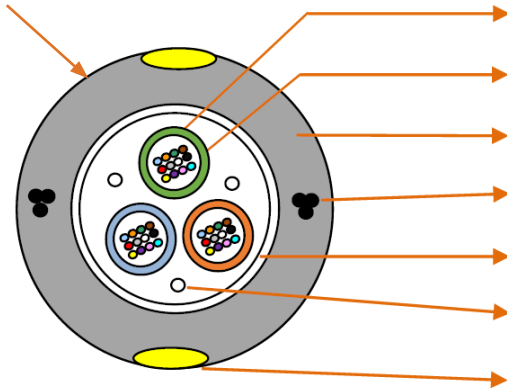


# Fibre Optic Cabling

## Ultralightweight Aerial/Underground Anti-Rodent Cable

Anti-Rodent Polymer



- Fibre
- Microbundle (gel filled)
- Outer Sheath
- Steel Wires
- Water Swellable Tape
- Water Swellable Yarn
- Yellow Stripe



Cross section cable construction of 36-fibre

| Cable Construction               |                     |   |   |    |    |    |    |  |  |
|----------------------------------|---------------------|---|---|----|----|----|----|--|--|
| Parameter                        | Dimensions/Layout   |   |   |    |    |    |    | Type                                       |  |
| Number of Fibres                 | 2                   | 4 | 8 | 12 | 24 | 36 | 48 | Glass Fibre                                |  |
| Number of Fibres per Micromodule | 2                   | 4 | 8 | 12 |    |    |    | Easy Strippable Buffer Tube                |  |
| Number of Fillers                | 2                   |   |   | 1  |    | 0  |    |  |  |
| Embedding Strength Member        | 3 x 0.32mm          |   |   |    |    |    |    | Brass Coated Steel Wire                    |  |
| Moisture Barrier                 |                     |   |   |    |    |    |    | Water Blocking Yarn & Water Swellable Tape |  |
| Outer Sheath                     | 1.6mm (Nominal)     |   |   |    |    |    |    | HDPE UV Black                              |  |
| Strip Marking Width              | 1.25mm (Nominal)    |   |   |    |    |    |    | HDPE Yellow                                |  |
| Overall Cable Diameter           | 7.0 ± 0.3mm         |   |   |    |    |    |    |  |  |
| Cable Weight                     | 40.0kg/km (Nominal) |   |   |    |    |    |    |  |  |

| Colour Coding |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|
| Fibre Colour  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| EIA/TIA 598   | Bl | Or | Gr | Br | Sl | Wh | Rd | Bk | Yl | Vi | Pk | Aq |

| Tube Colour | 1  | 2  | 3  | 4  |
|-------------|----|----|----|----|
| EIA/TIA 598 | Bl | Or | Gr | Br |

# Fibre Optic Cabling

## Ultralightweight Aerial/Underground Anti-Rodent Cable

| Mechanical Characteristics |        |                   |
|----------------------------|--------|-------------------|
| Tensile Break Load         | 1900 N |                   |
| Tensile Strength           | 1250 N | IEC 60794-2-E1    |
| Crush Resistance           | 2000 N | IEC 60794-1-E3    |
| Minimum Bending Radius     | 70mm   | IEC 60794-1-21-11 |

|                        |   |   |
|------------------------|---|---|
| Voltage Test           | 11 Kv   | If installed along power line minimum vertical distance of 1.8 M should be maintained |
| Resistance to wind/ice | Cable shall withstand 97 kph wind, no ice. 80 kph wind + 5mm ice. 0 kph wind, + 10mm ice. without appreciable sag |   |

| Environmental Characteristics |                |                   |
|-------------------------------|----------------|-------------------|
| Installation                  | -10°C to +60°C | IEC 60794-1-22-F1 |
| Operation                     | -30°C to +70°C |                   |
| Storage                       | -40°C to +70°C |                   |

| Fibre Characteristics                  |                   |            |                 | G657A1                          |  |
|--|-------------------|------------|-----------------|---------------------------------|--|
| Optical                                |                   |            |                 |                                 |  |
| Attenuation                            | 1310 nm           |            | ≤ 0.35 dB/km    |                                 |  |
|  | 1550 nm           |            | ≤ 0.21 dB/km    |                                 |  |
|  | 1625 nm           |            | ≤ 0.23 dB/km    |                                 |  |
| Chromatic Dispersion                   | 1285 - 1330 nm    |            | ≤ 3.5 ps/nm.km  |                                 |  |
|  | 1550 nm           |            | ≤ 18.0 ps/nm.km |                                 |  |
|  | 1565 - 1625 nm    |            | ≤ 22.0 ps/nm.km |                                 |  |
| Fibre Cut-off Wavelength               |                   |            |                 | ≤ 1260 nm                       |  |
| Zero Dispersion Wavelength             |                   |            |                 | 1302 - 1324 nm                  |  |
| Zero Dispersion Slope                  |                   |            |                 | ≤ 0.092 ps/nm <sup>2</sup> x km |  |
| Polarisation mode dispersion           | Fibre             |            | ≤ 0.1 ps/km     |                                 |  |
|  | Link Design Value |            | ≤ 0.04 ps/km    |                                 |  |
|  | 100 turns         | φ 50 mm    | 1310 nm         | ≤ 0.05 dB                       |  |
|  |                   |            | 1550 nm         | ≤ 0.05 dB                       |  |
| 100 turn                               | φ 60 mm           | 1625 nm    | ≤ 0.05 dB       |                                 |  |
| Proof Stress Level                     |                   |            |                 | 1.0% (100 kpsi)                 |  |
| Geometrical                            |                   |            |                 |                                 |  |
| Mode Field Diameter                    | 1310 nm           |            | 9.2 ± 0.4 μm    |                                 |  |
|  | 1550 nm           |            | 10.4 ± 0.5 μm   |                                 |  |
| Core - Cladding Concentricity Error    |                   |            |                 | ≤ 0.5 μm                        |  |
| Cladding Diameter                      |                   |            |                 | 125 ± 0.7 μm                    |  |
| Cladding Non-Circularity               |                   |            |                 | ≤ 1%                            |  |
| Coating - Cladding Concentricity Error |                   |            |                 | ≤ 12 μm                         |  |
| Primary Coating Diameter               |                   |            |                 | 242 ± 5 μm                      |  |
| Primary Coating Material               |                   | (Coloured) |                 | UV Cured Acrylate               |  |
| Fibre Curl                             |                   | Radius     |                 | ≥ 4m                            |  |

# Fibre Optic Cabling

## Ultralightweight Aerial/Underground Anti-Rodent Cable

### Printing Details

|                        |  |
|------------------------|--|
| Cable printing details | Connectix ULW-001-001-XX - PIA RP - G657A1 XXF" "xxxx" Mts |
|------------------------|--|

Outer Sheath Colour: Black

Cable drums 4km or free cut to length service available.

### Ordering Information

| Product Description  | Part Number    |
|--|----------------|
| Connectix ULW Singlemode G.657.A1 4 fibre OH/UG Anti-Rodent Cable Black  | ULW-001-001-04 |
| Connectix ULW Singlemode G.657.A1 12 fibre OH/UG Anti-Rodent Cable Black | ULW-001-001-12 |
| Connectix ULW Singlemode G.657.A1 24 fibre OH/UG Anti-Rodent Cable Black | ULW-001-001-24 |
| Connectix ULW Singlemode G.657.A1 36 fibre OH/UG Anti-Rodent Cable Black | ULW-001-001-36 |
| Connectix ULW Singlemode G.657.A1 48 fibre OH/UG Anti-Rodent Cable Black | ULW-001-001-48 |