



A quick
product finder
for commercial applications

 **JUDD WIRE INC.**



A member of the Sumitomo Electric Industries group of companies

Select, Customize, Order & Receive Products with Ease

This catalog contains comprehensive listings of Judd Wire standard products, many of which are stocked in a variety of colors. For the stocking status of a specific product, please call Judd Wire, or visit our web site:

www.juddwire.com

All standard and special colors, stripes, solids, combinations, and numerical codings are available upon request. Judd Wire is also prepared to meet your requirements for continuous lengths, custom packaging, jacketing, shielding, different gauges or stranding, etc. If you have a special need or unusual application, call us.

You can also contact Judd Wire for ordering assistance, engineering information, physical and electrical properties of products, etc. Complete East Coast and West Coast contact numbers are

throughout the United States. Please call for the name and address of your nearest location or return the enclosed reply card for prompt service.

We are not just a stock wire company, Judd Wire is your wire and cable problem-solver!

listed on the back cover for convenient telephone, facsimile, and world wide web communications.

Judd Wire maintains nationwide product availability through a network of Authorized Distributors. Sales representatives are also located in principal cities

Besides single conductors, Judd Wire PCA, FLEXRAD 125, and FLEXRAD 150 product lines are available in twist pairs, triples, quads and other multi-conductor configurations. See inside back cover (pg.11) for cable information.

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Ordering Information

Judd Wire is equipped to respond to a wide variety of customer requirements ranging from continuous length put-ups to custom striped, marked and tinned constructions. If you have special conditions to discuss or would like assistance with ordering, please call Judd Wire.

Packaging (Put-ups)

Spools from 1,000 feet to standard stock packages per factory specifications, continuous lengths; or per customer specifications. Custom packaging and drum packs are also available.

Colors/Markings

All standard and special colors, stripes, solids, combinations, and numerical codings are available per customer specification.

Special Conductors

In addition to the conductor styles listed in this catalog, Judd Wire products are available with heavy tinned, top coated or prebonded stranded conductors to facilitate automatic wire cutting, stripping, and other automatic processes.

Notice: All statements, ratings, technical data, etc., contained herein are based on information we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using, buyer shall determine the suitability of the product for its intended application, and assumes all risk and liability in connection therewith.



Find the right Judd Wire product fast

By UL Style, CSA Class, or Military Specification

UL					CSA						
Style No.	Temp. Rating °C	Voltage Rating	AWG Sizes	Avg. Wall Thickness	Class	Temp. Rating °C	Voltage Rating	AWG Sizes	Avg. Wall Thickness	Judd Wire Product Line	page number
1472	80	125V	32-20	.007"	-	-	-	-	-	PCA	5
1429	80	150V	32-20 18-16	.0105" .011"							
1534	80	NVS*	32-16 14	.011" .012"	AWM	80	150V	32-12	.011"	PCA	5
1536	80	NVS*	32-16 14 12-10	.011" .012" .013"							
1787	80	300V	36-20 18-16	.0105" .011"	-	-	-	-	-	PCA	5
1430	105	300V	30-16	.016"							
1557	105	NVS*	16 14-10	.016" .016"	REW	105	300V	26-10	.016"	PCA	6
3317	105	300V	14-10	.016"							
1431	105	600V	30-10 8 6-2	.030" .050" .060"	REW	105	600V	24-10 8 6-2	.030" .050" .060"	PCA	6
3265	125	150V	30-16	.011"	AWM	125	150V	30-16	.011"	FLEXRAD 125	8
3266	125	300V	26-10	.016"	AWM or CL1252	125	300V	26-10	.016"	FLEXRAD 125	8
3271	125	600V	26-10 8 6-1/0	.030" .045" .060"	AWM or CL1251	125	600V	26-10 8 6-1/0	.030" .045" .060"	FLEXRAD 125	8
3239	105	5kV	24-12	.020"	TV-6	105	6KV	22-10	.020"	FLEXRAD HV	10
3239	105	10kV	24-12	.030"	TV-10	105	10KV	22-10	.030"	FLEXRAD HV	10
3239	105	15kV	24-12	.035"	TV-15	105	15KV	22-10	.035"	FLEXRAD HV	10
3239	105	20kV	24-12	.050"	TV-20	105	20KV	22-10	.050"	FLEXRAD HV	10
3239	105	25kV	24-12	.055"	TV-20	105	20KV	22-10	.055"	FLEXRAD HV	10
3239	105	30kV	24-12	.060"	TV-30	105	30KV	22-10	.060"	FLEXRAD HV	10
3239	105	40kV	24-12	.070"	TV-40	105	40KV	22-10	.070"	FLEXRAD HV	10
3398	150	300V	30-10	.017"	AWM	150	300V	30-10	.017"	FLEXRAD 150	8
3289	150	600V	30-10 8	.032" .047"	AWM	150	600V	30-10 8	.032" .047"	FLEXRAD 150	8

* No Voltage Specified

Find the right Judd Wire product fast by Application and Temperature

MILITARY SPECIFICATION

Mil-W-	Temp. Rating °C	Voltage Rating	AWG Sizes	Avg. Wall Thickness	Judd Wire Product Line	page number
16878F/1	105	600V	32-14	.0110	PCA	6
16878F/2	105	1000V	26-12	.0160	PCA	6
16878F/3	105	3000V	24-10	.0300	PCA	6
			8	.0500		
			6-0	.0600		
16878F/14	125	600V	32-14	.0110	FLEXRAD 125	8
16878F/15	125	1000V	26-12	.0160	FLEXRAD 125	8
16878F/16	125	3000V	26-0	.0310	FLEXRAD 125	8

Application	Temp. Rating	Prod. Line	page
Business Machines	80	PCA	5
Communication Equipment			
Computers			
Data Processing Equipment			
Instrumentation			
Military Electronics			
Test Equipment			
Appliances	105	PCA	6
Automotive Components			
Business Machines			
Communication Equipment			
Computers			
Data Processing Equipment			
Home Entertainment			
Instrumentation			
Medical Electronics			
Military Electronics			
Test Equipment			
Appliances	105	FLEXRAD HV	10
Cathode Ray Tubes			
Color TVs			
Home Entertainment			
Microwave Ovens			
Video Displays			
Computers	125	FLEXRAD 125	8
Industrial Controls			
Military Equipment			
Motor Leads			
Transformers			
Lighting Devices	150	FLEXRAD 150	8
Ballasts			
Transformers			
Computers			
Appliances			

PCA (80°C & 105°C XLPVC)



Solid Tinned Copper



Stranded Tinned Copper

PCA is a diverse line of tri-rated electronic wire. Its poly-chloroalkene insulation is an exclusive irradiation cross-linked PVC with a unique combination of high-performance properties.

High heat and burn-through resistance

PCA insulation will not melt or flow at soldering iron temperatures up to 660°F. It eliminates the problem of rework due to soldering iron damage.

Wide operating temperature range

PCA insulated wires are rated for continuous operation from -55°C to 105°C regardless of the temperature range established by UL, CSA and Mil Spec ratings.

Improved chemical resistance

PCA insulation has chemical and solvent resistance that is superior to the best grade PVC insulations.

Superior processability

End costs are reduced with PCA insulated wires, which conform easily to desired shapes for chassis wiring and harness construction. PCA insulation can be cut and stripped cleanly by automatic processing equipment. The characteristic PVC creep due to insulation stretch is eliminated.

VW-1

PCA insulated wire provides the same excellent flame-resistant properties as the best PVC insulations. It does not melt or shrink back at termination.

Ready availability

PCA insulated wire is available in nine UL styles and over 100 types and configurations. They are UL and CSA rated, and Mil specified at your option.

Reduced material costs

PCA tinned copper conductors do not require expensive silver plating as do many fluorocarbon constructions. PCA with tinned copper is comparable to fluorocarbon insulations with silver plating in every respect but one — price. There, PCA offers the significant advantage of lower cost with equivalent quality.

Business Machines ■ Communication Equipment ■ Computers ■ Data Processing Equipment ■ Automotive Components ■ Military Electronics ■ Test Equipment ■ Appliances ■ Instrumentation ■ Home Entertainment ■ Medical Electronics ■ Military Electronics

PCA (80°C XLPVC)

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL1472				
32	Solid	.022	.559	H0107045
30	Solid	.024	.610	H0107001
30	7/38	.026	.660	H0107002
28	Solid	.027	.666	H0107003
28	7/36	.029	.737	H0107004
26	Solid	.030	.762	H0107005
26	7/34	.033	.838	H0107006
26	19/38	.035	.889	H0107020
24	Solid	.034	.864	H0107007
24	7/32	.038	.960	H0107006
24	19/36	.038	.965	H1017021
22	Solid	.039	.991	H0107009
22	7/30	.044	1.118	H0107010
22	19/34	.045	1.143	H0107022
20	Solid	.046	1.166	H0107011
20	7/28	.052	1.321	H0107012
20	19/32	.053	1.346	H0107023

UL1429, CSA AWM, MIL-W-16878F/1

30	Solid	.032	.813	H0101001
30	7/38	.033	.838	H0101002
28	Solid	.034	.864	H0101004
28	7/36	.036	.914	H0101005
28	19/40	.036	.914	H0101006
26	Solid	.038	.965	H0101007
26	7/34	.040	1.016	H0101008
26	19/38	.040	1.016	H0101009
24	Solid	.042	1.067	H0101010
24	7/32	.045	1.143	H0101011
24	19/36	.045	1.143	H0101012
22	Solid	.047	1.194	H0101013
22	7/30	.051	1.295	H0101014
22	19/34	.052	1.321	H0101015
20	Solid	.054	1.372	H0101016
20	7/28	.059	1.499	H0101017
20	19/32	.060	1.524	H0101018
20	10/30	.058	1.473	H0101035
18	Solid	.061	1.549	H0102001
18	7/26	.070	1.778	H0102002
18	19/30	.070	1.778	H0102003
18	16/30	.069	1.753	H0102010
16	Solid	.073	1.854	H0102004
16	19/.0117	.078	1.981	H0102005
16	26/30	.082	2.083	H0102012

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL1534, CSA AWM, MIL-W-16878F/1				
14	Solid	.086	2.184	H0112003
14	19/.0147	.096	2.438	H0112001
14	41/30	.098	2.489	H0112002

UL1536, CSA AWM, MIL-W-16878F/1

12	19/.0185	.114	2.896	H0113003
12	65/30	.119	3.023	H0113002
10	37/.0167	.143	3.632	H0113008
10	105/30	.149	3.783	H0113007

UL1787 MIL-W-16878F/1

30	7/38	.033	.838	H0108001
28	7/36	.036	.914	H0108002
26	Solid	.038	.965	H0108003
26	7/34	.040	1.016	H0108004
26	19/38	.040	1.016	H0108005
24	Solid	.042	1.067	H0108006
24	7/32	.045	1.143	H0108007
24	19/36	.045	1.143	H0108009
22	Solid	.047	1.194	H0108010
22	7/30	.051	1.295	H0108011
22	19/34	.052	1.321	H0108013
20	Solid	.054	1.372	H0108014
20	7/28	.059	1.499	H0108015
20	19/32	.060	1.524	H0108017
18	7/26	.070	1.778	H0108018
18	19/30	.070	1.778	H0108019
16	19/.0117	.078	1.981	H0108020

PCA_(105°C XLPVC)

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL1430, CSA REW, MIL-W-16878F/2				
28	7/36	.049	1.245	H0103005
26	Solid	.050	1.270	H0103007
26	7/34	.051	1.295	H0103008
26	19/38	.053	1.346	H0103009
24	Solid	.054	1.372	H0103010
24	7/32	.056	1.422	H0103011
24	19/36	.057	1.448	H0103012
22	Solid	.059	1.499	H0103013
22	7/30	.062	1.575	H0103014
22	19/34	.063	1.600	H0103015
20	Solid	.066	1.676	H0103016
20	7/28	.070	1.778	H0103017
20	19/32	.071	1.803	H0103018
20	10/30	.071	1.803	H0103020
18	Solid	.074	1.880	H0104001
18	7/26	.082	2.083	H0104002
18	19/30	.082	2.083	H0104003
18	16/30	.082	2.083	H0104007
16	Solid	.085	2.159	H0104004
16	19/.0117	.092	2.337	H0104005
16	26/30	.092	2.337	H0104006

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL1557, CSA REW, MIL-W-16878F/2				
14	Solid	.098	2.489	H0104010
14	19/.0147	.107	2.718	H0104008
14	41/30	.109	2.769	H0104009
12	Solid	.115	2.921	H0104012
12	19/.0185	.124	3.150	H0104011
12	65/30	.127	3.226	H0104015

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL3317, CSA REW, MIL-W-16878F/2				
14	Solid	.098	2.489	H0104020
14	19/.0147	.107	2.718	H0104018
14	41/30	.109	2.769	H0104019
12	Solid	.115	2.921	H0104022
12	19/.0185	.124	3.150	H0104021
12	65/30	.127	3.226	H0104023
10	37/.0167	.149	3.785	H0104014
10	105/30	.156	3.962	H0104016

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL1431, CSA REW, MIL-W-16878F/3				
24	7/32	.088	2.235	H0105011
24	19/36	.088	2.235	H0105012
22	Solid	.089	2.261	H0105013
22	7/30	.092	2.337	H0105014
22	19/34	.095	2.413	H0105015
20	Solid	.096	2.438	H0105016
20	7/28	.102	2.591	H0105017
20	19/32	.103	2.616	H0105018
20	10/30	.105	2.667	H0105019
18	Solid	.104	2.642	H0106001
18	7/26	.112	2.845	H0106002
18	19/30	.112	2.845	H0106003
18	16/30	.111	2.819	H0106026
16	Solid	.115	2.921	H0106004
16	19/.0117	.122	3.099	H0106005
16	26/30	.122	3.099	H0106029
14	Solid	.128	3.251	H0106007
14	19/.0147	.136	3.454	H0106008
14	41/30	.142	3.607	H0106032
12	Solid	.145	3.683	H0106010
12	19/.0185	.154	3.912	H0106011
12	65/30	.156	3.962	H0106035
10	37/.0167	.178	4.521	H0106014
10	105/30	.188	4.775	H0106015
8	133/.011	.261	6.629	H0106017
8	168/30	.267	6.782	H0106018
6	133/.0141	.342	8.687	H0106020
4	133/.0177	.392	9.957	H0106021
2	665/30	.456	11.582	H0106040



Flexrad 125™ & 150™ (125°C 150°C XLPE)



Solid Tinned Copper



Stranded Tinned Copper

FLEXRAD 125 & 150 is an irradiation cross-linked polyethylene insulated wire, rated by UL, and CSA, for a wide variety of uses. FLEXRAD 125 is also rated by military specifications, and is offered in three styles. FLEXRAD 125 & 150 each have these desirable characteristics:

High heat and abrasion resistance

FLEXRAD 125 & 150 has excellent abrasion resistance (no cut-through) and exhibits no shrink-back even when in direct contact with a soldering iron.

Excellent chemical resistance

FLEXRAD 125 & 150 insulation has unusually high resistance to chemicals and solvents, especially potting systems, which makes it ideal for transformer applications.

Wide operating temperature range

FLEXRAD 125 & 150 insulated wires are rated for continuous operation from -55° to 125°C, and -55° to 150°C respectively, as recognized by UL and CSA.

Flame retardant rating VW-1

FLEXRAD 125 & 150 insulated wire provides the same excellent flame-retardant properties as the best PVC insulations. It does not melt or shrink back at termination.

Superior processability and performance

Highly flexible FLEXRAD 125 & 150 wires conform readily to desired shapes for lead wire and interconnection applications. They avoid the limitations of conventional 105°C PVC: limited temperature range, solder iron shrink-back, creeping insulation during automated cut and strip processing, and poor abrasion resistance. Similarly, FLEXRAD 125 & 150 avoids the production problems of fluorocarbons: cold flow, low adhesion, poor cut-through resistance, short lengths, limited flexibility and poor potting ability.

Reduced material costs

Instead of the silver plated conductors often required with fluorocarbon constructions, FLEXRAD 125 & 150 can use tinned copper conductors at substantial savings.

Flexrad 125 ■ Computers ■ Industrial Controls ■ Military Equipment ■ Motor Leads ■ Transformers

Flexrad 150 ■ Lighting Devices ■ Ballasts ■ Computers ■ Appliances ■ Transformers

Flexrad 125TM & 150TM (125°C, 150°C XLPE)

Flexrad 125TM (125°C XLPE)

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL3265, CSA AWM, MIL-W-16878F/14				
30	7/38	.032	.81	H0578002
28	7/36	.035	.89	H0578004
26	7/34	.039	.99	H0578006
26	19/38	.040	1.02	H0578007
24	7/32	.044	1.12	H0578009
24	19/36	.045	1.14	H0578010
22	7/30	.050	1.27	H0578012
22	19/34	.052	1.32	H0578013
20	7/28	.058	1.47	H0578015
20	19/32	.060	1.52	H0578017
18	7/26	.068	1.73	H0578019
18	16/30	.068	1.73	H0578020
18	19/30	.070	1.78	H0578021
16	19/.0117	.077	1.96	H0578024
16	26/30	.080	2.03	H0578025

UL3266, CSA AWM or CL1252, MIL-W-16878F/15

26	7/34	.051	1.29	H0579006
26	19/38	.052	1.32	H0579007
24	7/32	.056	1.42	H0579009
24	19/36	.057	1.45	H0579010
22	7/30	.062	1.58	H0579012
22	19/34	.064	1.63	H0579013
20	7/28	.070	1.78	H0579015
20	19/32	.072	1.83	H0579017
18	7/26	.080	2.03	H0579019
18	16/30	.080	2.03	H0579020
18	19/30	.082	2.08	H0579021
16	19/.0117	.089	2.26	H0579024
16	26/30	.092	2.34	H0579025
14	19/.0147	.106	2.69	H0579043
14	41/30	.107	2.72	H0579044
12	19/.0185	.127	3.23	H0579049
12	65/30	.127	3.23	H0579050
10	37/.0167	.151	3.84	H0579055
10	105/30	.154	3.91	H0579056

Flexrad 125TM (125°C XLPE)

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
UL3271, CSA AWM or CL1251, MIL-W-16878F/16				
26	7/34	.082	2.08	H0580006
26	19/38	.083	2.11	H0580007
24	7/32	.087	2.21	H0580009
24	19/36	.088	2.24	H0580010
22	7/30	.093	2.36	H0580012
22	19/34	.095	2.41	H0580013
20	7/28	.101	2.57	H0580015
20	19/32	.103	2.62	H0580017
18	7/26	.111	2.82	H0580019
18	19/30	.113	2.87	H0580021
16	19/.0117	.120	3.05	H0580024
16	26/30	.123	3.12	H0580025
14	19/.0147	.134	3.40	H0580028
14	41/30	.133	3.38	H0580029
12	19/.0185	.154	3.91	H0580033
12	65/30	.156	3.96	H0580034
10	37/.0167	.179	4.55	H0580036
10	105/30	.182	4.62	H0580038
8	133/.0111	.261	6.63	H0580048
6	133/.0141	.341	8.66	H0580040
4	133/.0177	.392	9.96	H0580052
2	665/30	.456	11.56	H0580043

Flexrad 150TM (150°C XLPE)

UL 3398, CSA AWM, 300 volt

30	19/42	.046	1.17	H0584001
28	19/40	.049	1.24	H0584002
24	19/36	.059	1.50	H0584003
22	19/34	.064	1.63	H0584004
20	10/30	.070	1.78	H0584006
18	16/30	.080	2.03	H0584010
16	26/30	.094	2.39	H0584013
14	41/30	.105	2.67	H0584014
12	65/30	.125	3.18	H0584015
10	105/30	.157	3.99	H0584020

UL 3289, CSA AWM, 600 volt

30	19/42	.076	1.93	H0588002
28	19/40	.083	2.11	H0588003
24	19/36	.093	2.36	H0588004
22	19/34	.094	2.39	H0588005
20	10/30	.100	2.54	H0588009
18	16/30	.110	2.79	H0588012
16	26/30	.124	3.15	H0588016
14	41/30	.135	3.43	H0588022
12	65/30	.155	3.94	H0588026
10	105/30	.184	4.67	H0588032
8	168/30	.243	6.17	H0588036

Flexrad HV™ (105°C XLPE)



Solid Tinned Copper



Stranded Copper with Tinned Overcoat

FLEXRAD HV is specially designed as a high voltage lead wire for consumer electronics, appliances, test equipment and instrumentation. It has Judd Wire's superior cross-linked polyethylene insulation and is temperature rated for 105°C continuous, with excellent overload capacity for short duration.

Application-matching variety

FLEXRAD HV is available in seven voltage ratings, 5kV to 40kV, so it is easily matched to your applications without expensive "overkill." There is no need, for example, to substitute a 15kV wire in a 5kV application. Savings of up to 20% in cost, space requirement and wire weight are possible by specifying the right FLEXRAD HV for each job.

Superior production properties

The excellent properties of FLEXRAD HV makes it easy to use in tight places. Its tough irradiated polyethylene insulation resists shrink-back and melting, even when in direct contact with a soldering iron.

Excellent performance characteristics

FLEXRAD HV has high resistance to abrasion, deformation, cut-through and chemical attack.

Flame retardant rating VW-1

FLEXRAD HV insulated wire provides the same excellent flame-retardant properties as the best PVC insulations. It does not melt or shrink back at termination.

Three conductor styles

Solid tinned copper, stranded bare copper with tinned overcoat (TOP), or stranded tinned copper with tinned overcoat (TOC).

Appliances ■ Cathode Ray Tubes ■ Color TVs Home Entertainment ■ Microwave Ovens ■ Video Displays

Flexrad HV™ (105°C XLPE)

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
5kV UL 3239, CSA TV-6				
24	Solid	.062	1.575	V0505001
24	7/32 TOP	.066	1.676	V0505002
24	7/32 TOC	.066	1.676	V0505003
22	Solid	.068	1.727	V0505004
22	7/30 TOP	.072	1.829	V0505005
22	7/30 TOC	.072	1.829	V0505006
20	Solid	.074	1.880	V0505007
20	7/28 TOP	.080	2.032	V0505008
20	7/28 TOC	.080	2.032	V0505028
18	Solid	.083	2.108	V0505011
18	7/26 TOP	.092	2.337	V0505032
18	7/26 TOC	.092	2.337	V0505033

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
10kV UL 3239, CSA TV-10				
24	Solid	.082	2.083	V0510001
24	7/32 TOP	.086	2.184	V0510002
24	7/32 TOC	.086	2.184	V0510003
22	Solid	.088	2.235	V0510004
22	7/30 TOP	.092	2.337	V0510005
22	7/30 TOC	.092	2.337	V0510006
20	Solid	.094	2.388	V0510007
20	7/28 TOP	.100	2.540	V0510008
20	7/28 TOC	.100	2.540	V0510010
18	Solid	.103	2.616	V0510011
18	7/26 TOP	.110	2.794	V0510032
18	7/26 TOC	.110	2.794	V0510033

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
15kV UL 3239, CSA TV-15				
24	Solid	.096	2.438	V0515001
24	7/32 TOP	.100	2.540	V0515002
24	7/32 TOC	.100	2.540	V0515003
22	Solid	.102	2.591	V0515004
22	7/30 TOP	.103	2.618	V0515005
22	7/30 TOC	.103	2.616	V0515013
20	Solid	.108	2.743	V0515007
20	7/28 TOP	.114	2.896	V0515008
20	7/28 TOC	.114	2.896	V0515025
18	Solid	.116	2.946	V0515011
18	7/26 TOP	.124	3.150	V0515032
18	7/26 TOC	.124	3.150	V0515033

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
20kV UL 3239, CSA TV-20				
24	Solid	.126	3.200	V0520001
24	7/32 TOP	.130	3.302	V0520002
24	7/32 TOC	.130	3.302	V0520003
22	Solid	.131	3.327	V0520004
22	7/30 TOP	.136	3.454	V0520005
22	7/30 TOC	.136	3.454	V0520016
20	Solid	.138	3.505	V0520007
20	7/28 TOP	.144	3.658	V0520008
20	7/28 TOC	.144	3.658	V0520010
18	Solid	.146	3.708	V0520011
18	7/26 TOP	.154	3.912	V0520032
18	7/26 TOC	.154	3.912	V0520033

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
25kV UL 3239, CSA TV-20				
24	Solid	.136	3.454	V0525001
24	7/32 TOP	.140	3.556	V0525002
24	7/32 TOC	.140	3.556	V0525003
22	Solid	.141	3.581	V0525004
22	7/30 TOP	.146	3.708	V0525005
22	7/30 TOC	.146	3.708	V0525016
20	Solid	.148	3.759	V0525007
20	7/28 TOP	.154	3.912	V0525008
20	7/28 TOC	.154	3.912	V0525010
18	Solid	.156	3.962	V0525011
18	7/26 TOP	.164	4.166	V0525032
18	7/26 TOC	.164	4.166	V0525033

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
30kV UL 3239, CSA TV-30				
24	Solid	.148	3.759	V0530001
24	7/32 TOP	.152	3.861	V0530002
24	7/32 TOC	.152	3.861	V0530003
22	Solid	.153	3.886	V0530004
22	7/30 TOP	.158	4.013	V0530005
22	7/30 TOC	.158	4.013	V0530006
20	Solid	.160	4.064	V0530007
20	7/28 TOP	.166	4.216	V0530008
20	7/28 TOC	.166	4.216	V0530010
18	Solid	.168	4.267	V0530011
18	7/26 TOP	.176	4.470	V0530032
18	7/26 TOC	.176	4.470	V0530033

AWG Sizes	Stranding	Nominal Inches	Diameter mm	JUDD Part No.
40kV UL 3239, CSA TV-40				
24	Solid	.168	4.267	V0540001
24	7/32 TOP	.172	4.369	V0540002
24	7/32 TOC	.172	4.369	V0540003
22	Solid	.173	4.394	V0540004
22	7/30 TOP	.178	4.521	V0540005
22	7/30 TOC	.178	4.521	V0540014
20	Solid	.180	4.572	V0540007
20	7/28 TOP	.186	4.724	V0540008
20	7/28 TOC	.186	4.724	V0540013
18	Solid	.188	4.775	V0540011
18	7/26 TOP	.196	4.978	V0540032
18	7/26 TOC	.196	4.978	V0540033

Multi-Conductor Cables



As a complete integrated wire and cable manufacturer, Judd Wire can manufacture a broad spectrum of special cables for OEM equipment or replacement applications. We can work from your specifications or design custom cables according to your needs.

Cables are available with or without shielding; shields can be conventional braids, spiral braids, aluminum foil or conductive plastics. Taped, served and wrapped shields are also available. Our cable jacketing facilities extrude irradiation cross-linked compounds as well as vinyls, nylons, polyethylenes, polyurethanes and fluorocarbons.

For further information about special cables, please contact Judd Wire. We want to work with you to develop the right features and functions for your application, within a unique custom package.

Typical Judd Wire cable styles include:

PCA

PCA cables offer all the advantages of Judd Wire's exclusive irradiation cross-linked polychloroalkene insulation in a multi-conductor package. Cables can contain twisted pairs, triples, quads and other multi-conductor configurations. PCA and other jacketing materials can be applied, as well as color-coding or striping to order.

FLEXRAD

FLEXRAD process control cables link manufacturing departments with central data processing and computer locations. Factory automation projects are ideal sites for these dependable, environmentally hardy control cables. All primaries are VW-1 flame retardant; the jacketed cables meet requirements of the 70,000 BTU/hr burner vertical tray fire test for IEEE 383-1974. These cables are superior to instrumentation cables made with standard PVC compounds in their corrosive outgassing test and acid gas generation test results.

Multi-Conductor Cable Selection Guide

Application	Temp. Rating °C	Judd Wire Product Line
Communication Data Transmission Low Capacitance Magnetic Heads Point of Sale Terminals	80	PCA
Coaxial Communication Data Transmission Low Capacitance Point of Sale Terminals	105	PCA
Coaxial Data Transmission Instrumentation Process Control Thermocouples	125	FLEXRAD 125
Business Machines Computers Data Transmission Instrumentation Process Control	150	FLEXRAD 150



Judd Wire – Pioneer in Irradiated Wire

Judd Wire is a high technology wire company, specializing in the use of electron beam cross-linked thermosets for wire insulation. By applying irradiation cross-linking technology to insulating materials, Judd Wire meets the needs of the wire and cable industry for economical, high-performance products.

Judd Wire manufactures electronic wire and cable in over 100 styles recognized by Underwriters Laboratory, Canadian Standards and/or Military Specifications.

Electron Beam Technology and Cross-Linked Wire Insulation

Electron beam processing evolved from the particle accelerator into a variety of industrial applications worldwide. One of its major uses is the irradiation of electrical insulation materials – the specialty of Judd Wire.

Electron beam treatment changes both the chemical structure and physical properties of wire insulation. The principal effect of high velocity electrons is to break the existing chemical bonds between the atoms of insulation materials. Orbital electrons are liberated, producing ions and free radicals. The original molecule is modified and the free radicals form new molecules. In the case of insulation materials for wire and cable, the beneficial results of this irradiation cross-linking are: improved resistance to cut-through, deformation and chemical attack; no shrink-back, or melting even when the insulation is in direct contact with a hot soldering iron at 660°F.



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Judd Wire Inc. is an ISO 9001 and QS 9000 Registered Firm



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