

Clearfield®

Dielectric Armored Acoustic Sensing Cable



Application

- Distributed Acoustic Sensing (DAS)
- Distributed Temperature Sensing (DTS) in hybrid cable variants
- Sensing applications: Rayleigh scattering, Raman
- Harsh environment, outdoors
- Deployment subsea, directly in the ground, in conduits or attached to structures

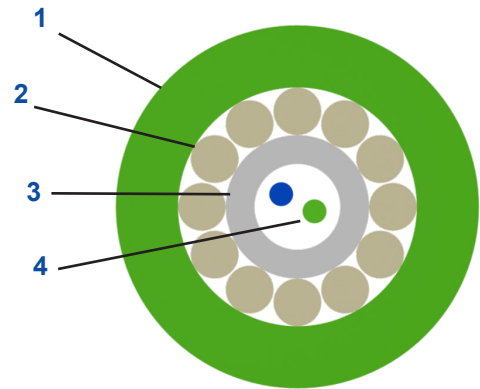
Description

Dielectric armored fiber optic acoustic sensing cable (DFOAS) with plastic loose tube and FRP armoring and PA outer sheath.



Construction

1. PA outer sheath
 2. FRP armoring
 3. Gel-filled plastic loose tube
 4. Bend insensitive optical fibers
- Dielectric cable
 - High tensile strength at very low weight
 - High crush resistance
 - Plastic loose tube filled with high molecular gel for improved acoustic sensing
 - Abrasion resistant outer PA sheath with acoustic interlocking system
 - Excellent rodent protection
 - Compact design, high flexibility, small bending radius
 - Halogen free



Customization Options and Services

- Standard cable marking with meter marks, special labeling of outer sheath upon request
- Accessories such as loops, fan-outs, connectors, mounting brackets, anchors etc. available
- Custom fiber types up on request

Technical Specifications

Dielectric Armored Acoustic Sensing Cable	
Standard Optical Fiber	Single-mode fiber and Multimode fibers for hybrid DASDTS variants. Up to 4 optical fibers (*)
Standards	Cable tests complying with IEC 60794-1-2
Jacket color	Green, similar to RAL 6018
Operating temperature	-40 °C ... +85 °C
Storage temperature	-40 °C ... +85 °C
Installation temperature	-5 °C ... +50 °C

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Technical Data at 20°C

Type	Max. nb. of fibers	Cable ø mm	Weight kg/km	Max. Crush res. N/cm	Max. tensile strength - Installation N	Max. tensile strength - Operation N
AC7	4 (*)	3.8	13	300	1200	650

(*) Please consult Clearfield for the maximum recommended fiber count, depending on your application.

Type	Min. Bending Radius With Tensile mm	Min. Bending Radius Without Tensile mm
AC7	20xD	15xD

Optical fiber data (cabled) at 20°C:

Fiber Type	Attenuation, dB/km 850 nm	Attenuation, dB/km 1300/1310 nm	Attenuation, dB/km 1550 nm
SMF	-	≤ 0.36	≤ 0.25
MMF 50/125	≤ 3.0	≤ 1.0	-