

## High Temperature DTS Cable for Downhole Monitoring (3)

**Cable Number:** CAL2001J (Maximum application temperature: 700°C)

**Cable structure:** composed of high nickel alloy capillary tube and specialty fiber (see Figure)

**Mechanical Characteristics:**

High nickel alloy tubing material: Inconel 625                      Cable outside diameter: 6.35mm

Tubing thickness: 0.89mm    Weight: 128.53kg/km

Tensile strength: 1285kg    Pull load (yield point): 640kg

Thermal expansion coefficient:  $12.9 \times 10^{-6} \text{m/m}^\circ\text{C}$                       Work pressure limit: 60MPa

Standards: ASME: B 704; NACE MR0175/ISO 15156-3: Table A.12 (4d), A.14

**Optical Fiber:** Fiber tension free design

One gold coated multimode fiber, graded index fiber, 50/125/155um

Or: One gold coated single mode fiber, Silica/Silica fiber, 9/125/155um

**Cable Toe End Termination:** Upon customer request

Or: Upon UniSignal design:

Hermetic seal (no moving parts)

Special mechanical and optical designs at the fiber end

