



fiber optic cable series

BRUsens DAS AC1 / AC2

Distributed Acoustic Sensing Fibre Optic

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



IEC 61757-3-2 DAS

AC1 Duct / AC2 Armoured

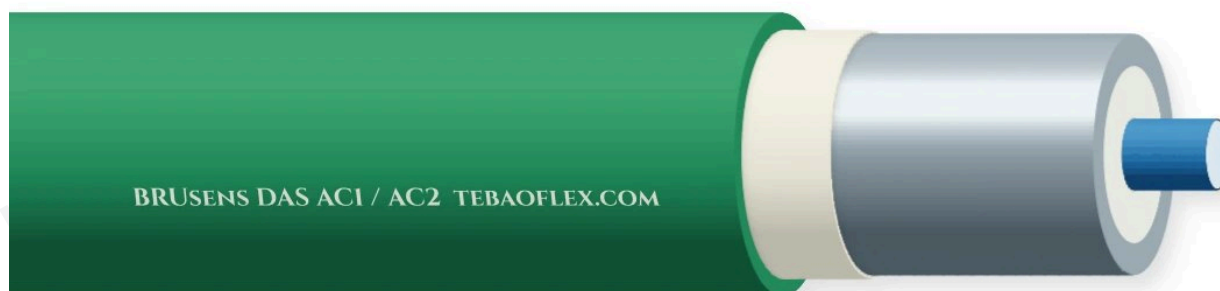
 Φ -OTDR Coupled

Application

BRUsens 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 FRP rods (AC1) or Steel Wire Armour (AC2)

1,200 N (AC1) or 5,500 N
(AC2) tensile load

- 4 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
BRUsens DAS AC1 — Non-Metallic (Fence & Duct) 3 sizes					
☐ BRUsens DAS AC1-04SM	4 × G.657.A1 SM	4.5	22	1,200	2,000
☐ BRUsens DAS AC1-08SM	8 × G.657.A1 SM	4.8	26	1,200	2,000
☐ BRUsens DAS AC1-12SM	12 × G.657.A1 SM	5.2	31	1,500	2,000
BRUsens DAS AC2 — FIMT + Steel Wire Armoured (Direct Burial) 3 sizes					
☐ BRUsens DAS AC2-04SM	4 × G.652.D SM (FIMT)	6.8	78	5,500	5,000
☐ BRUsens DAS AC2-04SM02MM	4 × SM (DAS) + 2 × OM3 (DTS)	7.0	82	5,500	5,000
☐ BRUsens 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.