

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Compass Bearing Device

with type designation(s)

Optical Bearing Device System SR02

Issued to

Scandinavian Micro Systems AS
Trollåsen, Norway

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/4.54. SOLAS 74 as amended, Regulations V/18 & V/19

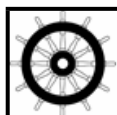
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-05-15**.

Issued at **Høvik** on **2019-05-16**

DNV GL local station:
Oslo Maritime and CAP

Approval Engineer:
Atle Bjørnstad Bulukin



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body



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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

The Optical Bearing Device (OBD) system consist of one or more HEAD units and Auxilliary units:

HEAD units:

- SR02-HEA-H6v2 Model for hanging/pull-down mounting
 - Software version: v3.xx
- SR02-HEA-S2v1 Model for standing mounting on pelorus or bracket.
 - Software version: v3.xx

Auxiliary Units:

- SR02-NAV-1v4-x Single OBD Navigation Interface
 - Software Version: 2.xx
- SR02-NAV-2v1 Mult OBD Navigation Interface
 - Software Version: 2.xx
- SR02-CON-2v6 Connection Unit
- SR02-OPT-x Optical aiming devices
- SR02-BRA-Hx Mounting Brackets for hanging version
- SR02-BRA-Sx Mounting Brackets for standing version

Application/Limitation

- The OBD shall be installed and tested according to the manufacturers Installation- and User Manuals.
- The OBD is certified as a group I azimuth reading device, with reference to ISO 25862 Annex C, and may with input from a certified gyro compass cover the requirements of SOLAS V/19.5.3 for gyro-compass bearing repater.
- The OBD may be interfaced to the ship's ECDIS for transferal of relative terrestrial bearings that may be used to generate position fix independent of the ship's EPFS.

Type Examination documentation

DNV GL No	Doc Title	Rev
5	IEC 60945 Test of OBD HEAD and NAV-1 ; NEMKO Report no E15144.01	1
6	IEC 60945 Test of OBD NAV-2; NEMKO Report no E18063.00	0
8	SR02-SYS1-H and SR02-SYS1-S Performance Type test program	7
9	SR02-DOC-OPM Operator Manual	2.xx
10	SR02-DOC-INM Installation Manual	2.xx

Tests carried out

- Performance testing, ISO 25862 (2009)
- Environmental testing, IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Interface testing, IEC 61162-1 (2016)
- Interface testing, IEC 61162-2 (1998)
- Presentation of navigational information, IEC 62288 (2014)

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.