

CSA Control and Power Cable

600V and 1000V TC/CIC Multi-conductor Cables

Cable Specifications

- CSA C22.2 #230 Type TC
- CSA C22.2 #239 Control and Instrumentation (600V only)
- CSA C22.2 #38 Type TC (1000V only)
- CSA FT4 70,000 BTU Flame Test
- 90°C Dry & Wet
- -40°C Cold Bend, -25°C Cold Impact
- -25°C Installation temp
- Per CEC Part 1, Suitable for use in hazardous locations:
Class 1 — Zone 2
Class 2 — Division 2
- Sunlight Resistant/UV Resistant
- Direct Burial

To Create a Part Number

Add suffix "S" for Overall Foil Shielding

Sample Part Number:

21500S = 600V CSA Tray Control Cable
2-conductor, 14 AWG Bare Copper
Conductor with XLPE Insulation,
PVC Jacket, and Overall Foil Shield

Color Codes

No. of Conductors	Color Combination
2	Black & White
3	Black, Red & Blue
4	Black, Red, Blue & White
5 or more	Black & Number Coded

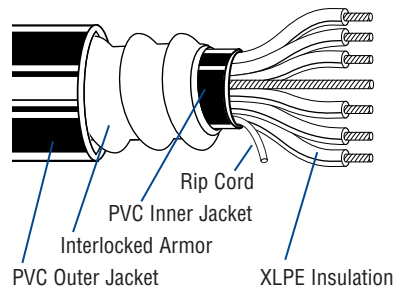
No. of Conductors	Part Numbers					
	14 AWG (7 Strand)		12 AWG (7 Strand)		10 AWG (7 Strand)	
	600V	1000V	600V	1000V	600V	1000V
2	21500	21300	21550	21350	21600	21400
3	21501	21301	21551	21351	21601	21401
4	21502	21302	21552	21352	21602	21402
5	21503	21303	21553	21353	21603	21403
6	21504	21304	21554	21354	21604	21404
7	21505	21305	21555	21355	21605	21405
8	21506	21306	21556	21356	21606	21406
9	21507	21307	21557	21357	21607	21407
10	21508	21308	21558	21358	21608	21408
11	21509	21309	21559	21359	21609	21409
12	21510	21310	21560	21360	21610	21410
13	21511	21311	21561	21361	21611	21411
14	21512	21312	21562	21362	21612	21412
15	21513	21313	21563	21363	21613	21413
16	21514	21314	21564	21364	21614	21414
17	21515	21315	21565	21365	21615	21415
18	21516	21316	21566	21366	21616	21416
19	21517	21317	21567	21367	21617	21417
20	21518	21318	21568	21368	21618	21418
21	21519	21319	21569	21369	21619	21419
22	21520	21320	21570	21370	21620	21420
23	21521	21321	21571	21371	21621	21421
24	21522	21322	21572	21372	21622	21422
25	21523	21323	21573	21373	21623	21423
26	21524	21324	21574	21374	21624	21424
27	21525	21325	21575	21375	21625	21425
28	21526	21326	21576	21376	21626	21426
29	21527	21327	21577	21377	21627	21427
30	21528	21328	21578	21378	21628	21428
31	21529	21329	21579	21379	21629	21429
32	21530	21330	21580	21380	21630	21430
33	21531	21331	21581	21381	21631	21431
34	21532	21332	21582	21382	21632	21432
35	21533	21333	21583	21383	21633	21433
36	21534	21334	21584	21384	21634	21434
37	21535	21335	21585	21385	21635	21435
38	21536	21336	21586	21386	21636	21436
39	21537	21337	21587	21387	21637	21437
40	21538	21338	21588	21388	21638	21438
41	21539	21339	21589	21389	21639	21439
42	21540	21340	21590	21390	21640	21440
43	21541	21341	21591	21391	21641	21441
44	21542	21342	21592	21392	21642	21442
45	21543	21343	21593	21393	21643	21443
46	21544	21344	21594	21394	21644	21444
47	21545	21345	21595	21395	21645	21445
48	21546	21346	21596	21396	21646	21446
49	21547	21347	21597	21397	21647	21447
50	21548	21348	21598	21398	21648	21448

No. of Cond.	Part Numbers									
	8 AWG (7 Strand)		6 AWG (7 Strand)		4 AWG (7 Strand)		3 AWG (7 Strand)		2 AWG (7 Strand)	
	600V	1000V	600V	1000V	600V	1000V	600V	1000V	600V	1000V
2	21650	21450	21653	21453	21656	21456	21659	21459	21662	21462
3	21651	21451	21654	21454	21657	21457	21660	21460	21663	21463
4	21652	21452	21655	21455	21658	21458	21661	21461	21664	21464

No. of Cond.	Part Numbers									
	1 AWG (19 Strand)		1/0 AWG (19 Strand)		2/0 AWG (19 Strand)		3/0 AWG (19 Strand)		4/0 AWG (19 Strand)	
	600V	1000V	600V	1000V	600V	1000V	600V	1000V	600V	1000V
2	21665	21465	21668	21468	21671	21471	21674	21474	21677	21477
3	21666	21466	21669	21469	21672	21472	21675	21475	21678	21478
4	21667	21467	21670	21470	21673	21473	21676	21476	21679	21479

CSA Control Cable

600V ACIC and Teck90 Cables — Overview



Introduction

Belden® Teck90 and ACIC cables are designed to meet demanding industrial needs by combining rugged durability and corrosion resistance with flexibility and easy handling.

Teck90 and ACIC Cables are available in a wide range of in-stock and custom constructions to meet the needs of pulp and paper, chemical, petroleum and other demanding industrial and resource industry environments. They are ideal for use in wet or dry areas; ventilated, non-ventilated or ladder-type cable troughs; ventilated flexible cableways; and for direct burial.

Belden Teck90 Cable is marked with “FT4,” “HL” designations, and cable constructions are certified to CSA Standard C22.2#131 and C22.2#174 for use in a wide range of hazardous locations. Both inner and outer jackets meet the acid gas evolution requirement of 14% maximum required by CSA Standard C22.2#0.3 Clause 4.31.

Custom cables are available upon request.

Construction

Class B stranded bare copper conductors, cross-link polyethylene insulation, bare copper ground wire, PVC inner jacket, aluminum steel interlocking armor, PVC outer jacket.

- Galvanized steel interlocking armor available as an option.

Voltage Rating

18 to 16 AWG — 600V ACIC

14 to 8 AWG — 600 Volts

14 to 4/0 AWG — 1000 Volts

Temperature Rating

-40°C to 90°C (Dry/Wet)

-25°C installed

Application

Teck90 and ACIC are general-purpose cables used in the pulp and paper, mining, petroleum and chemical industries as well as in commercial buildings.

Teck90 and ACIC may be used under the following conditions:

- Exposed or concealed wiring in dry or wet conditions
- In ventilated, non-ventilated or ladder-type cable trays in dry or wet conditions
- On walls or beams
- Directly buried
- CEC Class I, Division I locations

Minimum Bending Radius

12 times the overall cable diameter

Pulling Tensions

The combined use of Kellems grips and pulling eyes is recommended.

Design Advantages

Insulation Properties

- High tensile strength
- Impact- and crush-resistant
- Heat-resistant
- Excellent elongation
- Moisture-resistant
- Good low temperature properties

Electrical Properties

- High insulation resistance
- Low dielectric loss
- High dielectric strength

Other Features

- Corrosion-resistant
- Versatile and flexible
- Provides cost savings as conduit and ducts are not required
- ACIC has a blue jacket
- Rip cord for inner jacket

Specifications

- CSA Standard C22.2#131
- CSA Standard C22.2#174 “Cables and Cable Glands for Use in Hazardous Locations”
- CSA Standard C22.2#0.3 Clause 4.31 “Low Acid Gas”
- CSA Standard C22.2#0.3 Clause 4.11.4 “Cables with FT4 Marking”

CSA Control Cable

1000V Variable Frequency Drive Cable

Cable Specifications

- CSA C22.2 #38 Type TC
- CSA C22.2 #230 Type TC
- CSA FT4 70,000 BTU Flame Test
- 90°C Dry and Wet
- -40°C Cold Bend, -25°C Cold Impact
- -25°C Installation temp
- Per CEC Part 1, Suitable for Use in Hazardous Locations:
Class 1 — Zone 2
Class 2 — Division 2
- Sunlight Resistant/UV Resistant
- Direct Burial

14 to 2 AWG with Foil/Braid Shield

Belden's classic line of VFD cables, with foil/braid shield, is offered in 14 to 2 AWG, and continues to be the highest-performing solution in the market. The oversized XLPE insulation provides the lowest capacitance available in a VFD cable. Its highly effective dual shielding provides the lowest resistance to ground path, which improves common mode current containment. Included are a full-size, insulated green ground wire with a yellow stripe, as well as a drain wire for ease of installation and termination. The 85% braid coverage offers optimum EMI low frequency noise protection, while the 100% aluminum/Mylar tape offers RFI high frequency noise protection. Cables are round and smooth for proper sealing of glands and molding applications.

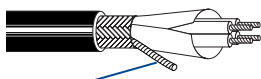
Large AWG (1 to 4/0) with Copper Tape Shield, Symmetrical Design

Belden's symmetrical design combines the benefits of our classic line of VFD cables, with additional features for use on larger, more powerful AC motor drives. Its highly effective shielding provides a low resistance ground path, which improves common mode current containment. The spirally applied dual copper tapes provide improved flexibility and EMI/RFI noise protection. Three symmetrical bare ground wires provide a balanced ground system. This reduces the likelihood of premature motor bearing or motor insulation failure.

Description	Part Number	AWG	Stranding	Shield
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14 to 2 AWG (3) Stranded Bare Copper Circuit Conductors + (1) Full-sized PVC Insulated Ground • Overall Beldfoil® (100% Coverage) + TC Braid Shield (85% Coverage) • Full Size TC Drain Wire (ICEA Method 4 Color Code: Black and Numbered, Green/Yellow Ground)

XLPE Insulation • Black Sunlight- and Oil-resistant PVC Jacket

1000V CSA TC	29550	14	7	Beldfoil (100% Coverage) + TC Braid (85% Coverage)
FT4	29551	12	7	
RW90 Circuit Conductors	29552	10	7	
	29553	8	7	
	29554	6	7	
	29555	4	7	
	29556	2	7	

1 to 4/0 AWG (3) Stranded Bare Copper Circuit Conductors + (3) Symmetrical Bare Copper Grounds • (2) Spiral Copper Tape Shields

XLPE Insulation • Black Sunlight- and Oil-resistant PVC Jacket

1000V CSA TC	29557	1	19	(2) Spiral Copper Tapes
FT4	29558	1/0	19	
XHHW-2 Circuit Conductors	29559	2/0	19	
	29560	3/0	19	
	29561	4/0	19	

Products listed are subject to minimum order quantities.