



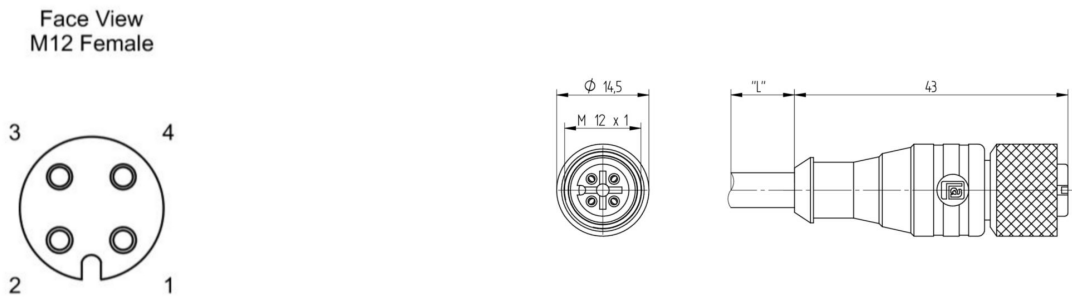
Product: [RKT 4-646](#) 

Sensor / Actuator Connector: M12 Standard, Cordset, Single ended, Straight Female, 4-pole; with Grey PVC 22 AWG cable

Product Description

Sensor / Actuator Connector: M12 Standard, Cordset, Single ended, Straight Female, 4-pole, 250 V | 4 A; with Grey PVC 4x22 AWG cable

Technical Drawing



Color Code

1 = BN
2 = WH
3 = BU
4 = BK

Technical Specifications

Technical Data

Product Family:	Sensor / Actuator Connector
Side 1 Product Sub Family:	M12 Standard
Brand:	Lumberg Automation
Connector Type:	Cordset, single ended
Side 1 Type of Contact/Gender:	Female
Connector Design:	Straight
Number of Pins:	4
Coding, Side 1:	A
Shielding Type:	Unshielded
Attachment Type:	Coupling Nut
Voltage Rating:	250 V
Rated Impulse Voltage:	2.5 kV
Operating Voltage:	230 V AC/DC
Current Rating:	4 A
Side 1 Contact Resistance:	≤ 10 mOhm

Insulation Resistance:	> 10 ⁹ Ohm
Mating Cycles:	≤ 100
Ambient Temperature (Operation)*:	- 40 °C - + 90 °C
Protection Degree / IP Rating**:	IP65, IP67
Side 1 Design Standard:	IEC 61076-2-101
Side 1 Pollution Degree:	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Overvoltage Category:	II acc. to DIN EN 60664-1 (VDE 0110-1)

Materials

Contact Base Material:	CuSn
Side 1 Contact Plating:	Cu/Au
Contact Bearer Material:	TPU
Contact Bearer Color:	Orange
Flammability Class (Contact Bearer):	UL 94 HB
Molded Body Material:	TPU
Molded Body Color:	Grey Translucent
Flammability Class (Molded Body):	UL 94 HB
Attachment Material:	CuZn, Nickel-plated, Internal thread
O-Ring Material:	FKM, green or black

Additional Technical Data

Fastening Torque (Attachment):	M 12x1: (50-60) Ncm, hand-tight
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Cable Data

Cable Number:	646
Conductor Size:	22 AWG
Number of Wires:	4
Minimal Bending Radius (Fixed Inst):	> 7 x D
Minimal Bending Radius (Flexible Inst):	> 10 x D
Cycles (Bending):	> 1 M
Conductor Material:	Cu [Bare Copper]
Cable Jacket Material:	PVC
Cable Jacket Color:	Grey
Cable Diameter D:	Ø 5.10 mm
Wire Insulation Material:	PVC-SR
Insulated Wire Diameter:	Ø 1.25 mm
Ambient Temperature (Fixed Installation):	- 40 to 105°C
Ambient Temperature (Flex Installation):	- 15 to 105°C
Ambient Temperature (Drag Chain Inst):	- 15 to 105°C
UL Cable Type:	AWM 2661, C(RU) AWM I/II A/B
Flammability Class (Cable Jacket):	UL VW-1, FT1
Cable Characteristics:	Mechanical Resistances, Abrasion, Impact, Weathering; Chemical Resistances to Oils, Acids, Alkalis

Approvals

UL-File:	E315587
UL:	Yes
VDE:	Yes

Safety & Environmental Compliance

RoHS Compliant:	Yes
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Notes

Note Derating:	Notice derating
Protection Degree / IP Rating Note:	Protection Degree and IP Rating per test standard IEC 60529 using a Lumberg Automation mating product

History

Update and Revision:	Revision Number: 0.15 Revision Date: 02-20-2026
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