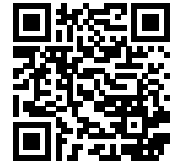


# ZK1096-8383-0xxx | Industrial Ethernet/EtherCAT G/G10 cable, Cat.6/Cat.6A, PUR, 4 x 2 x AWG26, fixed installation



M12, plug, angled, male, 8-pin, X-coded – M12, plug, angled, male, 8-pin, X-coded



## Plugs

| Electrical data              | Head A   | Head B   |
|------------------------------|--|--|
| Rated voltage                | 50 V AC / 60 V DC (according to IEC 61076-2-104) | 50 V AC / 60 V DC (according to IEC 61076-2-104) |
| Rated current                | 0.5 A at 40°C                                    | 0.5 A at 40°C                                    |
| Shielding                    | yes  | yes  |
| Contact resistance           | < 5 mΩ   | < 5 mΩ   |
| Insulation resistance        | ≥ 100 MΩ   | ≥ 100 MΩ   |
| Transmission characteristics | Cat.6A   | Cat.6A   |
| Mechanical data              |  |  |
| Installation size            | M12  | M12  |
| Connector type               | plug   | plug   |
| Configuration                | angled   | angled   |
| Contact type                 | male   | male   |

|                                 |                                   |                                   |
|---------------------------------|-----------------------------------|-----------------------------------|
| Number of positions (face)      | 8-pin                             | 8-pin                             |
| Coding                          | X-coded                           | X-coded                           |
| Recommended torque, nut         | 0.6 Nm                            | 0.6 Nm                            |
| Mating cycles                   | ≥ 100 (according to IEC 60512-9a) | ≥ 100 (according to IEC 60512-9a) |
| Way of locking                  | screw                             | screw                             |
| Body color                      | black                             | black                             |
| Body material                   | TPU                               | TPU                               |
| Coupling nut material           | CuZn, Ni                          | CuZn, Ni                          |
| Contact carrier color           | transparent                       | transparent                       |
| Contact carrier material        | PA                                | PA                                |
| Contact plating                 | Au                                | Au                                |
| Contact material                | CuSn (bronze)                     | CuSn (bronze)                     |
| <b>Environmental data</b>       |                                   |                                   |
| RoHS compliant                  | yes                               | yes                               |
| Ambient temperature (operation) | -30...+90°C, -22...+194°F         | -30...+90°C, -22...+194°F         |
| Protection rating               | IP65/67/68 in screwed condition   | IP65/67/68 in screwed condition   |
| Pollution level                 | 3                                 | 3                                 |
| Approvals                       | UL listed, EAC                    | UL listed, EAC                    |

## Cable

|                                   |                                      |  |
|-----------------------------------|--------------------------------------|--|
| <b>Electrical data</b>            |                                      |  |
| Rated voltage                     | 100 V                                |  |
| Insulation resistance             | ≥ 500 MΩ * km (DIN EN 50395)         |  |
| Unbalanced capacitance to ground  | 1600 pF/km                           |  |
| Characteristic impedance          | 100 Ω ± 5 Ω                          |  |
| Loop resistance                   | ≤ 290 Ω/km                           |  |
| Unbalanced resistance             | < 3 %                                |  |
| Dielectric strength wire/wire     | 700 V                                |  |
| Dielectric strength wire/shield   | 700 V                                |  |
| Signal running time               | < 513 ns/100 m                       |  |
| Electrical parameters (Ethernet)  | Cat.7 acc. to EN50288-4-2            |  |
| <b>Mechanical data</b>            |                                      |  |
| Cable structure                   | S/FTP                                |  |
| Cable structure (Ethernet)        | twisted shielded pair                |  |
| Conductor construction (Ethernet) | 7-strand                             |  |
| Cross-section (Ethernet)          | 4 x 2 x 0.14 mm <sup>2</sup> (AWG26) |  |

|  |   |
|--|---|
| Outer cable diameter                         | 6.4 mm ± 0.3mm (0.252" ± 0.0118")   |
| Min. bending radius, moved                   | 10 x outer cable diameter   |
| Min. bending radius, fixed installation      | 5 x outer cable diameter  |
| Weight                                       | 48 kg/km (32 lb/1000 ft)  |
| Conductor material (Ethernet)                | bare copper   |
| Shielding                                    | braiding of tinned copper wires, metallized plastic fleece for pair shielding   |
| Optical covering factor of shielding (total) | ≥ 70 %  |
| Use  | fixed installation  |
| Jacket color                                 | green   |
| Material jacket                              | PUR (polyurethane)  |
| Wire color code                              | white / blue, white / orange, white / green, white / brown  |
| Wire insulation material                     | PE (polyethylene)   |
| Printing on the jacket                       | "length in meters" LEONI L INDUSTRIAL ETHERNET FLEXIBLE PATCHCABLE PUR CAT7 PLUS *AWG26*RU AWM STYLE 20963 80 °C 30 V "year/ internal order number" |

#### Environmental data

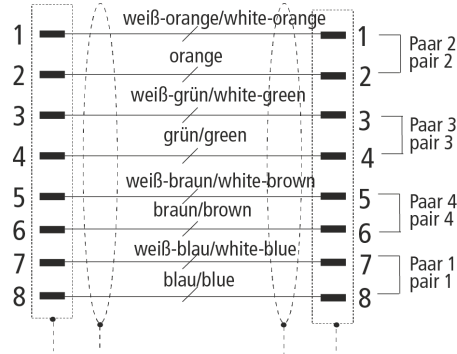
|  |   |
|--|---|
| Operation temperature range, moved     | -40...+80°C, -40...+176°F   |
| Ambient temperature, transport/storage | -20...+60°C, -4...+140°F  |
| UV resistance                          | good  |
| Oil resistance                         | according to IEC 60811-2-1 or according to DIN VDE 0282 part 10   |
| Acid, lye and solvent resistance       | depends on medium, concentration, temperature and duration  |
| Special features                       | Series of ISO/IEC 11801-x; Class F, Series of EN 50173-x; Class F, IEEE802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T, IEEE 802.3: Power over Ethernet PoE; PoE+ |
| LABS-free                              | yes   |
| Flame-retardant                        | according to IEC 60332-1-2 UL758 cable flame test   |
| Halogen-free                           | according to IEC 60754-1  |
| Silicone-free                          | yes   |
| Approvals                              | UL file number: E130266, UL-Style AWM 20963   |

#### Attenuation

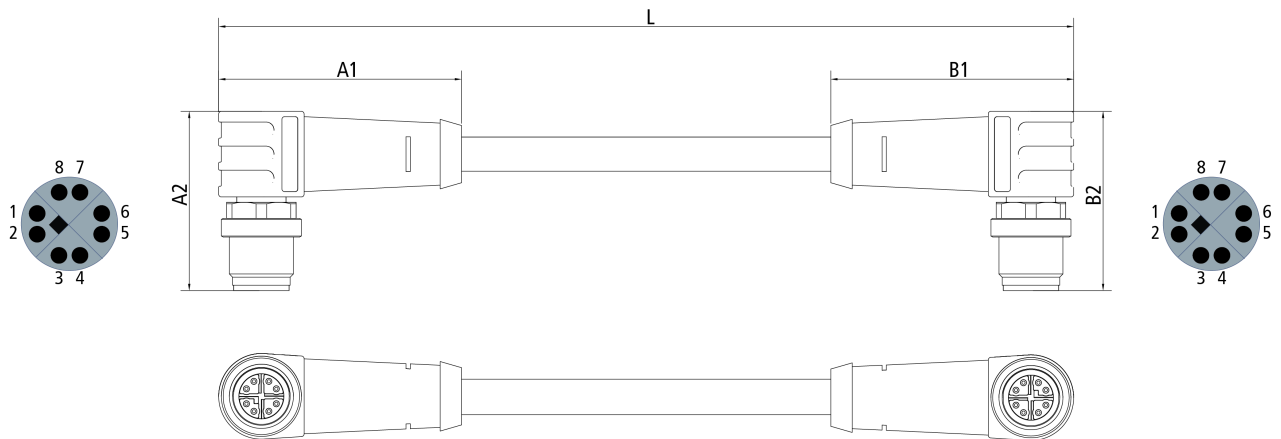
|                                     |     |      |      |      |      |       |      |      |
|-------------------------------------|-----|------|------|------|------|-------|------|------|
| Max. insertion loss                 |     |      |      |      |      |       |      |      |
| Frequency [MHz]                     | 1   | 4    | 10   | 16   | 20   | 31.25 | 62.5 | 100  |
| [db/100 m]                          | 2.9 | 5.5  | 8.6  | 10.8 | 12.2 | 15.2  | 21.8 | 28.0 |
| [db/100 ft]                         | 0.9 | 1.7  | 2.6  | 3.3  | 3.7  | 4.6   | 6.6  | 8.5  |
| Min. near-end crosstalk attenuation |     |      |      |      |      |       |      |      |
| Frequency [MHz]                     | 1   | 4    | 10   | 16   | 20   | 31.25 | 62.5 | 100  |
| [db/100 m]                          | 80  | 80.0 | 80.0 | 80.0 | 80.0 | 79.6  | 75.1 | 72.4 |

|             |      |      |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|------|------|
| [db/100 ft] | 24.4 | 24.4 | 24.4 | 24.4 | 24.4 | 24.3 | 22.9 | 22.1 |
|-------------|------|------|------|------|------|------|------|------|

Contact assembly



Dimensions



|    |         |
|----|---------|
| A1 | 45.5 mm |
| A2 | 33.5 mm |
| B1 | 45.5 mm |
| B2 | 33.5 mm |

Notes

- Depending on the cable length (L), the following length tolerances apply:  
 0 m...<0.2 m: ± 10 mm | 0.2...4.0 m: + 40 mm | ≥ 4.0 m: + 1%
- Illustrations similar
- Further cable length on request.

CE, UL

|    |     |
|----|-----|
| CE | yes |
|----|-----|

Ordering information

Length

|                  |        |
|------------------|--------|
| ZK1096-8383-0003 | 0.35 m |
| ZK1096-8383-0005 | 0.50 m |
| ZK1096-8383-0006 | 0.60 m |

### Accessories

|             |   |
|-------------|---|
| ZB8801-0000 | torque wrench for hexagonal plugs, adjustable                                     |
| ZB8801-0001 | torque cable key, M8/wrench size 9, for ZB8801-0000                               |
| ZB8803-0001 | Flange/Panel feed-through for M8 pre-assembled, for fixing the connector, plastic |



Products marked with a crossed-out wheeled bin shall not be discarded with the normal waste stream. The device is considered as waste electrical and electronic equipment. The national regulations for the disposal of waste electrical and electronic equipment must be observed.

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