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|---------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 381166930 | DATA SHEET |  |
| Valid from: 05.12.2024 | RJ45 Cat.8.1 ED-IE-AXS-8.1A-B-20-FD-FC RJ45 Cat.8.1 ED-IE-AXS-8.1A-B-20-FC | |

Description

- Field-assembly RJ45 plug according to IEC 60603-7-81, Cat. 8.1, shielded
- colour-coded according to EIA/TIA-568B
- For Industrial Ethernet



General characteristics

| | |
|-----------------------|----------------------|
| Series | RJ45, field-assembly |
| Number of poles | 8 |
| Temperature range | - 40°C to +85°C |
| Protection rating | IP 20 |
| Shielding | shielded |
| For cablediameters | Ø5.5 mm to Ø10.0 mm |
| Insertion force | ≤ 30 N |
| Mounting cycles (min) | ≥ 750N |

Product variations

| article | description | core diameter [AWG] | core diameter [mm] | pu |
|-----------|---------------------------|---------------------|----------------------|----|
| 381166930 | ED-IE-AXS-8.1A-B-20-FD-FC | AWG26/1 – AWG24/1 | 0.41 – 0.51 solid | 1 |
| | | AWG27/7 – AWG24/7 | 0.46 – 0.61 stranded | |
| 381166931 | ED-IE-AXS-8.1A-B-20-FC | AWG24/1 – AWG22/1 | 0.51 – 0.64 solid | 1 |
| | | AWG27/7 – AWG22/7 | 0.46 – 0.76 stranded | |


Electrical characteristics

| | |
|-----------------------------------|-----------------------------------------------------------------|
| Rated voltage | 50 VAC / 60 VDC (max.) |
| Current carrying capacity at 50°C | 1A |
| Contact resistance | ≤ 20 mΩ |
| Insulation resistance | ≥ 500 MΩ |
| Voltage proof | ≥ 1000V, DC Contact to Contact ≥ 1500V, DC Contact to Shield |

Mechanical characteristics

| | |
|------------------------|----------------------------------------------------------------------------------------|
| Connector housing | zinc diecast Ni plated |
| Insulator | PC UL94 V0, green (article 381166930) PC UL94 V0, crystal clear (article 381166931) |
| Wire presorting | PC UL94 V0, white |
| Part for strain relief | PC UL94 V0, black |
| Hook, protection cap | PBT UL94 V0, black |
| Screening shield | spring steel |
| PCB | FR4 UL94 V0, solder mask both side |
| Piercing contacts | Phosphorus Bronze, min. 3...6 μm Sn |
| Shield contact | brass 2,5 μm Ni |
| Contacts | spring steel 0,8 μm Au; 1,2 μm Ni |

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Applicable cable

| | |
|--------------------------|-----------------|
| Conductor | AWG27 to AWG22 |
| Insulator outer diameter | Ø 0.85 to Ø 1.6 |
| Jacket outer diameter | Ø 5.5 to Ø 10.0 |

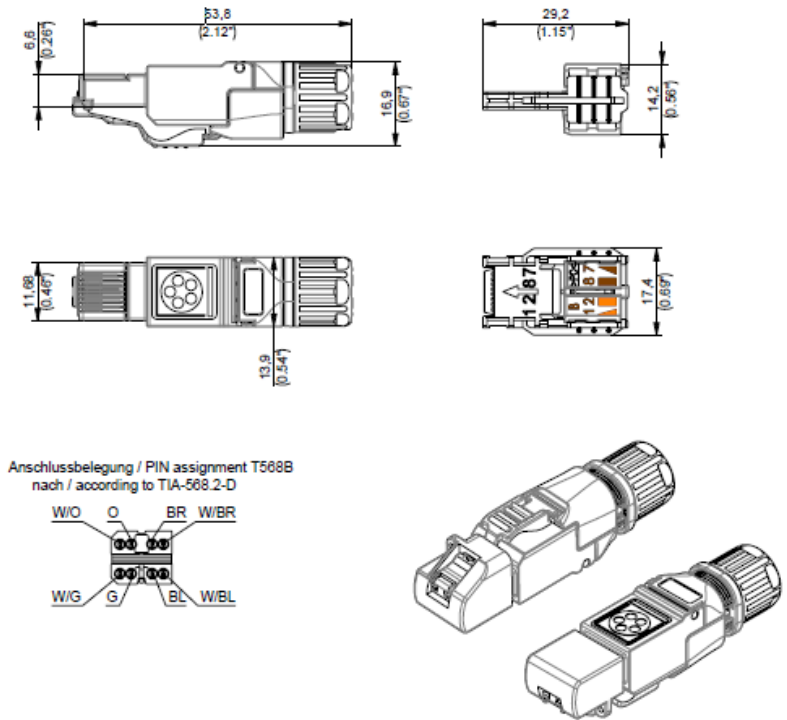
Standard

| | |
|----------------------------------|---------------------------------|
| Product standard, RJ45 connector | IEC 60603-7-81 |
| Generic cabling systems | ISO/IEC 11801-1; DIN EN 50173-1 |
| Transmission speed up to 10Gbit | IEEE 802.3an |
| PoE+ | IEEE 802.3at |
| 4PPoE | IEEE 802.3bt |

Approval

| | |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|
| UL | E353543 |
| UL Standard: Fire Test | UL 2043 * |
| *Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces. | |

Drawings



Info

Robust metal connector with integrated EMC cable gland

Application range

Structured building cabling and data centres
Server rooms, backbone network areas and for switch-to-switch connections



Remark

Photographs are not to scale and do not represent detailed images of the respective products.

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