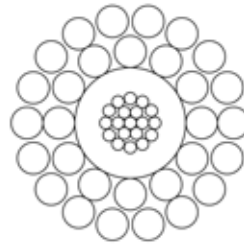


## NAVIGATION

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

# 1N25-S77

**1/4" (6.55 mm)**  
**MONOCONDUCTOR**  
**CORROSION RESISTANT**



### PROPERTIES

Cable Diameter	0.258" +0.005" - 0.002"	(6.55mm +0.13mm -0.05mm)
Minimum Sheave Diameter	14"	(36 cm)
Cable Stretch Coefficient	2.27 ft/Kft/Klbs	(2.55 m/Km/5KN)

### ELECTRICAL

Maximum Conductor Voltage	1,200 VDC	
Conductor AWG Rating	16	
Minimum Insulation Resistance	1,500 MegaΩ/Kft @ 500 VDC	(457 MegaΩ/Km @ 500 VDC)
Armor Electrical Resistance	14.1 Ω/Kft	(46.3 Ω/Km)

### MECHANICAL

Cable Breaking Strength			
Ends Fixed	6,500 lbs	(29.8 KN)	Nominal
Maximum Suggested Working Tension	3,250 lbs	(14.46 KN)	
Number and Size of Wires			
Inner Armor	12 x 0.0358"	(0.909 mm)	
Outer Armor	18 x 0.0358"	(0.909 mm)	
Average Wire Breaking Strength			
Inner Armor	252 lbs	(1.12 KN)	
Outer Armor	252 lbs	(1.12 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 <sub>2</sub> O
	1 hr. Max Temp	8 hr. Max Temp	Cont. Max Temp								
<b>1N25WA-S77</b>	<b>500</b> 260	<b>450</b> 232	<b>400</b> 204	<b>PFA</b>	<b>0.032</b> 0.0813	<b>19x0.0119</b> 19x0.302	<b>4.6</b> 15.1	<b>53</b> 174	<b>0.123</b> 3.124	<b>129</b> 191	<b>106</b> 158

- ▶ 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 H<sub>2</sub>S and CO<sub>2</sub> 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.