

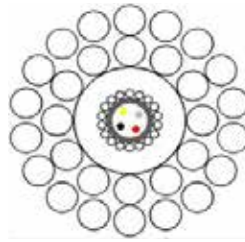
## NAVIGATION

- CASED HOLE
- OPEN HOLE
- SOUR SERVICE
- GEOHERMAL
- GREASELESS
- FIBER OPTIC
- 1/4"
- 5/16"
- .36"
- MECHANICAL WIRELINE

# 1N32-F0

## 5/16" (8.18 mm)

### MONOCONDUCTOR FIBER OPTIC



### PROPERTIES

Cable Diameter	0.322" +0.005" - 0.002"	(8.18mm +0.13mm -0.05mm)
Minimum Sheave Diameter	18"	(46 cm)
Cable Stretch Coefficient	1.2 ft/Kft/Klbs	(1.35 m/Km/5KN)

### ELECTRICAL

Maximum Conductor Voltage	1,500 VDC	
Conductor AWG Rating	16	
Minimum Insulation Resistance	1,500 Mega $\Omega$ /Kft @ 500VDC	(457 Mega $\Omega$ /Km @ 500VDC)
Armor Electrical Resistance	2.1 $\Omega$ /Kft	(6.9 $\Omega$ /Km)

### MECHANICAL

Cable Breaking Strength			
Ends Fixed	12,000 lbs	(53.4 KN)	Nominal
Maximum Suggested Working Tension	6,000 lbs	(24.0 KN)	
Number and Size of Wires			
Inner Armor	12 x 0.0445"	(1.130 mm)	
Outer Armor	18 x 0.0445"	(1.130 mm)	
Average Wire Breaking Strength			
Inner Armor	442 lbs	(1.97 KN)	
Outer Armor	442 lbs	(1.97 KN)	

Cable Type	Core Description									Cable Weight	
	Temperature Rating °F °C			Plastic Type	Insulation Thickness  in mm	Copper Construction  in mm	Res Typical  $\Omega$ /Kft $\Omega$ /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							lbs/Kft Kg/Km	
<b>1N32YZ-F0</b>	<b>500</b> 260	<b>450</b> 232	<b>400</b> 204	<b>ETFE</b>	<b>0.0322</b> 0.818	<b>18x0.0128</b> 18x0.325	<b>3.7</b> 12.13	<b>86</b> 282	<b>0.155</b> 3.937	<b>190</b> 283	<b>157</b> 234

- ▶ Number, type and temperature rating of fiber optic elements is dependent on customer request.
- ▶ While insulation is rated to 1-hour exposure of 500 °F, the fiber optic element in the cable will dictate the maximum operating temperature for the cable.
- ▶ Fiber in metal tube (FIMT): stainless steel OD of 0.065 in. (1.65 mm). Extra fiber length (EFL) is specified by customer request and subject to manufacturing capabilities.
- ▶ Attenuation increase in the fiber optic under loaded conditions may vary.
- ▶ The armor wires are high tensile, Galvanized Extra Improved Plow Steel (GEIPS), and coated with an anticorrosion compound for protection during shipping and storing. Wires are preformed.
- ▶ 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.
- ▶ All values shown are nominal or typical values.