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Network cable, Sercos CAT5 (100 Mbps), 4-position, PVC/PVC, signal red RAL 3020, shielded, Plug straight M12 SPEEDCON / IP67, coding: D, on Plug straight M12 SPEEDCON / IP67, coding: D, cable length: 1 m



Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 933766
GTIN	4046356933766
Weight per Piece (excluding packing)	100.500 g
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	1 m

Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
Ambient temperature (operation)	-25 °C 90 °C (M12 connector)

General data

Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	4
Signal type/category	Sercos CAT5 (IEC 11801), 100 Mbps
Standards/regulations	M12 connector IEC 61076-2-101

Characteristics head 1



Technical data

Characteristics head 1

Head type	Plug straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	4
Coding	D (Data)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Insulation resistance	\geq 100 M Ω
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C 90 °C

Characteristics head 2

Head type	Plug straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	4
Coding	D (Data)
Color	black
	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	Zinc die-cast, nickel-plated (Screw connection)
	Zinc die-cast, nickel-plated (Screw connection)
	TPU, hardly inflammable, self-extinguishing (Grip)
	PA (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
Insulation resistance	\geq 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C 90 °C

Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101

Cable

Cable type	Sercos III
Cable type (abbreviation)	93K
UL AWM style	21694 (60°C / 600 V)
Signal type/category	Sercos CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG22/7; SF/TQ



Technical data

Cable

Conductor structure signal line 7x 0.25 mm Core diameter including insulation approx. 1.55 mm Write, yellow, blue, orange Alurninum-lined polyester foil Overall twist Star quad Shielding Tinned copper braided shield External sheath, color signal red RAL 3020 Outer sheath thickness approx. 0.9 mm External cable diameter D 6.5 mm 10.2 mm Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D. Cable weight 68 kg/km Outer sheath, material PVC Material conductor insulation PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≥ 0.5 GΩ*km Coupling resistance ≤ 0.00 mΩ/m (at 10 Hz) Signal runtime 5.3 ns/m Coupling resistance ≤ 0.00 mQ/m (at 10 Hz) Nominal voltage, cable GOU V (So Hz, 1 min.) Test voltage Core/Core 2000 V (So Hz, 1 min.)	Conductor cross section	4x 0.34 mm ²
Core diameter including insulation approx. 1.55 mm Write colors White, yellow, blue, orange Type of pair shielding Alurninum-lined polyester foll Overall twist Star quad Shielding Tinned copper braided shield External sheath, color signal red RAL 3020 Outer sheath thickness approx. 0.9 mm External sheath, color 6.5 mm ±0.2 mm Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D Cable weight 64 kg/km Outer sheath, material PVC Material, inner sheath PVC Material inner sheath PVC Material conductor insulation 2 0.5 GΩ/km Conductor resistance 2 0.0 GM/m Conductor resistance 2 0.0 Mm Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance < 20.00 mΩ/m (at 10 Hz)	AWG signal line	22
Wire colors White, yellow, blue, orange Type of pair shielding Aluminum-lined polyester foil Overall twist Star quad Shielding Tinned copper braided shield External sheath, color signal red RAL 3020 Outer sheath thickness approx. 0.9 mm External cable diameter D 6.5 mm 40.2 mm Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material, inner sheath PVC Material, inner sheath PVC Material onductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≤ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.)	Conductor structure signal line	7x 0.25 mm
Type of pair shielding Aluminum-lined polyester foil Overall twist Star quad Shielding Tinned copper braided shield External sheath, color signal red RAL 3020 Outer sheath thickness approx. 0.9 mm External cable diameter D 6.5 mm ± 0.2 mm Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance 2000 V (50 Hz, 1 min.) Test voltage Core/Core 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance 00' V resistant According to UL 1681, Section 1200 <	Core diameter including insulation	approx. 1.55 mm
Overall twist Star quad Shielding Tinned copper braided shield External sheath, color Signal red RAL 3020 Outer sheath thickness approx. 0.9 mm External cable diameter D 6.5 mm ±0.2 mm Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance 2 0.5 GC/km Conductor resistance 5 20 /km Wave impedance 100 Ω ±15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Flame resistance According to UL 168 (CAS FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient	Wire colors	White, yellow, blue, orange
Shielding Tinned copper braided shield External sheath, color signal red RAL 3020 Outer sheath thickness approx. 0.9 mm External cable diameter D 6.5 mm ±0.2 mm Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≤ 0.5 GΩ*km Conductor resistance ≤ 100 Ω/km Wave impedance 100 Ω ±15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Faseistance to oil Resistant to oil to a limited extent Other resistance V/r esistant According to UL 1681, Section 1200 Ambient temperature (operation) 40 °C 70 °C (cable, fixed installation)	Type of pair shielding	Aluminum-lined polyester foil
External sheath, colorsignal red RAL 3020Outer sheath thicknessapprox. 0.9 mmExternal cable diameter D6.5 mm ±0.2 mmMinimum bending radius, fixed installation3 x DMinimum bending radius, fixed installation7 x DCable weight68 kg/kmOuter sheath, materialPVCMaterial, inner sheathPVCMaterial conductor insulationPEConductor materialTin-plated Cu litz wiresInsulation resistance≥ 0.5 GQ*kmConductor resistance≤ 120 Ω/kmWave impedance100 Ω ±15 Ω (at 100 MHz)Signal runtime5.3 ns/mCoupling resistance≤ 20.00 mQ/m (at 10 Hz)Nomial voltage, cable600 VResistance2000 V (50 Hz, 1 min.)Test voltage Core/Core2000 V (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistanct to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation)-40 °C 70 °C (cable, fixed installation)-40 °C 70 °C (cable, fixed installation)-40 °C 70 °C (cable, fixed installation)	Overall twist	Star quad
Outer sheath thicknessapprox. 0.9 mmExternal cable diameter D $6.5 \text{ mm } \pm 0.2 \text{ mm}$ Minimum bending radius, fixed installation $3 \times D$ Minimum bending radius, fixed installation $7 \times D$ Cable weight 68 kg/km Outer sheath, materialPVCMaterial, inner sheathPVCMaterial conductor insulationPEConductor materialTin-plated Cu litz wiresInsulation resistance $2 0.5 \text{ GG}^{\circ km}$ Conductor resistance 4120 µ/km Signal runtime 5.3 ns/m Coupling resistance $2 0.00 \text{ mQ/m}$ (at 100 MHz)Signal runtime 5.3 ns/m Coupling resistance $2000 \text{ V}(50 \text{ Hz}, 1 \text{ min.})$ Test voltage Core/Core $2000 \text{ V}(50 \text{ Hz}, 1 \text{ min.})$ Flame resistance $According to UL 1685 (CSA FT 4)$ Resistance to oilResistant to oil to a limited extentOther resistance $40 \ ^{\circ} \text{ C 70 \ ^{\circ} \text{ C}$ (cable, fixed installation)Ambient temperature (installation) $-20 \ ^{\circ} \text{ C 60 \ ^{\circ} \text{ C}$	Shielding	Tinned copper braided shield
External cable diameter D6.5 mm ±0.2 mmMinimum bending radius, fixed installation3 x DMinimum bending radius, fixed installation7 x DCable weight68 kg/kmOuter sheath, materialPVCMaterial, inner sheathPVCMaterial conductor insulationPEConductor materialTin-plated Cu litz wiresInsulation resistance≥ 0.5 GΩ*kmConductor resistance≤ 120 Ω/kmWave impedance100 Ω ±15 Ω (at 100 MHz)Signal runtime5.3 ns/mCoupling resistance≤ 20.00 mΩ/m (at 10 Hz)Nominal voltage, cable600 VTest voltage Core/Shield2000 V (50 Hz, 1 min.)Fater collResistance to oilResistanceAccording to UL 1685 (CSA FT 4)ResistanceUV resistant to oil to a limited extentOther resistanceUV resistant to oil to a limited extentOther resistance40 °C 70 °C (cable, fixed installation)Ambient temperature (installation)-40 °C 60 °C	External sheath, color	signal red RAL 3020
Minimum bending radius, fixed installation 3 x D Minimum bending radius, fixed installation 7 x D Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ±15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance < 20.00 mΩ/m (at 10 Hz)	Outer sheath thickness	approx. 0.9 mm
Minimum bending radius, flexible installation 7 x D Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ±15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Test voltage Core/Shield 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation)	External cable diameter D	6.5 mm ±0.2 mm
Cable weight 68 kg/km Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 G Ω*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) 40 °C 70 °C (cable, fixed installation) A0 °C 70 °C (cable, fixed installation) 40 °C 70 °C (cable, fixed installation)	Minimum bending radius, fixed installation	3 x D
Outer sheath, material PVC Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Test voltage Core/Shield 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) 40 °C 70 °C (cable, fixed installation) 40 °C 70 °C (cable, fixed installation) 20 °C 60 °C	Minimum bending radius, flexible installation	7 x D
Material, inner sheath PVC Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) 40 °C 70 °C (cable, fixed installation) A0° C 70 °C (cable, fixel installation) 20° C 60 °C	Cable weight	68 kg/km
Material conductor insulation PE Conductor material Tin-plated Cu litz wires Insulation resistance ≥ 0.5 GΩ*km Conductor resistance ≤ 120 Ω/km Wave impedance 100 Ω ± 15 Ω (at 100 MHz) Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) 40 °C 70 °C (cable, fixed installation) 40 °C 70 °C (cable, fixed installation) 20 °C 60 °C	Outer sheath, material	PVC
Conductor materialTin-plated Cu litz wiresInsulation resistance $\geq 0.5 \text{ G}\Omega^*\text{km}$ Conductor resistance $\leq 120 \Omega/\text{km}$ Wave impedance $100 \Omega \pm 15 \Omega$ (at 100 MHz)Signal runtime 5.3 ns/m Coupling resistance $\leq 20.00 \text{ m}\Omega/\text{m}$ (at 10 Hz)Nominal voltage, cable $600 V$ Test voltage Core/Core $2000 V$ (50 Hz, 1 min.)Test voltage Core/Shield $2000 V$ (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation) $40 \ ^{\circ}C \dots 70 \ ^{\circ}C$ (cable, fixed installation) $40 \ ^{\circ}C \dots 70 \ ^{\circ}C$ (cable, flexible installation) $-20 \ ^{\circ}C \dots 60 \ ^{\circ}C$	Material, inner sheath	PVC
Insulation resistance $\geq 0.5 \text{ G}\Omega^*\text{km}$ Conductor resistance $\leq 120 \Omega/\text{km}$ Wave impedance $100 \Omega \pm 15 \Omega$ (at 100 MHz)Signal runtime 5.3 ns/m Coupling resistance $\leq 20.00 \text{ m}\Omega/\text{m}$ (at 10 Hz)Nominal voltage, cable $600 V$ Test voltage Core/Core $2000 V (50 \text{ Hz}, 1 \text{ min.})$ Test voltage Core/Shield $2000 V (50 \text{ Hz}, 1 \text{ min.})$ Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation) $40 ^\circ \text{C} \dots 70 ^\circ \text{C}$ (cable, fixed installation)Ambient temperature (installation) $-20 ^\circ \text{C} \dots 60 ^\circ \text{C}$	Material conductor insulation	PE
Conductor resistance $\leq 120 \ \Omega/km$ Wave impedance $100 \ \Omega \pm 15 \ \Omega$ (at 100 MHz)Signal runtime $5.3 \ ns/m$ Coupling resistance $\leq 20.00 \ n\Omega/m$ (at 10 Hz)Nominal voltage, cable $600 \ V$ Test voltage Core/Core $2000 \ V$ (50 Hz, 1 min.)Test voltage Core/Shield $2000 \ V$ (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation) $40 \ ^{\circ}C \dots 70 \ ^{\circ}C$ (cable, fixed installation) $40 \ ^{\circ}C \dots 70 \ ^{\circ}C$ (cable, flexible installation) $40 \ ^{\circ}C \dots 70 \ ^{\circ}C$ (cable, flexible installation)	Conductor material	Tin-plated Cu litz wires
Wave impedance100 Ω ±15 Ω (at 100 MHz)Signal runtime5.3 ns/mCoupling resistance≤ 20.00 mΩ/m (at 10 Hz)Nominal voltage, cable600 VTest voltage Core/Core2000 V (50 Hz, 1 min.)Test voltage Core/Shield2000 V (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation)-40 °C 70 °C (cable, fixed installation)-40 °C 60 °C-20 °C 60 °C	Insulation resistance	\geq 0.5 GΩ*km
Signal runtime 5.3 ns/m Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Test voltage Core/Shield 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, flexible installation) -20 °C 60 °C	Conductor resistance	≤ 120 Ω/km
Coupling resistance ≤ 20.00 mΩ/m (at 10 Hz) Nominal voltage, cable 600 V Test voltage Core/Core 2000 V (50 Hz, 1 min.) Test voltage Core/Shield 2000 V (50 Hz, 1 min.) Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, flexible installation) -20 °C 60 °C	Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Nominal voltage, cable600 VTest voltage Core/Core2000 V (50 Hz, 1 min.)Test voltage Core/Shield2000 V (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation)-40 °C 70 °C (cable, fixed installation)-40 °C 70 °C (cable, flexible installation)-20 °C 60 °C	Signal runtime	5.3 ns/m
Test voltage Core/Core2000 V (50 Hz, 1 min.)Test voltage Core/Shield2000 V (50 Hz, 1 min.)Test voltage Core/Shield2000 V (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation)-40 °C 70 °C (cable, fixed installation)-40 °C 70 °C (cable, flexible installation)-40 °C 70 °C (cable, flexible installation)-20 °C 60 °C	Coupling resistance	\leq 20.00 mΩ/m (at 10 Hz)
Test voltage Core/Shield2000 V (50 Hz, 1 min.)Flame resistanceAccording to UL 1685 (CSA FT 4)Resistance to oilResistant to oil to a limited extentOther resistanceUV resistant According to UL 1581, Section 1200Ambient temperature (operation)-40 °C 70 °C (cable, fixed installation)-40 °C 70 °C (cable, flexible installation)-40 °C 70 °C (cable, flexible installation)-20 °C 60 °C	Nominal voltage, cable	600 V
Flame resistance According to UL 1685 (CSA FT 4) Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, flexible installation) -40 °C 70 °C (cable, flexible installation) Ambient temperature (installation) -20 °C 60 °C	Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Resistance to oil Resistant to oil to a limited extent Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation) Ambient temperature (installation) -20 °C 60 °C	Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Other resistance UV resistant According to UL 1581, Section 1200 Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, flexible installation) Ambient temperature (installation) -20 °C 60 °C	Flame resistance	According to UL 1685 (CSA FT 4)
Ambient temperature (operation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation) -40 °C 70 °C (cable, fixed installation) -20 °C 60 °C	Resistance to oil	Resistant to oil to a limited extent
-40 °C 70 °C (cable, flexible installation) Ambient temperature (installation) -20 °C 60 °C	Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (installation) -20 °C 60 °C	Ambient temperature (operation)	-40 °C 70 °C (cable, fixed installation)
		-40 °C 70 °C (cable, flexible installation)
Ambient temperature (storage/transport) -50 °C 70 °C	Ambient temperature (installation)	-20 °C 60 °C
	Ambient temperature (storage/transport)	-50 °C 70 °C

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings



YE

3 OG 4 BU

2 WH

Circuit diagram

Schematic diagram

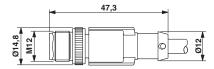
Pin assignment M12 male connector, 4-pos., D-coded, male side

Cable cross section



Sercos III [93K]

Dimensional drawing



Contact assignment of the M12 plugs

Plug, M12 x 1, straight, shielded

Classifications

eCl@ss

eCl@ss 4.1	27060306
eCl@ss 5.1	27060300
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 8.0	27279218
eCl@ss 9.0	27060308

ETIM

ETIM 4.0	EC002599
ETIM 5.0	EC002599
ETIM 6.0	EC000830

UNSPSC

UNSPSC 13.2	31251501
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Approvals

Approvals

Approvals

EAC



Approvals

Ex Approvals

Approval details

EAC	RU C- DE.AI30.B.00767
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Accessories

Accessories

Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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Accessories

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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