



fiber optic cable series

AcoustAlert G28

Distributed Acoustic Sensing Fibre Cable

High-sensitivity phase-OTDR distributed acoustic sensing (DAS) optical cable



SEAFOM-MSP-02 DAS

1 Hz-5 kHz Acoustic

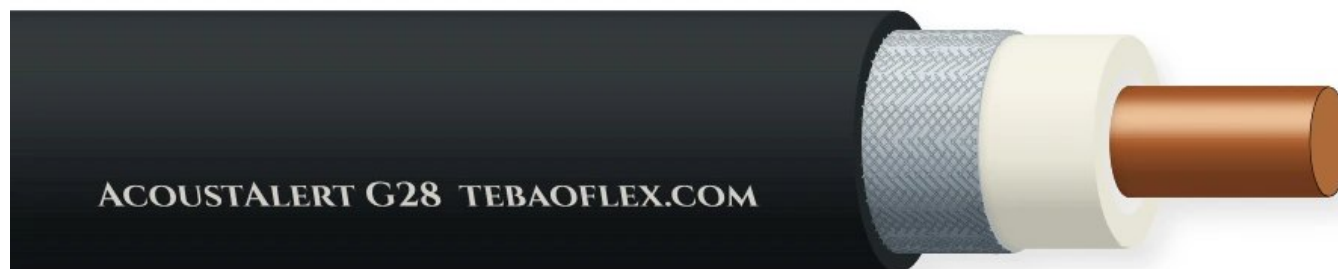
CST / SWA Armoured

Application

AcoustAlert G28 Distributed Acoustic Sensing Fibre Cable engineered for coherent Rayleigh phase-OTDR (Φ -OTDR) acoustic, seismic and vibration detection along pipelines, railways, borders and subsea/buried power corridors.

Typical uses: Oil, Gas & Slurry Pipeline Leak Detection, Border, Airport & Perimeter Intrusion, Railway Track & Wheel-Flat Monitoring, Buried HV Export Cable Third-Party Strike, Carbon Capture (CCS) & Microseismic Arrays

Construction



Cross-section, not to scale

- 1 DAS sensing & telemetry fibres

≤ 0.34 dB/km @ 1310 nm ·
 ≤ 0.20 dB/km @ 1550 nm

- 2 Impedance-matched acoustic buffer tube

- 3 Acoustic damping & water-blocking layer

- 4 Tightly bonded CST or SWA armour

- 5 Acoustic-coupling outer jacket

Technical data

Typical values

Sensing principle	Coherent Rayleigh backscatter (Φ-OTDR / DAS)	Interrogator reach	Up to 50–80 km per channel @ 1550 nm
Spatial gauge resolution	1.0 m to 10 m (interrogator-configurable)	Operating temperature	-40 °C to +75 °C
Installation temperature	-15 °C to +60 °C	Storage temperature	-40 °C to +80 °C
Tensile rating (G28-CST)	2,500 N installation · 1,200 N permanent	Tensile rating (G28-SWA)	6,500 N installation · 3,000 N permanent
Crush resistance	3,000 N/100 mm (CST) · 6,000 N/100 mm (SWA)	Min. bend radius	15 × OD (static) · 20 × OD (pulling)
Fibre specification	ITU-T G.652.D / G.657.A1 (+ optional OM3)	Attenuation @ 1550 nm	≤ 0.20 dB/km (optimised for long-range Φ-OTDR)
Attenuation @ 1310 nm	≤ 0.34 dB/km	Acoustic frequency response	0.5 Hz to 5,000 Hz flat radial coupling
Water penetration	IEC 60794-1-22 Method F5B longitudinal block	Hydrostatic pressure	Up to 15 MPa (150 bar) on FIMT-SWA variant
Rodent & impact protection	Metallic CST/SWA armour (25 J impact Method E4)	Chemical & hydrocarbon	HDPE sheath resists crude oil and soil acids
Standards	SEAFOM-MSP-02 & IEC 61757-3-2		

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	Sensing & spare fibres	Outer Ø ≈ mm	Weight ≈ kg/km	Max. pull N	Crush N/100 mm
G28-CST Corrugated Steel Tape Armoured 3 sizes					
☐ G28-CST-04SM	4 × G.652.D SM	8.6	88	2,500	3,000
☐ G28-CST-06SM	6 × G.652.D SM	9.0	95	2,500	3,000
☐ G28-CST-12SM	12 × G.652.D SM	9.8	112	3,000	3,000
G28-SWA FIMT + Steel Wire Armoured 3 sizes					
☐ G28-SWA-04SM	4 × G.652.D SM (FIMT)	10.2	165	6,000	6,000
☐ G28-SWA-06SM02MM	6 × SM (DAS) + 2 × OM3 (DTS)	10.6	178	6,500	6,000
☐ G28-SWA-12SM	12 × G.652.D SM (FIMT)	11.2	195	6,500	6,000

– Hybrid 6SM+2MM configuration allows simultaneous Φ-OTDR acoustic intrusion detection and Raman DTS leak temperature profiling.

Standards and approvals

- ✓ IEC 61757-3-2 & SEAFOM-MSP-02
- ✓ IEC 60794-1-21 & ITU-T G.652.D
- ✓ RoHS 2 (2011/65/EU) & REACH

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/acoustalert-g28-distributed-acoustic-sensing-fibre-cable



Typical values for this cable type, based on IEC 60794-1-21 / SEAFOM-MSP-02 / ITU-T G.652.D. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.