



Marine & Offshore

Certificate number: 08133/E0 BV

File number: ACE 02/129/01

Product code: 2631H

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

LOVATO KONCAR d.o.o.

Zagreb - CROATIA

for the type of product

SWITCHES (LOW VOLTAGE)

LOW VOLTAGE ROTARY CAM SWITCHES, Type: GN and GF.

Requirements:

BV Rules for the Classification of Steel Ships. IEC 60947-1 (2014), IEC 60947-3 (2015)

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: 10 Jul 2025

For Bureau Veritas Marine & Offshore,

At BV RIJEKA, on 10 Jul 2020, Slaven Celic





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.

Certificate number: 08133/E0 BV

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

LOW VOLTAGE ROTARY CAM SWITCHES

GF10 and GF20.

Types: GN12, GN20, GN25, GN32, GN40, GN63, GN125,

Mounting Form: - U Front mounting

- O Rear mounting
- P Switch in plastic case.

Product Type	Rated Voltage (V)	Maximum Operating Current (A)	Short Circuit (kA)
	Ui	Ith	Icw per second
GN12	690	16	0.2
GN20	690	20	0.25
GN25	690	25	0.4
GN32	690	32	0.8
GN40	690	40	1.0
GN63	690	63	1.6
GN125	690	125	2.1
GF10	480	10	0.1
GF20	480	20	0.25

2. DOCUMENTS AND DRAWINGS:

- IEC 60947 Series.
- Pamphlet: N° 74013 (1.2) N° 74001 (1.2).

3. TEST REPORTS:

- Dekra certificate N° 2161096.01, dated 31.Jul.2013.
- KONCAR PEX-Inc. N°s: 008/97 dated 27/10/1997 005/95 dated 25/09/1995 014/89 dated 14/09/1989 and 002/98 dated 17/02/1998.
- Tests reports N°34/2240, N°, 34/2241, N°34/2242, and N° 34/2243, all dated 25.Mar.2013.

DEKRA CB Scheme N° NL-49675, dated 30 Jan 2018.

DEKRA test report N° 2214534.50, dated 24 Jan 2018.

4. APPLICATION / LIMITATION :

BV Rules for the Classification of Steel Ships.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The above products are to be supplied by **LOVATO KONCAR d.o.o.** 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 **LOVATO KONCAR d.o.o.** 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, LOVATO KONCAR d.o.o. has declared to Bureau Veritas the following production site(s):

LOVATO KONCAR d.o.o. Borongajska cesta 81 b Zagreb CROATIA

6. MARKING OF PRODUCT:

- Maker's name or trade mark,
- Serial number of the units,
- Equipment type number or model identification under which it was type-tested,
- According to IEC 60947 specifications.

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7. OTHERS:

- 7.1 It is **LOVATO KONCAR d.o.o.**'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° 08133/D0 BV issued on 22 Jan 2015 by the Society.

*** END OF CERTIFICATE ***





Marine & Offshore

Certificate number: SMS.W.II./12436/C.0

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RECOGNITION FOR BV MODE II SCHEME

LOVATO KONCAR d.o.o.

Zagreb - CROATIA

Summary of the range of the recognition which is detailed in the subsequent page(s):

SWITCHES (LOW VOLTAGE) - BV product code 2631H

This certificate is issued to attest that Bureau Veritas Marine & Offshore has performed, at the above company's request and in compliance with the requirements of NR320, a satisfactory assessment of the manufacturing facilities and associated quality procedures related to the range of the recognition. This certificate is a renewal of certificate N° SMS.W.II./12436/B.0 expiring on 10/10/2022

This certificate will expire on: 22 Sep 2026

For BUREAU VERITAS, At BV RIJEKA, on 29 Sep 2022, Slaven Celic

This certificate was created electronically and is valid without signature



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. 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.

Certificate number: SMS.W.II./12436/C.0

THE SCHEDULE OF RECOGNITION

1. RANGE OF THE RECOGNITION

The products listed in the table below are not required to be certified individually or per batch by Bureau Veritas Marine & Offshore. Their compliance with the approved type is solely certified by the manufacturer using its own format of document and marking to allow traceability to the approved type (HBV products as defined in NR320).

App. number	Validity date	Item designation	Trade name
08133/E0 BV		SWITCHES (LOW VOLTAGE) - 2631H	LOW VOLTAGE ROTARY CAM SWITCHES, Type: GN and GF.

2. LIMITATIONS

The certificates listed in the range of recognition are to be valid, as applicable.

Bureau Veritas Marine & Offshore is to be informed immediately of any modification to manufacturing facilities and associated quality procedures in order to agree on appropriate actions.

LOVATO KONCAR d.o.o. has to apply for the periodical audits as agreed with Bureau Veritas Marine & Offshore.

3. PERIMETER OF CERTIFICATION

Quality system of following site(s) has been assessed:

LOVATO KONCAR d.o.o. - Zagreb - CROATIA

4. REMARKS

Nil

*** END OF CERTIFICATE ***