

EC TYPE-EXAMINATION (MODULE B) CERTIFICATE

Marine Equipment Directive (MED) 2014/90/EU

PHOENIX TESTLAB
Notified Body Number **0700**

Recognised by



0800S11/4822/007

BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

This is to certify that:

PHOENIX TESTLAB 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 Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the schedule attached hereto.

Certificate No.	PTL-MED-B-20-111979
Manufacturer	SAL Navigation AB
Address	Västberga Allé 36 B 126 30 Hägersten Sweden
Directive Reference (No & Item designation)	Directive 2014/90/EU, Regulation (EU) 2020/1170 MED/4.7 Speed and distance measuring equipment (SDME)
Product Name / Trade Name	SAL T2+ / SAL T2+, SAL T200

Specified Standards

IMO Resolution A.694(17)	IEC 61023 Ed. 3.0 (2007-06)
IMO Resolution A.824(19) as amended by IMO Resolution MSC.96(72) and IMO Resolution MSC.334(90)	IEC 60945 Ed. 4.0 (2002) incl. Corr. 1 (2008)
	IEC 61162-1 Ed. 5.0 (2016-08)
IMO Resolution MSC.191(79)	IEC 62288 Ed. 2.0 (2014-07)
IMO Resolution MSC.302(87) *	IEC 62923-1 Ed. 1.0 (2018-08) *
	IEC 62923-2 Ed. 1.0 (2018-08) *

*) The equipment is not capable of issuing alerts.

Date of issue: **2021-01-05** Expiry date: **2026-01-04**
USCG Approval Category: **165.105**

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

The attached Schedule of Approval forms part of this certificate. This certificate consists of 4 pages.



Signed by Klaus Knörig
Notified Body

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Schedule of Approval

Components necessary for operation

Component	Consilium Description	Consilium P/N	SAL Description	SAL P/N	Software Version *
Main Unit	SAL T2+ ELC	702200-10	SAL T200 ELC	80.11.02	Axx (STW) Dxx (SOG)
Transducer **	SAL T TRU 2-2 30M	704400	SAL T TRU 2-2 30M	704400	N/A
	SAL T TRU 2-2 40M	704401	SAL T TRU 2-2 40M	704401	
	SAL T TRU 2-2 50M	704404	SAL T TRU 2-2 50M	704404	
Master Display	SAL SD4-2	704042	SAL SD4-2	80.12.02	Cxx
Display	SAL SD4-2 or	704042	SAL SD4-2 or	80.12.02	Cxx
	SAL SD4-3 or	704043	SAL SD4-3 or	80.12.03	Cxx
	SAL SD4-4	704044	SAL SD4-4	80.12.04	Cxx

*) Capital letters in the Software Version indicate Major revisions (A, B, C, etc.), whereas "xx" represent Minor revision numbers (01, 02, 03, etc.) with no impact on type approved functionality. ("N/A" means there is no software in the component.)

***) In a speed log system, only one (1) of the transducers shall be used.

Optional Components

Component	Consilium Description	Consilium P/N	SAL Description	SAL P/N	Software Version *
Processing Unit	SAL LPU2	704500	SAL LPU2	80.11.03	Bxx
NMEA Buffer	1N4B	704160	1N4B	704160	N/A
Displays	SAL SD4-2	704042	SAL SD4-2	80.12.02	Cxx
	SAL SD4-3	704043	SAL SD4-3	80.12.03	Cxx
	SAL SD4-4	704044	SAL SD4-4	80.12.04	Cxx
	SAL SD4-5	704045	SAL SD4-5	80.12.05	Cxx
	SIA-3-8	701692	SIA-3-8	701692	N/A
Mounting Box	SD4 BMB	704080	SD4 BMB	704080	N/A

*) Capital letters in the Software Version indicate Major revisions (A, B, C, etc.), whereas "xx" represent Minor revision numbers (01, 02, 03, etc.) with no impact on type approved functionality. ("N/A" means there is no software in the component.)

Approval documentation

	Consilium document P/N and name	SAL document P/N and name
User Guide/ Installation Manual	702270, SAL T2+ Manual	80.16.02, SAL T200 Manual
Manuals	701695, SIA-3-8 Technical Manual	
Statements	Statement on SD4-, LPU2-, T2r and WTU-Assy software, Document Id. TP19010B01, 2019-02-26 Statement on MED Implementing Regulation 2018-773, Document Id. TP19047A01, 2019-02-25 Summary of adaptations made to SD4 to comply with 62288 ed 2.0, Document Id. TP15047A01, 2015-02-19 SAL T2+ / SAL T200 components and part numbers, Document Id. TP20150B, 2020-12-14 S-16571 Risk Assessment LPU2 SW B7, Document Id. TP20181, 2020-12-22	



Applied Standards and Test Reports

Specification	Laboratory	Test Report Number / Version
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 11.2, Compass Safe Distance	BSH	Certificate No. 445, 2005-07-04
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 9, 10, EMC	Intertek	1122354-1 Ed. 2, 2012-04-27
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 8.7, 8.2 – 8.4, 12.1, Environmental	Intertek	1209547-2, 2012-03-30
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 8.7, Environmental	Innventia	273 152 A, rev. 1, 2012-01-17
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 8.2, 8.4, Environmental	Intertek	1209547-3, 2012-04-02
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 9, EMC	Jan Linders AB	TP16064 Ver. A01, 2016-04-01
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 9, EMC	Jan Linders AB	TP16065, 2016-03-23
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 8.2 – 8.4, Environmental	Intertek	913128, 2009-10-30
IEC 60945 Ed. 4.0 (2002) incl. IEC 60945 Corr. 1 (2008), Section 9, 10, EMC	SP Technical Research	F917800-A, 2009-12-14
IEC 61023 Ed. 2.0 (1999-07) IMO Res. MSC.96(72)	BSH	4612/4070407/06, 2006-11-28
IEC 61023 Ed. 3.0 (2007-06) IEC 61162-1 Ed. 4.0 (2010-11)	BSH	4612/4071896/11, 2011-02-16
IEC 61023 Ed. 3.0 (2007-06) IMO Res. MSC.334(90)	BSH	46122/4072359/13, 2013-04-23
IEC 61023 Ed. 3.0 (2007-06)	BSH	4612/4061984/11, 2011-09-30
IEC 61023 Ed. 3.0 (2007-06)	BSH	4612/4071593/10-1, 2010-03-17
IEC 61162-1 Ed. 2.0 (2000-07)	Consilium	TP02111A0, 2002-04-24
IEC 61162-1 Ed. 3.0 (2007-04)	BSH	46162/0041158/09, 2010-03-22
IEC 61162-1 Ed. 4.0 (2010-11)	BSH	4612/4071842/11, 2011-01-12
IEC 61162-1 Ed. 5.0 (2016-08)	Consilium	TP19060, 2019-03-21
IEC 62288 Ed. 1.0 (2008-07)	BSH	4612/4071593/10, 2010-03-17
IEC 62288 Ed. 1.0 (2008-07)	Consilium	TP09093B, 2009-10-28
IEC 62288 Ed. 2.0 (2014-07)	Consilium	TP15047A01, 2015-02-20



Application/Limitation

The equipment complies with the requirements for measuring speed through the water and speed over ground and can be operated as two independent devices for measuring speed through the water and speed over the ground.

The SAL T2+ and SAL T200 products comply as secondary source with the applicable Marine echo-sounding equipment requirements for Range Performance, Pulse Repetition Rate, Roll and Pitch, and Accuracy in accordance with

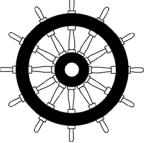
- IMO Resolution A.224 (VII) as amended by IMO Resolution MSC.74(69) Annex 4 and
- ISO 9875 Ed.3.0, 2000 incl. Corr. 1, 2006

When using this function, the products may only be used in conjunction with type approved echo-sounding equipment. Data is transmitted according to IEC 61162-1 depth sentence (\$VDDPT). This certificate does not cover full approval of the equipment as an echo-sounding equipment (MED/4.6).

The equipment is not capable of issuing alerts.

Notes

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 PHOENIX TESTLAB.
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 market and on board vessels to which the amended regulations or standards apply.

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 ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

U.S. Coast Guard Approval

This equipment is covered by the scope of the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004 and amended by Decision No.1/2008 dated February 18th, 2019 according to U.S. Coast Guard approval category 165.105.

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) as allowed by the MRA.