

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Sensor-/ Actuator Cabling**with type designation(s)  
**SACC..., SAC..., SABC...**

Issued to

**Phoenix Contact GmbH & Co. KG**  
**Blomberg, 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 **2018-01-16**This Certificate is valid until **2023-01-15**.DNV GL local station: **Magdeburg**for **DNV GL**Approval Engineer: **Harald Amberger**

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**Arne Schaarmann**  
**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.



## Product description

SACC... Connectors for assembly  
SAC... Sensor-/Actuator Cable  
SABC... Sensor-/Actuator Boxes

| Type designation             | Rated current | Rated voltage | IP protection |
|------------------------------|---------------|---------------|---------------|
| SACC-M12FS-4QO-0,34-VA       | 4A            | 125V AC       | IP 65/67      |
| SACC-M12MS-4QO-0,34-VA       | 4A            | 125V AC       | IP 65/67      |
| SACC-M12FS-4QO-0,75-VA       | 4A            | 250V AC       | IP 65/67      |
| SACC-M12MS-4QO-0,75-VA       | 4A            | 250V AC       | IP 65/67      |
| SACC-M12FS-5CON-DM 5-8 SH VA | 4A            | 60V DC        | IP 65/67      |
| SACC-M12MS-5CON-DM 5-8 SH VA | 4A            | 60V DC        | IP 65/67      |
| SAC-3P-MS/A-1L-Z SCO         | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-3P-MR/A-1L-Z SCO         | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-5P-MS/AD-2L SCO          | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-5P-MR/AD-2L SCO          | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-3P-MS/B-1L-Z SCO         | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-3P-MR/B-1L-Z SCO         | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-3P-MS/BI-1L-Z SCO        | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-3P-MR/BI-1L-Z SCO        | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SAC-4P-MS/A-1L-Z D SCO       | 4A            | 24V AC/DC     | IP 65/67/69K  |
| SACB- 8/16-C OD              | 10A           | 120V AC       | IP 65/67      |

### Valve plug cable

|        |       |      |    |     |    |    |
|--------|-------|------|----|-----|----|----|
| SAC-3P | -10,0 | -28X | /A | -1L | -Z | OD |
| A      | B     | C    | D  | E   | F  | G  |

### M12 Connection cables

|        |      |     |       |      |      |    |    |
|--------|------|-----|-------|------|------|----|----|
| SAC-4P | -M12 | -MS | /10,0 | -28X | -M12 | FS | OD |
| A      | H    | I   | B     | C    | H    | I  | G  |

### M12 Male with open end

|        |      |     |       |      |    |
|--------|------|-----|-------|------|----|
| SAC-4P | -M12 | -MS | /10,0 | -28X | OD |
| A      | H    | I   | B     | C    | G  |

### M12 Female with open end

|        |      |      |      |    |    |    |
|--------|------|------|------|----|----|----|
| SAC-4P | -5,0 | -28X | -M12 | FS | SH | OD |
| A      | B    | C    | H    | I  | J  | G  |

A Number of positions  
SAC-3P, 3 pos.  
SAC-4P, 4 pos.  
SAC-5P, 5 pos.  
SAC-8P, 8 pos.

B Cable length in meter

- C Cable type:  
Type, Article Description  
28X 121895 Cable PO/X 4x0,5 52BK  
28X 121896 Cable PO/X 4x0,5 SH68BK  
28X 139852 Cable PO/X 5x0,5 68BK  
28X 139853 Cable PO/X 5x0,5 SH73BK  
28X 139854 Cable PO/X 8x0,25 68BK  
28X 139855 Cable PO/X 8x0,25 SH73BK
- D Valve plug-type acc. EN175301-803  
A Design A  
AD Design AD  
B Design B  
BI Design BI  
C Design C  
CI Design CI
- E LED valve plug  
1L One status-LED  
2L Two status-LED's
- F Protection circuit valve plug  
Z Z-Diode  
V Varistor 24V DC  
V230 Varistor 230VDC  
R Free wheel diode
- G Optional characteristics  
E. g. Customer symbol, color variants, packaging notes, etc.  
OD Outdoor
- H Type Connector  
M8 Connector with M8 thread locking  
M12 Connector with M12 thread locking
- I Connector configuration  
MS Male straight  
MR Male angled  
FS Female straight  
FR Female angled
- J Configuration options  
SH Shielded cable  
SCO Speedcon locking

## Application/Limitation

Location Classes:

Temperature: B, Humidity: B, Vibration: A

Operating instruction of the manufacturer to be observed

## **Type Approval documentation**

### **Tests carried out**

IEC 61076-2-10:2010; EN 175301:2007, cold, dry heat, damp heat, vibration, flame retardancy.

### **Marking of product**

Phoenix Contact – Type designation – Main data

### **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