

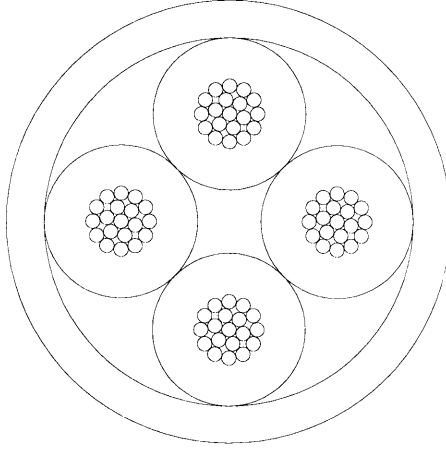
# PRODUCT SPECIFICATION DRAWING

Specification Number: **JW582-98**

Title: Surface Vehicle Data Transmission Cable, ISO 11783-2, 250K Bits/sec, Twisted Quad

Original Date: 05/12/98  
Revision: **C**

REFERENCE SPECIFICATIONS	TEMPERATURE RATING	VOLTAGE RATING	JUDD PART NO.
SAE J1128 Type GXL ISO 11783-2	125°C	50 VOLTS	M07041200001



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Drawing Not To Scale

## CONSTRUCTION DETAILS

CONDUCTOR (x4)		FINISHED PRIMARY WIRE (x4)	
Wire Size	Type Stranding	Insulation	Nominal Wall Thickness
20 AWG	Annealed Bare Copper 19 / 32	Irradiation Crosslinked Polyethylene	0.023 inch
	Target Diameter		Target Diameter
	0.038 inch		0.084 inch
CABLED COMPONENTS		JACKET	
Lay Length	Direction	Insulation	Nominal Wall Thickness
2 inches	Left Hand	Irradiation Crosslinked Polyethylene	0.0205 inch
	Cabling Sequence		Finished Target Diameter
	Red, Green, Black, Yellow		0.244 inch

**JUDD WIRE, INC.**  
124 Turnpike Road  
Turners Falls, MA 01376  
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Drawn By: *K. Qienkus*  
Revision Date: 11/07/02

Approved By: *M. Gromko*  
Approval Date: 11/07/02

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## PERFORMANCE PROPERTIES

CATEGORY	TEST	PROCEDURE	REQUIREMENT
Mechanical	Primary Wire: Tensile Strength Elongation Sandpaper Abrasion Resistance Pinch Resistance Adhesion	SAE J1128: 2 inches per minute  SAE J1128: Bracket A ; 1 pound mass SAE J1128: 1/8" rod, 10 to 1 lever, 5 lbs/minute 2 inch slug removed from conductor at 2 inches per minute	1500 PSI minimum 150% minimum 16 inches minimum 11 pounds minimum 2.2 lbs. minimum of 5 readings
	Primary Wire: Accelerated Aging  Cold Bend Flame Resistance	SAE J1128: 168 hours at 155°C  SAE J1128: 3 hours at -40°C ; 1 inch mandrel ; 1.5 pound mass SAE J1128: 45° plane ; Bunsen Burner ; 15 second flame	80% minimum retention of unaged tensile strength value 50% minimum retention of unaged elongation value no cracks ; 1000 volt dielectric test 70 second maximum burn time
	Primary Wire: Dielectric Test  Cable Dry Dielectric  Conductor Resistance:  Capacitance: C <sub>b</sub> C <sub>a</sub>  Impedance:  Line Delay:	ISO 11783-2: 5 hours preconditioning at room temp in water (5% salt)  apply voltage between conductors  ISO 11783-2  ISO 11783-2 ISO 11783-2  ISO 11783-2  ISO 11783-2	1000 volts at 60 Hz for 1 minute without breakdown  1500 volts at 60 Hz for 15 seconds without breakdown  50 mΩ/m, maximum  75 pf/m, maximum between CAN_H and CAN_L 110 pf/m, maximum between adjacent conductors  70 Ω, minimum; 80 Ω maximum  5.0 ns/m, nominal
Chemical	Primary Wire: Fluid Compatibility: Engine Oil Gasoline Ethanol Diesel Fuel Power Steering Transmission Fluid Engine Coolant Battery Acid	SAE J1128 20 hours at 50 ± 3°C 20 hours at 23 ± 5°C 20 hours at 23 ± 5°C 20 hours at 23 ± 5°C 20 hours at 50 ± 3°C 20 hours at 50 ± 3°C 20 hours at 50 ± 3°C 20 hours at 23 ± 5°C	All specimens also subjected to the dielectric test 15% maximum OD change 15% maximum OD change 15% maximum OD change 15% maximum OD change 30% maximum OD change 25% maximum OD change 15% maximum OD change 5% maximum OD change

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