.1140	0.1600	—	0.1140	0.1280	0.1190	0.1410	0.1420	0.1610	0.1410	0.1280
	14	0.0641	0.1050	0.0970	0.1410	0.0920	0.0950	0.1090	0.1020	0.1170	0.1170	0.1410	0.1140	0.1030
	16	0.0508	0.0940	0.0830	0.1240	0.0800	—	—	—	0.1030	0.1030	0.1180	0.1020	0.0880
	18	0.0403	0.0800	0.0730	0.1100	0.0680	—	—	—	0.0920	0.0920	0.1070	0.0910	0.0820
	20	0.0320	0.0700	0.0640	0.1000	0.0580	—	—	—	0.0840	0.0960	0.0840	—	0.0700
	22	0.0254	0.0620	0.0580	0.0950	0.0510	—	—	—	0.0760	—	—	—	0.0620
	24	0.0201	0.0560	0.0530	0.0880	0.0440	—	—	—	—	—	—	—	—
	26	0.0159	0.0500	0.0500	0.0830	0.0390	—	—	—	—	—	—	—	—
	28	0.0126	0.0460	0.0460	—	0.0350	—	—	—	—	—	—	—	—
	30	0.0100	0.0440	—	—	0.0310	—	—	—	—	—	—	—	—
	32	0.0080	—	—	—	0.0290	—	—	—	—	—	—	—	—

¹ Some hook-up wire types are available in stranded (STR) or solid (SLD) wire builds; see the *Stranded Wire or Solid Wire?* section below for information on choosing a build. We have provided dimensions for the typical stranded constructions, but please note that variations in the stranding can affect this diameter.

² These bare conductor dimensions are provided for reference. The actual bare diameter can slightly vary by the conductor material and stranding. See our product pages to determine nominal values.

Stranded Wire or Solid Wire?

Hook-Up Wire is often available in two constructions – stranded and solid. The conductor of a stranded wire consists of multiple strands of smaller-sized wire that are bundled together to create an equivalent to a larger-sized wire. A solid wire’s conductor is simply a single piece of larger-sized wire.

Typically, stranded wire is more flexible and can withstand repeated bends better than solid wire can. This makes stranded wire ideal for being used in a busy environment where it could often be bent or otherwise moved. On the other hand, solid wire is usually very rigid, especially as you increase the wire size. This allows for a durable wire that will readily hold a shape if needed. Additionally, the conductor diameter of a solid wire tends to be smaller than that of a stranded wire (and thus, the overall diameter is smaller as well). As such, applications where the hook-up wire’s diameter is critical or where a certain form is desired are perfect for solid wire.

However, any given wire build is designed to meet a hook-up wire’s standards and ratings. Therefore, stranded wire *and* solid wire will both deliver the performance you need to complete your project.

All values are nominal unless otherwise specified. Click any number in bold to view the webpage for that standard Remington Industries product.



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