



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **E-11911**

This is to certify that the
Installation Switch

with type designation(s)
Control Switch / Switch module

Manufactured by
BARTEC GmbH
BAD MERGENTHEIM, Germany

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application

Control switches onboard ships and offshore units. Enclosure protection: IP67.

Rated voltage (V)	690 / 600 V
Rated current (A)	16 A (40 °C) / 11 A (60 °C)
Enclosure protection	up to IP67

Høvik, 2012-10-23
for **Det Norske Veritas AS**

This Certificate is valid until
2016-12-31

Marit Laumann
Head of Section

DNV local office:
Essen

Nicolay Horn
Surveyor

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.
If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

I Control switch installation module, 4-pole Type 07-3331-1****/****

Technical data:

Rated insulation voltage:	440 V /690V*		
Rated operating voltage:	400 V AC		
Switch isolator: (IEC/EN 60947-3, main switch)	P/AC-3/AC23	AC-3	AC-23
	230 V	3ph/3 kW	1ph/2.2 kW
	400 V	3ph/ 5.5 kW	1ph/3 kW
Control switch (IEC/EN 60947-5-1 auxiliary circuit switch)	AC15	AC-12	DC-13
	400 V	400 V	24 V
	10 A	16 A	1 A
Ex protection class:	II 2G Ex d e IIC Gb / I M2 Ex de I Mb		
Ambient Temperature:	-55 °C to +60 °C		
IP protection class:	IP67 in conjunction with actuating element Type 05-0003-****/****, terminals IP20		
Enclosure material:	Thermoplastic		
Certification:	PTB 99 ATEX 1043 U / IECEx PTB 07.0046 U		

* See application Limitation

II Switch module with connection cable for installation on panel (front installation) Type 07-3323-3****/**** 1)

Technical data:

Rated insulation voltage:	400 V / 690V* (on request)			
Rated operating voltage:	400 V AC			
Conventional thermal current:	16 A /+40, 11 A/60 °C			
Rated voltage:	400 V	400 V	110 V	24 V
Utilization category:	AC-12	AC-15	DC-13	DC-13
Rated operating current:	16 A	10 A	0.5 A	1 A
Ex protection class:	Ex II 2G Ex d IIC T6			
Ambient Temperature:	-40 °C to +60 °C			
IP protection class:	IP67 in conjunction with actuating element Type 05-0003-****/****			
Enclosure material:	Thermoplastic			
Certification:	PTB 00 ATEX 1092 X			

* & 1): See application Limitation

III Switch module installation on panel (front installation) with cover for connection cable Type 07-3323-5****/****

Technical data:

Rated insulation voltage:	400V			
Rated operating voltage:	AC 12V to 250V, DC 12V to 60V, AC/DC 12V to 24 V			
Conventional thermal current:	16 A /+40, 11 A/60 °C			
Rated voltage:	400 V	400 V	110 V	24 V
Utilization category:	AC-12	AC-15	DC-13	DC-13
Rated operating current:	16 A	10 A	0.5 A	1 A
Ex protection class:	II 2G Ex d e IIC T6 Gb, II 2 D Ex tb IIIC T80°C Db IP66			
Ambient Temperature:	-55 °C to +50 °C (-55 °C on request), +60 °C (AC/DC 12V to 24V)			
IP protection class:	IP66 in conjunction with actuating element Type 05-0003-****/****			
Enclosure material:	Thermoplastic			
Certification:	PTB 11 ATEX 1010 X, IECEx PTB 11.0025X			

IV Switch module with terminals for panel-mounted installation Type 07-3323-1***/***, 07-3323-4***/***

Rated insulation voltage:	440 V / 690V* (on request)			
Rated operating voltage:	400 V AC			
Conventional thermal current:	16 A /+40, 11 A/60 °C			
Rated voltage:	400 V	400 V	110 V	24 V
Utilization category:	AC-12	AC-15	DC-13	DC-13
Rated operating current:	16 A	10 A	0.5 A	1 A
Ex protection class:	II 2G Ex d e IIC Gb / I M2 Ex d e I Mb			
Ambient Temperature:	-55 °C to +60 °C			
IP protection class:	IP67 in conjunction with actuating element Type 05-0003-****/***, terminals IP20			
Enclosure material:	Thermoplastic			
Certification:	PTB 99 ATEX 1043 U , IECEx PTB 07.0046			

* See application Limitation

V Switch module with terminals for rail-mounted installation.Type 07-3321-1***/***

Rated insulation voltage:	440 V / 690V* (on request)			
Rated operating voltage:	400 V AC			
Conventional thermal current:	16 A /+40 °C, 11 A/+60 °C			
Rated voltage:	400 V	400 V	110 V	24 V
Utilization category:	AC-12	AC-15	DC-13	DC-13
Rated operating current:	16 A	10 A	0.5 A	1 A
Ex protection class:	II 2G Ex d e IIC Gb/ I M2 Ex d e I Mb			
Ambient Temperature:	-55 °C to +60 °C			
IP protection class:	IP67 in conjunction with actuating element Type 05-0003-****/***, terminals IP20			
Enclosure material:	Thermoplastic			
Certification:	PTB 99 ATEX 1043 U / IECEx PTB 07.0046			

* See application Limitation

For details: See manufacturer datasheet.

Application /Limitation

The Ex class shown can only be regarded as information and can not replace the requirement for Ex certificate case by case.

With Uimp=6kV the max. rated voltage is 600 V when used in IT (ship) net.It can be used in applications with directly earthed systems with rated voltage of 400/690 V.

Lamp modules delivered with cables above 3 meters must be certified / reviewed case by case.

Type Approval documentation

Tests carried out

Type tests in accordance with EN 50014, EN 50018 & EN 50019 / IEC 600079-0, IEC 60079-1, IEC 60079-7, IEC 60947-3 & IEC 60947-5-1.

Marking of product

BARTEC - Type designation - Ratings (if applicable)

Certificate Retention Survey

Certificate No.: E-11911
File No.: 823.70
Job Id.: 262.1-013587-1

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

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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.

Survey to be performed at least every second year.

END OF CERTIFICATE