

## Data sheet

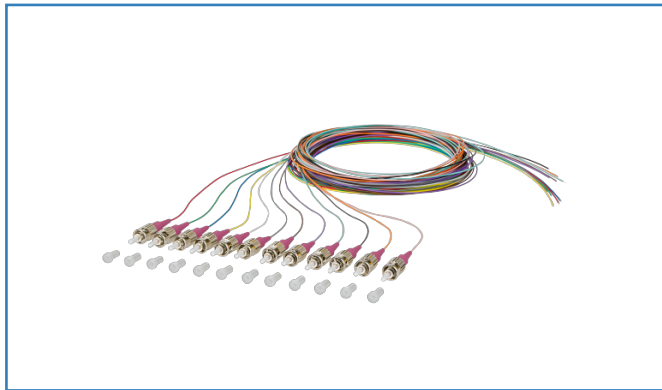
### OpDAT pigtail ST-PC, OM4, 12 colors

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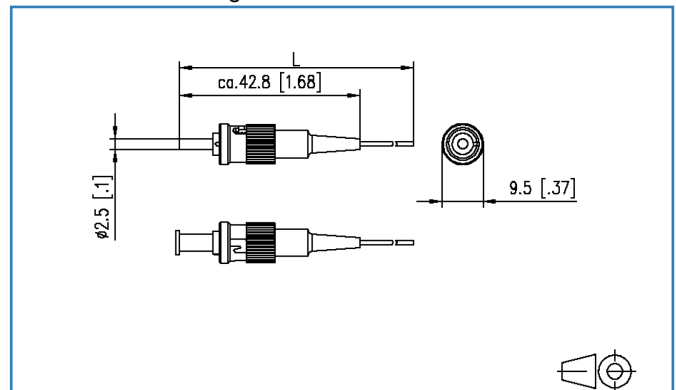
P/N  
150N1AO0020E  
EAN 4250184149798

2018-13-03

## Illustrations



Dimensional drawing



See enlarged drawings at the end of document

## Product specification

- ST plug according to IEC 61754-2
- Multi mode fiber OM4 G50/125  $\mu\text{m}$ , bend insensitive according to IEC 60793-2-10 type A1a.3
- Compact loose tube fiber with dia. 0.9 mm, length 2.0 m
- Color sequence in sets according to IEC 60304: red, green, blue, yellow, white, gray, brown, violet, turquoise, black, orange, pink. Secondary and primary coating same color
- Plug connector mounted on one side
- With test report, insertion loss and return loss tested at 100 %
- All available variants can be created with the cable configurator



### Technical Data

#### General Data

|                                   |                                                                    |
|-----------------------------------|--------------------------------------------------------------------|
| Fields of application             | Office<br>Data center                                              |
| Design                            | pigtail                                                            |
| Transmission technology           | Fiber optic                                                        |
| Color                             | metallike                                                          |
| Dimensions                        |                                                                    |
| Dimension (L x W x H)             | 42.80 x 9.50 x 9.50 mm                                             |
| Dimension (L x W x H)             | 1.685 x 0.374 x 0.374 in.                                          |
| Mode type of the fiber            | Multimode                                                          |
| Fiber class                       | OM4 (ISO/IEC 11801/EN 50173 & IEC 60793-2-10/EN 60793-2-10 A1.a.3) |
| Cable Type                        | pigtail(s)                                                         |
| Number of cables/ cores           | 12                                                                 |
| Number of fibres each cable/ wire | 1                                                                  |
| Shape                             | PC (Physical Contact)                                              |
| Fiber construction                | 50/125 µm                                                          |
| Cable length (m)                  | 2.00 m                                                             |
| Cable length (ft)                 | 6.56 ft                                                            |

#### Connections/interfaces

|                                  |               |
|----------------------------------|---------------|
| Connector technology interface 1 | Free line end |
| Connector technology interface 2 | ST PC         |
| Primary coating diameter         | 0.25 mm       |
| Primary coating diameter         | 0.01 in.      |
| Secondary coating diameter       | 0.90 mm       |
| Secondary coating diameter       | 0.035 in.     |
| Ferrule diameter                 | 1.25 mm       |
| Ferrule diameter                 | 0.049 in.     |

#### Optical characteristics

|                |             |
|----------------|-------------|
| Insertion loss | max. 0.4 dB |
| Return loss    | min. 35 dB  |

### Technical Data

#### Mechanical characteristics

|                                |           |
|--------------------------------|-----------|
| Insertion and withdrawal force | min. 5 N  |
| Minimum bending radius         | 15.00 mm  |
| Minimum bending radius         | 0.591 in. |

#### Environmental conditions

|                            |             |
|----------------------------|-------------|
| Temperature (min. - max.)  |             |
| Temperature - Storage °C   | -20 - 60 °C |
| Temperature - Storage °F   | -4 - 140 °F |
| Temperature - Operating °C | -20 - 60 °C |
| Temperature - Operating °F | -4 - 140 °F |

#### Approvals

|      |           |
|------|-----------|
| RoHS | compliant |
|------|-----------|

#### The product meets the following standards

|                                                                                                    |                            |
|----------------------------------------------------------------------------------------------------|----------------------------|
| Generic cabling systems                                                                            |                            |
| General requirements                                                                               | ISO/IEC 11801              |
| Fibre optic connector interfaces                                                                   | IEC 61754-2                |
| Optical fibers: Product specifications                                                             |                            |
| Sectional specification for category A1 multimode fibres                                           | ISO/IEC 60793-2-10 (A1a.3) |
| Optical fibers - Interconnecting devices and passive components - basic test and measuring methods |                            |
| Fibre optic interconnecting devices and passive components                                         | IEC 61300-3-6              |
| Standard colours for insulation for low-frequency cables & wires                                   | IEC 60304                  |
| ITU-T standard                                                                                     | G.651.1                    |

#### Classifications

|          |          |
|----------|----------|
| ETIM 5.0 | EC000748 |
| ETIM 6.0 | EC000748 |



### Technical Data

#### Packing details

|                                 |                              |
|---------------------------------|------------------------------|
| Type of packaging               | 12 pc(s) / blister packaging |
| Packaging unit - Weight (gram)  | 968.00 g                     |
| Packaging unit - Weight (pound) | 2.13 lb                      |
| Packaging dimension (W x H x D) | 300.00 x 200.00 x 20.00 mm   |
| Packaging dimension (W x H x D) | 11.811 x 7.874 x 0.787 in.   |



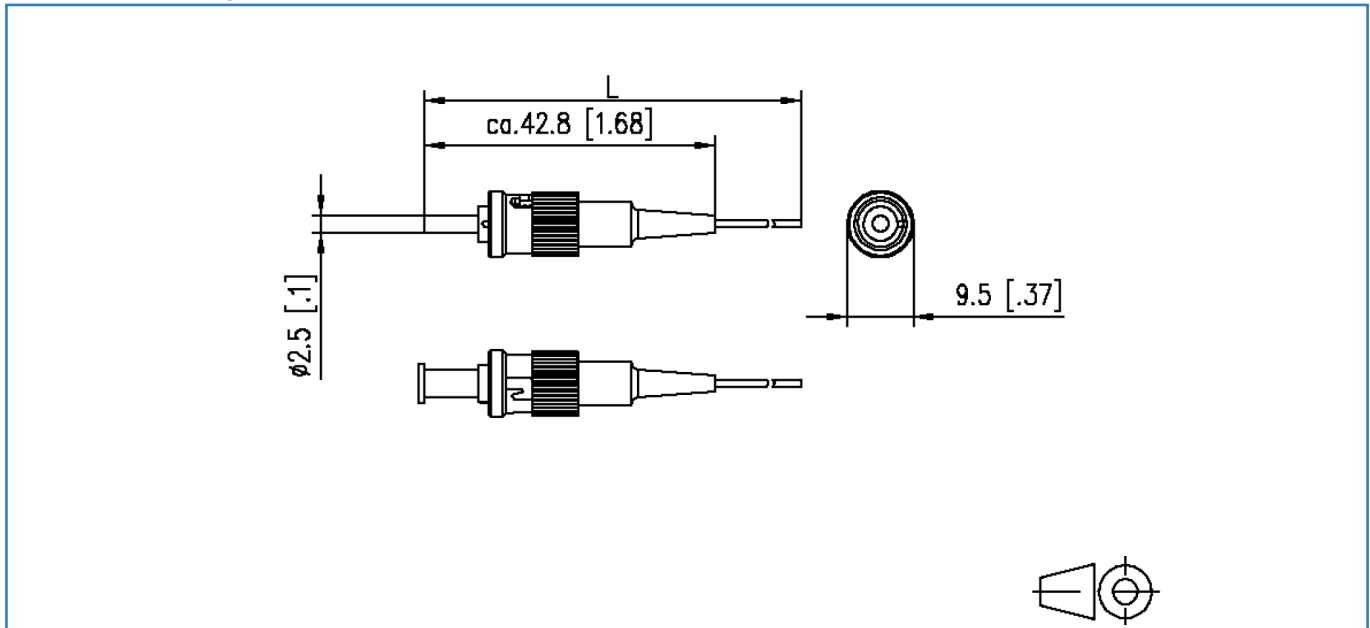
### Accessories

| P/N        | Designation                             |
|------------|-----------------------------------------|
| 15090401-I | OpDAT crimp splice protection (150 pcs) |
| 15090402-I | OpDAT shrink splice protection          |
| 15090401-E | OpDAT crimp splice protection (12 pcs)  |



**Illustrations**

## Dimensional drawing



### Technical Data

#### General Data

|                         |                                                                    |
|-------------------------|--------------------------------------------------------------------|
| Transmission technology | Fiber optic                                                        |
| Mode type of the fiber  | Multimode                                                          |
| Fiber class             | OM4 (ISO/IEC 11801/EN 50173 & IEC 60793-2-10/EN 60793-2-10 A1.a.3) |
| Fiber construction      | 50/125 µm                                                          |

#### Transmission characteristics

|                                                    |               |
|----------------------------------------------------|---------------|
| Transmission rate up to 10 GBit (Gigabit-Ethernet) | IEEE 802.3an  |
| Transmission rate up to 100 GBit                   | IEEE 802.3ba  |
| Reach                                              |               |
| Reach 1000BASE SX                                  | 1100 m        |
| Reichweite 10GBASE SR                              | 550 m         |
| Reach 40GBASE SR4                                  | 190 m         |
| Reichweite 100GBASE SR4                            | 100 m         |
| Reichweite 100GBASE SR10                           | 190 m         |
| Overfilled (OFL) modal bandwidth at 850 nm (min.)  | 3500 MHz * km |
| Overfilled (OFL) modal bandwidth at 1300 nm (min.) | 500 MHz * km  |
| Effective modal bandwidth (EMB) at 850 nm (min.)   | 4700 MHz * km |

#### Connections/interfaces

|                                      |                |
|--------------------------------------|----------------|
| Connector technology interface 1     | Free line end  |
| Connector technology interface 2     | Free line end  |
| Fiber core diameter                  | 50 ± 2 µm      |
| Core-/ Fiber cladding diameter       | 125.0 ± 1.0 µm |
| Primary coating diameter - colored   | 250 ± 15 µm    |
| Primary coating diameter - uncolored | 242 ± 7 µm     |

#### Optical characteristics

|                                                  |                |
|--------------------------------------------------|----------------|
| Attenuation of the fiber                         |                |
| Attenuation of the fiber in the cable at 850 nm  | max. 2.5 dB/km |
| Attenuation of the fiber in the cable at 1300 nm | max. 0.7 dB/km |
| Maximum value of cable attenuation at 850 nm     | 3.0 dB/km      |
| Maximum value of cable attenuation at 1300 nm    | 1.0 dB/km      |

### Technical Data

#### Mechanical characteristics

|                                                                 |                       |
|-----------------------------------------------------------------|-----------------------|
| Proof stress level                                              | min. 0.7 (~ 1 %) GPa  |
| Typische durchschnittliche Abziehkraft                          | min. 1.0 max. 3.0 N   |
| Strip force (peak)                                              | min. 1.3 max. 8.9 N   |
| Biegeverlust                                                    |                       |
| Dornradius = 7.5 mm, 2 Umdrehungen bei 850/1300 nm              | min. 0.2 - max 0.5 dB |
| Dornradius = 15 mm, 2 Umdrehungen bei 850/1300 nm               | min. 0.1 - max 0.3 dB |
| Fiber cladding non-circularity                                  | max. 0.7 %            |
| Core non-circularity                                            | max. 5 %              |
| Core (MDF)-cladding concentricity error                         | max. 1 µm             |
| Primary coating concentricity error                             | max. 5 %              |
| Primary coating-cladding concentricity error                    | max. 10               |
| Inhomogeneity of OTDR measurement report at 1310 nm und 1550 nm | max. 0.1 dB/km        |
| Group refractive index                                          |                       |
| Gruppen-Brechungsindex bei 850 nm                               | 1.482                 |
| Gruppen-Brechungsindex bei 1300 nm                              | 1.477                 |
| Numerical aperture                                              | 0.200 ± 0.015         |

#### Materials and material properties

|                    |     |
|--------------------|-----|
| Bend insensitivity | yes |
|--------------------|-----|

#### Approvals

|      |           |
|------|-----------|
| RoHS | compliant |
|------|-----------|

#### The product meets the following standards

|                                                       |                                        |
|-------------------------------------------------------|----------------------------------------|
| Generic cabling systems                               |                                        |
| General requirements                                  | ISO/IEC 11801 cat. OM4   TIA/EIA 568-C |
| Data centers                                          | ISO/IEC 24764                          |
| Optical fibers: Measuring methods and test procedures |                                        |
| Fibre geometry                                        | ISO/IEC 60793-1-20                     |
| Coating geometry                                      | ISO/IEC 60793-1-21                     |
| Length measurement                                    | ISO/IEC 60793-1-22                     |
| Fibre proof test                                      | ISO/IEC 60793-1-30                     |
| Coating strippability                                 | ISO/IEC 60793-1-32                     |
| Attenuation                                           | ISO/IEC 60793-1-40                     |



### Technical Data

#### The product meets the following standards

Optical fibers: Measuring methods and test procedures

|            |                    |
|------------|--------------------|
| Bandbreite | ISO/IEC 60793-1-41 |
|------------|--------------------|

|                    |                    |
|--------------------|--------------------|
| Numerical aperture | ISO/IEC 60793-1-43 |
|--------------------|--------------------|

|                          |                    |
|--------------------------|--------------------|
| Gruppenlaufzeitdifferenz | ISO/IEC 60793-1-49 |
|--------------------------|--------------------|

Optical fibers: Product specifications

|                                                          |                            |
|----------------------------------------------------------|----------------------------|
| Sectional specification for category A1 multimode fibres | ISO/IEC 60793-2-10 (A1a.3) |
|----------------------------------------------------------|----------------------------|

|                |         |
|----------------|---------|
| ITU-T standard | G.651.1 |
|----------------|---------|

|              |      |
|--------------|------|
| TIA/ANSI-492 | AAAD |
|--------------|------|

