



instrumentation cable series

BS 7917 AIS FR / ACS FR

Armoured Offshore Instrumentation Cable

Mica-glass + EPR fire-resistant (180 min @ 750/950 °C) armoured offshore instrumentation



BS 7917 / IEC 60331

Mica + EPR Fire Barrier

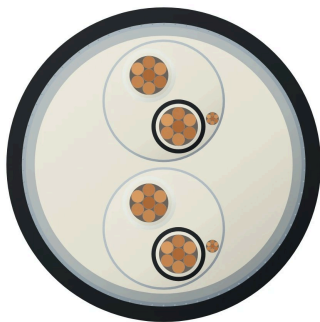
ESD & Fire/Gas Loops

Application

BS 7917 AIS FR and ACS FR Armoured Fire-Resistant Offshore Instrumentation Cable with phlogopite mica-glass fire-barrier tape + GP4 EPR insulation, individual/overall Al/PET screens, galvanized steel wire braid armour and SW4 LSZH.

Typical uses: Offshore Emergency Shutdown (ESD) Systems, Fire & Gas (F&G) & Deluge Control Loops, FPSO & Drilling Rig BOP Safety Circuits, LNG Terminal & Refinery SIS Loops, Offshore Wind Converter Platform Fire Loops

Construction



Cross-section, not to scale

1	Tinned annealed copper conductors	Maintains conductivity under +950 °C flame test
2	Phlogopite mica-glass fire barrier	
3	GP4 / GP5 EPR thermoset insulation	150/250 V or 600/1000 V primary dielectric
4	Collective (ACS FR) or Individual + Collective (AIS FR) screen	100 % EMI screening for SIL-3 ESD & F&G signals
5	SW4 bedding + Galvanized Steel Wire Braid (GSWB)	
6	SW4 Fire-Resistant Offshore Outer Sheath	IEC 60332-3-22 Cat A & HCl < 0.5 %

Technical data

Typical values

Rated voltage (Uo/U)	150/250 V (instrumentation) · 600/1000 V (control)	Max. DC resistance @ 20 °C	24.8 Ω/km (0.75) · 18.2 Ω/km (1.0) · 12.2 Ω/km (1.5) · 7.56 Ω/km (2.5)
Mutual capacitance	≤ 120 pF/m (ACS FR) · ≤ 150 pF/m (AIS FR)	L/R ratio	≤ 25 μH/Ω (0.75–1.0 mm ²) · ≤ 40 μH/Ω (1.5 mm ²)
Operating temperature	-40 °C to +90 °C	Fire survival rating	+750 °C for 180 min (IEC 60331-21) & +950 °C (BS 6387 Cat C)
Short-circuit temperature	+250 °C (5 s)	Min. bend radius	8 × OD (fixed installation)
Fire with mechanical shock	BS 6387 Category Z (+950 °C + 15 s hammer blows) & EN 50200	Fire with water spray	BS 6387 Category W (+650 °C + 15 min water sprinkler)
Circuit integrity in fire	IEC 60331-21 / IEC 60331-31 & BS 6387 CWZ	Bunched flame & LSZH	IEC 60332-3-22 Cat A, IEC 60754-1 & IEC 61034-2
Oil & drilling fluid	BS 7655-2.6 Type SW4 hot oil & fuel resistant	Standards	BS 7917 & UKOOA Fire-Resistant Code

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	UKOOA code & pairs	Outer Ø ≈ mm	Weight ≈ kg/km	Max. DC R Ω/km	Min. bend R mm
BS 7917 ACS FR — Collectively Screened 3 sizes					
☐ BS 7917 ACS FR 1P×1.0	FJK01 · 1 Pair 1.0 mm ²	11.6	215	18.2	93
☐ BS 7917 ACS FR 2P×1.0	FJK02 · 2 Pair 1.0 mm ²	15.2	345	18.2	122
☐ BS 7917 ACS FR 5P×1.5	FJL05 · 5 Pair 1.5 mm ²	21.8	730	12.2	174
BS 7917 AIS FR — Individually & Collectively Screened 3 sizes					
☐ BS 7917 AIS FR 2P×1.0	FJQ02 · 2 Pair 1.0 mm ²	16.0	385	18.2	128
☐ BS 7917 AIS FR 5P×1.0	FJQ05 · 5 Pair 1.0 mm ²	21.4	685	18.2	171
☐ BS 7917 AIS FR 10P×1.5	FJR10 · 10 Pair 1.5 mm ²	29.2	1,290	12.2	234

– Mica-glass tape slightly increases core diameter compared to BS 6883; verify gland inner sealing ring range against BS 7917 tables.

Standards and approvals

- ✓ BS 7917 & UKOOA Fire-Resistant
- ✓ IEC 60331-21 & BS 6387 CWZ
- ✓ 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/bs-7917-armoured-fire-resistant-offshore-instrumentation-cable



Typical values for this cable type, based on BS 7917 / IEC 60331-21 / UKOOA. Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.