



Marine & Offshore

Certificate number: 39398/B0 BV

File number: ACE1/113/11

Product code: 2505I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S.
TEKIRDAG - TURKEY

for the type of product

INSTRUMENTATION AND COMMUNICATION CABLES
FMGSGO-FR, FMGSGO, FMSGGO, LFMSGGO & LFMGSSGO series
250V

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

IEC 60092-350 (2014), IEC 60092-360 (2014), IEC 60092-376 (2017)

IEC 60228 (2004)

IEC 60331-21 (1999)

IEC 60332-1-2 (2015), IEC 60332-3-22 Cat.A (2018)

IEC 60754-1/2 (2011)

IEC 61034-1/2 (2013)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 21 Nov 2024

For Bureau Veritas Marine & Offshore,

At BV ISTANBUL, on 21 Nov 2019,

Gurcan Yilmaz



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The **FMGSGO, LFMGSGO & LFMSGSGO** series are instrumentation and communication cables for Marine and Offshore applications.

1.1 - Datas:

Rated voltage:	250V
Flame retardant:	IEC 60332-1-2 & IEC 60332-3-22 Cat.A
Fire resistant:	IEC 60331-21 (-FR only)
Low smoke:	IEC 61034-1/2
Halogen free:	IEC 60754-1/2

1.2 - Construction:

Conductor:	Stranded annealed bare or tinned copper wire (Class 2)
Fire resisting layer:	Mica tape (-FR only)
Insulation:	XLPE
Armour:	Bare copper wire braid (FMGSGO & LFMSGSGO types)
Inner sheath:	Polyester tape
Screen:	Bare or tinned copper wire braiding
Outer sheath:	SHF2 (Halogen free cross-linked compound)

Note: The construction is in accordance with VG 95218 Part 62, 63, 64 & 65.

1.3 - Range:

Type	Number of core	Cross-sect. area (mm ²)
FMGSGO	1 to 16P	0.75
FMGSGO - FR	2P	0.75
FMSGSGO	2P to 19P	0.75
LFMGSSGO	2 to 19P	0.4
LFMSGSGO	2 to 4P	0.4

2. DOCUMENTS AND DRAWINGS :

Specification for FMGSGO, dated 18.May.2009.
 Specification for FMSGSGO ref. 413325 Rev. 0, dated 28.Feb.2013.
 Specification for LFMGSSGO, dated 28.Feb.2013.
 Specification No. 4133325, dated 28.Feb.2013.
 Specification No. 4133411, dated 01.Mar.2013.
 Gap Analysis between IEC 60092-376 and VG 95218-2, dated 08.Dec.2015.

3. TEST REPORTS :

UNIKA:

- Test report N°500/FRM/007 Rev.1, dated 29.Aug.2014.
- Test report N°2014-425, dated 08.Sep.2014.
- Test report N°14-425/3164 & 14-425/3168, dated 29.Aug.2014
- Tests reports dated 29.Aug.2014.
- Tests report N°14575-4144313, dated 13.Nov.2014.
- Tests report N° 15-513/3539, dated 30.Oct.2015.
- Flame tests reports, all dated 30.Oct.2015.
- Tests report dated 06.Jan.2016.
- Flame retardant tests reports, all dated 07.Jan.2016.
- Tests report No. 4133325, dated 28.Feb.2016.
- Flame retardant test report No. TR-332-07, dated 09.May.2016.
- Tests reports, dated 04 Oct 2019.

4. APPLICATION / LIMITATION :

BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships and Offshore Units.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S.** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

5.4 - For information, **UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S.** has declared to Bureau Veritas the following production site:

**UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S.
VELIKOY SANAYI BOLGESI
CERKEZKOY / TEKIRDAG
TEKIRDAG
TURKEY**

6. MARKING OF PRODUCT :

The cable shall be marked on the surface outer sheath, in a durable legible and visible manner, with the following information through the length of cable:

- 1) - Voltage grade.
- 2) - Cable symbol and temperature class.
- 3) - Number of conductors and conductor size.
- 4) - Applicable standard(s) to flame retardant and fire resistance if any
- 5) - Manufacturer's name or trade mark.
- 6) - Year of manufacture.

7. OTHERS :

7.1 - It is **UNIKA UNIVERSAL KABLO SANAYI VE TICARET A.S.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 39398/A4 BV issued on 26 May 2016 by the Society.

*** END OF CERTIFICATE ***