



Maritime &  
Coastguard  
Agency

UK Approved Body Authorised  
by the MCA

Certificate number: 74058/A0 UK

File number: MPA2204268

Item number: UK/4.18

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

Approved Body 8517 - UNITED KINGDOM MARINE EQUIPMENT APPROVAL

## UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

*This is to certify that Bureau Veritas SA UK Branch Office did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, subject to any conditions in the schedule attached hereto.*

*This certificate is issued to:*

**Sartech Engineering Ltd**

Redhill - UNITED KINGDOM

*for the type of product*

**SEARCH AND RESCUE LOCATING DEVICES (SRLD): 9GHz SAR TRANSPONDER  
(SART)**

Type: S 701

### Requirements:

SOLAS 74 Convention as amended, Regulations III/4, III/6, III/26, IV/7, IV/14, V/18 and X/3

IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 8, 13 and 14

IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 8, 13 and 14

IMO Res. A.694(17)

IMO Res. A.530(13)

IMO Res. A.802(19) amended by MSC.247(83)

ITU-R M.628-5 (03/12)

IEC 60945 (2002) + /Corr. 1 (2008),

IEC 61097-1 (2007).

*The attached (schedule of approval) forms part of this certificate.*

*This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.*

**This certificate will expire on: 09 Mar 2028**

**Issued by Bureau Veritas SA UK Branch Office**

**(Approved Body 8517)**

At BV LONDON, on 09 Mar 2023,

Spencer Yule

***This certificate was created electronically and is valid without signature***



*Note 1: This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.*

*Note 2: Should the specified Regulations or standards be amended during the period of validity of this certificate, the product(s) is/ are to be re-approved prior to it/ they being placed on the UK market and on board vessels to which the amended regulations of standards apply.*

*Note 3: "The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body."*

*Note 4: In case limitations of use apply, these should be indicated in the Annex.*

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 is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site [www.veristar.com](http://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 electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=xtpcb60aou>

BV Mod. Ad.E 536\_UK May 2022

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

The **S.701** Search and Rescue Transponder (SART) is a 9 GHz receiver/transmitter.

The unit is supplied with a bracket for mounting on the bulkhead of the ship. When required, the SART can be removed from the bracket and carried in one hand to the lifeboat or liferaft.

### Technical Characteristics

Frequency:	9.2 - 9.5 GHz
Polarization:	horizontal
Horizontal beam width:	360 degrees $< \pm 2$ dB
Vertical beam width:	$\pm 12.5$ degrees
Transmitted power:	400 mW EIRP (+26 dBm) minimum
Response signal:	12 sweeps forward sweep time 7.5 $\mu$ s. return sweep time 0.4 $\mu$ s.
Nominal transmit duration:	100 $\mu$ s.
Receiver sensitivity:	better than -50 dBm
Recovery time:	below 10 $\mu$ s. or less
Response delay:	0.5 $\mu$ s. or less
Battery capacity:	standby - 96 hrs. (minimum) followed by: active mode - 8 hrs (minimum) at 1 KHz duty factor.
Temperature range:	Operating -20°C to +55°C Storage -30°C to +65°C

### Physical characteristics

Dimensions:	332 mm x 80 mm x 40 mm incl. battery
Effective antenna height:	1 metre (with mast fitted)
Weight:	400g incl. battery.
Mounting bracket:	414 mm x 110 mm x 66 mm, UV resistant ABS
Mounting pole (option):	3 section telescopic, glass fibre
SART body:	UV-stabilised, impact modified polystyrene, bright yellow

### 2. DOCUMENTS AND DRAWINGS :

As per manufacturer's controlled document list reference:

2 circuit diagrams ref.DOC.701 / CD1/9104 issue 4.

Bill of material ref. DOC.701/PL1/21103 issue 4.

S.701 SART User Guide.

2003 Technical manual ref. DOC.701/TF1/220703.

### 3. TEST REPORTS :

3.1 - Test report N° 04/22 issued by PUBLIC ENTERPRISE TESTING CENTER "OMEGA" SEVASTOPOL.

3.2 - Test report N° 09/565 issued by PUBLIC ENTERPRISE TESTING CENTER "OMEGA" SEVASTOPOL on 28/Oct./2009.

3.3 - Test report N° 15/110 issued by PUBLIC ENTERPRISE TESTING CENTER "OMEGA", SEVASTOPOL, on 25/March/2015

### 4. APPLICATION / LIMITATION :

4.1 - As per requirements of Regulations stated on front page of this certificate.

4.2 - <b>Internal batteries</b>	<b>Cell type</b>	<b>IEC Design</b>
Seven Star S.701B (pack of 4)	CR/DL 123A	CR 17345

**5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - This certificate alone does not allow the applicant to issue the UK Declaration of Conformity and to affix the mark of conformity (United Kingdom conformity mark) to the products corresponding to this type. To this end, the production-control phase module D Production Quality Assurance or module E Product Quality Assurance or module F Product Verification of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, is to be complied with and controlled by a written inspection agreement with an Approved Body.

5.2 - For information concerning the production phase modules, **Sartech Engineering Ltd** has declared the following manufacturing site(s):

**Sartech Engineering Ltd  
13 Trowers Way  
Holmethorpe Industrial Estate  
Redhill  
Surrey  
UNITED KINGDOM**

**6. MARKING OF PRODUCT :**

Reference is made to the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, Part3:

In particular Article 15.3 specifies that the United Kingdom conformity mark shall be followed by the identification number of the Approved Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

**7. OTHERS :**

It is **Sartech Engineering Ltd'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 \*\*\*