SAE J1939/11-150

-40°C to +150°C, 300V



Construction

Conductor: Bare Copper or Tinned Copper · Stranded
Core Insulation: Foamed · Foam FEP
Cabling: Twisted · Twisted pair (50 mm nominal lay length)
Core Identification: Yellow (CAN_H), Green (CAN_L)
Filler: PE Filler Strip
Shield: Foil · Aluminum/Mylar foil
Drain Wire: Stranded tinned copper drain wire
Jacket: Extruded · TPV

Thermal Characteristics

Operating Temperature: -40°C to +150°C

Electrical Characteristics

Operating Voltage: 300V
Test Voltage: 2000V / 1 min
Characteristic Impedance: 120 Ω ± 12 Ω (at 1 MHz)
Nominal Capacitance: 75 pF/m (conductor-to-conductor) · 110 pF/m (conductor-to-shield)

Application

Vehicle CAN-Bus Networks: For communication links between electronic control units in commercial vehicles and mobile equipment, using the cable construction specified for the applicable CAN network.
Mobile Equipment Communication: For data connections in construction machinery, agricultural equipment and other mobile systems where cable routing and environmental requirements must match the installation.
Shielded Signal Interconnections: For signal connections requiring a specified cable screens and a defined grounding arrangement between equipment modules.

General Characteristics

High-Temperature Engine-Bay Endurance: Foamed fluoropolymer core insulation and rugged TPV jacket withstand high-heat routing near turbochargers and exhaust aftertreatment modules.
EMC Foil & Drain Screening: Overall aluminum/Mylar tape screen with stranded tinned copper drain wire shields differential CAN signals against powertrain and alternator EMI.
Controlled Pair Twist Balance: Precision-twisted Yellow/Green differential pair maintains signal balance and common-mode noise rejection along vehicle backbones.

Standards & Approvals

SAE J1939/11: Physical layer, 250 kbps, twisted shielded pair (STP) for heavy-duty commercial vehicle serial control and communication networks.

RoHS COMPLIANT REACH COMPLIANT

CASMO Part No.	Conductor			Insulation		Cable			Max. DCR @20°C (Ω/km)
	Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)	Nom. Ins. Thickness (mm)	Nom. Core O.D. (mm)	Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	O.D. Tolerance ± (mm)	
16100120/19-AS-BK	20	19	0.20	0.60	2.40	0.80	7.6	0.3	37.1
16100120/19-TS-BK	20	19	0.20	0.60	2.40	0.80	7.6	0.3	38.2
16100118/19-AS-BK	18	19	0.23	0.70	2.80	0.80	8.9	0.4	22.3
16100118/19-TS-BK	18	19	0.23	0.70	2.80	0.80	8.9	0.4	23.2

Table Notes

* Conductor code: "-AS-" = bare copper conductor; "-TS-" = tinned copper conductor.

† Jacket colour code: "-BK" = Black (standard). Other jacket colours available on request.

‡ Conductor cross-section reference: 20 AWG (19 × 0.20 mm, 0.5 mm² nominal class); 18 AWG (19 × 0.23 mm, 0.8 mm² nominal class).

Please confirm application-specific requirements with CASMO before ordering. Specifications are subject to change; please ensure you are using the latest revision.

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