

AS5382/3

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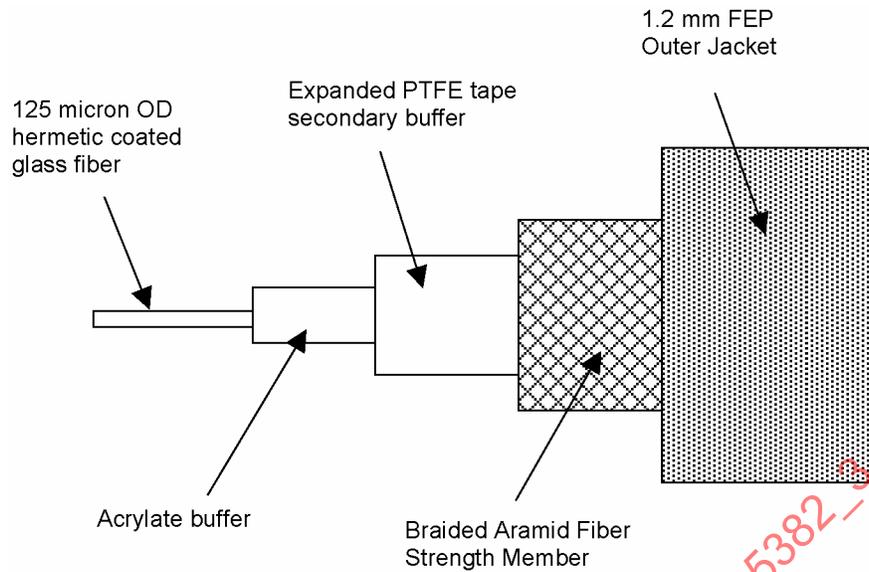


FIGURE 1 - CABLE CONFIGURATION

1. Construction Description:

1.1 Optical Fiber Dimensions and Materials

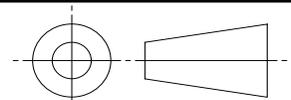
Core Diameter:	6 μm nom. (0.00024 in)
Mode Field Diameter @ 980 nm:	7 μm ± 1.0 μm (0.00028 in ± 0.00004 in)
Core Material:	Step Index Silica Glass
Cladding Diameter:	125 μm ± 2 μm (0.0049 in ± 0.00008 in)
Cladding Material:	Silica Glass
Core to Cladding Ellipticity:	2% maximum
Core to Cladding Offset:	1 μm maximum
Hermetic Coated:	Yes
Coating Diameter	250 μm ± 15 μm (0.0098 in ± 0.00059 in)
Coating Material	Acrylate

1.2 Cable Dimensions and Materials

Secondary Buffer Diameter:	0.024 +0.002/-0.005 inches (610 +50/-127 μm)
Secondary Buffer Material:	Wrapped expanded PTFE tape with overall FEP coating
Strength Member:	Braided Aramid Fiber
Outer Jacket Diameter:	0.046, +0.002, -0.003 inches (1.2 +0.05/-0.13 mm)
Outer Jacket Material:	FEP

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THIRD ANGLE PROJECTION



CUSTODIAN: SAE AE-8/AE-8D

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CABLE, FIBER OPTIC, SINGLE-MODE,
6/125/250 μm,
HERMETIC COATED, TIGHT BUFFER

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SHEET 1 OF 3

1.3 Cable Performance

Operational Mode:	Single mode
Temperature Rating:	-30 to +100 °C
Storage Temperature:	-30 to +100 °C
Outer Jacket Color:	Yellow
Finished Cable Weight:	2.0 kg/km maximum

2. Optical Fiber Requirements

Maximum Attenuation:	≤3.0 dB/km @ 980 nm
Attenuation Uniformity	No discontinuities greater than 0.1 dB
Radiation Induced Attenuation	≤11.0 dB/km @ 980 nm
Numerical Aperture:	0.11 nom.
Fiber Tensile Proof Test:	200,000 PSI minimum
Cut Off Wavelength	930 nm +30, -40 nm
Dynamic Fatigue	N>100
Chromatic Dispersion	<80 ps/nm-km

3. Environmental

Blocking:	No areas of localized adhesion
Outgassing	TML ≤ 1.0% and CVCM ≤ 0.1%
Vibration	≤0.05 dB/50 m change in optical transmittance after the test
Shock	≤0.05 dB/50 m change in optical transmittance after the test Test Condition M