

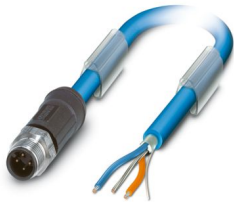
SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

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 documentation. Our general terms of use for downloads are valid.



Bus system cable, PROFIBUS PA (31.25 kbps), 3-position, PVC, blue RAL 5015, shielded, Plug straight M12, coding: A, on free cable end, cable length: 20 m, For Ex area with high-grade steel knurl

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1419096 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF04 |
| Product key | AF1CCG |
| GTIN | 4046356541633 |
| Weight per piece (including packing) | 1,342 g |
| Weight per piece (excluding packing) | 1,342 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

Technical data

Product properties

| | |
|----------------------|-------------------------|
| Product type | Data cable preassembled |
| Application | Process technology |
| Sensor type | PROFIBUS PA |
| Number of positions | 3 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |

Insulation characteristics

| | |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution | 3 |

Interfaces

| | |
|----------------------|-------------------------|
| Bus system | PROFIBUS PA |
| Signal type/category | PROFIBUS PA, 31.25 kbps |

Signaling

| | |
|------------------------|----|
| Status display | no |
| Status display present | no |

Electrical properties

| | |
|-----------------------|------------|
| Nominal voltage U_N | 48 V AC |
| | 60 V DC |
| Nominal current I_N | 4 A |
| Transmission medium | Copper |
| Transmission speed | 31.25 kbps |

Mechanical properties

Mechanical data

| | |
|-----------------------------|------------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|------------|

Material specifications

| | |
|--|-----|
| Flammability rating according to UL 94 | HB |
| Seal material | NBR |

Connection data

Connection assignment

| | |
|---|------------------------|
| Contact Color (signal designation) Contact (optional) | 1 (Plug) OG (DATA+) |
| | 3 (Plug) BU (DATA-) |
| | 4 (Plug) SR (shield) |

SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

Connector

Connection 1

| | |
|---------------------------------|--|
| Type | Plug straight M12 |
| Number of positions | 3 |
| Coding type | A (Standard) |
| Material | CuSn (Contact) Ni/Au (Contact surface) TPU GF (Contact carrier) TPU, hardly inflammable, self-extinguishing (Grip body) Stainless steel (Screw connection) |
| Ambient temperature (operation) | -25 °C ... 90 °C |

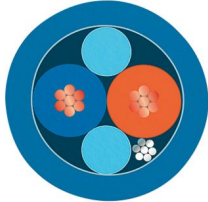
Connection 2

| | |
|------|----------------|
| Type | free cable end |
|------|----------------|

Cable/line

| | |
|--------------|------|
| Cable length | 20 m |
|--------------|------|

Fieldbus FOUNDATION/PROFIBUS PA, blue [961]

| | |
|---------------------------------|--|
| Dimensional drawing |  |
| Cable weight | 56.552 kg/km |
| Number of positions | 2 |
| Shielded | yes |
| Cable type | Fieldbus FOUNDATION/PROFIBUS PA, blue [961] |
| Conductor structure | 2xAWG18/7 + 1xAWG20/7 |
| Signal speed | 0.66 c |
| Conductor structure signal line | 7x 0.40 mm |
| AWG signal line | 18 |
| Conductor cross-section | 2x 0.75 mm ² (Signal line) 1x 0.5 mm ² (Drain wire) |
| Wire diameter incl. insulation | 2.24 mm ±0.05 mm |
| External cable diameter | 7.50 mm ±0.25 mm |
| Outer sheath, material | PVC |
| External sheath, color | blue RAL 5015 |
| Conductor material | Tin-plated Cu litz wires |
| Material wire insulation | PO (Signal line) |

SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

| | |
|---|---|
| Single wire, color | blue, orange |
| Thickness, insulation | 0.50 mm |
| Thickness, outer sheath | 1.00 mm |
| Twisted pairs | 2 cores to the pair |
| Overall twist | One pair with one drain wire and fillers for core |
| Optical shield covering | 100 % |
| Max. conductor resistance | ≤ 19.35 Ω/km (Signal line) |
| | 26 Ω/km (shield) |
| Cable capacity | 147 pF/m (at 1 kHz, core/shield) |
| | ≤ 3.94 pF/m (capacitance unbalance) |
| Working capacitance | 78 nF (at 1 kHz) |
| Cable impedance | 100 Ω ±20 % (At 31.25 kHz) |
| Nominal voltage, cable | 300 V |
| Smallest bending radius, fixed installation | 75 mm |
| Tensile strength | 260 N |
| Shield attenuation | 3.00 dB/km (at 39 kHz) |
| Flame resistance | UL 1685 (CSA FT 4) |
| | UL 1685 (vertical tray) |
| | UL 1666 (riser) |
| Special properties | UL standards PLTC-ER and ITC |
| Ambient temperature (operation) | -40 °C ... 105 °C (cable, fixed installation) |

SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

SAC-3P-M12MS/20,0-961 VA - Bus system cable

1419096

<https://www.phoenixcontact.com/us/products/1419096>

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27060307 |
| ECLASS-15.0 | 27060307 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

SAC-3P-M12MS/20,0-961 VA - Bus system cable



1419096

<https://www.phoenixcontact.com/us/products/1419096>

Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com