



1N22-S77

7/32" (5.69 mm)
MONOCONDUCTOR
CORROSION RESISTANT

NAVIGATION

- CASED HOLE
- OPEN HOLE
- SOUR SERVICE
- 7/32"
- 1/4"
- 9/32"
- 5/16"
- GEOTHERMAL
- GREASELESS
- FIBER OPTIC
- MECHANICAL WIRELINE

PROPERTIES

Cable Diameter	0.224" +0.005" - 0.002"	(5.69mm +0.13mm -0.05mm)
Minimum Sheave Diameter	14"	(36 cm)
Cable Stretch Coefficient	3.09ft/Kft/Klbs	(3.5 m/Km/5KN)

ELECTRICAL

Maximum Conductor Voltage	1,200 VDC	
Conductor AWG Rating	18	
Minimum Insulation Resistance	1,500 Mega Ω /Kft @ 500 VDC	(457 Mega Ω /Km @ 500 VDC)
Armor Electrical Resistance	18.9 Ω /Kft	(59.4 Ω /Km)

MECHANICAL

Cable Breaking Strength			
Ends Fixed	4,900 lbs	(21.8 KN)	Nominal
Maximum Suggested Working Tension	2,450 lbs	(10.9 KN)	
Number and Size of Wires			
Inner Armor	12 x 0.0310"	(0.787 mm)	
Outer Armor	18 x 0.0310"	(0.787 mm)	
Average Wire Breaking Strength			
Inner Armor	189 lbs	(0.84 KN)	
Outer Armor	189 lbs	(0.84 KN)	

Cable Type	Core Description								Cable Weight		
	Temperature Rating °F °C			Plastic Type	Insulation Thickness in mm	Copper Construction in mm	Res Typical Ω /Kft Ω /Km	Cap. Typical pf/ft pf/m	O.D. Each in mm	in Air	in H ₂ O
	1 hr. Max Temp	8 hr. Max Temp	Cont. Max Temp								
1N22SA-S77	500 260	450 232	400 204	PFA	0.0305 0.775	7x0.0159 7x0.404	6.7 22	43 141	0.108 2.743	97 144	80 119

- ▶ While insulation is rated to 1-hour exposure of 500°F, alloy armor wires may have reduced corrosion resistance at temperatures above 400°F.
- ▶ The armor wires are made of corrosion resistant alloy steel suitable for moderate H₂S and CO₂ environments.
- ▶ Conductor has nickel plated wires adhering to ASTM B355 Class 10 for increased corrosion resistance.
- ▶ Core assembly – Copper strand consists of six wires around one center wire. Conductor resistance is measured at 68°F.
- ▶ Voids in the copper strand are filled with a water-blocking agent to reduce water and gas migration.
- ▶ SUPERSEAL, a special pressure seal agent, is applied between armor layers.
- ▶ The temperature rating assumes a normal gradient for both temperature and weight.
- ▶ All values shown are nominal or typical values.