



Marine & Offshore

Certificate number: 65653/A0 BV

File number: MPA2101507

Product code: 4132H

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

SOCOMEK

Benfeld - FRANCE

for the type of product

INSULATION MONITORS (EARTH FAULT DETECTORS)

ISOM Digiware

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
IEC 61557-8: 2014, IEC 61557-9: 2014.

EC Code: 33

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: 16 Feb 2027

For Bureau Veritas Marine & Offshore,

At BV MULHOUSE, on 16 Feb 2022,

Anthony Kinnen



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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

ISOM Digiware insulation monitoring and measurement system for IT earthing system network.

1.1 - Approval Range:

Product Reference	Product Name	Product Description	SW/FW version
47290126	F-60	Insulation Fault Locator	1.x.x.x
47290127	F-60t	Insulation Fault Locator	1.x.x.x
47290110	L-60	Insulation Monitoring Device & Locating Current Injector	1.x.x.x
47290111	L-60t	Insulation Monitoring Device & Locating Current Injector	1.x.x.x
47290112	L-60h	Insulation Monitoring Device & Locating Current Injector	1.x.x.x
47290203	D55t	Detached Display	2.x.x.x
47290204	D55h	Detached Display	2.x.x.x
47290205	D75	Detached Display	2.x.x.x
47290590	T-15	Adapter for locating core balance transformer	2.x.x.x
47290591	T-15t	Adapter for locating core balance transformer	2.x.x.x
47506015	ΔIP15	ISOM Digiware TORE	
47506030	ΔIP30	ISOM Digiware TORE	
47506050	ΔIP50	ISOM Digiware TORE	
47506120	ΔIP120	ISOM Digiware TORE	
47506200	ΔIP200	ISOM Digiware TORE	
47506300	ΔIP300	ISOM Digiware TORE	
47506041	ΔIP-R50	ISOM Digiware TORE	
47506081	ΔIP-R80	ISOM Digiware TORE	
47506121	ΔIP-R120	ISOM Digiware TORE	

1.2 - Main Characteristics:

Power supply	24 V DC
Ambient operating temperature	-10°C to 70°C
Storage temperature	-40°C to 70°C
Operating humidity	55°C/ 90% RH
Impact resistance	IK08(5J) Front panel IK06(1J) other panels 10f/11ms, 3pulses
Protection Rating	IP 4x for front face, IP 2x for other face IP 2x for T-15 and Tore

2. DOCUMENTS AND DRAWINGS :**SOCOMECH:**

- ISOM Digiware system catalogue, No. DIV 21 111517, dated 02-02-2021.
- Products characteristics No. DIV 21 111679, dated 09-02-2021.
- BOM:
 - LST 21 111497 - Bill of Material_ISOM DIGIWARE_F60, dated 02-02-2021.
 - LST 21 111498 - Bill of Material_ISOM DIGIWARE_F60t, dated 02-02-2021.
 - LST 21 111503 - Bill of Material_ISOM DIGIWARE_L60, dated 02-02-2021.
 - LST 21 111504 - Bill of Material_ISOM DIGIWARE_L60t, dated 02-02-2021.
 - LST 21 111500 - Bill of Material_ISOM DIGIWARE_L60h, dated 02-02-2021.
 - LST 21 111506 - Bill of Material_ISOM DIGIWARE_T-15, dated 02-02-2021.
 - LST 21 111508 - Bill of Material_ISOM DIGIWARE_T-15t, dated 02-02-2021.
 - LST 21 111510 - Bill of Material_ISOM DIGIWARE_D-55t, dated 02-02-2021.
 - LST 21 111509 - Bill of Material_ISOM DIGIWARE_D-55h, dated 02-02-2021.
 - LST 21 111512 - Bill of Material_ISOM DIGIWARE_D-75, dated 02-02-2021.
 - LST 21 113982 - Bill of Material_IDELTA IP50, dated 15-06-2021.
 - LST 21 113983 - Bill of Material_IDELTA IP30, dated 15-06-2021.
 - LST 21 113984 - Bill of Material_IDELTA IP120R, dated 15-06-2021.
 - LST 21 113985 - Bill of Material_IDELTA IP80R, dated 15-06-2021.
 - LST 21 114124 - Bill of Material_IDELTA IP300, dated 22-06-2021.
 - LST 21 114125 - Bill of Material_IDELTA IP200, dated 22-06-2021.
 - LST 21 114127 - Bill of Material_IDELTA IP120, dated 22-06-2021.
 - LST 21 114128 - Bill of Material_IDELTA IP80, dated 22-06-2021.
 - LST 21 114129 - Bill of Material_IDELTA IP15, dated 22-06-2021.
 - LST 21 114130 - Bill of Material_IDELTA IP50R, dated 22-06-2021.
- Software delivery List ISOM Digiware No. DIV 22 117658, dated 09-02-2022.
- Software delivery Nos.: 880303, 880304, 880292, 880375, 880411, 880420, 880456.
- EU Declaration of conformity, No. COD 20 109715 and No. COD 20 109716, dated 30-10-2020.
- Test program of ISOM Digiware No. DIV 18 98311, dated 19-02-2019.

3. TEST REPORTS :**LCIE:**

- Test Report No. 172129-764053-A, dated 25-11-2021.
- Test Report No. 172129-764053-B, dated 25-11-2021.
- Test Report No. 167205-750931-A, dated 26-11-2020.

TESLA POWER LAB:

- Test Report No. TR 21205, dated 29-06-2021.
- Test Report No. TR 21214, dated 25-06-2021.

ADETESTS:

- Mechanical tests of shorks and vibration report No. R-ADE-ENN-17-300317-1/A(00), dated 20-09-2017.
- Mechanical tests of shorks and vibration report No. R-ADE-ENN-17-300953-1/A(00), dated 20-09-2017.

EMITECH:

- EMC Test Report No. RCE-EURESS21B233SOC-01Av01, dated 06-07-2021.

4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 33**
- 4.4 - The equipment fulfils the EMC requirements for installation in power distribution zone
- 4.5 - As per requirements of Regulations stated on front page of the Certificate.
- 4.6 - Only Hardware and Firmware / Software successfully tested together in compliance with the regulations as referred to in cover page, according to the declaration of the manufacturer are covered by this certificate.
- 4.7 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.
- 4.6 – Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 7.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above are to be supplied by **SOCOMEK** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **SOCOMEK** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **SOCOMEK** has declared to Bureau Veritas the following production site(s):

SOCOMEK
1 Rue de Westhouse,
B.P. 60010
67235 Benfeld
FRANCE

TCT
ZA de la Turlurette
58160 Sauvigny-les-Bois
FRANCE

6. MARKING OF PRODUCT :

- Trade name.
- Date of manufacture and serial number.
- Equipment type or model identification under which it was type-tested

7. OTHERS :

It is **SOCOMEK**'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.

***** END OF CERTIFICATE *****