

REV.	DESCRIPTION	DATE
0	Initial Release.	07/07/2004
1	Added manufacturing part number and print legend. Verified dimensions.	11/18/2004
2	Revised conductor material from tin plated copper.	12/08/2005
3	Change Primary insulation material to 150 FX	01/27/06

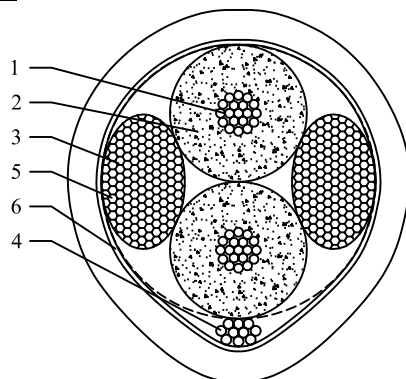
**General Properties:**

Controlled impedance, designed to meet electrical requirements of SAE J-1939/11, excellent abrasion, temperature and fluid resistance.

**Application:**

Including but not limited to: Sensors, engine diagnostics, multiplexing network protocol.

**General Composition of Cable:**




Color Code	
1	Green
2	Yellow

**Construction Details:**

1. Conductor:	18 AWG 19/0.0092" [0.80 mm <sup>2</sup> 19/.23mm] Bare Copper	0.045" [1.14mm] OD Nom.
2. Insulation:	Foamed RADXL 150FX, 46 mil [1.17mm] wall Nom.	0.137" [3.48mm] OD Nom.
3. Filler:	Polypropylene, flame retardant, yellow cord	0.112" [2.84mm] OD Nom.
Cabling:	2 primaries twisted w/ fillers Lay Length: 2.0" [50.8mm]	0.274" [6.97mm] OD Nom.
4. Drain:	20 AWG 10/30 Tinned Copper cabled around core	0.037" [0.94mm] OD Nom.
5. Shield:	3.0 mil AL/MY, spiral wrapped, 20% overlap, foil in	0.292" [7.43mm] OD Nom.
6. Jacket:	RADXL 125, 30 mil [0.76mm] wall Nom. Color: Black	0.352" [8.95mm] OD Nom.
Print Legend:	CHAMPLAIN RADXL MOD SAE J-1939/11 18 AWG	

**Technical Information:**

Voltage Rating:	60 V dc Nominal system voltage
Temperature Rating:	-40 °C to +125 °C
Designed To:	SAE J-1939/11 Table 7 (cable)
Spark Test:	1.5 kVAC – 100% Test
Dry Dielectric:	2.5 kVDC / 2 Seconds Conductor to Conductor 2.5 kVDC / 2 Seconds Conductor to Shield
Impedance:	120 +/- 12 Ω @ 1 MHz between the signal wires with the shield grounded using 120-Ohm baluns.
Specific Capacitance:	Conductor to Conductor – 47 pf/m Nom. Conductor to Shield – 69 pf/m Nom.

 <p>175 HERCULES DRIVE COLCHESTER, VT 05446 802-654-4200</p>	TITLE		<b>Modified SAE J-1939/11 Databus Cable</b> <b>Foamed Primary Design w/ Fillers</b> <b>18 AWG Shielded</b>	
	DRN.		DATE	
	Scott Hood		07/07/2004	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS AND TOLERANCES ARE IN INCHES <b>DO NOT SCALE THIS DRAWING</b>	CKD.		DATE	
	SIZE	PART NUMBER	DOCUMENT NUMBER	
	A	23-00065-001	12707	
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