

1. CONDUCTOR

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

2. INSULATION

Material: Crosslinked Polyethylene
 Wall Thickness: See Table 1
 Diameter: See Table 1
 Color Standard: SAE

3. PHYSICAL CHARACTERISTICS

Temperature Rating: -40 °C to 135 °C
 Voltage Rating: 60 V
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical

Tensile Strength		
Unaged		10 MPa, min.
Aged (168 hr @ 165 °C)		80% retention, min.
Elongation		
Unaged		150%, min.
Aged (168 hr @ 165 °C)		50% retention, min.
Crosslinking		Core Not Visible
Pinch Resistance		See Table 1
Abrasion Resistance		See Table 1
Shrinkage		None Allowed

Electrical

Dielectric Strength	1000 V, 60 Hz, 60 s
Spark Test	2500 V _{ac}
Conductor	ASTM B-33
DC Resistance	See Table 1

PERFORMANCE PROPERTIES (Cont'd)

Thermal

Flame Resistance	70 s Burn, max.
Cold Bend (3 hr @ -40 °C)	No Cracks or Splits, Pass Dielectric Test

Chemical

Ozone Resistance (192 hr @ 65 °C, 1 ppm)	No Cracks, Pass Dielectric Strength Test
Fluid Compatibility	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%

ADDITIONAL PERFORMANCE PROPERTIES

Anticapillary


Sealing Capability
 Apply 241 KPa gauge (35 PSIG) of air pressure to one end of a 150 mm (6 in) sample. Wire shall not produce a steady stream of air bubbles from the other end immersed in water.

5. PROCEDURAL REFERENCE SPECIFICATION

SAE J1128 (SXL)

Table 1

CONDUCTOR					INSULATION						
AWG	Stranding	Diameter	CMA	DCR	Wall Thickness		Diameter	Abrasion Resistance		Pinch Resistance	Weight
		Nom.	Min.	Max.	Min.	Nom.		Min. Avg.		Min.	
	(# / AWG)	(mm)	(cmils)	(mΩ / m)	(mm)	(mm)	(mm)	Weight (kg)	Length (mm)	(kg)	(kg/km)
18	19 / 30	1.25	1,537	24.9	0.53	0.76	2.71 ± 0.06	0.45	700	6.20	15.4



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Date	Rev	By	Appr'd	ECN
11/02/15	---	CHU	RMB	---
12/02/15	A	CHU	RMB	15-1649
Customer Approval:				

Description:
**HOOKUP, SXL, SBT, XLPE,
 125°C, 60V**

Specification Number:
JW1629-15

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