

# Pre-Connectorized Drop Cable (PCDC)

AERIAL AND DUCT CABLE 5.0MM - PIA

**Aginode Ref:** PCDCIxxxx - SP2065

This outdoor cable is suitable for duct and aerial installation, featuring a jelly-filled loose tube with 1 fibre, dry water-blocking materials, and an HDPE sheath reinforced with two embedded FRP rods.

This cable is designed for outdoor duct and aerial installations. It features a loose tube construction containing 1 fibre, filled with jelly for fibre protection. The cable includes water-blocking materials to prevent moisture ingress. Its outer sheath is made of high-density polyethylene (HDPE) and includes two fibre-reinforced plastic (FRP) elements embedded symmetrically in the sheath for added strength and stability.

Breaking load: max 2000N

**PIA Approved**



## STANDARDS

IEC 60794

IEC 60793

## Test Methods

All optical measurements at 1550 nm

| Test                                 | Conditions   | Acceptance criteria   |
|--------------------------------------|--|---|
| Tension Loading IEC 60794-1-2 E1     | Tensile strength: 800N and 300N<br>Sample length: $\geq 50$ m, 1 min | $\Delta\alpha \leq 0.1$ dB under 300N and reversible under 800N |
| Crush/Compression IEC 60794-1-2 E3   | Crush: 20Kg/cm, 1min<br>Number of tests: 3, at least 20cm apart.     | $\Delta\alpha$ reversible<br>No damage                          |
| Impact IEC 60794-1-2 E4              | Impact energy: 5Nm, R=300mm<br>number of test: 3                     | $\Delta\alpha$ reversible                                       |
| Torsion IEC 60794-1-2 E7             | 1m, $\pm 180^\circ$ , 10 cycles                                      | $\Delta\alpha \leq 0.1$ dB                                      |
| Bending IEC 60794-1-2 E11            | R=10xCable $\Phi$ , 4 turn, 3 cycles                                 | $\Delta\alpha$ reversible                                       |
| Temperature Cycling IEC 60794-1-2 F1 | -20~+70°C, two cycles, t1=180min                                     | $\Delta\alpha \leq 0.1$ dB                                      |
| Water penetration IEC 60794-1-2 F5B  | Height of water column: 1m Sample length: 3m, 24h                    | No water leakage  |

# Aerial and duct cable 5.0mm - PIA

## Characteristics

### Construction characteristics

|                  |  |
|------------------|--|
| Colour           | Black  |
| Connector type   | Hardened Standard (Corning Optitap compatible) |
| Dielectric       | Yes  |
| Fiber optic type | SM (G657.A2)                                   |
| Outer sheath     | HDPE   |
| Type of cable    | Aerial   |

### Dimensional characteristics

|                          |          |
|--------------------------|----------|
| Approximate weight       | 20 kg/km |
| Cable Diameter           | 5.0 mm   |
| Number of optical fibres | 1        |

### Mechanical characteristics

|                      |          |
|----------------------|----------|
| Breaking strength    | Max 2 kN |
| Crush resistance     | 20 kg/cm |
| Maximum tensile load | 800 N    |

### Transmission characteristics

|                               |         |
|-------------------------------|---------|
| Insertion Loss, maximum, dB   | 0.25 dB |
| Insertion loss, typical value | 0.12 dB |
| Return Loss, Minimum, dB      | 65 dB   |

### Usage characteristics

|                                 |                                 |
|---------------------------------|---------------------------------|
| Field of application            | Customer connection             |
| Installation temperature, range | -5...50 (operation -20...70) °C |
| Installation type               | Aerial - self-supporting        |
| Minimum Bend Radius - Installed | R=10D without tension mm        |
| Packaging                       | PCDC packaging                  |

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