

# CSA ACIC ARMoured INSTRUMENTATION, 300V

Armoured Instrumentation cables can be used to minimize noise and signal interference by preventing crosstalk between pairs and triads. This cable can also be used to convert analogue or digital signals. Tray Instrumentation cables can be installed in raceways, direct burial applications and in outdoor exposed industrial applications.

## VOLTAGE

300V

Optional: 600/1000V

## PRODUCT CONSTRUCTION

### Insulation:

- FR XLPE/XLPE (RW90 rated) (standard)  
rated: 90°C wet/ 105°C dry
- PVC (optional)

### Shielding (foil-free edge):

- ISOS (standard)
- OS (optional)

### Armour:

- Aluminum Interlocked Armour (AIA) (standard)
- Steel Interlocked Armour (SIA) (optional)
- Serve Wire Armour (SIA) (optional)

### Jacket:

- FR LAG PVC (AG14 rated) inner black jacket rated: 90°C to -40°C
- FR LAG PVC (AG14 rated) outer grey jacket rated: 90°C to -40°C

### Available in:

- Copper taper or braided shield
- Custom colour coding
- Custom insulation/jacket colours
- Composite constructions

## CERTIFICATION/COMPLIANCES

- CSA C22.2 NO. 239, Control & Instrumentation Cables (Type ACIC)
- CSA C22.2 NO. 174, Cables & Cable Glands for use in Hazardous Locations
- CSA C22.2 NO. 38, Thermoset Insulated Wires & Cables (XLPE)
- CSA FT4, UL 1685 FT4, Vertical Tray Flame Test rated
- IEEE 383 & 1202 (70,000 BTU/hr), Vertical Flame Test rated
- ICEA T-30-520 (70,000 BTU/hr), Vertical Flame Test rated
- XLPE (RW90 rated), 90°C wet/105°C dry
- UV sunlight resistant "SUN RES" (all colours)
- Direct burial rated
- -40°C cold bend/impact rated
- HL rated for use in hazardous locations:
  - Class 1 Zone 0 (Intrinsically Safe cables only)
  - Class I Zone 1 (Div 1)
  - Class I Zone 2 (Div 2)
  - HL-BCD gas groups rated

## COLOR CODING

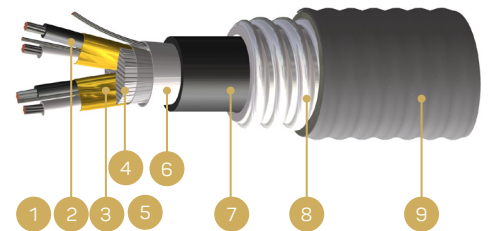
- Pairs - Black, & white, with black printing on white (standard)
- Triads - Black, white & red, with black printing on white (standard)

# 300 V

VOLTAGE

# CSA Type ACIC

INSTRUMENTATION



1. Stranded Bare Copper Conductors (Tinned Available)
2. XLPE (RW90 Rated) Insulated Conductors
3. Individual Shield & Overall Shielded Pairs/Triads
4. Polypropylene Fillers
5. Polyester Separator Tape
6. Overall Aluminum/Mylar Shield with Tinned Copper Drain Wire
7. FR LAG PVC Inner Protective Jacket
8. Aluminum Interlocked Armour (AIA)
9. FR LAG PVC Outer Protective Jacket

## STANDARDS:



PAIRS

PART NUMBER	NUMBER OF PAIRS	CONDUCTOR SIZE	OD Over Inner Jacket	NORMAL DIAMETERS		CABLE WEIGHT	MAX. PULLING TENSION (PULLING EYE)	MIN. BEND RADIUS (PULL)
				OVER ARMOUR	OVERALL CABLE			
		(AWG/MCM)	(in/mm)	(in/mm)	(in/mm)	(lbs/1000ft) (kg/km)	(lb/kg)	(in/mm)
64221M16018700	1	16	0.299 / 7.59	0.539 / 13.69	0.651 / 16.54	168 / 251	41 / 19	11.7 / 298
64222M160218700	2	16	0.448 / 11.38	0.688 / 17.49	0.8 / 20.33	259 / 385	82 / 37	14.4 / 366
64222M160418700	4	16	0.552 / 14.03	0.792 / 20.12	0.904 / 22.96	343 / 511	165 / 75	16.3 / 413
64222M160618700	6	16	0.662 / 16.82	0.902 / 22.91	1.014 / 25.76	438 / 651	247 / 112	18.3 / 464
64222M160818700	8	16	0.719 / 18.27	0.959 / 24.36	1.071 / 27.21	508 / 756	330 / 150	19.3 / 490
64222M161218700	12	16	0.911 / 23.15	1.151 / 29.24	1.263 / 32.09	751 / 1117	494 / 224	22.7 / 578
64222M161618700	16	16	1.016 / 25.81	1.256 / 31.9	1.368 / 34.75	893 / 1329	659 / 299	24.6 / 625
64222M162418700	24	16	1.263 / 32.07	1.503 / 38.17	1.615 / 41.01	1207 / 1797	989 / 449	29.1 / 738
64222M163618700	36	16	1.456 / 36.99	1.696 / 43.08	1.828 / 46.44	1623 / 2416	1483 / 673	32.9 / 836
64221M180118700	1	18	0.275 / 6.98	0.515 / 13.08	0.627 / 15.93	154 / 229	26 / 12	11.3 / 287
64222M180218700	2	18	0.409 / 10.38	0.649 / 16.48	0.761 / 19.32	230 / 342	52 / 24	13.7 / 348
64222M180418700	4	18	0.478 / 12.14	0.718 / 18.24	0.83 / 21.08	279 / 416	104 / 47	14.9 / 379
64222M180618700	6	18	0.602 / 15.29	0.842 / 21.38	0.954 / 24.23	373 / 555	156 / 71	17.2 / 436
64222M180818700	8	18	0.653 / 16.58	0.893 / 22.68	1.005 / 25.52	426 / 633	208 / 94	18.1 / 459
64222M181218700	12	18	0.795 / 20.19	1.035 / 26.29	1.147 / 29.14	594 / 884	312 / 142	20.6 / 524
64222M181618700	16	18	0.92 / 23.37	1.16 / 29.47	1.272 / 32.31	737 / 1096	416 / 189	22.9 / 582
64222M182418700	24	18	1.139 / 28.94	1.379 / 35.04	1.492 / 37.88	983 / 1463	624 / 283	26.8 / 682
64231M160118700	1	16	0.315 / 8	0.555 / 14.1	0.667 / 16.94	184 / 274	62 / 28	12 / 305
64232M160218700	2	16	0.511 / 12.98	0.751 / 19.08	0.863 / 21.92	305 / 454	124 / 56	15.5 / 395
64232M160418700	4	16	0.628 / 15.95	0.868 / 22.04	0.98 / 24.89	416 / 620	247 / 112	17.6 / 448
64232M160618700	6	16	0.756 / 19.22	0.997 / 25.32	1.109 / 28.16	542 / 807	371 / 168	20 / 507
64232M160818700	8	16	0.855 / 21.72	1.095 / 27.81	1.207 / 30.66	718 / 1068	494 / 224	21.7 / 552
64232M161218700	12	16	1.042 / 26.46	1.281 / 32.55	1.393 / 35.39	948 / 1411	742 / 336	25.1 / 637
64232M161618700	16	16	1.164 / 29.56	1.404 / 35.65	1.516 / 38.49	1141 / 1698	989 / 449	27.3 / 693
64232M162418700	24	16	1.451 / 36.86	1.691 / 42.96	1.823 / 46.31	1602 / 2384	1483 / 673	32.8 / 834
64222M203618700	36	20	1.071 / 27.2	1.311 / 33.3	1.423 / 36.14	953 / 1419	576 / 261	25.6 / 651

TRIADS

PART NUMBER	NUMBER OF PAIRS	CONDUCTOR SIZE	OD Over Inner Jacket	NORMAL DIAMETERS		CABLE WEIGHT	MAX. PULLING TENSION (PULLING EYE)	MIN. BEND RADIUS (PULL)
				OVER ARMOUR	OVERALL CABLE			
		(AWG/MCM)	(in/mm)	(in/mm)	(in/mm)	(lbs/1000ft) (kg/km)	(lb/kg)	(in/mm)
64231M160118700	1	16	0.315 / 8	0.555 / 14.1	0.667 / 16.94	184 / 274	62 / 28	12 / 305
64232M160218700	2	16	0.511 / 12.98	0.751 / 19.08	0.863 / 21.92	305 / 454	124 / 56	15.5 / 395
64232M160418700	4	16	0.628 / 15.95	0.868 / 22.04	0.98 / 24.89	416 / 620	247 / 112	17.6 / 448
64232M160618700	6	16	0.756 / 19.22	0.997 / 25.32	1.109 / 28.16	542 / 807	371 / 168	20 / 507
64232M160818700	8	16	0.855 / 21.72	1.095 / 27.81	1.207 / 30.66	718 / 1068	494 / 224	21.7 / 552
64232M161218700	12	16	1.042 / 26.46	1.281 / 32.55	1.393 / 35.39	948 / 1411	742 / 336	25.1 / 637
64232M161618700	16	16	1.164 / 29.56	1.404 / 35.65	1.516 / 38.49	1141 / 1698	989 / 449	27.3 / 693

FOR FURTHER INFORMATION, PLEASE CONTACT:

Americas: 800 422 6872

Canada: 800 845 6808

Asia Pacific: +86 512 82280099

Europe: +49 2226 9047 55

All information contained in this datasheet is believed to be reliable. We advise however that customers should separately evaluate the suitability of our products for their particular application. Shawcor gives no guarantees in respect to accuracy or sufficiency of the information presented and disclaim any liability regarding its use. Our responsibilities are only those listed in our Standard Terms and Conditions of Sale for these products. In no instance will we be liable for any eventual, indirect, or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Subject to modification.

PART NUMBER	NUMBER OF PAIRS	CONDUCTOR SIZE	OD Over Inner Jacket	NORMAL DIAMETERS		CABLE WEIGHT	MAX. PULLING TENSION (PULLING EYE)	MIN. BEND RADIUS (PULL)
				OVER ARMOUR	OVERALL CABLE			
		(AWG/MCM)	(in/mm)	(in/mm)	(in/mm)	(lbs/1000ft) (kg/km)	(lb/kg)	(in/mm)
64232M162418700	24	16	1.451 / 36.86	1.691 / 42.96	1.823 / 46.31	1602 / 2384	1483 / 673	32.8 / 834
64231M180118700	1	18	0.289 / 7.34	0.529 / 13.44	0.641 / 16.29	166 / 246	39 / 18	11.5 / 293
64232M180218700	2	18	0.464 / 11.79	0.704 / 17.89	0.816 / 20.73	265 / 394	78 / 35	14.7 / 373
64232M180418700	4	18	0.571 / 14.5	0.811 / 20.6	0.923 / 23.44	352 / 523	156 / 71	16.6 / 422
64232M180618700	6	18	0.685 / 17.4	0.925 / 23.5	1.037 / 26.34	449 / 668	234 / 106	18.7 / 474
64232M180818700	8	18	0.744 / 18.9	0.984 / 25	1.096 / 27.84	520 / 774	312 / 142	19.7 / 501
64232M181218700	12	18	0.942 / 23.93	1.182 / 30.03	1.294 / 32.87	769 / 1144	468 / 212	23.3 / 592
64232M181618700	16	18	1.05 / 26.68	1.29 / 32.78	1.402 / 35.62	915 / 1361	624 / 283	25.2 / 641
64232M182418700	24	18	1.306 / 33.17	1.546 / 39.27	1.678 / 42.63	1269 / 1888	936 / 425	30.2 / 767
64231M200118700	1	20	0.246 / 6.25	0.486 / 12.35	0.598 / 15.19	144 / 214	24 / 11	10.8 / 273
64231M200118700	1	20	0.246 / 6.25	0.486 / 12.35	0.598 / 15.19	144 / 214	24 / 11	10.8 / 273
64232M200218700	2	20	0.387 / 9.82	0.627 / 15.92	0.739 / 18.77	218 / 325	48 / 22	13.3 / 338
64232M200618700	6	20	0.567 / 14.4	0.807 / 20.5	0.919 / 23.34	353 / 525	144 / 65	16.5 / 420
64232M200818700	8	20	0.614 / 15.59	0.854 / 21.69	0.966 / 24.54	403 / 599	192 / 87	17.4 / 442
64232M201218700	12	20	0.745 / 18.93	0.985 / 25.03	1.097 / 27.87	518 / 771	288 / 131	19.8 / 502
64232M201618700	16	20	0.863 / 21.93	1.103 / 28.02	1.215 / 30.87	694 / 1032	384 / 174	21.9 / 556
64232M202418700	24	20	1.066 / 27.07	1.305 / 33.16	1.418 / 36	921 / 1370	576 / 261	25.5 / 648

**FOR FURTHER INFORMATION, PLEASE CONTACT:**

Americas: 800 422 6872

Canada: 800 845 6808

Asia Pacific: +86 512 82280099

Europe: +49 2226 9047 55

All information contained in this datasheet is believed to be reliable. We advise however that customers should separately evaluate the suitability of our products for their particular application. Shawcor gives no guarantees in respect to accuracy or sufficiency of the information presented and disclaim any liability regarding its use. Our responsibilities are only those listed in our Standard Terms and Conditions of Sale for these products. In no instance will we be liable for any eventual, indirect, or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Subject to modification.

SHAWFLEX PRODUCTS | [shawflex.com](http://shawflex.com)

Version: 01 2019/JUN/03

 **SHAWCOR**