fiber optic cable series

DAS AC1 / AC2

Distributed Acoustic Sensing Fibre Optic Cable



Compact non-metallic (AC1) & wire-armoured (AC2) distributed acoustic sensing cables

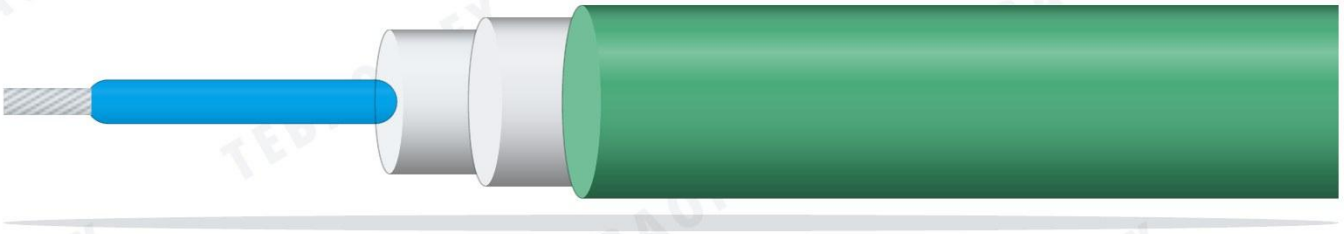
IEC 61757-3-2 DAS | AC1 Duct / AC2 Armoured | Φ-OTDR Coupled

Application

DAS AC1 / AC2 Distributed Acoustic Sensing Fibre Optic Cable series engineered for coherent Φ-OTDR vibration, pipeline leak, seismic and perimeter detection in microducts (AC1) or direct burial trenches (AC2).

Typical uses: Oil, Gas & Water Pipeline Leak Detection, Perimeter Fence & Border Security, Conveyor Belt Roller Bearing Monitoring, HV Power Cable Route Intrusion, Borehole Vertical Seismic Profiling (VSP)

Construction





Cross-section, not to scale

1	Acoustically coupled sensing fibres	≤ 0.20 dB/km @ 1550 nm for 50+ km Φ-OTDR spans
2	Acoustic coupling buffer tube	
3	Tight-extruded PA / HDPE / LSZH sheath	

Technical data

Typical values

Sensing principle	Coherent Rayleigh Φ-OTDR Distributed Acoustic Sensing	**Frequency response**	0.1 Hz to 10 kHz acoustic & seismic bandwidth
Dielectric immunity (AC1)	100 % metal-free for HV substation & fence runs	**Operating temperature**	-40 °C to +85 °C
Installation temperature	-15 °C to +60 °C	**Storage temperature**	-40 °C to +85 °C
Nominal outer diameter	4.5 mm (DAS AC1) · 6.8 mm (DAS AC2)	**Max. tensile load**	1,200 N (AC1) · 5,500 N (AC2)
Crush resistance	2,000 N/100 mm (AC1) · 5,000 N/100 mm (AC2)	**Min. bend radius**	15 × OD (static) · 20 × OD (installation)
Fibre specification	ITU-T G.652.D / G.657.A1 (2 to 12 fibres)	**Attenuation @ 1550 nm**	≤ 0.20 dB/km
Attenuation @ 1310 nm	≤ 0.34 dB/km	**Water blocking**	IEC 60794-1-22 F5B + 316L hermetic FIMT (AC2)
Hydrostatic pressure	Up to 15 MPa (150 bar) on AC2	**UV & rodent protection**	ISO 4892-2 UV black + steel wire armour (AC2)
Standards	IEC 61757-3-2 & SEAFOM-MSP-02		

Sizes

6 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Fibre configuration	Outer Ø mm	Weight ≈ kg/km	Max. pull N	Crush N/100 mm
DAS AC1 — Non-Metallic (Fence & Duct) 3 sizes					
☐ **DAS AC1-04SM**	**4 × G.657.A1 SM**	**4.5**	**22**	**1,200**	**2,000**
☐ **DAS AC1-08SM**	**8 × G.657.A1 SM**	**4.8**	**26**	**1,200**	**2,000**
☐ **DAS AC1-12SM**	**12 × G.657.A1 SM**	**5.2**	**31**	**1,500**	**2,000**
DAS AC2 — FIMT + Steel Wire Armoured (Direct Burial) 3 sizes					
☐ **DAS AC2-04SM**	**4 × G.652.D SM (FIMT)**	**6.8**	**78**	**5,500**	**5,000**
☐ **DAS AC2-04SM02MM**	**4 × SM (DAS) + 2 × OM3 (DTS)**	**7.0**	**82**	**5,500**	**5,000**
☐ **DAS AC2-12SM**	**12 × G.652.D SM (FIMT)**	**7.5**	**94**	**6,000**	**5,000**

– AC1 is metal-free for perimeter fences and HV power ducts; AC2 features a 316L stainless FIMT and galvanized steel wire armour.

Standards and approvals

- IEC 61757-3-2 & SEAFOM-MSP-02
- IEC 60794-1-21 & ITU-T G.652.D
- RoHS 2 & REACH Compliant

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/brusens-das-ac1-ac2-distributed-acoustic-sensing-fibre-optic-cable

Typical values for this cable type, based on IEC 61757-3-2 / SEAFOM-MSP-02 / IEC 60794-1-21. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.