

High Temperature Fiber Bragg Grating Sensing Cable (2) (Enhanced)

Cable Number: FBGCAE2001P (Maximum application temperature: 300°C)

Cable structure: composed of a high nickel alloy capillary tube and a FBG array (see Figure)

Mechanical Characteristics (Enhanced):

High nickel alloy tubing material: Inconel 625

Cable outside diameter: 6.35mm

Tubing thickness: 0.89mm

Weight: 128.53kg/km

Tensile strength: 1585kg

Pull load (yield point): 1123kg

Thermal expansion coefficient: $12.9 \times 10^{-6} \text{m/m}^\circ\text{C}$

Work pressure limit: 135MPa

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

FBG Array : Polyimide coated single mode fiber: SMF28

Wavelength range: 1510nm-1590nm

FBG number: max 40 corresponding to the application temperature of 300°C

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

