



# OPGW ADSS and all types of fiber optic cable

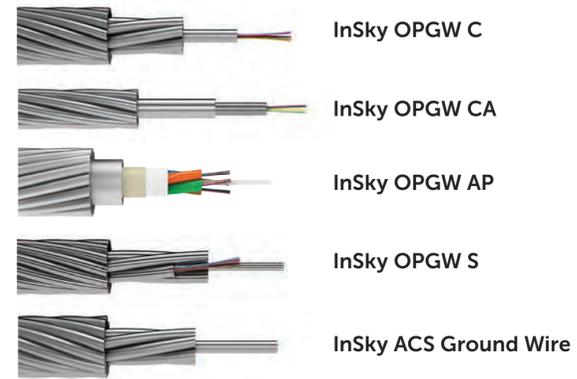
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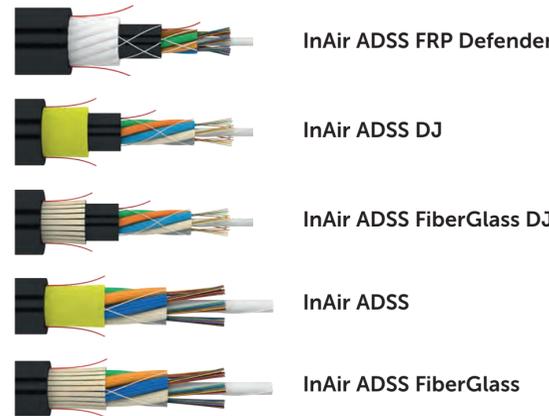
## InSky OPGW



### OUR BENEFITS

- Aluminum alloy wires ensure protection of the optical tube from overheating (high resistance to short-circuit currents)
- Reliability. Over 50 certification tests passed successfully
- Continuous technical support at all stages of optical communication systems construction
- Best fiber from Corning® SMF-28@Ultra
- Aluminum-clad steel wires ensure high corrosion resistance
- Complete production cycle
- Guaranteed quality. In-house Test Center and step-by-step process control

## InAir ADSS



- Best fiber from Corning® SMF-28@Ultra
- Guaranteed quality
- Reliability. DOW medium density and high-density polyethylene
- Continuous technical support at all stages of optical communication systems construction

### ACES: ADVANCED CABLE ENGINEERING SYSTEM OPGW and ADSS Configurator

A unique software tool to help engineers select the optimal cable design along with the associated accessories.

- There are 2 main versions of ACES:**
- for OPGW: Optical Ground Wire
  - for ADSS: All-Dielectric Self-Supporting Cable

### Key features:

- Online
- Absolutely free
- Quick registration
- Fast
- Simple
- Made with love

### Option to:

- save your project
- download technical documentation
- get sag and tension calculation

Try ACES



## SPECIALTY CABLES

The world around us is changing faster than ever before. Every day new challenges come up and instead of fighting the change, we should embrace it. Just like optical fiber does. From just being the key element of telecommunication networks, it has been adapted to the data acquisition and monitoring purposes for various applications. Always keeping abreast of the latest developments Incab launched a range of specialty cables backed by extensive manufacturing experience since 2007. Now we are excited to introduce our new project dedicated to this type of cables. Discover the full range of specialty cables for various applications, which are developed in cooperation with top-notch industry experts.

### Application driven cables



### Application areas



### Advantages:

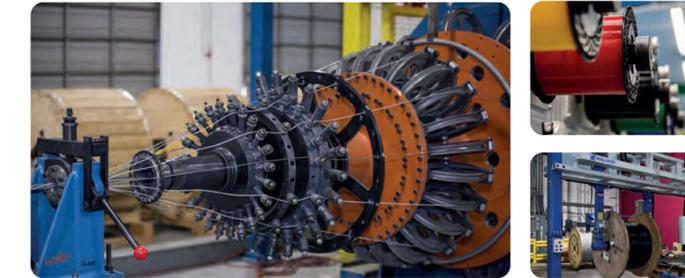
- Intelligent cable: both a cable and a sensor
- Optical fiber doesn't need power
- Resistance to electromagnetic influences
- Combination of optical fibers and metallic conductors
- Small, lightweight with thread-like geometry
- Multi-sensing capabilities
- Distributed continuous sensing element
- Suitable for harsh environments

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# OPGW ADSS AND ALL TYPES OF FIBER OPTIC CABLE

# FIBER OPTIC CABLE FOR ALL APPLICATIONS

**#1**  
Incab is one of the largest manufacturers of fiber optic cables worldwide

## InSky OPGW

### InSky OPGW C Optical Ground Wire Central Loose Tube

- Up to 288 fibers
- ACS wires are highly corrosion-resistant
- Aluminum alloy wires provide conductivity for fault current
- Optical ground wire (OPGW) shields high-voltage conductors from lightning strikes

- Effective solution to provide redundancy in harsh conditions, such as long cable spans, crossings of cable spans, power lines with previously installed OPGW and ADSS and others.

### InSky OPGW CA Optical Ground Wire Central Aluminum-Clad Loose Tube

- Up to 96 fibers
- Enhanced corrosion resistance: ACS wires and aluminum-clad stainless steel tube
- Aluminum alloy wires provide conductivity for fault current
- Optical ground wire (OPGW) shields high-voltage conductors from lightning strikes

- Up to 144 fibers
- Highly corrosion-resistant: ACS wires and aluminum pipe
- Optical ground wire (OPGW) shields high-voltage conductors from lightning strikes

### InSky OPGW AP Optical Ground Wire Aluminum Pipe

- Up to 144 fibers
- Highly corrosion-resistant: ACS wires and aluminum pipe
- Optical ground wire (OPGW) shields high-voltage conductors from lightning strikes

- Convenient splice preparation
- Aluminum alloy wires provide conductivity for fault current

### InSky OPGW S Optical Ground Wire Stranded

- Up to 432 fibers
- ACS wires are highly corrosion-resistant
- Optical ground wire (OPGW) shields high-voltage conductors from lightning strikes

- Aluminum alloy provide conductivity for fault current

### InSky MASS Metallic Aerial Self-Supporting

- Maximum rated design tension up to 6,744.3 lb
- ASC wire makes the cable exceeding rustproof
- High strength, small size
- Large spans between towers, installation over rivers and ravines

## InSky ACS Ground Wire Aluminum-Clad Steel Ground Wire

- Aluminum-clad steel wires are highly corrosion-resistant
- ACS ground wires shield high-voltage conductors from lightning strikes
- A standard component of high-voltage transmission lines

- Cost-effective design
- All-dielectric design
- Dry design - easy to strip
- Reduced weight and size. Low susceptibility to ice and wind loads

## InPhase OPPC Optical Phase Conductor

- Up to 288 fibers
- ACS wires are highly corrosion-resistant
- Effective solution to provide redundancy in harsh conditions, such as long cable spans, crossings of cable spans, power lines with previously installed OPGW and ADSS and others.

- Up to 96 fibers
- Enhanced corrosion resistance: ACS wires and aluminum-clad stainless steel tube
- Aluminum alloy wires provide conductivity for fault current
- Optical ground wire (OPGW) shields high-voltage conductors from lightning strikes

## InAir ADSS

### InAir ADSS FRP Defender All-Dielectric Self-Supporting (ADSS) FiberGlass Rods Defender

- Maximum rated design tension up to 2,248 lb with span lengths up to 656 ft
- Dry design - easy to strip
- Reduced weight and size. Low susceptibility to ice and wind loads
- All-dielectric design
- Aerial installation on distribution and transmission lines up to 35 kV

- Anti-rodent additive in the outer jacket for free-line protection
- Completely protected from water ingress
- Superior protection from mechanical damage - FRP rods provide strength and second-line protection
- Designed for use in aerial applications of 138 kV or less where damage from squirrels/rodents is apparent

### InAir ADSS DJ All-Dielectric Self-Supporting (ADSS) Double Jacket

- Maximum rated design tension up to 4,496 lb
- All-dielectric design
- Aerial installation on distribution and transmission lines up to 138 kV and above with tracking-resistant jacket

- For construction of communication lines between towers and cities with distances between towers reaching 1,640 ft
- Wide range of operating temperatures: installation temperature down to -22°F
- The most reliable among InAir cables: Double tensile strength
- Maximum rated design tension up to 22,481 lb

### InAir ADSS FiberGlass DJ All-Dielectric Self-Supporting (ADSS) FiberGlass Yarns Double Jacket

- Cost-effective solution for city trunk lines
- All-dielectric design
- Aerial installation on distribution and transmission lines up to 138 kV and above with tracking-resistant jacket
- Wide range of operating temperatures: installation temperature down to -22°F
- Special design option: outer jacket is made of track-resistant PE
- Maximum rated design tension up to 3,373 lb with span lengths up to 984 ft

## InAir ADSS

- All-Dielectric Self-Supporting (ADSS)
- Cost-effective design
- All-dielectric design
- Dry design - easy to strip
- Reduced weight and size. Low susceptibility to ice and wind loads

- Aerial installation on distribution and transmission lines up to 35 kV
- Wide range of operating temperatures: installation temperature down to -22°F
- Maximum rated design tension up to 2,248 lb with span lengths up to 656 ft

## InAir ADSS FiberGlass

- All-Dielectric Self-Supporting (ADSS) FiberGlass Yarns
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- Aerial installation on distribution and transmission lines up to 35 kV

- Superior protection from mechanical damage - FRP rods provide strength and second-line protection
- Designed for use in aerial applications of 138 kV or less where damage from squirrels/rodents is apparent

## Specialty Cable

### InFire Rated

- InFire Rated Universal
- Remains functional under direct flame for at least 180 minutes
- Resistance to crushing load 571 lb/in
- Small size - thin, light, economical
- Suitable for all applications
- Up to 96 fibers

- InFire Rated Universal Dielectric
- Remains functional under direct flame for at least 180 minutes
- All-dielectric design
- Suitable for all applications
- Up to 288 fibers

## InFire Rated Dielectric

- Remains functional under direct flame for at least 180 minutes
- Easy to install
- All-dielectric design
- Up to 24 fibers

- InFire Rated Dielectric Light
- Remains functional under direct flame for at least 180 minutes
- All-dielectric design
- Up to 24 fibers

## InFire Rated Outdoor

- Remains functional under direct flame for at least 180 minutes
- Up to 288 fibers
- Easy to install

- InDuct
- Up to 288 fibers
- Maximum rated design tension up to 607 lb
- All-dielectric design

## InDuct FiberGlass

- All-dielectric design
- Up to 864 fibers

## InDuct Aramid

- All-dielectric design
- Easy to install

## InArmor

- InArmor CST Corrugated Steel Tape
- The most popular design
- Excellent rodent resistance
- Reduced weight and size. Suitable for towing in tubes
- Increased lightness due to application of water-swellable tape

- InArmor CT GSW Central Tube Galvanized Steel Wires
- Cost-effective design
- Resistance to crushing load 400 lb/in
- Reduced weight and size
- Maximum rated design tension up to 4,496 lb

## InArmor CT FRP

- Central Tube FiberGlass Rods
- Reduced weight, suitable for aerial installation
- All-dielectric design
- Reliable protection from serious mechanical impact
- Resistance to crushing load up to 400 lb/in
- Maximum rated design tension up to 2,698 lb

## InArmor GSW

- Galvanized Steel Wires
- The most popular design
- Reliable protection from serious mechanical impact
- Excellent rodent resistance
- Resistance to crushing load up to 571 lb/in

## InArmor CT CST

- Central Tube Corrugated Steel Tape
- Cost-effective design
- Excellent rodent resistance
- Reduced weight and size
- Up to 24 fibers

## InArmor SST

- Stainless Steel Tube
- Cost-effective design
- Excellent rodent resistance
- Reduced weight and size
- Up to 24 fibers

## InArmor SST GSW

- Stainless Steel Tube Galvanized Steel Wires
- Up to 96 fibers
- Resistance to crushing load up to 8,992 lb
- 100% waterproof
- Excellent rodent resistance

## InArmor FiberGlass DJ

- FiberGlass Yarns Double Jacket
- All-dielectric design
- Fiberglass yarns prevent damage by rodents

## InArmor CT GSW

- Central Tube Galvanized Steel Wires
- Cost-effective design
- Resistance to crushing load 400 lb/in
- Reduced weight and size
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## InArmor FiberGlass DJ

- FiberGlass Yarns Double Jacket
- All-dielectric design
- Fiberglass yarns prevent damage by rodents

## InArmor GSW Wetland

- Galvanized Steel Wires Wetland
- Excellent solution for wetland and cross-river installation
- Resistance to crushing load up to 571 lb/in
- Maximum rated design tension up to 17,985 lb

## InArmor GSW2 Wetland

- Galvanized Steel Wires Double Armor Wetland
- Excellent solution for wetland and cross-river installation
- Resistance to crushing load 571 lb/in
- Maximum rated design tension up to 17,985 lb

## InArmor CT GSW2

- Central Tube Galvanized Steel Wires Double Armor
- Suitable for harsh environments
- Resistance to crushing load up to 571 lb/in
- Excellent rodent resistance
- Up to 24 fibers
- Maximum rated design tension up to 17,985 lb

## InArmor CT FRP2

- Central Tube FiberGlass Rods Double Armor
- Suitable for harsh environments
- Resistance to crushing load up to 571 lb/in
- Excellent rodent resistance
- Up to 24 fibers
- Maximum rated design tension up to 17,985 lb

## InArmor GSW2

- Galvanized Steel Wires Double Armor
- Suitable for harsh environments
- Resistance to crushing load up to 571 lb/in
- Excellent rodent resistance
- Up to 432 fibers
- Operation tension up to 225 lb

## InWater

- InWater Submersible CT GSW2 Submersible Central Tube Galvanized Steel Wires Double Armor
- Installation down to 8,202 ft
- Suitable for harsh environments
- Up to 96 fibers

## InWater Submersible SST GSW2

- Submersible Stainless Steel Tube Galvanized Steel Wires Double Armor
- Installation down to 16,404 ft
- Suitable for harsh environments
- Up to 96 fibers

## InArmor GSW2 Wetland

- Galvanized Steel Wires Double Armor Wetland
- Excellent solution for wetland and cross-river installation
- Resistance to crushing load 571 lb/in
- Maximum rated design tension up to 17,985 lb

## BlownIn

- BlownIn CT Central Tube
- Up to 24 fibers
- Operation tension up to 34 lb
- Reduced weight and size. Convenient for microduct
- All-dielectric design

## BlownIn

- Up to 432 fibers
- Operation tension up to 225 lb
- Easy to install
- All-dielectric design

## InAir Figure 8

- InAir Figure 8 GSW Figure 8 Galvanized Steel Wires
- Affordable alternative to InAir ADSS cable
- Low installation cost
- All-dielectric design

## InAir Figure 8 FRP

- Figure 8 FiberGlass Rod
- Affordable alternative to InAir ADSS cable
- Low installation cost
- All-dielectric design

## InAir Figure 8 CT GSW

- Figure 8 Central Tube Galvanized Steel Wires
- Reduced weight and size
- Low installation cost
- All-dielectric design

## InAir Figure 8 CT FRP

- Figure 8 Central Tube FiberGlass Rod
- Reduced weight and size
- Low installation cost
- Cost-effective design
- All-dielectric design

## InHome Riser MT

- Riser Micro Tube
- Perfect solution for multi-dwelling units
- Operation temperature range down to -22°F
- All-dielectric design
- UV-resistant
- Flame-retardant
- Easy access to the fiber at any place of the cable

## InHome Distribution TB

- Distribution Tight-Buffered
- Perfect solution for offices and data centers
- More flexible compared to Riser Cable
- Easy termination
- UV-resistant
- Up to 48 fibers

## InHome Distribution MT

- Distribution Micro Tube
- High density of fibers makes it possible to bundle up to 24 fibers into micro loose tubes and place up to 48 micro loose tubes in a cable
- All-dielectric design
- Flame-retardant
- UV-resistant
- Up to 48 fibers

## InHome FTTH

- InHome FTTH
- Perfect solution for multi-dwelling units: the fiber is buffered up to floor box or subscriber's flat
- Operation temperature range down to -22°F
- Easy access to the fiber at any place of the cable
- UV-resistant
- Up to 48 fibers
- Flame-retardant

## InHome Riser TB

- Riser Tight-Buffered
- Perfect solution for multi-dwelling units: the fiber is buffered up to floor box or subscriber's flat
- Operation temperature range down to -22°F
- Easy access to the fiber at any place of the cable
- UV-resistant
- Up to 48 fibers
- Flame-retardant

## InHome Simplex TB

- Simplex Tight-Buffered
- Perfect solution for patch cords manufacturing
- All-dielectric design
- Flame-retardant
- UV-resistant
- Compact and flexible
- Cable can be terminated with a standard connector

## InHome Duplex TB

- Duplex Tight-Buffered
- Perfect solution for patch cords manufacturing
- All-dielectric design
- Flame-retardant
- UV-resistant
- Compact and flexible
- Cable can be terminated with a standard connector

## InControl

- InControl Distribution TB DJ Distribution Tight-Buffered Double Jacket
- All-dielectric design
- Flame-retardant
- UV-resistant
- Excellent rodent resistance

## InDrop FTTH

- InDrop Flat Type
- All-dielectric design
- Operation temperature range down to -40°F
- Suitable for aerial installation up to 328 ft

## InDrop Round Type

- InDrop Round Type
- All-dielectric design
- Minimal weight and size
- Cost-effective design

## InDrop Round Type TB

- InDrop Round Type TB
- All-dielectric design
- Minimal weight and size
- Cost-effective design

## InDrop Flat Type Toneable

- InDrop Flat Type Toneable
- Toning conductor allows for effortless detection in underground installation
- Suitable for direct burial
- UV-resistant

## InDrop Round Type

- InDrop Round Type
- All-dielectric design
- Minimal weight and size
- Cost-effective design

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