



Automatización Eléctrica
Especialistas en Automatización

At the end of this document you will find links to products related to this catalog. You can go directly to our shop by clicking [HERE](#). [HERE](#)

Bus system cable - SAC-3P-M12MS/ 0,3-961/M12FS VA - 1419102

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Bus system cable, PROFIBUS PA (31.25 kbps), 3-position, PVC, blue RAL 5015, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 0.3 m, For Ex area with high-grade steel knurl



Key Commercial Data

| | |
|--------------|---------------------|
| Packing unit | 1 STK |
| GTIN | 4 046356 541695 |

Technical data

Dimensions

| | |
|--|-------|
| Length of cable | 0.3 m |
| Stripping length of the free conductor end | 50 mm |

Ambient conditions

| | |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |
| | IP69K |

General

| | |
|-----------------------|--|
| Note | For applications in circuits of intrinsic safety protection type "i". Electrical values following EN 60079-14. |
| Rated current at 40°C | 4 A |
| Rated voltage | 60 V |
| Number of positions | 3 |
| Coding | B - inverse |
| Signal type/category | PROFIBUS PA, 31.25 kbps |
| Status display | No |

Bus system cable - SAC-3P-M12MS/ 0,3-961/M12FS VA - 1419102

Technical data

General

| | |
|-----------------------------|------------------------|
| Overvoltage category | II |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

| | |
|--|---|
| Flammability rating according to UL 94 | HB |
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Material, knurls | High-grade steel |
| Sealing material | NBR |

Pin assignment

| | |
|--|-------------------------------------|
| Position = wire color (signal) = position (optional) | 1 (Plug) = OG (DATA+) = 1 (Socket) |
| | 3 (Plug) = BU (DATA-) = 3 (Socket) |
| | 4 (Plug) = SR (shield) = 4 (Socket) |

Standards and Regulations

| | |
|--|----|
| Flammability rating according to UL 94 | HB |
|--|----|

Cable

| | |
|---|---|
| Cable type | Fieldbus FOUNDATION/PROFIBUS PA, blue |
| Cable type (abbreviation) | 961 |
| Cable structure | 2xAWG18/7 + 1xAWG20/7 |
| Conductor cross section | 2x 0.75 mm ² (Signal line) |
| | 1x 0.5 mm ² (Drain wire) |
| AWG signal line | 18 |
| Conductor structure signal line | 7x 0.40 mm |
| Core diameter including insulation | 2.24 mm ±0.05 mm |
| Thickness, insulation | 0.5 mm |
| Wire colors | Blue, orange |
| Twisted pairs | 2 cores to the pair |
| Overall twist | One pair with one drain wire and fillers for core |
| Shielding | Plastic-coated aluminum foil with a drain wire |
| Optical shield covering | 100 % |
| External sheath, color | blue RAL 5015 |
| Outer sheath thickness | 1 mm |
| External cable diameter D | 7.5 mm ±0.25 mm |
| Smallest bending radius, fixed installation | 75 mm |
| Cable weight | 56.552 kg/km |
| Outer sheath, material | PVC |

Bus system cable - SAC-3P-M12MS/ 0,3-961/M12FS VA - 1419102

Technical data

Cable

| | |
|---------------------------------|-------------------------------------|
| Material conductor insulation | PO (Signal line) |
| Conductor material | Tin-plated Cu litz wires |
| Conductor resistance | ≤ 19.35 Ω/km (Signal line) |
| | 26 Ω/km (shield) |
| Working capacitance | 78 nF (at 1 kHz) |
| Cable capacity | 147 pF/m (at 1 kHz, core/shield) |
| | ≤ 3.94 pF/m (capacitance unbalance) |
| Signal speed | 0.66 c |
| Shield attenuation | 3 dB/km (At 39 kHz) |
| Cable impedance | 100 Ω ±20 % (At 31.25 kHz) |
| Inductance | 0.6233 μH (per meter) |
| Nominal voltage, cable | 300 V |
| Special properties | UL standards PLTC-ER and ITC |
| Flame resistance | UL 1685 (CSA FT 4) |
| | UL 1685 (vertical tray) |
| | UL 1666 (riser) |
| Ambient temperature (operation) | -40 °C ... 105 °C |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27060307 |
| eCl@ss 4.1 | 27060307 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27060307 |
| eCl@ss 6.0 | 27279218 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC000830 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 26121616 |
| UNSPSC 7.0901 | 26121616 |
| UNSPSC 11 | 26121604 |
| UNSPSC 12.01 | 26121616 |
| UNSPSC 13.2 | 26121616 |

Bus system cable - SAC-3P-M12MS/ 0,3-961/M12FS VA - 1419102

Approvals

Approvals

Approvals

EAC

Ex Approvals

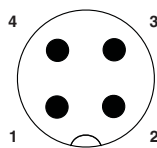
Approvals submitted

Approval details

| |
|-----|
| EAC |
|-----|

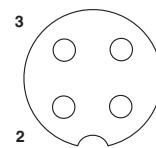
Drawings

Schematic diagram



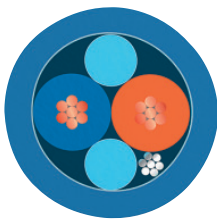
Pin assignment M12 plug, 3-pos., A-coded, view male side

Schematic diagram



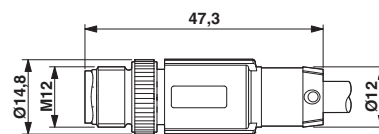
Pin assignment M12 socket, 3-pos., A-coded, view female side

Cable cross section



Fieldbus FOUNDATION/PROFIBUS PA,
blue [961]

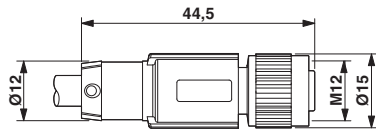
Dimensional drawing



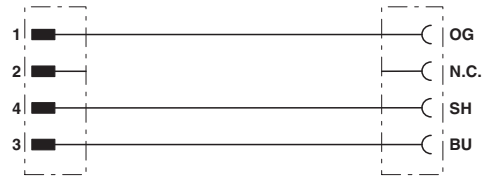
M12 x 1 plug, straight

Bus system cable - SAC-3P-M12MS/ 0,3-961/M12FS VA - 1419102

Dimensional drawing



Circuit diagram



Contact assignment of the M12 connector and the M12 socket

M12 x 1 socket, straight

Phoenix Contact 2016 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>



Below is a list of articles with direct links to our shop Electric Automation Network where you can see:

- Quote per purchase volume in real time.
- Online documentation and datasheets of all products.
- Estimated delivery time enquiry in real time.
- Logistics systems for the shipment of materials almost anywhere in the world.
- Purchasing management, order record and tracking of shipments.

To access the product, [click on the green button.](#)

| Product | Code | Reference | Product link |
|---|---------|--------------------------------------|----------------------------|
| Bus system cable, PROFIBUS PA (31.25 kbps), 3-position, PVC, blue RAL 5015, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 0.3 m, For Ex area with high-grade steel knurl | 1419102 | SAC-3P-M12MS/ 0,3-961/M12FS VA | Buy on EAN |