

1. CONDUCTOR

Material: Tin Plated Copper
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: High Density Polyethylene
 Wall thickness:
 Nominal: 0.40 mm
 Minimum: 0.28 mm
 Minimum Average: 0.32 mm
 Diameter: See Table 1
 Color: SAE Color Standard
 Marking: None

3. PHYSICAL CHARACTERISTICS

Temperature rating: 80°C
 Voltage rating: 50 V
 Weight: See Table 1

4. PERFORMANCE PROPERTIES**Mechanical****Tensile Strength**

Unaged 11.0 MPa, min
 Aged (168 hrs @ 110°C) 80% retention, min

Elongation

Unaged 125%, min
 Aged (168 hrs @ 110°C) 50% retention, min

Pinch Resistance See Table 1

Strip Force (50mm slug @ 50 mm/min) 5N, min

Electrical

Dielectric Strength 60 Sec, 60 Hz, 1000V

Spark Test 2000 V_{ac}

Conductor (ASTM B33)

DC Resistance See Table 1

PERFORMANCE PROPERTIES (cont'd)**Thermal**

Cold Bend (3 hrs @ -40°C)

No Cracks or Splits, Pass Dielectric Test

Chemical**Fluid Compatibility**

Pass Dielectric Strength after Immersion

O.D. Change, max

Engine Oil (IRM 902) 15%

Gasoline (Ref. Fuel C) 15%

Ethanol / Ref. Fuel C Mixture 15%

Diesel Fuel 15%

Power Steering (IRM 903) 30%

Auto Trans. (Dexron VI) 25%

Engine Coolant 50/50 15%

Battery Acid (Sp. Gr. ~ 1.26) 5%

5. PROCEDURAL REFERENCE SPECIFICATION

SAE J1128

ASTM B33

Table 1

Conductor				Insulation		
Size (mm ²)	Construction (# / mm)	Diameter nom. (mm)	Max DCR (mΩ/m)	Diameter (mm)	Weight (kg/km)	Pinch Resistance min. (kg)
0.35	7/.25	0.75	60.2	1.55 ± 0.08	4.58	1.2
0.50	7/.32	0.96	33.6	1.75 ± 0.08	6.71	1.3
0.80	7/.38	1.13	24.0	1.94 ± 0.08	8.94	1.5
1.00	7/.46	1.37	16.3	2.17 ± 0.08	12.6	1.8
2.00	19/.38	1.78	10.1	2.58 ± 0.08	21.9	2.1



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Date	Rev	By	Appr'd	ECN
08/17/12	---	RMB	RTB	---
Customer Approval:				

Description:

**HOOKUP, LOW TENSION FUEL
TANK WIRE, HDPE, 80C, 50V**

Specification Number:

JW1323-09

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