

High Temperature DTS Cable for Downhole Monitoring (1)

Cable Number: CAL1001P (Maximum application temperature: 300°C)

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

Mechanical Characteristics:

High nickel alloy tubing material: Incoloy 825

Cable outside diameter: 6.35mm

Tubing thickness: 0.89mm

Weight: 123.5kg/km

Tensile strength: 1070kg

Pull load (yield point): 588kg

Thermal expansion coefficient: $14.2 \times 10^{-6} \text{m/m}^\circ\text{C}$

Work pressure limit: 53MPa

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

Optical Fiber: Fiber tension free design

One or two polyimide coated multimode fibers, graded index fiber,
50/125/155um

Or: One polyimide 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

