



## *Confirmation of Product Type Approval 28/JUL/2009*

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 13/JUL/2014. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 09/APR/2014 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

**UNTEL KABLORARI SANAYI VE TICARET ANONIM SIRKETI**  
**Model Name(s): FMGCG, FMGCH, FMGCCCH, FMGCH-FFR, FM2XCY-FR,**  
**FM2XCH**

**Presented to:**

UNTEL KABLORARI SANAYI VE TICARET ANONIM SIRKETI  
 ALEMDAG CAD. SITE YOLU 26  
 UMRANIYE  
 ISTANBUL  
 Turkey

**Intended Service:**

Control and Instrumentation Cables, Marine and Offshore.

**Description:**

"FMGCG" 60/250V screened control and instrumentation cables, "FMGCH" 60/250V halogen free screened control and instrumentation cables, "FMGCCCH" 60/250V halogen free individually screened, overall screened control and instrumentation cables, "FMGCH-FFR" 60/250V halogen free fire resistant, screened control and instrumentation cables, "FM2XCY-FR" 60/250V screened control and instrumentation cables, "FM2XCH" 60/250V halogen free screened control and instrumentation cables

**Ratings:**

60/250V screened control and instrumentation cables

**Service Restrictions:**

Unit Certification is not required for this product.

**Comments:**

FMGCG 60/250V screened control and instrumentation cables (copper conductors class 2 or class 5, HEPR insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, copper braided screen, foil above braided screen, outer sheath SE1); FMGCH 60/250V halogen free screened control and instrumentation cables (copper conductors class 2 or class 5, HF-HEPR insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath SHF1); FMGCCCH 60/250V halogen free individually and collectively screened control and instrumentation cables (copper conductors class 2 or class 5, HF-HEPR insulation, cores laid up in pairs-pairs laid up concentrically, aluminum foil and drain wire over

each pair, polyester foil over pairs or halogen free bedding compound (optional), electrolytic plain copper braided screen, polyester foil above braided screen, outer sheath SHF1); FMGCH-FFR 60/250V halogen free, fire resistant, screened control and instrumentation cables (copper conductors class 2 or class 5, Mica tape, HF-HEPR insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath SHF1); FM2XCY-FR 60/250V screened control and instrumentation cables (copper conductors class 2 or class 5, XLPE insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath ST2); FM2XCH 60/250V halogen free screened control and instrumentation cables (copper conductors class 2 or class 5, HF-XLPE insulation, cores laid up in pairs-pairs laid up concentrically, foil over cable core, electrolytic plain copper braided screen, foil above braided screen, outer sheath SHF1). For sizes select "Click here to view more details" on [www.typeapproval.org](http://www.typeapproval.org) after selecting the name of the company and the subject cables.

**Notes / Documentation:**

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

**Term of Validity:**


This Design Assessment Certificate number 09-PR446855A-PDA, dated 10/Apr/2009 will expire on 09/Apr/2014 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2010, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

**ABS Rules:**

2009 Steel Vessels Rules, 1-1-4/7.7, 4-8-3/9.1, 9.3, 9.5, 9.7, 9.9, 2008 MODU Rules 4-3-4/13.1.1, 13.1.2, 13.1.3, 13.1.4

**National Standards:****International Standards:**

IEC 60092-375 (1977-01), IEC 60092-376 (2003-05) and the applicable IEC standards referred to in the above standards (IEC 60228(2004-11), IEC 60092-359(1999-08), IEC 60092-351(2004-04), IEC 60332-3, IEC 60331-21, IEC 60811)

**Government Authority:****EUMED:****Others:**


ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.