CASRAD XP 150MC 1KV

-65°C to +150°C, 1000V



Construction
Conductor: Tinned Copper · Compact concentric stranded
Core Insulation: Extruded · XL-Polyalkene
Cabling: Twisted · Concentric twisted lay for tight flexibility and EMI balance
Core Identification: Colour-coded cores per NEMA chart (2C: Black / White; 3C: Black / White / Green; 4C: Black / White / Green / Red)
Shield: Braid · Tinned copper braid (≥85% coverage)
Jacket: Extruded overall jacket · XL-PVDF

Thermal Characteristics
Operating Temperature: -65°C to +150°C
Thermal Shock & Cold-Bend Endurance: Maintains flexibility and mechanical integrity across -65°C to +150°C thermal cycling without cracking or shrink-back.

Electrical Characteristics
Operating Voltage: 1000V
Test Voltage: 3000V / 1 min
Compact High-Voltage Dielectric Margin: Stepped-up dual-wall cross-linked insulation supports elevated working voltages in tight chassis and power-electronics routing.

Application
Motorsport & UAV Sensor / CAN-Bus Harnesses: For EMI-shielded ECU, telemetry, actuator, and differential data runs in space- and weight-constrained race vehicles and unmanned aircraft.
Aerospace & Robotics Interconnects: For shielded avionics sub-assemblies, gimbal control wiring, and ruggedized mobile equipment exposed to vibration and fluids.

General Characteristics
Radiation Cross-Linked Non-Melting Polymer: Electron-beam cross-linked polymer network eliminates cold-flow creep and resists soldering iron melt-back during dense harness termination.
Dual-Wall Scrape & Cut-Through Toughness: Co-extruded dual-wall construction combines high dielectric strength with a tough fluoropolymer outer jacket for superior cut-through resistance.
Fuel, Oil & Solvent Resistance: Engineered to resist aviation fuels, hydraulic fluids, motorsport lubricants, coolants, and industrial cleaning solvents.
360° EMI Braid Screening: Round-wire copper braid shield (≥85% optical coverage) provides low-impedance EMI/RFI protection for sensitive sensor, CAN, and avionics signals.

Standards & Approvals
NEMA WC 27500 (1000V Reference): 1000V shielded multiconductor cable using compact 1000V dual-wall XL-Polyalkene / XL-PVDF component cores.
ASTM B33: Tinned copper conductor standard.

Fire Performance
Fire Retardant: IEC 60332-1-2
Fire Performance: SAE AS4373 60° Flame Test

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casmocable
CABLES FOR EXTREMES

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CASMO Part No.	Total Cores	Conductor			Nom. Ins. Thickness (mm)	Braid Coverage (%)	Cable			Max. DCR @20°C (Ω/km)	Max. Cable Weight (kg/km)
		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)			Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	Max. Overall O.D. (mm)		
532022C24-TS-WH	2	24	19	0.127	0.28	85	0.20	3.18	3.30	86.0	19.2
532023C24-TS-WH	3	24	19	0.127	0.28	85	0.20	3.45	3.63	86.0	25.0
532024C24-TS-WH	4	24	19	0.127	0.28	85	0.20	3.84	4.04	86.0	31.0
532022C22-TS-WH	2	22	19	0.160	0.30	85	0.20	3.56	3.71	53.1	24.1
532023C22-TS-WH	3	22	19	0.160	0.30	85	0.20	3.91	4.09	53.1	32.1
532024C22-TS-WH	4	22	19	0.160	0.30	85	0.20	4.34	4.57	53.1	40.0
532022C20-TS-WH	2	20	19	0.203	0.30	85	0.20	3.96	4.11	32.4	30.8
532023C20-TS-WH	3	20	19	0.203	0.30	85	0.20	4.39	4.62	32.4	42.3
532024C20-TS-WH	4	20	19	0.203	0.30	85	0.20	4.88	5.13	32.4	52.7
532022C18-TS-WH	2	18	19	0.254	0.31	85	0.23	4.55	4.72	20.4	41.5
532023C18-TS-WH	3	18	19	0.254	0.31	85	0.23	5.00	5.26	20.4	57.1
532024C18-TS-WH	4	18	19	0.254	0.31	85	0.23	5.56	5.84	20.4	71.7
532022C16-TS-WH	2	16	19	0.287	0.34	85	0.23	4.93	5.13	15.8	49.7
532023C16-TS-WH	3	16	19	0.287	0.34	85	0.23	5.44	5.72	15.8	68.9
532024C16-TS-WH	4	16	19	0.287	0.34	85	0.23	6.07	6.38	15.8	86.8
532022C14-TS-WH	2	14	19	0.361	0.38	85	0.25	5.77	5.99	10.0	68.3
532023C14-TS-WH	3	14	19	0.361	0.38	85	0.25	6.38	6.68	10.0	95.8

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		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)			Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	Max. Overall O.D. (mm)		
532024C14-TS-WH	4	14	19	0.361	0.38	85	0.25	7.14	7.49	10.0	121.3
532022C12-TS-WH	2	12	37	0.320	0.39	85	0.25	6.73	7.01	6.63	95.7
532023C12-TS-WH	3	12	37	0.320	0.39	85	0.25	7.47	7.82	6.63	136.0
532024C12-TS-WH	4	12	37	0.320	0.39	85	0.25	8.36	8.76	6.63	172.3

Table Notes

* "-TS-" = tinned copper conductor.

† "-WH" = White outer jacket (standard); "-BK" Black and other jacket colours available on request.

1. Manufactured to CASRAD™ commercial, motorsport, UAV, and industrial specifications (non-QPL). Max. Overall O.D., Max. DCR at 20°C, and Max. Cable Weight are upper specification limits.

COLOR CODE CHART					
Cond. #	Color	Cond. #	Color	Cond. #	Color
1	Black	3	Green		
2	White	4	Red		

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