

Bonnet EFS for Horizontal Wellhead Completions

For Downhole Sensor Communications

This Electrical Feedthrough System design provides a high-reliability circuit for transmitting electrical signals from downhole gauges through the wellhead and Subsea Tree to the Subsea Control Module (SCM) for topside monitoring. The system incorporates Teledyne DGO's high integrity glass-seal technology in three critical pressure barriers for maximum long-term reliability. The feedthrough system creates a permanent connection to the Subsea Control Module when the tree is installed onto the wellhead. In addition, a permanent rig-based DHG cable termination is completed to connect the control line to the feedthrough system. The DHG connector is available with a variety of sealing packages, including fully testable, dual metal-to-metal sealing of all downhole tubing hanger interfaces.

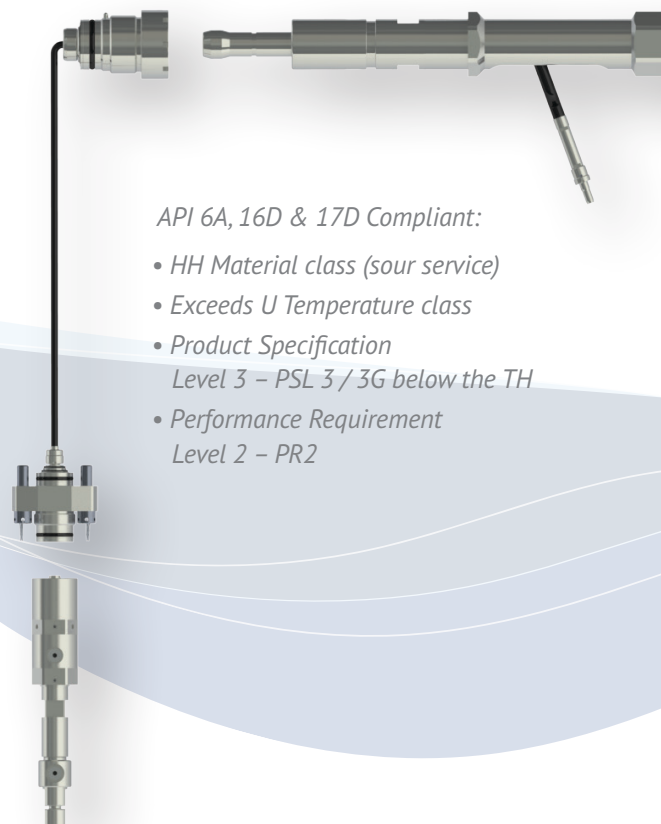
Designed for long-term reliability in the subsea and downhole environments containing aggressive production and packer fluids as well as sour well (H₂S) conditions, 6 years of rigorous system, component, and material qualification tests have successfully been completed on the design, verifying its robust capability.

Key Features:

- Underwater, high pressure wet-mateable connections
- Rig testable interface seals
- ISO 10423 (API-6A) compliant
- PSL3 and PSL3G compliant

API 6A, 16D & 17D Compliant:

- HH Material class (sour service)
- Exceeds U Temperature class
- Product Specification
Level 3 – PSL 3 / 3G below the TH
- Performance Requirement
Level 2 – PR2



PRIMARY BENEFITS

- Modular design to suit varying installation envelopes
- Simple, fast, proven DHG Connector rig terminations
- Dual-barrier philosophy
- Oil filled, pressure compensated wet-mate connection systems and SCM harnesses



TELEDYNE MARINE
Everywhereyoulook™

Bonnet EFS for Horizontal Wellhead Completions

For Downhole Sensor Communications

TECHNICAL SPECIFICATIONS*

ENVIRONMENTAL	
Operational Pressure	15,000 psig/103MPa
Temperature Range	0°F to 302°F (-18°C to 150°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Deployment depth	14,764 ft/4,500 m
Mating Durability	100 cycles min.
MECHANICAL SPECIFICATIONS	
Axial Misalignment	±.062" (±1.57mm)
Angular Misalignment	±0.5°
Radial Misalignment	±.03" (.76mm)
Actuation Speed	5in/sec (12.5mm/sec)
ELECTRICAL SPECIFICATIONS	
Voltage Rating, working	600 VDC
Test Voltage	2400 VDC
Current Rating, working	2.0 A
Insulation Resistance	> 1G Ω @ 500 VDC (20°C)
Contact Resistance	< 30 m Ω
Shell resistance	< 10m Ω

*Performance values generally based on historical application requirements



Single Pin Horizontal EFS Detail



TELEDYNE MARINE
Everywhere you look™

www.teledynemarine.com

1026 N. Williamson Boulevard, Daytona Beach, FL 32114 USA
Tel +1-386-236-0780 or 1-888-506-2326 • Fax +1-386-236-0906
Email: teledynemarine@teledyne.com

Specifications subject to change without notice.
© 2020 Teledyne Marine. All rights reserved. DN 2035170 Rev A.