

## NAVIGATION

CASED HOLE  
OPEN HOLE  
SOUR SERVICE

7/32"

1/4"

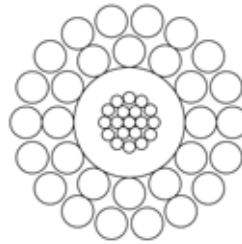
9/32"

5/16"

GEOHERMAL  
GREASELESS  
FIBER OPTIC  
MECHANICAL WIRELINE

# 1N29-S77

9/32" (7.32 mm)  
MONOCONDUCTOR  
CORROSION RESISTANT



## PROPERTIES

Cable Diameter	0.288" +0.005" - 0.002"	(7.32mm +0.13mm -0.05mm)
Minimum Sheave Diameter	16"	(41 cm)
Cable Stretch Coefficient	1.87ft/Kft/Klbs	(2.101 m/Km/5KN)

## ELECTRICAL

Maximum Conductor Voltage	1,500 VDC	
Conductor AWG Rating	16	
Minimum Insulation Resistance	1,500 Mega $\Omega$ /Kft @ 500 VDC	(457 Mega $\Omega$ /Km @ 500VDC)
Armor Electrical Resistance	11.3 $\Omega$ /Kft	(37.1 $\Omega$ /Km)

## MECHANICAL

Cable Breaking Strength			
Ends Fixed	8,100 lbs	(36.0 KN)	Nominal
Maximum Suggested Working Tension	4,050 lbs	(18.0 KN)	
Number and Size of Wires			
Inner Armor	12 x 0.0400"	(1.016 mm)	
Outer Armor	18 x 0.0400"	(1.016 mm)	
Average Wire Breaking Strength			
Inner Armor	314 lbs	(1.40 KN)	
Outer Armor	314 lbs	(1.40 KN)	

Cable Type	Core Description								Cable Weight		
	Temperature Rating			Plastic Type	Insulation Thickness	Copper Construction	Res Typical	Cap. Typical	O.D. Each	in Air	in H <sub>2</sub> O
	1 hr. Max Temp	8 hr. Max Temp	Cont. Max Temp							in mm	in mm
1N29WTZ-S77	500	450	400	FEP	0.017 0.432	19x0.0128	4.0	48	0.098 2.489	159	131
	260	232	204	ETFE	0.019 0.483	19x0.325	13.1	157	0.136 3.454	236	195

- ▶ 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.