



IEEE 1580 (LSXLPO)
Low Smoke Zero Halogen
1KV; 2KV; 90°C
ITS/UL Marine Shipboard

Features

- Irradiation cross-linked, LSZH insulation
- Heat, sunlight, & moisture resistant
- Easy to install
- Easy to strip – has no separator tape
- Flexible
- Rugged
- Flexible Tin-coated conductors for improved terminations and corrosion resistance
- Pigmented insulation with vivid colors
- Better physical & wet electrical properties than halogen free IEC cables
- Insulation Resistance Constant, $K = 10,000 \text{ Vs } 1,360$ for HF85 per IEC 60092-351
- Limited Smoke
- Zero Halogen content

Performance Standards

- Listed by UL as Type X110, rated for 110°C
- Listed by ITS (ETL) as Type LSX, IEEE 1580 and is rated 90°C
- Passes IEEE 1202 & FT-4 at 70,000 Btu/hr Vertical Tray Flame Tests
- Single conductors pass the UL VW-1 flame test per UL-44/UL-1581
- Type approved by ABS, DNV GL and Lloyd's Register NA
- Armored & Sheathed cables are suitable for use in Class 1, Division 1 and Zone 1 hazardous locations
- Unarmored cables are suitable for use in Class 1, Division 2 and Zone 2 hazardous locations
- IEEE 45/1580 Tests:
 - Halogen Content – $0\% < 0.2\%$
 - Acid Gas – $0.5\% < 2\%$
 - Smoke Index – $8.85 < 25$
 - Toxicity Index – $0.6 < 1.5$
- IEC Tests:
 - Passes IEC 60332-1-2 & -2-2 Flame Tests
 - Passes EN 50265-2-1 & -2 Flame Tests
 - Smoke Density, IEC 61034, Light Transmittance = 96%
 - $\text{Ph} > 4.3$, per IEC 60754
 - Conductivity $\leq 10 \mu\text{S} \cdot \text{mm}^{-1}$, per IEC 60754
 - Halogen Acid, IEC 60754, Pass

Scope

Exane® ZH low smoke zero halogen (LSZH), single conductor power, Marine Shipboard Cables, bridge the performance gap between the premium Exane-125 Type P cables and the IEC HF cables. The Exane® ZH, LSZH insulation is radiation cross-linked and provides outstanding physical properties, resistance to abrasion, cut-through, low and high temperature, sunlight, flame. It is a low-smoke, zero halogen material that is extremely tough and durable and withstands the arduous environmental conditions experienced in offshore mobile drilling units (MODU), FPSO's & TLP's for oil and gas drilling rigs. It provides the low-smoke, non corrosive characteristics that have been deemed to be critical for the crew quarters in MODU's. Exane® ZH is ITS (ETL) listed to IEEE 1580 as Type LSX, a low-smoke, zero halogen cable that also meets the IEC HF requirements. It is also listed by Underwriters Laboratories (UL) to UL 1309/CSA C22.2 No. 245.

Construction

Conductor: AWG – Flexible Tinned Copper, per IEEE 1580. Sq mm – IEC 60228 Class 5 TC. Available on request

Insulation: Irradiation Cross-Linked Exane-ZH, Type LSXLPO (IEEE 1580)

Color Code: Vivid pigmented insulation. Colors available on request. Standard color is Black

Armor (optional): Bronze Braid – Standard
Tinned Copper Braid – Optional

Jacket (optional): Black, Irradiation Cross-Linked, LSZH, Type L (IEEE 1580) & Type SHF-2 (IEC)

Temperature Rating: UL – 110°C; IEEE – 90°C
RSCC Wire & Cable – 125°C