CSA C22.2 No. 239 ACIC INSTRUMENTATION

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ACIC 300 V Armored Interlocked Control & Instrumentation Cable

CSA C22.2 No. 239 / UL 13 · 300 V · −40…+90 °C industrial ACIC INSTRUMENTATION



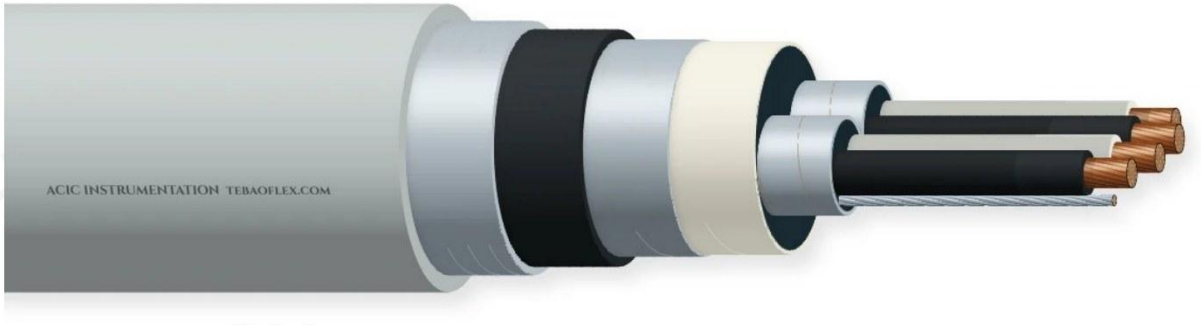
CSA C22.2 No. 239 / UL 13 | 300 V | −40…+90 °C

Application

ACIC 300 V Armored Interlocked Control & Instrumentation Cable engineered to CSA C22.2 No. 239 / UL 13 for 300 V service across −40…+90 °C, featuring stranded bare & tinned copper conductor and grey pvc outer jacket with minimum bending radius 12 × OD.

Typical uses: Refinery & Petrochemical Process Units, LNG Terminals & Tank Farms, Onshore & Offshore Oil & Gas Facilities, Chemical & Hydrocarbon Processing Plants, Surface & Underground Mining Substations

Construction





Cross-section, not to scale

1	Stranded bare & tinned copper conductor	CSA C22.2 No. 239 / UL 13
2	Individual Al/PET screen	CSA C22.2 No. 239 / UL 13
3	XLPE core insulation	CSA C22.2 No. 239 / UL 13
4	Polypropylene fillers and polyester binder	CSA C22.2 No. 239 / UL 13
5	Overall Al/PET screen	CSA C22.2 No. 239 / UL 13
6	Black PVC inner jacket	CSA C22.2 No. 239 / UL 13
7	Aluminium interlocked armour	CSA C22.2 No. 239 / UL 13
8	Grey PVC outer jacket	CSA C22.2 No. 239 / UL 13

Technical data

Typical values

Rated voltage / duty	300 V (CSA C22.2 No. 239 / UL 13)	**Conductor construction**	Stranded bare & tinned copper conductor — High-conductivity bare & tinned copper conductor per CSA C22.2 No. 239 / UL 13
Primary insulation / dielectric	Individual Al/PET screen — Individual Al/PET screen metallic electromagnetic screen (individual core / group layer)	**Continuous operating temperature**	−40…+90 °C per CSA C22.2 No. 239 / UL 13
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s adiabatic limit depending on dielectric class)	**Minimum installation temperature**	−5 °C (thermoplastic) / −25 °C (cross-linked or elastomer) / −40 °C (metallic)
Outer protection / covering	Grey PVC outer jacket — Extruded Grey PVC outer jacket protective layer (continuous layer)	**Minimum bending radius**	12 × OD (installed / static routing)
Layer count & geometry	8 concentric/structural layers verified by cross-section inspection	**Environmental & chemical durability**	Engineered for industrial service in accordance with CSA C22.2 No. 239 / UL 13
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	CSA C22.2 No. 239 / UL 13

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Outer Ø ≈ mm	Weight ≈ kg/km	Min. bend R fixed mm
ACIC INSTRUMENTATION Standard Construction Schedule (300 V · −40…+90 °C) 12 sizes				
☐ ACIC INSTRUMENTATION 1×2×0.5	1×2×0.5 mm²	6.4	58	52
☐ ACIC INSTRUMENTATION 2×2×0.5	2×2×0.5 mm²	9.2	112	74
☐ ACIC INSTRUMENTATION 4×2×0.5	4×2×0.5 mm²	11.4	176	92
☐ ACIC INSTRUMENTATION 8×2×0.5	8×2×0.5 mm²	14.8	295	118
☐ ACIC INSTRUMENTATION 12×2×0.5	12×2×0.5 mm²	17.6	420	141
☐ ACIC INSTRUMENTATION 1×2×1.0	1×2×1.0 mm²	7.6	86	61
☐ ACIC INSTRUMENTATION 2×2×1.0	2×2×1.0 mm²	11.0	168	88
☐ ACIC INSTRUMENTATION 4×2×1.0	4×2×1.0 mm²	13.5	264	108
☐ ACIC INSTRUMENTATION 8×2×1.0	8×2×1.0 mm²	17.9	465	143
☐ ACIC INSTRUMENTATION 1×2×1.5	1×2×1.5 mm²	8.5	114	68
☐ ACIC INSTRUMENTATION 4×2×1.5	4×2×1.5 mm²	15.2	348	122
☐ ACIC INSTRUMENTATION 12×2×1.5	12×2×1.5 mm²	23.4	860	187

– Additional pair/triad/quad counts (up to 48 pairs) and blue Ex-i intrinsically safe outer sheaths available per CSA C22.2 No. 239 / UL 13.

Electrical parameters by conductor cross-section

5 sizes

Conductor size	Max. DC R_{20} Ω/km	Mutual cap. ≈ nF/km	Inductance ≈ mH/km
0.50 mm² (7/0.30 mm · AWG 20)	39.00	115	0.65
0.75 mm² (7/0.37 mm · AWG 18)	26.00	120	0.62
1.00 mm² (7/0.43 mm · AWG 17)	19.50	125	0.60
1.50 mm² (7/0.53 mm · AWG 16)	13.30	135	0.58
2.50 mm² (7/0.67 mm · AWG 14)	7.98	145	0.55

– L/R ratio ≤ 25 µH/Ω (0.5–1.0 mm²) and ≤ 40 µH/Ω (1.5 mm²) for intrinsically safe Ex-i circuits.

Standards and approvals

- CSA C22.2 No. 239 Compliant
- EN 10204 3.1 Routine Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/acic-300v-interlocked-aluminum-armored-instrumentation-cable

Typical values for this cable type, based on CSA C22.2 No. 239 / UL 13. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.