

Capabilities Bulletin

CB 0024

MarineTuff™ Certified Belden® Instrumentation, Control and VFD Cables

HaloarrestXLink LSZH- jacketed 600V instrumentation, control and VFD cables address needs of offshore platform operators, equipment suppliers and commercial shipbuilders.



Belden MarineTuff Certified Cables with Safety-conscious Halogen-free Jackets Withstand Harsh Offshore Environments

Safe, Robust Cable for Offshore Applications

Deepwater exploration and production is one of the fastest growing sectors of the oil and gas market. Offshore exploration and production are being pushed further into deep water to meet the growing demands of consumers. MarineTuff certified Belden instrumentation, control and VFD cables bring reliable, safety-conscious wiring solutions to offshore platforms, equipment suppliers and commercial shipbuilders. These ABS-certified cables offer physical toughness and the safety benefits of low smoke and zero halogen (LSZH) jackets to provide a no-compromise solution that can withstand the harshest offshore environments

Belden's MarineTuff certified cables are highly reliable, rugged solutions that will function in a variety of challenging offshore activities: mobile drilling, fixed platform, floating production, storage and offloading (FPSO), marine vessels.

Reliability is a watchword in deepwater E&P deployment because of the high cost of downtime. In addition, safety is a major factor in rig design considerations. Concern for safety has resulted in the adoption of the Safety and Environmental Management Systems Final Rule (SEMS). The SEMS goal is to enhance offshore safety and cleanliness by reducing the frequency and severity of accidents.

Features

Belden's MarineTuff certified cables use proven Belden technology to provide real solutions to pressing problems. The company's LSZH thermoset jacketing, HaloarrestXLink™ is a safety game changer for offshore operations. Belden has been a pioneer in the LSZH marine-certified cabling industry.

BELDEN



Floating production, storage and offloading (FPSO)

Certification

Belden's MarineTuff™ certified cables have been designed and tested to meet the highest standards:

- ABS (American Bureau of Shipping)
- IEEE 45 electrical installation on shipboard
- IEEE 1580 Type P IEEE recommended practice for marine cables for use on shipboard in fixed or floating facilities
- UL 1309 marine shipboard cables
- IEC 60811-2-1 compliant for hydrocarbon resistance
- IEC 60754-1 compliant for halogen content
- IEC 60754-2 compliant for acid gas emissions
- IEC 60092-350 electrical installations on ships)
- UL oil resistance II
- Crush and impact resistant (UL 1277 TC-ER)
- UL 2225
- -40°C cold bend
- 90°C wet and dry rated
- Abrasion resistant
- IEEE 1202 and FT4 flame-resistant
- IEC 60332-3-22

Specifying Belden marine-certified cables eliminates the need for costly certification processes for each procurement cycle. The cables are suitable for interior and exterior environments, eliminating the need to purchase several cable types. This accelerates the design, fabrication, and installation process leading to earlier production and deployment.

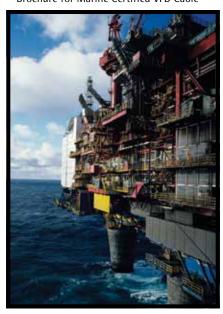
Warranty

For failure in a mission-critical environment, the real price is far more than just the replacement cost of the components. Failures result in the direct cost associated with repair and re-start of the facility as well as the lost production during unplanned downtime. Belden offers proven performance for worry-free operation, including an unprecedented 10-year warranty.

Proven Belden Technology

For more information about the Belden technologies used in marine-certified cables, please see the following documents:

- Marine Communications in the New Era of SEMS
- CB 0022 Belden® HaloarrestXLink™ LSZH Thermoset Jacket
- See Belden Variable Frequency Drive Cable Brochure for Marine Certified VFD Cable



Natural gas and oil processing platform

Ordering Information

Part numbers are in the Industrial Catalog in the 600 volt Control and Instrumentation section. To order, use the part numbers listed in the catalog and use the Y or Z suffix listed below to designate the Marine Certified products required.

Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket		
Y	Z	XLPE/HaloarrestXLink-2- Marine Certified		
To Specify:				
<u>1234</u>		<u>A</u>		
Sta	ırt with par	t no. Add or replace letter code		

Acid Gas Properties

Property	Measurement	HaloarrestX- Link-2
Physical	Tensile	1500 psi
riiysicai	Elongation	150%
LOI	ASTM D2863	45%
Halogen Content	IEC 60754-1	0
Acid Gas	IEC 60754-2	<4.5 pH, 0.4 μS/cm
Toxicity Index	EN 50305	2