DNV·GL

Certificate No:
TAE00001SX

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Control Switch etc.

with type designation(s)
GC-..., ENM2-..., D-..., SEM2-...

Issued to
Bernstein AG
Porta Westfalica, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2017-04-20**
This Certificate is valid until **2022-02-01**.
DNV GL local station: **Magdeburg**

Approval Engineer: **Harald Amberger**

for **DNV GL**

Duy Nam Le
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

1. Limit switch / Low-voltage switchgear and controlgear
2. Limit switch / Low-voltage switchgear and controlgear, EX-protected

Type

1. Limit switch / Low-voltage switchgear and controlgear

ENM2-…	Limit switch
GC-…	Limit switch
D-…	Limit switch
SEM2-…	Rope pull switch

2. Limit switch / Low-voltage switchgear and controlgear, EX-protected

ENM2-…	Limit switch
GC-…	Limit switch

1. Limit switch / Low-voltage switchgear and controlgear

Rating: Type ENM2-…, GC-…, SEM2-…

Insulation voltage Ui	400VAC
Conventional thermal current Ithe	10A
Operating voltage Ue	240 V
Utilization category	A300, AC15 Ue/Ie 240V / 3A
Protection class	IP 65

Rating : Type D-…

Insulation voltage Ui	400VAC
Conventional thermal current Ithe	16A, 10A
Operating voltage Ue	240 V
Utilization category	AC15 Ue/Ie 240V /10A, 6A, 3A
Protection class	IP 65

2. Limit switch / Low-voltage switchgear and controlgear, EX-protected

Rating: type ENM2-…, GC-…

Insulation voltage Ui	250 VAC
Conventional thermal current Ithe	5A
Operating voltage Ue	230 V
Utilization category	AC15 Ue/Ie 240V / 3A DC 13 250V / 0,27A
Protection class	IP 66/67

Application/Limitation

Location Classes:
Temperature: A, Humidity: B, Vibration: A

Operating instruction of the manufacturer to be observed

Type Approval documentation

	D-…	GC-…	ENM2-…	SEM2-…
TÜV-NORD		X	X	
UL		X	X	X
CSA	X	X	X	X
DGUV		X	X	
CCC	X	X	X	

TÜV-NORD: TÜV 03 ATEX 2043 X
UL: File E123781
CSA: Certificate 1731371, 1148032, 1152608
DGUV: GS-ET 15
CCC: Certificate 2008010305265062, 2010010305416845, 2014010305729915

Tests carried out

IEC 60947-5-1, EN 60079-0, EN 60079-1, EN 60079-31, cold, dry heat, damp heat, vibration
flame retardancy

Marking of product

Bernstein Trade Mark, Name of Product, Electrical ratings Ue, Ie, Utiliziation category AC15, DC 13
IP Code

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE