

Airfield Cable & Accessory Catalogue

NORTH EUROPE



Linking the future

As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

With this in mind, we provide major global organisations in many industries with best-in-class cable solutions, based on state-of-the-art technology.

Through two renowned commercial brands - Prysmian and Draka - based in almost 50 countries, we're constantly close to our customers, enabling them to further develop the world's energy and telecoms infrastructures and achieve sustainable and profitable growth.

For our energy business, we design, produce, distribute and install cables and systems for the transmission and distribution of power at low, medium, high and extra-high voltage.

For telecoms, the Group is a leading manufacturer of all types of copper and fibre cables, systems and accessories for voice, video and data transmission.

Drawing on over 130 years' experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the needs of our customers across all continents - while at the same time shaping the evolution of our industry.





Linking global expertise to the wheels of industry

On every continent, in applications that range from air and rail transport infrastructure to heavy duty industries such as mining, tunnel drilling and defence, Prysmian's specialist cable solutions sit at the heart of significant international projects; supporting the work of major customers, with high-performing, durable and safe technology.

As the world leader in cabling, we draw on global expertise and local presence to work in close

proximity with our customers, delivering products and service platforms, built on easy contact, customized solutions and effective supply chains, meeting their specialized requirements, to help them drive the wheels of industry and achieve sustainable growth and profitability. As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

Airfield lighting cables

With multiple aircraft takeoffs and landings every minute, lighting systems play a vital part in ensuring the safety of pilots, crew, passengers and cargo alike. Prysmian's cables and accessories ensure the continuous operation of these lighting systems, across airport runways, taxiways, buildings and towers and other obstacles. Including connectors and terminations for medium-voltage and transformer circuits, Prysmian Group airport cables ensure airport safety worldwide.

Prysmian Group offers a comprehensive, cutting-edge and continually evolving airfield lighting cable product portfolio that caters for today's ever-increasing and diverse market demands. Anticipating changing trends and requirements, and working in constant proximity with our customers, we're positioned to provide constant progress in keeping the wheels of industry turning around the world.

Ground power supply cables

Prysmian 400 Hz ground power supply cables are specially designed for the power supply of aircrafts, computer systems and radar stations - and comprise both static cables in buildings as well as flexible connections between aircrafts, passenger bridges, hangers and buildings.

The 400 Hz ground power supply cables provide the best design with the maximum number of options and provides great versatility for the aircraft of today and for the future aircraft requirements.

We cater for a broad range of requirements, with cables types to reflect the applications in which they are employed. For standard range cable types we provide resistance to severe mechanical, electrical and chemical, temperature and radioactive constraints.

This is based on our long history and unparalleled know-how and experience with flexible cable materials for demanding handling and environmental applications, for niche industries ranging from mining and crane to wind turbines, rolling stock and even subsea cables.

All of our products are produced with dimension and weight reduction in mind and we adapt to suit the needs of each customer. Our excellence in quality and on-time delivery is recognized and appreciated by all our customers, to whom we deliver worldwide.

Emergency stop systems

Prysmian Group emergency stop system called PressLine is a unique system that offers continuous emergency stop protection around complex industrial hazards. The system is used in many applications throughout the world. It has proven particularly successful for conveyor system in Airport Baggage Control. The actuating device is patented pressure sensitive cable that can follow any route up to 10 km. Activations is by pressing, bedding or pulling the cable at any point along its length. The PressLine control unit monitors the pressure sensitive cable and employs rigorously tested solid state technology.

The control unit continuously monitors the cable and confirms system functionality. If an activation state is detected in the cable, the control unit interacts with machinery controls to switch off plant or activate alarms.

With origins stretching back over 100 years, Prysmian has developed an enviable reputation for product quality and innovative design. Prysmian Components manufacturers and supplies to accredited Business Management System BS EN ISO9001, BS EN ISO14001 and is certified for OHSAS18001.



Airfield Cable & Accessory

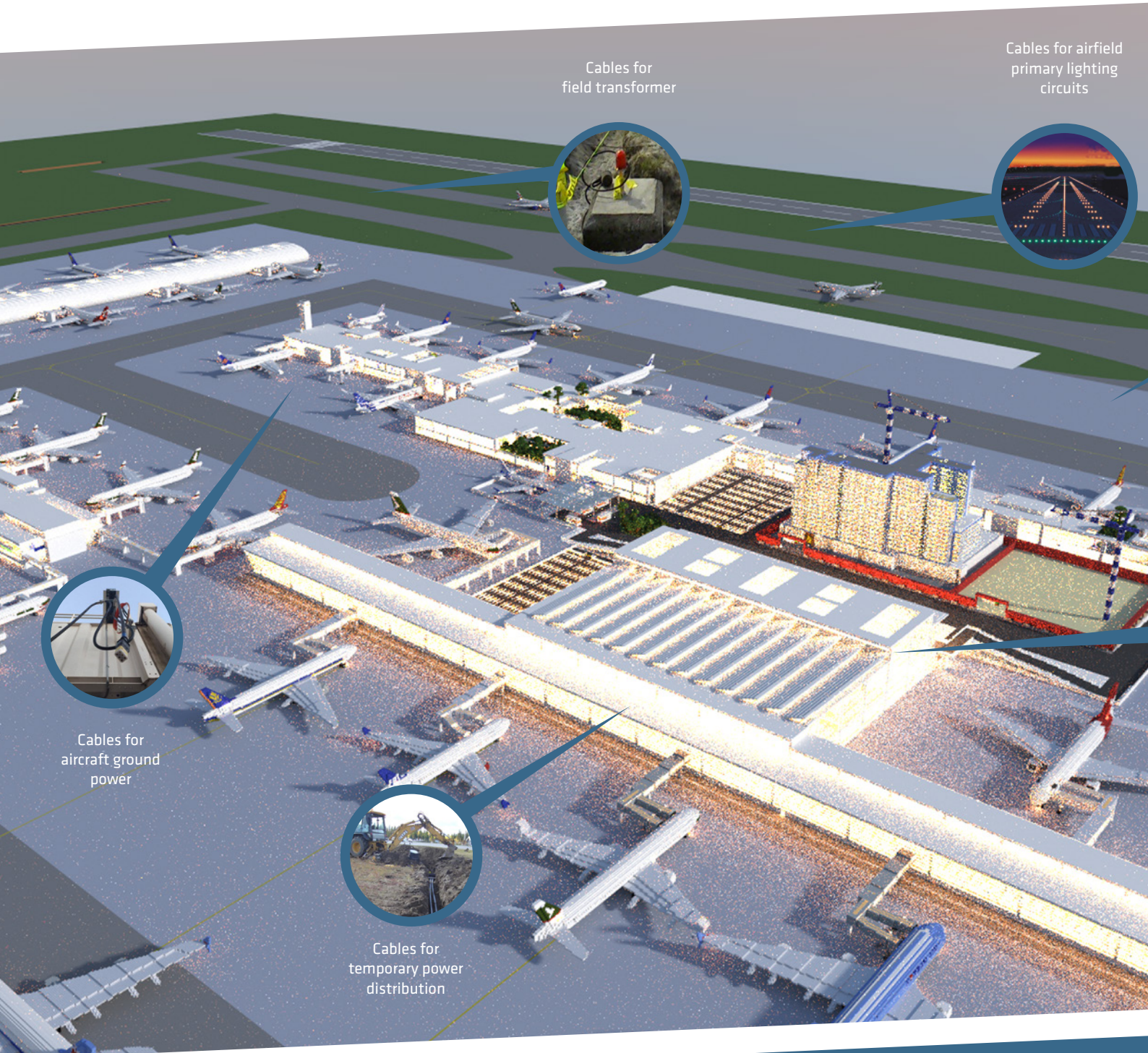


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Airfield Cable & Accessory

Cables for any application



Cables for
field transformer

Cables for airfield
primary lighting
circuits

Cables for
aircraft ground
power

Cables for
temporary power
distribution

As the leading worldwide supplier, Prysmian Group offers an extensive range of cabling solutions for different airport applications.

Typical cable applications for airports include:

Primary Airfield Lighting Circuits

- LV screened cables
- MV screened cables for dry or wet conditions
- MV FAA approved connectors and joints

Secondary Airfield Lighting Circuits

- LV flexible and flame retardant rubber cables
- LV FAA approved connectors

Field Transformer

- FAA approved isolated 50 Hz and 60 Hz transformers
- Field transformers with or without earthing protection

Temporary Power Distribution

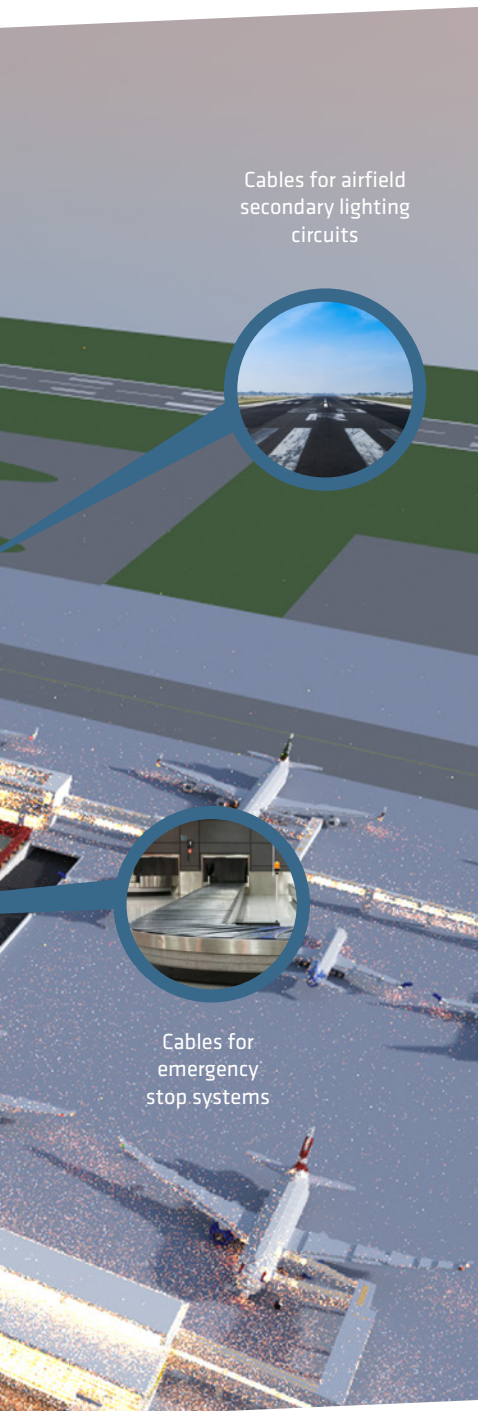
- LV flexible and durable rubber cables

Aircraft Ground Power

- 400 Hz ground power cables for static or mobile application
- 1 + 6 core single sheath aviation cable or triplex design
- 400 Hz cable connecting assemblies

Emergency Stop Systems

- PRESSLINE - pressure sensitive cable system



Airfield Cable & Accessory



Explanation of symbols



Conductor temperature

Max. conductor temperature °C in continuous operation.



Flexible installation

Due to IEC 60228 class 5 multi-standed conductor.



Smoke density

Smoke propagation acc. to EN/IEC 61034.



Halogen free

Halogen free acc. to EN/IEC 60754-1 and EN/IEC 50267-1.



Acidity

Corrosivity acc. to EN/IEC 60754-2.



Fire retardant

Flame propagation acc. to EN/IEC 60332-1.
Bundled and vertical acc. to EN/IEC 60332-3.



Screened or armoured

With either copper, aluminum or steel wire, foil and tape.



Oil resistant

Acc. to DIN EN 60811-404



Fire resistant

Fire resistant acc. to EN/IEC 60331-1 & 2.



UV resistant

Filling and or outer sheath suitable for outdoor application.



EMC

Fulfills EMC-directive with 100% dense screen with low coupling impedance.



Impact resistant

Against shocks.



Pull resistant

High tensile stress required to create cable failure.



Weather proof



Watertight or proof

Axial and radial water blocking via water swellable tape or yarn.



MUD resistant

Resistance to chemicals in drilling mud acc. to NEK TS 606:2016

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Many more cable types and tailor-made cables are available for your individual application.



LOW VOLTAGE

PFSP 1 kV

ALUMINIUM SCREEN & PVC SHEATH

Application

Special cable for airfield lightning applications. Suitable for direct installation in the ground without extra protection outdoors. Fulfills the requirements of main aviation organizations.

Technical data

Rated voltage:

- > 0,6/1 kV

Temperature range

Max conductor temperature:

- > Max. conductor temperature: +70°C

Standard & Approval

Standard:

- > Cenelec EC HD 603-3J
- > IEC 60502-1

Approval:

- > NEMKO

Construction

Conductor:

- > Round
- > Solid copper
- > Acc. to IEC 60228 class 1.

Insulation:

- > PVC
- > Black

Inner sheath:

- > Extruded compound
- > Black

Screen:

- > Aluminium tape
- > Concentrically applied

Grounding:

- > Copper wire

Outer sheath:

- > PVC
- > Black

Material property

Flame retardant:

- > Acc. to EN 60332-1



70°



Content is subject to changes acc. to current product development and or any changes to standards.

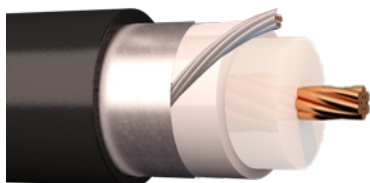
Conductor cross-section mm ²	Conductor Type	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x 6/6	ER	11	190	7021524120237

1. Primary airfield lighting

MEDIUM VOLTAGE

EFSP 3 kV

ALUMINIUM SCREEN & PVC SHEATH



Application

Special cable for airfield lightning applications. Suitable for direct installation in the ground without extra protection outdoors. Fulfills the requirements of main aviation organizations.

Technical data

Rated voltage:

- > 1,7/3 kV

Temperature range

Max conductor temperature:

- > +70°C

Standard

- > IEC 60502-1

Construction

Conductor:

- > Round
- > Stranded copper wires
- > Acc. to IEC 60228 class 2.

Insulation:

- > Polyetylen

Inner sheath:

- > Extruded compound

Screen:

- > Aluminium tape
- > Concentrically applied

Grounding wire:

- > Copper

Outer sheath:

- > PVC
- > Black

Material property

Flame retardant:

- > Acc. to EN 60332-1

70°



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Conductor cross-section mm ²	Conductor Type	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x 6/6	ER	14	260	7021525051004

MEDIUM VOLTAGE

LKCE 3 kV

COPPER SCREENED & PE SHEATH

Application

Special cable for airfield lightning applications. Suitable for direct installation in the ground without extra protection outdoors. Fulfills the requirements of main aviation organizations.

Technical data

Rated voltage:

- > 1,8/3 kV

Test voltage:

- > 10,5 kV AC, 5 min.

Temperature range

Max conductor temperature:

- > +70°C

Min. installation temperature:

- > -15°C

Standard

- > IEC TS 62100

Construction

Conductor:

- > Round and annealed
- > Stranded copper wires
- > Acc. to IEC 60228 class 2.

Insulation:

- > Extruded polyethylene (PE)
- > Thickness nom. 3,0 mm

Screen:

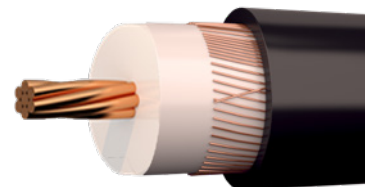
- > Copper wires
- > Concentrically applied
- > Area nom. 6 mm²

Outer sheath:

- > Extruded polyethylene (PE)
- > Type ST 3
- > Thickness nom. 1,4 mm
- > Weather resistant
- > Black

Material property

- > Halogen free: IEC 60754-1
- > Acidity: IEC 60754-2



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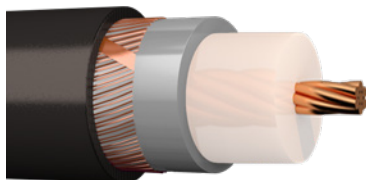
Conductor cross-section mm ²	Conductor Type	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x 6/6	FR	14	220	

1. Primary airfield lighting

MEDIUM VOLTAGE

PFSP 6 kV

COPPER SCREEN & PVC SHEATH



Application

Special cable for airfield lightning applications. Suitable for direct installation in the ground without extra protection outdoors. Cable meets Norwegian climate requirements..

Technical data

Rated voltage:

- > 3,6/6 kV

Temperature range

Max conductor temperature:

- > +70°C

Standard

- > IEC TS 62100

Construction

Conductor:

- > Round
- > Stranded copper wires
- > Acc. to IEC 60228 class 2.

Insulation:

- > PVC
- > Thickness 4 mm
- > White

Inner sheath:

- > Extruded compound

Screen:

- > Copper wires
- > Concentrically applied
- > Counter helix of copper tape

Outer sheath:

- > PVC
- > Black

Material property

Flame retardant:

- > Acc. to EN 60332-1

70°



Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Conductor Type	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x 6/6	FR	16	350	7021524119156

MEDIUM VOLTAGE

PFSP EMC 5 kV

COPPER SCREEN & PVC SHEATH

Application

Special cable for airfield lightning applications. Suitable for direct installation in the ground without extra protection outdoors. Copper screen provides 100% coverage with low coupling impedance that fulfills the EMC directive when properly installed. Fulfills the requirements of main aviation

Technical data

Rated voltage:

- > 5 kV

Bending radius:

- > Installation: 20 x D
- > Fixed: 15 x D

Pulling force:

- > Max. 50 N/mm²

Temperature range

Max conductor temperature: +70°C

Min. installation temperature: -40°C

Standard & Approval

Standard:

- > IEC TS 62100

Approval:

- > <HAR>
- > NEMKO

Construction

Conductor:

- > Stranded copper wires
- > Acc. to IEC 60228 class 2.

Insulation:

- > PVC compound, 4 mm
- > White

Screen:

- > Copper foil with overlap - 0,05 mm
- > Counter helix of copper wires
- > 6 mm² thick screen

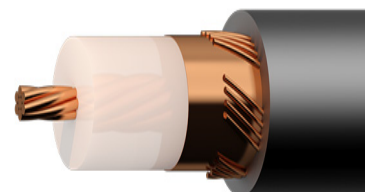
Outer sheath:

- > PVC
- > Black

Material property

Flame retardant:

- > Acc. to IEC 60332-1



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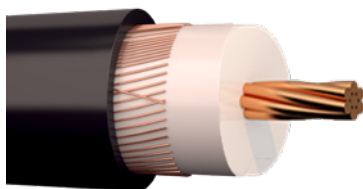
Conductor cross-section mm ²	Isolation thickness mm	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x 6/6	4	16	335	7021525051059

1. Primary airfield lighting

MEDIUM VOLTAGE

FLYCY 5 kV

COPPER SCREEN & PVC SHEATH



70°



Application

Special cable for airfield lightning applications. Suitable for fixed installation outdoors, in pipes or directly in the ground without extra protection. Fulfills the requirements of main aviation organizations.

Technical data

Rated voltage:

- > 5 kV

Bending radius:

- > During installation: min. 15 x D
- > Fixed: min. 10 x D

Pulling force:

- > Max. 50 N/mm²

Temperature range

- > Max. conductor temperature: +70°C
- > Short circuit temperature: +160°C
- > Lowest temp. at installation: -10°C

Standard

- > IEC TS 62100

Construction

Conductor:

- > Stranded and annealed
- > Acc. to IEC 60228 class 2.

Insulation:

- > PVC compound, 4 mm

Screen:

- > Annealed copper wires
- > 2,5 or 6,0 mm²
- > Concentrically applied

Outer sheath:

- > PVC compound - 1,4 mm
- > Black or red

Material property

Flame retardant:

- > Acc. to IEC 60332-1

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Conductor cross-section mm ²	Conductor type	Outer diameter mm	Cable weight kg/km	Standard delivery m	Prysmian EAN no.
1 x 6/2,5	FR	15,4	310	1000 - K9	
1 x 6/6,0	FR	16,0	335	1000 - K9	

MEDIUM VOLTAGE

FLYCY 6 kV

COPPER SCREEN & PVC SHEATH

Application

Special cable for airfield lightning applications. The cable has excellent electrical and mechanical properties. The low weight and flexibility of the cable make it easy to lay and install. Suitable for fixed installation outdoors, in pipes or directly in the ground without extra protection.

Technical data

Rated voltage:

- > 3/6 kV

Bending radius:

- > Minimum 10 x D

Pulling force:

- > Max. 50 N/mm²

Temperature range

- > Max. conductor temperature: +70°C
- > Short circuit temperature: +160°C
- > Lowest temp. at installation: -10°C

Standard

- > DIN VDE 0271
- > IEC 60502-2

Construction

Conductor:

- > Stranded round copper wires
- > Acc. to IEC 60228 class 2. RM
- > Cross-section 6 mm²
- > Diameter nominal 2,7 mm

Insulation:

- > PVC compound
- > Thickness nominal 3 mm
- > Diameter over insulation 8,7 mm
- > White

Screen:

- > Copper wires
- > Cross-section 2,5 mm²
- > Concentrically applied
- > Counter helix of copper tape , fixed

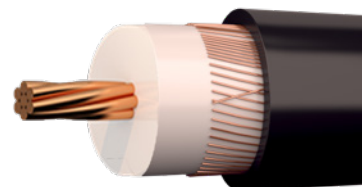
Outer sheath:

- > PVC compound - 1,4 mm
- > Thickness nominal 1,8 mm
- > Black

Material property

Flame retardant:

- > Acc. to IEC 60332-1



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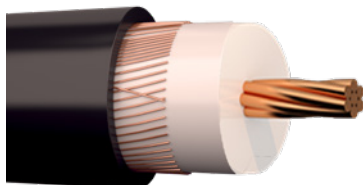
Conductor cross-section mm ²	Conductor type	Outer diameter nom. mm	Cable weight kg/km	DC resistance at °C max. Ω/km	Prysmian EAN no.
1 x 6/2,5	RM	13,1	257	3,08	

1. Primary airfield lighting

MEDIUM VOLTAGE

FL2YCY 5 kV

COPPER SCREEN & PVC SHEATH



70°



Application

Special cable for airfield lightning applications. Suitable for fixed installation outdoors, in pipes or directly in the ground without extra protection. Fulfills the requirements of main aviation organizations.

Technical data

Rated voltage:

- > 5 kV

Bending radius:

- > During installation: min. 15 x D
- > Fixed: min. 10 x D

Pulling force:

- > Max. 50 N/mm²

Temperature range

- > Max. conductor temperature: +70°C
- > Short circuit temperature: +160°C
- > Lowest temp. at installation: -10°C

Standard

- > IEC TS 62100

Construction

Conductor:

- > Stranded and annealed copper
- > Acc. to IEC 60228 class 2.

Insulation:

- > Polyethylen - 3,4 mm

Screen:

- > Annealed copper wires
- > Concentrically applied
- > Counter helix of copper wires

Seperator:

- > Plastic tape

Outer sheath:

- > PVC compound - 1,4 mm
- > Lead free
- > Black or red

Material property

Flame retardant:

- > Acc. to IEC 60332-1

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Conductor type	Outer diameter mm	Cable weight kg/km	Standard delivery m	Prysmian EAN no.
1 x 6/2,5	FR	14	230	1000 - K10	

MEDIUM VOLTAGE

FAA L-824 TYPE B - 5 kV

FLEXIBLE EPR INSULATED CABLE

Application

Flexible single conductor 5000 volt power cables suitable for airport lighting circuits per FAA L-824 Type B. Installation in conduit, duct, aerial and direct burial applications. Rated for use at 90°C in dry conditions. The sheath also offers additional protection from deicing fluids.

Technical data

- > Rated voltage: 5 kV
- > Tensile strength: max 5 daN
- > Bending radius: fixed 10 x D
- > Bending radius: during installation 20 x D

Temperature range

- > Max. conductor temperature: +90°C
- > Short circuit temperature: +200°C
- > Lowest temp. at installation: -25°C

Rating & Approval

- > FAA L-824, AC N°150 150/5345 Type B (AWG type listed in AC N°150/5345-53 Appendix 3.)

Construction

Conductor:

- > Stranded copper wires
- > Acc. to IEC 60228 class 5.
- > AWG type class C - softly drawn acc. to ASTM B3 & B8

Insulation:

- > EPR rubber compound
- > Acc. to ICEA S-96-659 / NEMA WC71
- > Black or white

Outer sheath CPE version:

- > CPE - chlorinated polyethylene compound
- > Acc. to ICEA S-96-659 / NEMA WC71
- > Thickness 2,29 mm
- > Black or white

Outer sheath NEO version:

- > NEO - neopren
- > Thickness 0,76 mm
- > Black

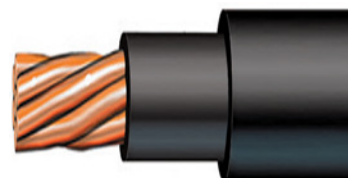
Outer sheath PVC version:

- > CPE - chlorinated polyethylene compound
- > Acc. to ICEA S-96-659 / NEMA WC71
- > Black

Material property

Flame retardant: (NEO version)

- > Acc. to IEC 60332-1



90°



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Conductor size	Outer sheath material	Insulation thickness nom. mm	Outer sheath thickness nom. mm	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x 6 mm ²	Neoprene	2,3	0,76	9,7	140	
8 AWG	PVC	2,3	0,76	10,7	180	
6 AWG	PVC	2,3	0,76	11,7	238	
4 AWG	PVC	2,3	0,76	12,8	326	
8 AWG	CPE	2,3	0,76	10,7	174	
6 AWG	CPE	2,3	0,76	11,7	234	
4 AWG	CPE	2,3	0,76	12,8	322	

1. Primary airfield lighting

MEDIUM VOLTAGE

FAA L-824 TYPE C - 5 kV

XLPE INSULATED CABLE



90°



Application

Single conductor 5000 volt screened and non-screened power cables suitable for underground installation for use as airport lighting circuits per FAA L-824 Type c.

Suitable for use in conduit, duct, aerial and direct burial installations up to 5000 volts in 90°C wet or dry in conduit. Copper screen provides protection against EMI.

Technical data

- > Rated voltage: 5 kV
- > Tensile strength: max 5 daN
- > Bending radius: fixed 10 x D
- > Bending radius: during installation 20 x D

Temperature range

- > Max. conductor temperature: +90°C
- > Short circuit temperature: +250°C
- > Lowest temp. at installation: -25°C

Standard

- > FAA L-824, AC N°150/5345 Type C
- > AWG type listed in AC N°150/5345-53 Appendix 3)

Construction

Conductor:

- > Stranded copper
- > Acc. to IEC 60228 class 2.
- > AWG type - soft drawn bare copper acc. to ASTM B3 and B8

Conductor screen:

- > Extruded semi-conductive compound

Insulation:

- > Cross-linked polyethylene (XLPE)
- > Thickness 2,29 mm
- > Off-white

Wrapping:

- > Semi-conductive tape

Screen:

- > Braid of tinned copper wires (CBS)
- > Copper tape screen (CTS)
- > Brass tape screen (BTS)
- > Copper wires (CWS)

Outer sheath:

- > Polyethylene (PE)
- > Cross-linked polyethylene (XLPE)
- > Polyvinyl chloride (PVC)
- > Thickness 1,14
- > Black

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor size	Sheath material	Screen material	Insulation thickness nom. mm	Outer diameter mm	Cable weight kg/km	Prysmian EAN no.
1 x6 mm ²	PE	Copper tape	2,3	11,2	160	
1 x6 mm ²	XLPE	Copper tape	2,3	11,2	160	
1 x6 mm ²	PVC	Copper tape	2,4	12,6	210	
1 x6 mm ²	PE	Brass tape	2,4	12,6	185	
1 x6 mm ²	PVC	Brass tape	2,4	12,6	210	
1 x6 mm ²	PE	Copper wires	2,4	13,0	200	
1 x6 mm ²	PVC	Copper wires	2,4	13,0	230	
1 x6 mm ²	PE	Copper braid	2,4	13,0	210	
1 x6 mm ²	PVC	Copper braid	2,4	13,0	240	
8 AWG	-	-	2,8	9,53	137	
6 AWG	-	-	2,8	10,4	192	
4 AWG	-	-	2,8	11,7	276	

MEDIUM VOLTAGE

MAK CERTIFIED CABLE - 5 kV

FOR RUSSIAN TERRITORY

Application

Single conductor 5000 volt power cables suitable for underground installation for use as airport lighting circuits in military airports. Cables are suitable for use in wet or dry environments in conduit, duct, aerial and direct burial installations. Installation in pipes is recommended to protect against rodents. Copper screen provides protection against EMI.

Technical data

- > Rated voltage: 5 kV
- > Tensile strength: max 36 daN
- > Bending radius final: 160 mm
- > Bending radius installation: 320 mm

Temperature range

- > Max. conductor temperature: +90°C
- > Short circuit temperature: +250°C
- > Lowest temp. in operations: -60°C

Standard

- > Extended FAA L-824 AC N°150/5345-7D Type C
- > MAK

Construction

Conductor:

- > Annealed copper wires
- > Compacted
- > Stranded acc. to IEC 60228 class 2.

Conductor screen:

- > Extruded semi-conductive compound

Insulation:

- > XLPE cross-linked compound 2,29 mm
- > Natural colour

Wrapping:

- > Semi-conductive
- > Tape

Screen version CTS :

- > Annealed copper foil > 0,0635 mm
- > Overlapping

Screen version CWS :

- > Tinned copper wire > 0,25 mm
- > Braided

Outer sheath:

- > PE, nom. thickness 1,14 mm
- > Black

Material property

- > Halogen free: IEC 60754-1
- > Smoke density: EN 60134
- > Acidity: IEC 60754-2



90°



low



Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Sheath material	Screen material	Insulation thickness nom. mm	Outer cable diameter approx. mm	Cable weight approx. kg/km	Prysmian EAN no.
1 x6	PE	Copper tape	2,3	11,1	160	
1 x6	PE	Copper wire	2,3	12,0	200	



SLIP-ON SEPARABLE CONNECTOR

INTEGRO CONNECTOR KIT - 5 kV

FAA L-823, STYLE 3 & 10 FOR UNSCREENED CABLES

Application

Integro Primary Connector Kit is used to install isolation transformers into series circuits, and to make serviceable splice connections or test points in L-824 Airport Lighting Cable on primary power circuits.

Integro Primary Connector Kit is molded in thermoplastic rubber for superior dielectric strength, and to ensure watertight connections in the field. Each molded kit housing is filled with insulating silicone to fill voids.

Extended Strain and bend relief prevents the back end of connector from opening and allowing water to enter.

Integrally molded O-rings (3 of them) sweep debris from the cable jacket and grab hold to provide added sealing thereby completely eliminating water entry to the connection.

Technical data

- > Rated voltage: 5 kV
- > Continuous voltage rating: max. 25 A

Standard & Directive

- > Watertight
- > FAA L-823 - style 3 & 10
- > Certified by Intertek Testing Labs
- > FAA Advisory Circular 150/5345-26

Construction

Design:

- > Pre-fabricated
- > Moulded

Connector housing:

- > Thermoplastic rubber
- > Watertight

Insulation:

- > Silicone
- > Fill voids inside housing

Kit components - style 3:

- > Male pin and housing
- > Paper wipe for cleaning
- > Instructions

Kit components - style 10:

- > Female receptacle and housing
- > Paper wipe for cleaning
- > Instructions

Cable range

Cable diameter:

- > From 6 to 8 AWG

Cable type:

- > Single-core cables
- > Without metallic screen
- > XLPE, PVC or PE outer sheath



Integro



Content is subject to changes acc. to current product development and or any changes to standards.

Integro Connector Kit L-823 style 3 & 10 part no.	Cable type	Outer sheath diameter min. inches	Outer sheath diameter max.inches
11174-01 (Standard kit)	8 AWG	0,32	0,43
11174-04 (Standard kit)	6 AWG	0,32	0,43
11174-05 (Standard kit)	8 AWG	0,41	0,585
11174-06 (Standard kit)	6 AWG	0,41	0,585
11805-01 (Complete kit)	8 AWG	0,30	0,335
11805-05 (Complete kit)	8 AWG	0,38	0,335
11805-04 (Complete kit)	6 AWG	0,30	0,335
11805-02 (Complete kit)	6 AWG	0,38	0,335

1. Primary airfield lighting

SLIP-ON SEPARABLE CONNECTOR

INTEGRO CONNECTOR KIT - 5 kV

FAA L-823, STYLE 3 & 10 FOR SCREENED CABLES



Integro

Application

Integro Primary Connector Kit is used to install isolation transformers into series circuits, and to make serviceable splice connections or test points in L-824 Airport Lighting Cable on primary power circuits.

The connector housing is molded in thermoplastic rubber and filled with silicone for superior dielectric strength and watertightness.

Technical data

- > Rated voltage: 5 kV
- > Continuous voltage rating: max. 25 A

Standard & Directive

- > Watertight
- > FAA L-823 - style 3 & 10
- > Certified by Intertek Testing Labs
- > FAA Advisory Circular 150/5345-26

Construction

Design:

- > Pre-fabricated
- > Moulded housing

Connector housing:

- > Thermoplastic rubber
- > Roll-over flap on front of connector
- > Watertight

Insulation:

- > Silicone
- > Fill voids inside housing

Grounding wire (2 versions):

- > Insulated grounding wire
- > Copper grounding wire

Kit components - style 3:

- > Male pin and housing
- > Paper wipe for cleaning
- > Instructions

Kit components - style 10:

- > Female receptacle and housing
- > Grounded bot + paper wipe
- > Instructions

Cable range

Cable diameter:

- > From 6 to 8 AWG

Cable type:

- > Single-core cables
- > With metallic screen
- > XLPE, PVC or PE outer sheath



Content is subject to changes acc. to current product development and or any changes to standards.

Integro Connector Kit L-823 style 3 & 10 part no. With insulated grounding wire	Integro Connector Kit L-823 style 3 & 10 part no. With copper grounding wire	Cable type	Outer sheath diameter min. inches	Outer sheath diameter max.inches
11869-01	11847-01	8 AWG	0,375 - 0,45	0,3 - 0,4
11869-02	11847-02	8 AWG	0,450 - 0,525	0,3 - 0,4
11869-03	11847-03	8 AWG	0,525 - 0,6	0,38 - 0,5
11869-04	11847-04	8 AWG	0,6 - 0,675	0,38 - 0,5
11869-05	11847-05	6 AWG	0,6 - 0,675	0,38 - 0,5

CAST RESIN JOINT

CAST RESIN JOINT - 6 kV

WATERTIGHT & TOOL FREE

Application

Pre-fabricated and watertight joint for airfield lighting circuits. For on-site assembly and pouring resin for connecting to the primary of the isolating transformer.

Suitable for single core cables with copper tape or wire screen. Applicable for indoor and outdoor installation either vertical or horizontal positioned in concrete manhole or directly buried in the ground. Connector can be energized immediately after plug-in and polymerisation of resin. Supplied as a kit with all necessary components.

Technical data

Voltage:

- > Rated voltage: 6 kV
- > Continuous voltage rating: max. 25 A

Temperature range

- > Max. operations temperature: +65°C
- > Lowest operations temperature: -55°C
- > Installation: From +5°C to +40°C
- > Storage from +5°C to 40°C

Standard & Directive

- > Watertight acc. to AD7
- > ISO 9001 version 2 008 - EN 29 001
- > REACH conformity
- > Product code: CFRAP51142 CTJMa-1C-J3

Construction

Design:

- > Pre-fabricated
- > Tool free installation
- > Copper ferrule

Casing:

- > Double layer
- > Transparent thermoplastic material
- > Snapped or fastened by sliders

Insulation:

- > EPR tape and synthetic resin (epoxy)
- > Wrapped
- > Polymerisation of resin at +5°C to +40°C

Sealing:

- > Self-amalgamating tape or putty

Kit components:

- > Supplied as a kit
- > For a single core joint
- > Copper ferrule
- > Epoxy resin
- > All components required for installation

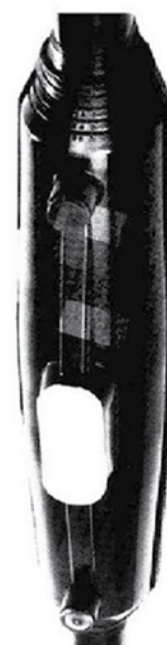
Range

Cable diameter:

- > Up to 1 x 6 mm²
- > Max. outer diameter 22 mm

Cable type:

- > Single-core copper cables
- > XLPE insulation
- > Copper tape screen
- > XLPE, PVC or EPDM outer sheath



65°

Content is subject to changes acc. to current product development and or any changes to standards.

Connector joint style	Shipping weight kg	Joint width mm	Joint length mm	Shipping volume approx. m ³
CFRAP 51142 CTJMa-1C-J3	1,7	325	52	0,005

1. Primary airfield lighting

TAPED JOINT

TAPED JOINT - 6 kV

HEATSHRINKABLE OUTER PROTECTION



Application

Pre-fabricated and watertight taped joint for airfield lighting circuit connection to the primary of the isolating transformer.

Suitable for single core cables with copper tape screen. Applicable for indoor and outdoor installation either in a vertical or horizontal positioned or in a concrete manhole. Joint can be energized immediately after plug-in. Supplied as a kit with all necessary components.

Technical data

Voltage:

- > Rated voltage: 6 kV
- > Continuous voltage rating: max. 25 A

Cable diameter:

- > Up to 1 x 6 mm²
- > Max. outer diameter 22 mm

Cable type:

- > Single-core copper cables
- > XLPE insulation
- > Copper tape screen
- > XLPE, PVC or EPDM outer sheath

Temperature range

- > Max. operations temperature: +65°C
- > Lowest operations temperature: -55°C

Standard & Directive

- > ISO 9001 version 2 008 - EN 29 001
- > REACH conformity
- > Product code: CFRAP51102 JU 10 R TH Balise

Construction

Design:

- > Copper ferrule

Inner semi-conducting layer:

- > Tape
- > Auto-amalgamating

Insulating layer:

- > ERP tape
- > Auto-amalgamating

Screen:

- > Equipotential
- > ERP tape
- > Auto-amalgamating
- > Cone shaped at ends

Watertightness:

- > Rings of mastic
- > Under and over outer sheath

Outer sheath:

- > Heatshrinkable tube

Kit components:

- > Supplied as a kit
- > For one single core joint
- > All components required for installation

65°



Content is subject to changes acc. to current product development and or any changes to standards.

Connector joint style	Shipping weight kg	Shipping volume approx. m ³
CFRAP 51102 JU-10-R-TH-Balise	0,5	0,005

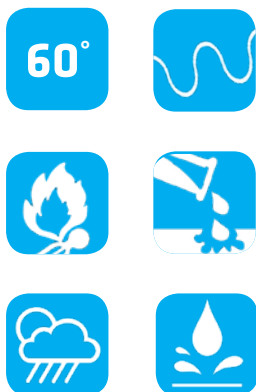
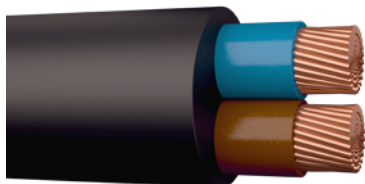


2. Secondary airfield lighting

LOW VOLTAGE

DRAKAFLEX H07RN-F 450/750 V

FLAME RETARDANT + OIL RESISTANT



Application

For flexible or fixed installation in dry, humid or moist rooms and outdoor application with exposure to medium mechanical stress. If in the presence of explosive or flammable atmospheres adhere to EN 60079. The cable is not suitable for permanent immersion in water.

Technical data

Rated voltage:

- > 450/750 V
- > AC max. operating: 0,476/0,825 kV
- > DC max. operating: 0,619/1,38 kV

Test voltage:

- > 2.500 V

Bending radius:

- > Acc. to DIN VDE 0298-300

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Max. conductor temperature: +60°C
- > Short-circuit temperature: +250°C
- > Lowest temp. fixed installation: -40°C
- > Lowest temp. flexible installation: -25°C

Standard

- > DIN VDE 0298 part 300
- > EN 50525-2-21

Construction

Conductor:

- > Round
- > Multi-stranded copper wires
- > Acc. to IEC 60228 class 5.

Insulation:

- > Vulcanized rubber compound
- > EPR, type EI4
- > Acc. to EN 50363

Insulation colour:

- > 2-core: blue, brown

Inner sheath:

- > Vulcanized rubber compound
- > EPR, EM2/EM3 acc. to 50363
- > Wall thickness > 2,4 mm
- > Natural colour

Outer sheath:

- > Vulcanized rubber compound
- > EPR, EM2 acc. to 50363
- > Black

Material property

- > Flame retardant: Acc. to IEC 60332-1
- > Flame propagation: Acc. to IEC 60332-2
- > Ozone resistant: Acc. to EN 50396
- > Oil resistant: Acc. to EN 60811-404

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Outer diameter min. mm	Outer diameter max. mm	Outer sheath thickness nom. mm	Weight kg/km	Prysmian EAN no.
2 x 2,5	10,2	13,1	1,7	159	5999099006596
2 x 4	11,8	15,1	1,8	219	5999099006084
2 x 6	13,1	16,8	2,0	285	5999099006930

LOW VOLTAGE

DRAKAFLEX TARMO 450/750 V

FLAME RETARDANT + WEATHER PROOF

Application

Flexible, halogen free oil- and weather resistant cable for connection to moveable items and motors, outdoors, in spaces with fire and explosion risks, in humid rooms with corrosive contents and in hostile surroundings. Also for fixed installation up to 1 kV AC protected installation.

Technical data

Rated voltage:

- > 450/750 V
- > DC max. operating: 0,742/1,238 kV

Test voltage:

- > 2.500 V

Bending radius:

- > 6 x D

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C
- > Lowest temp. flexible installation: -50°C

Standard & Approval

Standard:

- > DIN VDE 0298 part 300
- > EN 50525-2-21

Approval:

- > <HAR>

Construction

Conductor:

- > Round
- > Multi-stranded copper wires
- > Acc. to IEC 60228 class 5.

Insulation:

- > Vulcanized rubber compound
- > EPDM, type EI6

Insulation colour:

- > 2-core: blue, brown

Inner sheath:

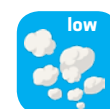
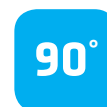
- > Vulcanized rubber compound
- > EPR, EM2/EM3 acc. to 50363
- > Wall thickness > 2,4 mm
- > Natural colour

Outer sheath:

- > Vulcanized rubber compound
- > EPR, EM2 acc. to 50363
- > Black

Material property

- > Flame retardant: Acc. to IEC 60332-1
- > Flame propagation: Acc. to IEC 60332-2
- > Halogen-free: Acc. to IEC 60754-1
- > Smoke density: Acc. to IEC 61034
- > Ozone resistant: Acc. to IEC 60811-2-1
- > Oil resistant: Acc. to EN 60811-404



Content is subject to changes acc. to current product development and or any changes to standards.

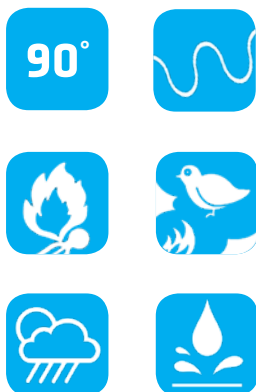
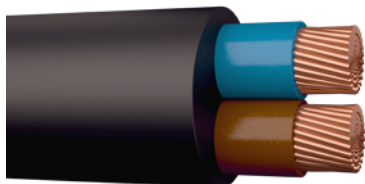
Conductor cross-section mm ²	Outer diameter nom. mm	Weight kg/km	Drum size	Standard lenght m	Prysmian EAN no.
2 x 2,5	11,1	159	K6	500	956502100205

2. Secondary airfield lighting

LOW VOLTAGE

ATON 450/750 V

FLAME RETARDANT + WEATHER PROOF



Application

Halogen free, fire retardant and oil resistant connection cable for dry, humid or wet indoor and outdoor applications. Also suitable for installation in potentially explosive atmospheres with medium mechanical stress. Load capacity in accordance with section 600 of the SFS Manual 523 (A.52-8) or EN 50565-1.

Technical data

Rated voltage:

- > 450/750 V

Test voltage:

- > 2.500 V

Tensile strength:

- > Max. 15 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short circuit temperature: +250°C
- > Lowest temp. flexible installation: -50°C

Standard & Approval

- > EN 50525-2-21
- > EN 50575:2014+A1:2016
- > KEMA-KEUR, <HAR>
- > CPR: Class Eca

Construction

Conductor:

- > Round
- > Multi-stranded annealed copper wires
- > Acc. to IEC 60228 class 5.

Insulation:

- > Vulcanized rubber compound
- > EPR
- > Halogen free

Insulation colour:

- > 2-core: blue, brown

Outer sheath:

- > Vulcanized rubber compound
- > ATON rubber
- > Weather proof
- > Halogen free
- > Black

Material property

- > Flame retardant: Acc. to IEC 60332-1
- > Halogen free: Acc. to IEC 60754
- > Oil resistant: Acc. to EN 60811-404

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Outer diameter nom. mm	Weight kg/km	Standard length m	Prysmian EAN no.
2 x 2,5	11	170	500	6410004874028
2 x 4	14	230	500	6410004874042
2 x 6	15	310	500	6410004874066

LOW VOLTAGE

FL2X2Y 0,6/1 kV

CABLE ACC. TO FAA L-824

Application

Halogen free cable for airfield lightning applications as per FAA L-824. Suitable for installation in secondary lightning circuit.

Technical data

Rated voltage:

- > 0,6/1 kV

Test voltage:

- > 4.000 V

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C

Standard & Directive

Standard:

- > FAA L-824 type C
- > IEC 60502-1

Directive:

- > REACH compliant

Construction

Conductor:

- > Round
- > Stranded copper wires
- > Acc. to IEC 60228 class 2.

Insulation:

- > XLPE
- > Thickness acc.to FAA L-824

Insulation colour:

- > 2-core: blue, black

Inner sheath:

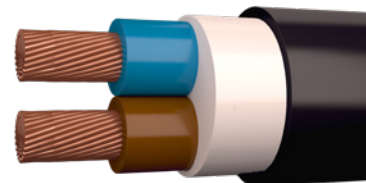
- > Special rubber compound
- > Grey

Outer sheath:

- > HDPE
- > Thickness acc. to FAA L-824
- > Black or orange

Material property

- > Halogen free: Acc. to FAA L-824



90°



Content is subject to changes acc. to current product development and or any changes to standards.

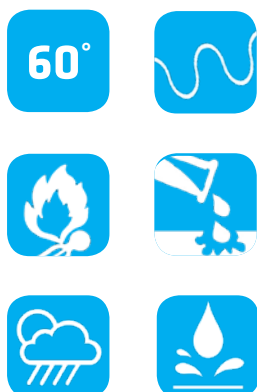
Conductor cross-section mm ²	Outer diameter nom. mm	Outer diameter max. mm	Weight kg/km	Standard lenght m
2 x 4	11,0	14,0	194	1000

Conductor cross-section mm ²	Conductor diameter max. mm	Max. DC resistance at 20°C Ω/km	Current carrying capacity A	Short circuit current of conductor kA
2 x 4	2,3	4,61	34	0,572

2. Secondary airfield lighting

LOW VOLTAGE

MAK CERTIFIED CABLE - 450/750 V FOR RUSSIAN TERRITORY



Application

For flexible or fixed installation in dry, humid or moist rooms and outdoor application with exposure to medium mechanical stress. If in the presence of explosive or flammable atmospheres adhere to EN 60079. The cable is not suitable for permanent immersion in water.

Technical data

Rated voltage:

- > 450/750 V
- > AC max. operating: 0,476/0,825 kV
- > DC max. operating: 0,619/1,38 kV

Test voltage:

- > 2.500 V

Bending radius:

- > Acc. to DIN VDE 0298-300

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Max. conductor temperature: +60°C
- > Short-circuit temperature: +250°C
- > Lowest temp. fixed installation: -40°C
- > Lowest temp. flexible installation: -25°C

Standard

- > DIN VDE 0298 part 300
- > EN 50525-2-21

Construction

Conductor:

- > Round
- > Multi-stranded copper wires
- > Acc. to IEC 60228 class 5.

Insulation:

- > Vulcanized rubber compound
- > EPR, type EI4
- > Acc. to EN 50363

Insulation colour:

- > 2-core: blue, brown

Inner sheath:

- > Vulcanized rubber compound
- > EPR, EM2/EM3 acc. to 50363
- > Wall thickness > 2,4 mm
- > Natural colour

Outer sheath:

- > Vulcanized rubber compound
- > EPR, EM2 acc. to 50363
- > Black

Material property

- > Flame retardant: Acc. to IEC 60332-1
- > Flame propagation: Acc. to IEC 60332-2
- > Ozone resistant: Acc. to EN 50396
- > Oil resistant: Acc. to EN 60811-404

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Outer diameter min. mm	Outer diameter max. mm	Outer sheath thickness nom. mm	Weight kg/km	Prysmian article no.
2 x 2,5	10,2	13,1	1,7	159	
2 x 4	11,8	15,1	1,8	219	
2 x 6	13,1	16,8	2,0	285	

Conductor cross-section mm ²	Bending radius fixed min. mm	Bending radius flexible min. mm	Conductor resistance at 20°C max. Ω/km	Current carrying capacity A	Short circuit current kA
2 x 2,5	34	45	7,98	24	0,4
2 x 4	51	64	4,95	32	0,64
2 x 6	58	73	3,3	41	0,95

FACTORY MOULDED CONNECTOR

FAA L-823 CONNECTOR - 1 kV

STYLE 6 - TWO SINGLE CORE SEPARABLE

Application

Watertight and irreversible two pole connector factory moulded onto two single core cables, for connection to the secondary of the isolating transformer.

Supplied as a prefabricated cable length and individual labelling as per customer requirement.

Applicable for indoor and outdoor installation either vertical or horizontal positioned or in concrete manhole. Connector can be energized immediately after plug-in.

Technical data

- > Rated voltage: 1 kV
- > Continuous voltage rating: max. 20 A

Temperature range

- > Max. operating temperature: +65°C
- > Lowest operating temperature: -55°C

Standard & Directive

- > FAA L-823, Type II, class A, style 6
- > ISO 9001 & REACH conformity
- > Watertight acc. to A07
- > Product code: FMCS-2 x 1C-1077-2

Construction

Design:

- > Two pole connector
- > Pre-moulded onto two single core cable

Connector material:

- > Elastomer outer sheath
- > Black

Cable length:

- > As per customer requirements

Cable type:

- > 2 single-core cable
- > Copper conductor
- > PE outer sheath



Content is subject to changes acc. to current product development and or any changes to standards.



65°

2. Secondary airfield lighting

FACTORY MOULDED CONNECTOR

FAA L-823 CONNECTOR - 1 kV

STYLE 1, 7 & 8 - TWO POLE SEPARABLE



Application

Watertight and irreversible two pole connector factory moulded onto two single core cables - for connection to the secondary of the isolating transformer.

Supplied as a prefabricated cable length and individual labelling as per customer requirement.

Applicable for indoor and outdoor installation either vertical or horizontal positioned or in concrete manhole. Connector can be energized immediately after plug-in.

Technical data

- > Rated voltage: 1 kV
- > Continuous voltage rating: max. 20 A

Temperature range

- > Max. operating temperature: +65°C
- > Lowest operating temperature: -55°C

Standard & Directive

- > FAA L-823, Type II, class A, style 1, 7 & 8
- > ISO 9001 & REACH conformity
- > Watertight: Acc. to AD7
- > Product code: FMCS-2C-1077
- > Product code: FMCS-2C-1075
- > Product code: FMCS-2C-1076

Construction

Design:

- > Two pole connector
- > Pre-moulded onto two single core cables

Connector material:

- > Elastomer outer sheath
- > Black

Cable length:

- > As per customer requirements

Cable type:

- > 2 single-core cable
- > Copper conductor
- > PE outer sheath



Content is subject to changes acc. to current product development and or any changes to standards.

SLIP-ON CONNECTOR

INTEGRO CONNECTOR KIT - 600V

FAA L-823, STYLE 5 & 12 - TWO POLE SEPARABLE

Application

Integro Secondary Connector Kit IS used to make serviceable in field splice connections on two conductor cable in secondary lighting circuits. They can be used to assemble a secondary extension, terminate a fixture lead, or connect a transformer secondary lead.

Both male and female connectors are molded in thermoplastic rubber for superior dielectric strength and to ensure watertightness.

Each kit comes with a molded male or female connector and connector housing, as well as an instruction sheet and grease packet for easy installation.

Technical data

- > Rated voltage: 0,6 V
- > Continuous voltage rating: max. 20 A

Standard & Directive

- > FAA L-823 - style 5 & 12
- > Approved to the FAA L-823 specification
- > Certified by Intertek Testing Labs
- > Acc. to FAA Advisory Circular 150/5345-26

Construction

Design:

- > Pre-fabricated
- > Two pole connector
- > Moulded housing

Connector housing:

- > Thermoplastic rubber
- > Watertight

Kit components - style 5:

- > Male pin and house
- > Two connector cables
- > Instructions

Kit components - style 12:

- > Female receptacle and housing
- > Two connector cables
- > Instructions

Cable range

Cable diameter:

- > From 10 to 16 AWG



Integro



Content is subject to changes acc. to current product development and or any changes to standards.

Integro Connector Kit L-823	Integro part no.	Cable type	Outer sheath diameter min. inches	Outer sheath diameter max.inches
Style 5	11432-31	10 - 12 AWG	0,415	0,500
Style 5	11432-41	10 - 12 AWG	0,510	0,600
Style 5	11432-32	14 - 16 AWG	0,415	0,500
Style 5	11432-42	14 - 16 AWG	0,510	0,600
Style 12	11433-31	10 - 12 AWG	0,415	0,500
Style 12	11433-41	10 - 12 AWG	0,510	0,600
Style 12	11433-32	14- 16 AWG	0,415	0,500
Style 12	11433-42	14 - 16 AWG	0,510	0,600

2. Secondary airfield lighting

SLIP-ON CONNECTOR

INTEGRO CONNECTOR KIT - 600 V

FAA L-823, STYLE 4 & 11 - TWO POLE SEPARABLE



Integro

Application

Integro Secondary Connector Kit is used to make serviceable in field splice connections on single wires in secondary lighting circuits. They can be used to assemble a secondary extension, terminate a fixture lead, or connect a transformer secondary lead.

Both male and female connectors are molded in thermoplastic rubber for superior dielectric strength and to ensure watertightness.

Each kit comes with a molded male or female connector and connector housing, as well as an instruction sheet and grease packet for easy installation.

Technical data

- > Rated voltage: 600 V
- > Continuous voltage rating: max. 20 A

Standard & Directive

- > FAA L-823 - style 5 & 12
- > Approved to the FAA L-823 specification
- > Certified by Intertek Testing Labs
- > Acc. to FAA Advisory Circular 150/5345-26

Construction

Design:

- > Pre-fabricated
- > Two pole connector
- > Moulded housing

Connector housing:

- > Thermoplastic rubber
- > Watertight

Kit components - style 4:

- > Male pin and house
- > Two connector cables
- > Instructions

Kit components - style 11:

- > Female receptacle and housing
- > Two connector cables
- > Instructions

Cable range

Cable diameter:

- > From 10 to 16 AWG



Content is subject to changes acc. to current product development and or any changes to standards.

Integro Connector Kit L-823	Integro part no.	Cable type	Outer sheath diameter min. inches	Outer sheath diameter max.inches
Style 4	11254-11	10 - 12 AWG	0,110	0,200
Style 4	11254-21	10 - 12 AWG	0,160	0,250
Style 4	11254-12	14 - 16 AWG	0,110	0,200
Style 4	11254-22	14 - 16 AWG	0,160	0,250
Style 11	11255-11	10 - 12 AWG	0,110	0,200
Style 11	11255-21	10 - 12 AWG	0,160	0,250
Style 11	11255-12	14 - 16 AWG	0,110	0,200
Style 11	11255-22	14 - 16 AWG	0,160	0,250



3. Airfield transformer

FIELD TRANSFORMER

INTEGRO ISOLATION TRANSFORMER

FAA APPROVED L-830 SERIE - 60 Hz



Integro



Application

Integro FAA approved serie of isolation transformers used to isolate high operating voltages for constant current airfield lights in a series circuit. They are encapsulated and designed to operate efficiently while submerged in water. They are approved to operate between +65°C and 55°C and can be installed above ground in metal cans or directly buried.

Installation area

Applicable for installation at most airports in the United States and Mexico, as well international countries in South America, Europe, Asia and Africa.

Approval & Testing

Designed for FAA L-830 specification and certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-47. Undergoen 100% quality testing which includes visual inspection, heat testing and HIPOT testing after heating and 12 hour soaking.

Construction

The insolation transformers are wound for 6.6 and 20 Amp primary circuit applications. They are encapsulated in thermoplastic rubber for superior durability and dielectric strength and are manufactured with 2 primary and 1 secondary FAA L-823 listed leads.

Leads

Style 2

Male Primary Lead on 8/1 cable, 24" long (Rated 25 Amps and 5,000 Volts)

Style 9

Female Primary Lead on 8/1 cable, 24" long (Rated 25 Amps and 5,000 Volts)

Style 8

Female Secondary Lead on 12/2 TPV cable, 48" long (Rated 20 Amps and 600 Volts)

Content is subject to changes acc. to current product development and or any changes to standards.

FAA Designation code	Integro part no.	Watt rating	Primary or secondary Amps	Design frequency Hz	Weight kg
L-830 - 16	11717	10/15 W	6,6/6,6	60	1,77
L-830 - 17	11729	20/25 W	6,6/6,6	60	1,95
L-830 - 1	11680	30/45 W	6,6/6,6	60	1,99
L-830 - 2	11681	30/45 W	20/6,6	60	1,90
L-830 - 3	11682	65 W	6,6/6,6	60	2,13
L-830 - 4	11683	100 W	6,6/6,6	60	3,81
L-830 - 5	11684	100 W	20/6,6	60	3,90
L-830 - 18	11730	150 W	6,6/6,6	60	3,90
L-830 - 19	11731	150 W	20/6,6	60	3,99
L-830 - 6	11685	200 W	6,6/6,6	60	4,58
L-830 - 7	11686	200 W	20/6,6	60	4,76
L-830 - 10	11736	300 W	6,6/6,6	60	4,94
L-830 - 11	11760	300 W	20/6,6	60	4,94
*L-830 - 9	*11516	300 W	20/20	60	7,71
*L-830 - 14	*11517	500 W	6,6/6,6	60	8,39
*L-830 - 15	*11529	500 W	20/6,6	60	7,17
*L-830 - 13	*11506	500 W	20/20	60	7,17

*not pictured above

FIELD TRANSFORMER

INTEGRO ISOLATION TRANSFORMER

FAA APPROVED L-831 SERIE - 50 Hz

Application

Integro FAA approved serie of isolation transformers used to isolate high operating voltages for constant current airfield lights in a series circuit. They are encapsulated and designed to operate efficiently while submerged in water. They are approved to operate between +65°C and 55°C and can be installed above ground in metal cans or directly buried.

Installation area

Applicable for installation at most airports in the United States and Mexico, as well international countries in South America, Europe, Asia and Africa.

Approval & Testing

Designed for FAA L-831 specification and certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-47. Undergoen 100% quality testing which includes visual inspection, heat testing and HIPOT testing after heating and 12 hour soaking.

Construction

The insolation transformers are wound for 6.6 and 20 Amp primary circuit applications. They are encapsulated in thermoplastic rubber for superior durability and dielectric strength and are manufactured with 2 primary and 1 secondary FAA L-823 listed leads.

Leads

Style 2

Male Primary Lead on 8/1 cable, 24" long
(Rated 25 Amps and 5,000 Volts)

Style 9

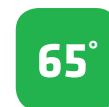
Female Primary Lead on 8/1 cable, 24" long
(Rated 25 Amps and 5,000 Volts)

Style 8

Female Secondary Lead on 12/2 TPV cable, 48" long (Rated 20 Amps and 600 Volts)



Integro



Content is subject to changes acc. to current product development and or any changes to standards.

FAA Designation code	Integro part no.	Watt rating	Primary or secondary Amps	Design frequency Hz	Weight kg
L-831 - 16	11732	10/15 W	6,6/6,6	50	1,77
L-831 - 17	11733	20/25 W	6,6/6,6	50	1,95
L-830 - 1	11710	30/45 W	6,6/6,6	50	1,99
	*11723	30/45 W	20/6,6	50	1,90
L-830 - 3	11712	65 W	6,6/6,6	50	2,13
L-830 - 4	11683	100 W	6,6/6,6	50	3,81
	*11714	100 W	20/6,6	50	3,90
L-830 - 18	11734	150 W	6,6/6,6	50	3,90
	*11731	150 W	20/6,6	50	3,99
L-830 - 6	11715	200 W	6,6/6,6	50	4,58
	11716	200 W	20/6,6	50	4,76

*) conforms to FAA L-831 specs

3. Airfield transformer

FIELD TRANSFORMER

INTEGRO ISOLATION TRANSFORMER

ICAO STYLE EARTHED - 50 Hz OR 60 Hz



Integro



Application

Integro FAA approved isolation transformers used to isolate high operating voltages for constant current airfield lights in a series circuit. They are encapsulated and designed to operate efficiently while submerged in water. They are approved to operate between -55 C and +65 C and can be installed above ground, in metal cans or direct buried.

Approval & Testing

Tested in accordance with the FAA L-830 (60Hz) and L-831 (50Hz) specifications per FAA Advisory Circular 150/5345-47. Also undergone 100% Quality Testing which includes visual inspection, heat testing and HIPOT testing.

Construction

The ICAO style earthed isolation transformers are equipped with an earthed stud for grounding in the field. Although earthed transformers are not listed under FAA guidelines. Manufactured in accordance with L-830 (60Hz) or L-831 (50Hz) specifications.

Leads

Style 2

Male Primary Lead on 8/1 cable, 24" long (Rated 25 Amps and 5,000 Volts)

Style 9

Female Primary Lead on 8/1 cable, 24" long (Rated 25 Amps and 5,000 Volts)

Style 8

Female Secondary Lead on 12/2 TPV cable, 48" long (Rated 20 Amps and 600 Volts)

Content is subject to changes acc. to current product development and or any changes to standards.

FAA Designation code	Integro part no.	Watt rating	Primary or secondary Amps	Design frequency Hz	Weight kg
ICAO earthed	11732-G	10/15 W	6,6/6,6	50	1,77
ICAO earthed	11733-G	25 W	6,6/6,6	50	1,95
ICAO earthed	11710-G	30/45 W	6,6/6,6	50	1,99
ICAO earthed	11723-G	30/45 W	20/6,6	50	1,90
ICAO earthed	11712-G	65 W	6,6/6,6	50	2,13
ICAO earthed	11683-G	100 W	6,6/6,6	50	3,81
ICAO earthed	11714-G	100 W	20/6,6	50	3,90
ICAO earthed	11734-G	150 W	6,6/6,6	50	3,90
ICAO earthed	11731-G	150 W	20/6,6	50	3,99
ICAO earthed	11715-G	200 W	6,6/6,6	50	4,58
ICAO earthed	11716-G	200 W	20/6,6	50	4,76

Airfield 3. transformer

FAA Designation code	Integro part no.	Watt rating	Primary or secondary Amps	Design frequency Hz	Weight kg
ICAO earthed	11717-G	10/15 W	6,6/6,6	60	1,77
ICAO earthed	11729-G	20/25 W	6,6/6,6	60	1,95
ICAO earthed	11680-G	30/45 W	6,6/6,6	60	1,99
ICAO earthed	11681-G	30/45 W	20/6,6	60	1,90
ICAO earthed	11682-G	65 W	6,6/6,6	60	2,13
ICAO earthed	11683-G	100 W	6,6/6,6	60	3,81
ICAO earthed	11684-G	100 W	20/6,6	60	3,90
ICAO earthed	11730-G	150 W	6,6/6,6	60	3,90
ICAO earthed	11731-G	150 W	20/6,6	60	3,99
ICAO earthed	11685-G	200 W	6,6/6,6	60	4,58
ICAO earthed	11686-G	200 W	20/6,6	60	4,76
ICAO earthed	11736-G	300 W	6,6/6,6	60	4,94
ICAO earthed	11760-G	300 W	20/6,6	60	4,94
ICAO earthed	*11516-G	300 W	20/20	60	7,71
ICAO earthed	*11517-G	500 W	6,6/6,6	60	8,39
ICAO earthed	*11529-G	500 W	20/6,6	60	7,17
ICAO earthed	*11506-G	500 W	20/20	60	7,17

* not pictured



TEMPORARY POWER DISTRIBUTION

QWPK 450/750 V

HEAVY DUTY PUR SHEATH

Application

Flexible, halogen free and oil resistant rubber cable for heavy-duty applications, where cables have to endure abrasion and dragging across rough or sharp surfaces.

Also excellent resistance to heavy mechanical stress, cold weather and ozone.

Technical data

Rated voltage:

- > 450/750 V

Test voltage:

- > 2.500 V

Bending radius:

- > 6 x D

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Operating temp: From -40°C to +75°C
- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C
- > Lowest temp. at installation: -40°C

Standard & Approval

Standard:

- > EN 50525

Approval:

- > <HAR>

Construction

Conductor:

- > Round and tinned
- > Multi-stranded copper wires
- > Acc. to IEC 60228 class 5.

Insulation:

- > Vulcanized rubber compound
- > EPR

Insulation colour:

- > 2-core: blue, brown
- > 3-core: blue, brown, green/yellow
- > 4-core: blue, brown, grey, green/yellow
- > 5-core: blue, brown, grey, blue, g/y

Inner sheath:

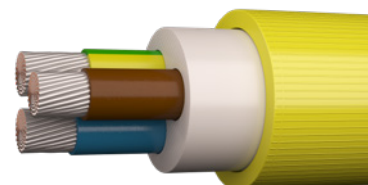
- > EPR
- > White or yellow

Outer sheath:

- > PUR, ribbed
- > Yellow

Material property

- > Halogen-free: Acc. to IEC 60754-1 & 2
- > Oil resistant: Acc. to EN 60811-404



Content is subject to changes acc. to current product development and or any changes to standards.

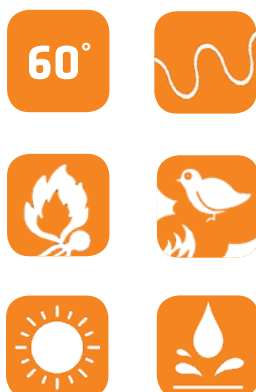
Conductor cross-section mm ²	Outer diameter nom. mm	Bending radius min. mm	Cable weight kg/km	Maximum tensile strength N	Prysmian EAN no
2 x 1,5	8,6	35	110	45	8711401038500
2 x 2,5	10,1	45	155	75	8711401099402
3 x 1,5	9,1	40	125	67	8711401100122
3 x 2,5	10,7	45	180	110	8711401100825
3 x 4	12,5	65	260	180	8711401101105
4 x 1,5	10,1	45	155	90	8711401100627
4 x 2,5	11,9	50	225	150	8711401100924
4 x 4	13,8	70	325	240	8711401101228
5 x 1,5	11,0	45	185	110	8711401100726
5 x 2,5	13,2	70	275	185	8711401127594
5 x 4	15,4	80	390	300	8711401101303
5 x 6	17,2	90	520	450	8711401127587

4. Temporary power distribution

TEMPORARY POWER DISTRIBUTION

H07RN-F 450/750 V

FLAME RETARDANT + WEATHER PROOF



Application

Flexible, halogen free, oil and weather resistant rubber cable for connection to portable equipment or motors. For indoor or outdoor installation.

Technical data

Rated voltage:

- > 450/750 V

Test voltage:

- > 2.500 V

Bending radius:

- > Fixed installation: Max 4 x D
- > Flexible installation: Max 5 x d

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Operating temp: From -25°C to +50°C
- > Max. conductor temperature: +60°C
- > Short-circuit temperature: +200°C
- > Lowest temp. at installation: -40°C

Standard & Directives & Approval

Standard: EN 50525

Directive: Fulfills REACH

Approval: <HAR>, CPR class Eca

Construction

Conductor:

- > Round and tinned
- > Multi-stranded copper wires
- > Acc. to IEC 60228 class 5.

Insulation:

- > EPR compound

Insulation colour:

- > 1-core: black
- > 2-core: blue, brown
- > 3-core: blue, brown, green/yellow
- > 4-core: blue, brown, grey, green/yellow
- > 5-core: blue, brown, grey, blue, g/y
- > 7-core: green/yellow, rest marked

Inner sheath:

- > EPR
- > Sheath thickness > 2,4 mm

Outer sheath:

- > Rubber compound, type EM2
- > Black

Material property

- > Flame retardant: IEC 60332-1-2
- > Halogen-free: IEC 60754-1 & 2
- > Oil resistant: EN 60811-404
- > UV resistant: EN 50396

Conductor cross-section mm ²	Outer diameter mm	Cable weight kg/km	Standard delivery m	Prysmian EAN no.
1x25	13,1	356	500	5999099005575
1x35	15,1	482	500	5999099004738
1x50	17,8	677	500	5999099004745
1x70	21,2	913	1000	5999099006626
1x95	22,8	1171	1000	5999099004752
1x185	30,2	2166	1000	5999099005148
1x240	33,5	2791	1000	5999099007753
1x300	36,6	3424	500	5999099005230
2x1	8,2	87	100	5999099005094
2x1,5	9,1	111	100	5999099005087
2x1,5	9,1	111	500	5999099005070
2x2,5	10,7	159	100	5999099005063
2x2,5	10,7	159	500	5999099006596

4. Temporary power distribution

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm²	Outer diameter mm	Cable weight kg/km	Standard delivery m	Prysmian EAN no.
3G1	8,9	105	100	5999099005209
3G1,5	9,8	134	50	5999099005049
3G1,5	9,8	134	100	5999099005216
3G1,5	9,8	134	500	5999099005179
3G2,5	11,5	192	50	5999099005025
3G2,5	11,5	192	500	5999099005032
3G4	13,2	267	500	5999099005018
4G1	9,7	130	100	5999099005001
4G1,5	10,7	166	100	5999099004998
4G1,5	10,7	166	500	5999099004981
4G1,5	10,7	166	500	5999099004769
4G2,5	12,8	240	500	5999099004974
4G4	14,5	335	500	5999099004967
4G6	16,4	448	500	5999099004950
4G10	21,9	820	500	5999099005261
4G16	24,8	1127	500	5999099005551
4G25	29,6	1688	500	5999099004912
4G35	34	2235	500	5999099004905
4G50	40,2	3149	500	5999099006329
4G70	40,2	3149	500	5999099004776
4G95	52,3	5506	500	5999099004783
5G1,5	11,8	201	50	5999099004936
5G1,5	11,8	201	100	5999099005162
5G1,5	11,8	201	500	5999099004943
5G1,5	11,8	201	500	5999099005193
5G2,5	13,8	290	100	5999099005247
5G2,5	13,8	290	500	5999099005186
5G4	16,2	412	500	5999099004929
5G6	27,6	550	500	5999099005254
5G10	24,1	990	500	5999099004899
5G16	27,5	1379	500	5999099005223
5G25	32,8	2029	500	5999099004882
5G35	37,4	2708	500	5999099004875
5G50	44,7	2899	500	5999099004790
7G1,5	15,3	329	500	5999099004868
12G1,5	18,5	488	1000	5999099004851

EXTERNAL POWER RECEPTACLE
HIGH VOLTAGE

DESERVE SAFETY
PRECAUTIONS
DO NOT REMOVE
PLUG UNLESS
POWER IS
OFF



AIRCRAFT GROUND POWER

RU 0,6/1 kV CL5 UNIT CABLE

OIL & MUD RESISTANT SHEATH

Application

Flexible cable for the 28 VDC ground power unit. Suitable for exposure to drilling or cleaning fluids, as fulfills the OIL & MUD resistance requirement acc. to NEK TS 606:2009.

Technical data

Voltage:

- > Rated voltage: 0,6/1 (1,2) kV
- > Test voltage: 3.500 V AC

Bending radius:

- > Fixed installation: Min. 8 x D
- > Flexible installation: Min. 6 x D

Tensile strength:

- > Max. 50 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C
- > Installation temperature min. -20°C

Standard

- > IEC 60092-353

Construction

Design:

- > 2 x 120 core + 2 x 1,5 signal cable

Conductor:

- > Tinned annealed copper wires
- > Acc. to IEC 60228 class 5. - flexible

Insulation:

- > EPR rubber
- > Acc. to IEC 60092-360
- > Core colours: Blue, brown

Lay up in interstices:

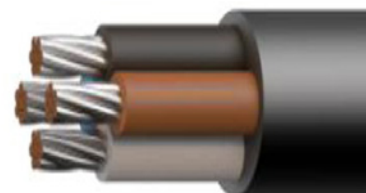
- > RU signal cable 2 x 1,5 mm²
- > 11 mm diameter filler
- > PET tape over

Outer sheath:

- > EVA compound compound, SHF2
- > Acc. to IEC 60092-360
- > Flame retardant & halogen free
- > Oil & MUD resistant NEK TS 606:2016
- > Weather resistant
- > Black

Material property

- > Flame retardant: IEC 60332-1-2 & -3-22
- > Halogen-free: IEC 60754-1 & 2
- > Low smoke: IEC 61034-1 & 2
- > UV resistant: Yes



Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Conductor diameter mm	Insulation thickness mm	Sheath thickness mm	Cable outer diameter mm	Cable weight kg/km
2 x 120 + 1 x 2,5	16,6	1,6	2,0	39,5	2300
1 x 2,5	1,6	1,0	1,1	9,5	

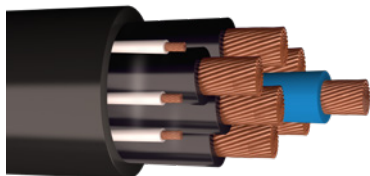
Conductor cross-section mm ²	Max. DC. resistance at 20°C Ω/km	Max. DC. resistance at 90°C Ω/km	Reactance at 50 Hz Ω/km	Reactance at 60 Hz Ω/km	Current rating IEC 60092-352 A
2 x 120 + 1 x 2,5	0,164	0,2091	0,070	0,084	237
1 x 2,5	13,7	17,47			

5. Aircraft ground power

AIRCRAFT GROUND POWER

400 Hz PRYFLEX AV8R - 1 kV

STATIC APPLICATION - 1 + 6 CORE



Application

Suitable for static applications under normal environmental conditions and for average mechanical stress. The installation is in cable trays, for cable clamps and for wall and ceiling fixations. Typical applications are in hangars, finger docks, service-ducts as well as other indoor installations for civil and military applications. Cable is halogen free and UV resistant.

Technical data

Voltage:

- > Rated voltage: 0,6/1 kV
- > Test voltage: 3.500 V AC

Bending radius:

- > Fixed installation: Min. 4 x D
- > Flexible installation: Min. 6 x D

Tensile strength:

- > Max. 15 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C

Standard

- > IEC 60502-1

Construction

Design:

- > 1 + 6 core

Phase cores:

- > Multi-stranded copper conductor
- > Acc. to IEC 60228 class 5.
- > XLPE insulation
- > Black with white numbering

Control cores:

- > Multi-stranded tinned copper conductor
- > Acc. to IEC 60228 class 5.
- > XLPE insulation
- > White with black numbering

Neural core:

- > Multi-stranded copper conductor
- > Acc. to IEC 60228 class 5.
- > XLPE insulation
- > Blue

Outer sheath:

- > PUR
- > Black

Material property

- > Halogen-free: IEC 60754-1
- > UV resistant: Yes

Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Conductor diameter mm	Cable outer diameter mm	Cable weight kg/km	Max. DC. resistance at 20°C Ω/km
7 x 70 + 6 (4 x 1)	10,8	44	5470	0,277
7 x 50 + 6 (4 x 1)	8,9	40	4030	0,393
7 x 35 + 6 (4 x 1)	7,5	36	2963	0,565
7 x 25 + 6 (4 x 1)	6,4	36	2300	0,795

Conductor cross-section mm ²	Max. rating current in free air 30°C A	Inductance mH/km	Max. conductor perm short current 1 sec. (KA)	Voltage drop at 70°C cos = 0,8 / 400 Hz mV/Am
7 x 70 + 6 (4 x 1)	379	0,113	10,1	0,318
7 x 50 + 6 (4 x 1)	329	0,112	7,15	0,364
7 x 35 + 6 (4 x 1)	267	0,117	5,0	0,443
7 x 25 + 6 (4 x 1)	210	0,121	3,58	0,535

AIRCRAFT GROUND POWER

400 Hz PRYFLEX AV8R - 1 kV

MOBILE APPLICATION - TRIPLEX

Application

Suitable for use in mobile and stationary applications under extreme operational conditions of mechanical stress and climate - indoors and outdoors. Typical applications are for example in underground pits, mobile 400 Hz diesel generator units, suspended cables for passenger bridges etc. for civil and military applications. The cable is reinforced with high strength fibers and abrasion, oil and UV-resistant as well as flame retardant.

Technical data

Voltage:

- > Rated voltage: 0,6/ 1 kV
- > Test voltage: 3.500 V AC

Bending radius:

- > Fixed installation: Min. 3 x D
- > Flexible installation: Min. 4 x D

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C

Standard

- > IEC 60502-1

Material property

- > Flame retardant: IEC 60332-1
- > Halogen-free: IEC 60754-1
- > Oil resistant: IEC 60811-2-1
- > UV resistant: Yes

Construction

Design:

- > Triplex core

Phase core conductor:

- > Multi-stranded tinned copper conductor
- > Acc. to IEC 60228 class 5.
- > ERP insulation
- > Black with white numbering

Neural core:

- > Multi-stranded tinned copper conductor
- > Acc. to IEC 60228 class 5.

Control core:

- > Multi-stranded tinned copper conductor
- > Acc. to IEC 60228 class 5.
- > XLPE insulation
- > White with black numbering

Inner sheath:

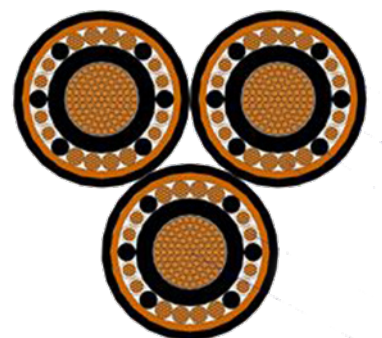
- > PUR, orange

Reinforcement:

- > Braiding of high strength fibers

Outer sheath:

- > PUR, black



Content is subject to changes acc. to current product development and or any changes to standards.

Conductor cross-section mm ²	Conductor diameter mm	Cable outer diameter mm	Cable weight kg/km	Max. DC. resistance at 20°C Ω/km
3 x (1 x 50 / 20 + 8 x 1)	9,4	45	2800	0,393
3 x (1 x 70 / 25 + 8 x 1)	11,2	48	3600	0,277

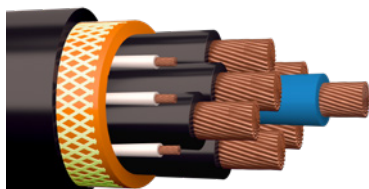
Conductor cross-section mm ²	Max. rating current in free air 30°C A	Inductance mH/km	Max. conductor perm short current 1 sec. (KA)	Voltage drop at 70°C cos = 0,8 / 400 Hz mV/Am
3 x (1 x 50 / 20 + 8 x 1)	220	0,324	7,14	0,869
3 x (1 x 70 / 25 + 8 x 1)	280	0,305	10,0	0,746

5. Aircraft ground power

AIRCRAFT GROUND POWER

400 Hz PRYFLEX AV8R - 1 kV

MOBILE APPLICATION - 1 + 6 CORE



Application

For flexible or static applications under extreme environmental conditions and high mechanical stress. In aircraft hangars, passenger boarding bridges, cable retrievers etc. For civil and military applications. The cable is reinforced with high strength fibers and is abrasion, oil and UV- resistant as well as flame retardant.

Technical data

Voltage:

- > Rated voltage: 0,6/ 1 kV
- > Test voltage: 3.500 V AC

Bending radius:

- > Fixed installation: Min. 4 x D
- > Flexible installation: Min. 6 x D

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C

Standard

- > IEC 60502-1

Material property

- > Flame retardant: IEC 60332-1
- > Halogen-free: IEC 60754-1
- > Oil resistant: IEC 60811-2-1
- > UV resistant: Yes
- > Torsion: 5000 cycles acc. to BG/T29631
- > Flexing: 3000 cycles acc. to IEC 60227-6

Construction

Design:

- > 1 + 6 core

Phase core:

- > Multi-stranded copper conductor
- > Acc. to IEC 60228 class 6.
- > ERP insulation
- > Black with white numbering

Control core:

- > Multi-stranded tinned copper conductor
- > Acc. to IEC 60228 class 5.
- > XLPE insulation
- > White with black numbering

Neural core:

- > Multi-stranded copper conductor
- > Acc. to IEC 60228 class 6.
- > ERP reinforced
- > ERP insulation
- > Blue

Inner sheath:

- > PUR, orange

Reinforcement:

- > Braiding of high strength fibers

Outer sheath:

- > PUR, black

Conductor cross-section mm ²	Conductor diameter mm	Cable outer diameter mm	Cable weight kg/km	Max. DC. resistance at 20°C Ω/km
7 x 35 + 6 (4 x 1)	8,3	44	3400	0,554
7 x 25 + 6 (4 x 1)	6,8	39	2650	0,780

Conductor cross-section mm ²	Max. rating current in free air 30°C A	Inductance mH/km	Max. conductor perm short current 1 sec. (KA)	Voltage drop at 70°C cos = 0,8 / 400 Hz mV/Am
7 x 35 + 6 (4 x 1)	270	0,118	5,0	0,441
7 x 25 + 6 (4 x 1)	215	0,119	3,57	0,552



5. Aircraft ground power

AIRCRAFT GROUND POWER

400 Hz AVIATION CABLE - 1 kV

MOBILE APPLICATION - 1 + 6 CORE SINGLE SHEATHED



Application

400 Hz single sheath aviation cable designed to be highly durable and versatile for all purpose and weather applications. Outer sheath is made of heavy duty reinforced thermoset materials and is flame, oil and ozone resistant. Suitable for indoors and outdoor application in severe flexing applications where oil, chemicals and extreme temperatures are considerations.

Technical data

Voltage:

- > Rated voltage: 0,6/ 1 kV
- > Test voltage: 3.500 V AC
- > Amps: 260

Bending radius:

- > Fixed installation: Min. 4 x D
- > Flexible installation: Min. 6 x D

Tensile strength:

- > Max.15 N/mm²

Temperature area

- > Max. conductor temperature: +90°C
- > Short-circuit temperature: +250°C
- > Min. installation temperature: -55°C

Standard & approvals

- > IEC 60502-1
- > ETL listed to UL standard

Construction

Design:

- > 1 + 6 core

Conductors

- > Copper extra flexible
- > Rope stranded acc. to class M
- > Acc. to ASTM B-3 & 172, UL-62

Power insulation:

- > Thermoset EPR r
- > Acc. to UL 1276

Neutral & control insulation:

- > Thermoplastic PP
- > Acc. to UL 1276

Outer sheath:

- > Coextruded neopren
- > Thermoset
- > Black

Material property

- > Flame retardant: Yes
- > Oil resistant: Yes
- > UV resistant: Yes

Content is subject to changes acc. to current product development and or any changes to standards.

Neutral conductor size AWG/mm ²	Power conductor size AWG/mm ²	Control conductor size AWG/mm ²	Shielded control conductor
1 x 1 AWG / 42,41	6 x 4 AWG / 21,15	16 x 18 AWG / 0,82	No
1 x 2/0 AWG / 67,44	6 x 2 AWG / 33,62	18 x 18 AWG / 0,82	Yes

Neutral conductor size AWG/mm ²	Jacket thickness nom. mm	Cable outer diameter nom. mm	Cable weight kg/km	Ampacity
1 x 1 AWG / 42,41	4,37	42,2	3347	260
1 x 2/0 AWG / 67,44	5,18	50,0	4990	300

AIRCRAFT GROUND POWER

CABLE CONNECTING ASSEMBLY

400 HZ MOULDED GROUND POWER CABLE ASSEMBLY

Application

400 Hz single jacket aviation cable with Integro molded plugs. The assembly is intended for use in aircraft to ground terminal applications.

The systems are supplied with standard length of 28 meter of 400 Hz single jacket aviation cable and quick and easy field replacable assembly components. Other lengths available upon request.

Special nose options (moulded or hard) extend the life time of moulded cables and protect against in-field wear and tear.

See cable details on the previous page.

Moulded nose

- > Molded in abrasion-resistant neoprene
- > Extends lifetime of molded cable plug
- > Field replaceable in minutes
- > E and F signal contact markings on side
- > Insertion marker for fully mated plug
- > Custom colors available

Hard nose

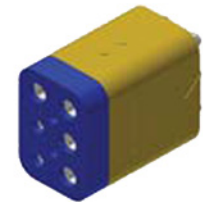
- > Include all benefits from moulded nose
- > Replaceable tip on nose
- > Highly density polymer
- > Abrasion resistant
- > Low coefficient of friction
- > Extended life time for molded nose
- > Reduces replacement costs
- > Field replacable in less than 60 seconds

Nose design

- > Spring design
- > Silver-plated copper
- > Maximum electrical conductivity
- > Double contacts points
- > Spring-loaded current bridges
- > Reduced overall contact resistance
- > Superior contact wiping
- > Rigid cylindrical receptacle
- > No damage from wear, tear or bending
- > No damage from heavy impacts

Moulded plug design

- > Abrasion resistant neoprene
- > Tapered interference seals
- > Watertight connection with nose
- > Molded grip rings for easy handling
- > Wear ribs for extend life time
- > Extended strain relief
- > Marker for ease in mating nose & body





EMERGENCY STOP SYSTEMS

PRESSLINE

PRESSURE SENSITIVE CABLE SYSTEM

Application

Pressline offers emergency stop activation over a continuous length that can include complex and convoluted routing. Traditional emergency stop buttons can leave staff with significant distances to travel before they can activate an emergency stop.

Pressline is a solid state system with no mechanical contacts. Most devices utilise mechanical contact that can fail, especially in industrial environments, leading to nuisance tripping and the need for regular inspections and maintenance. Unnecessary production stoppages are extremely costly, but can be eliminated with Pressline.

Pressline is an extremely cost effective solution. Installing Pressline around large industrial hazards can significantly reduce installation costs compared to traditional emergency stop systems.

Features & benefits

- > Continuous emergency stop switching along routes up to 10 km
- > Actuating cable can follow any route, regardless of its complexity
- > Solid state technology eliminates the nuisance tripping often associated with contact failure on traditional system
- > Low smoke and fume, zero halogen system options
- > Immune from vibration degradation
- > Maintenance free operation
- > Self-monitoring, fail safe system design
- > Quick and cost effective installation

Application area

- > Bottling plants
- > Assembly lines
- > Paper mills
- > Hi-tec manufacturing environments
- > Sorting and distribution centres
- > Quarries and mines

Specifications & approvals

- > Machinery Safety Directive 2006/42/EC
- > BS EN ISO 13849-1:2008
- > EMC directive 2014/30/EU, SB EN 61000-6-2 & 4

Pressure sensitive cable

The Pressline pressure sensitive cable is the primary element of the system and its vivid red outer sheath highlights its significance and presence in the industrial environment. It consists of two conducting layers held apart by a spacer thread.

When pressure is applied to the cable (whether as a result of pulling, bending or compression) the two conducting layers effectively make contact. The control unit interprets the resulting change in resistance as the actuation signal. The cable is available with 2 sheath types to enable exact installation requirements to be met.

- > Polyurethane (high abrasion resistance)
- > LSOH material (Superior reaction to fire)

Control unit

The pressline control unit employs dual micro-processing circuitry to continuously monitor the state of the pressure sensitive cable. Once the cable is actuated the control unit switches integral high specification safety relays and interfaces with machine control via output signals and volt free contacts.

LED indicators on the control unit advise the instantaneous system status. The control unit is available with different reset configurations so that the safety requirements of the installation environment can be complimented.

The unit can be operated at 240 V AC, 110 V AC or 24 V DC with selection made by insertion links. The enclosure is high impact polycarbonate with an Ingress Protection rating of IP55 and is therefore suitable for outdoor installation.

Reset

- > Push button
- > Key
- > Remote

Advantages

- > Available to all staff
- > Restricted to authorised staff
- > From remote and secure location

Termination box

Termination boxes are required at the start and finish of the Pressline cable run. For a loop system, where start and finish point of the run are the same, a single box is required. For other applications, a termination box is required at each end of the cable run.

Accessories

Installation is assisted by the use of CORNER CLEATS (to allow the cable to turn 90 degrees without tripping). END CLEATS (to secure the cable at the end of a linear run) and various cable cleats and SUPPORTS (to hold the cable throughout its route).

6. Emergency stop systems

EMERGENCY STOP SYSTEMS

PRESSLINE

PRESSURE SENSITIVE CABLE SYSTEM



Pressline Cable	Packaging quantity no.	Prysmian part no.
Polyurethane sheathed	Per meter	F105 720 966
LSOH sheathed	Per meter	F105 722 606
2 core interconnection cable	Per meter	F105 721 490



Pressline Control unit	Packaging quantity no.	Prysmian part no.
Control unit with push button reset	1	W8 2351 20 00
Control unit with key switch reset	1	W8 2350 20 00
Control unit with remote reset	1	W8 2352 20 00



Pressline Termination box	Packaging quantity no.	Prysmian part no.
Termination box with aluminium stove enamelled, grey	1	W8 2353 00 00
Termination box, gun grey	1	W8 2353 00 01



Pressline Corner cleat	Packaging quantity no.	Prysmian part no.
Corner cleat - nylon	5	W8 2356 00 03
Corner cleat - aluminium stove enamelled, grey	5	W8 2356 00 01
Corner cleat, gun grey	5	W8 2356 00 02



Pressline End cleat	Packaging quantity no.	Prysmian part no.
End cleat - nylon	2	W8 2355 00 03
End cleat - aluminium stove enamelled, grey	2	W8 2355 00 01
End cleat, gun metal	2	W8 2355 00 02



EMERGENCY STOP SYSTEMS

PRESSLINE

PRESSURE SENSITIVE CABLE SYSTEM

Pressline Cable support	Packaging quantity no.	Prysmian part no.
Galvanised steel pigtail	10	W8 2999 00 08
Suspension cable cleat	100	385AA-05
Floor mounting cable cleat	100	385AA-02



Pressline Termination accessories	Packaging quantity no.	Prysmian part no.
Cable termination kit	2	W8 2354 00 00
Sleeving tool	1	W8 4998 00 08
Crimping tool	1	W8 4998 00 07
Glands for control unit	2	W8 2999 00 32

Content is subject to changes acc. to current product development and or any changes to standards.

Transport and storage of cable drums

Even if cable and drum look very strong, there are certain rules to follow to avoid damage of the cable and an accompanying impairment of mechanical and electrical characteristics.

Transport and storage of cable drum

It is possible to store cable drums outdoors. When storage has occurred in heated rooms, a minimum 24-hour acclimatisation period must be observed before installation (possible condensation build-up in the cable!).

For outdoor storage the ground must be even and clean. Stones or bumps in the ground should be removed or smoothed out. Damage to the wound goods/cable should be avoided at all costs.

Cables should be secured against accidental rolling away. Under no circumstances should the drum flange of neighbouring cables touch any wound goods.

Cable drums should always be stored and transported standing on both flanges.

They should not be pushed along the ground standing on the flanges. It is possible that the strength of the cable drum would then no longer be guaranteed.

Observe the rolling direction. The arrow printed on the drum flange indicates the rolling direction so that the wound goods do not become loose.

Always uncoil the cable at a tangent, never over the flange, since the torsion thus resulting would damage the cable and laying would not be possible.

Cable ends

Finally it remains for us to point out the necessity of having faultless cable ends. Pressure-tight and impermeable cable ends are particularly essential for cables which are not longitudinally water-proof, as well as for cables which are insulated with paper, cellular-PE and foam-skin-PE. Carelessness in this area can lead to moisture penetration which is accompanied by a drastic deterioration in the electrical transmission rate. Power failures and expensive replacement work are the result.

Pressure-tight and impermeable cable ends can be achieved, for example, through the use of synthetic sealing resin or compressed air sealing stoppers.



Important physical characteristics

Temperature range

The temperature range of the cable is of great importance for both the user and fitter. After all the cable is meant to function equally well in cold and hot temperatures. It is particularly during the fitting process that powerful mechanical forces act on the cable. The plastic used serves as the limiting element for the possible temperature range. At overly warm temperatures the plastic becomes very soft and can change into a thermoplastic state (up to melting point), which causes irreversible changes in the cable.

At very cold temperatures, however, the material stiffens and becomes hard and inflexible. Here, too, irreparable damage can occur.

Tears in the sheath allow dampness and moisture in and impair the transmission rate. Details about the permissible temperature range during laying and use (following successful fitting) can be found in the information sheets of the cable manufacturer. Since the mechanical strain on the cable in its laid form is significantly less, the permissible temperature range is greater than the range valid for the installation period.

Bending radius

Regarding the bending radius we distinguish between multiple and single bending (shaping into the final position).

Multiple bending occurs mainly during the laying process. Cables are laid under tension around deflector rolls. The particular stress of multiple bending lies in the alternating stress on the materials, which can be stretched several times as well as compressed during the laying process.

To prevent permanent damage there are prescribed minimum bending radii of, for example, 10 x cable external diameter for multiple bending.

The stress on the material during final bending is not characterised by alternating stress. The cable is bent into form a final time and stays in this position for the duration of its use. The minimum bending radius in this case is, for example, 7.5 x cable external diameter. During final bending the cable can, therefore, be bent more tightly.

Exact minimum bending radii for specific cables can be found in the information sheets of the cable manufacturer.

Tension

During laying of the cable particular attention must be paid to the maximum possible tension. The cable is very quickly damaged by the use of too much force and must then be replaced. The maximum possible tension depends in the first place on the overall cross section and the tensile strength of the conducting materials used.

For cables with steel tape or copper wire spiral armouring it is the internal copper conductors alone which determine the maximum tension! The armouring has no influence on the maximum tension or can possibly reduce it through additional weight. For armouring with steel or steel profile wires, however, the tension is determined solely by the steel and steel profile wires.

Cable weight

The cable weight of larger cable dimensions can take weights of up to more than 10 t/km (without the reel!).

Our responsibilities

Social Responsibility

Within the social dimension of its business, the Prysmian Group recognises its commitment and responsibility towards the persons who work as part of the Organisation, as well as those who form the local communities in the territories in which the Group is active. Accordingly, consistent with its values, Prysmian constantly seeks to ensure the personal and professional satisfaction of its human resources, and to communicate with and involve local populations, in order to generate value for these important categories of stakeholder.

Environmental responsibility

The Group's commitment to safeguarding the environment and conserving natural resources is expressed not only by the intrinsic characteristics of our products, but also by how our production systems are managed. In particular, the prevention and reduction of their environmental impact is achieved, for example, by the efficient use of natural resources, the optimisation of logistics flows and the responsible management of waste.

During 2015, HSE further consolidated its activities at various levels within the Group (corporate, country or geographical area, business unit, production unit), centralising activities and coordinating the work of the local HSE functions. Group policies for Health, Safety and Environment, as well as the related Operating Procedures and Technical Standards, have been adopted and applied at operating unit level. The HSE function, with support from the Group audit team, periodically checks the effectiveness and proper application of the HSE rules at local level.

The aspects monitored by HSE using indicators include compliance with health and safety at work standards, energy consumption, waste management, water usage and greenhouse gas emissions. In particular, with reference to the greenhouse gas emissions, the Group has begun to collect energy consumption data in order to track both "direct" emissions (deriving from production processes) and "indirect" emissions (deriving from the energy purchased). This system of monitoring and reporting enabled the Group to participate in 2015, once again, in the Carbon Disclosure Project (CDP), which seeks to contribute to the pursuit of the objectives agreed in the Kyoto Protocol regarding the global reduction of greenhouse gas emissions

Product responsibility

Quality and innovation are the hallmarks of Prysmian's approach, both in sectors where the level of technology, the ability to innovate constantly and the commitment to offering high value-added services together establish a differentiated competitive positioning, and in those sectors where products are more standardised, such as medium and low-voltage cables. The Group applies a customer-centric approach, reflecting an ability to anticipate and satisfy the needs of customers with the maximum possible attention.



Our references worldwide

COUNTRY	AIRPORT	BUYER	PRODUCT
France	Regular Maintenance and Revamping of French Airports	SPIE, REXEL France, DCP Airports, Efficiencie, Compagnie de Signaux Electriques, Alpha Airport, INEO Engin. & systems, Thorn Airfield Ligting	FR-N10 XC7X-R + connectors
	Paris-Charles de Gaulle Airport (Roissy Airport)	ADP	FR-N10 XC7X-R + connectors
	Paris-Orly Airport		
Germany	Airbase Ramstein		PROTODUR FLYCY 5/10 kV
	Berlin Tegel, Schönefeld		
	Berlin Tempelhof		
	Berlin Schönefeld		
	City Airport Bremen		
	Düsseldorf International Airport		
	Hamburg-Fuhlsbüttel Airport		
	Köln-Bonn Airport Konrad Adenauer		
	Leipzig/Halle Airport (Schkeuditz Airport)		
	Stuttgart Airport Manfred Rommel		
Albania	Tirana International Airport Nene Tereza	National Airport Authority	PROTODUR FLYCY 5/10 kV
Azerbaijan	Heydar Aliyev International Airport (Baku)		PROTODUR FLYCY 5/10 kV
Belgium	French Airports	ADB, JDC	FR-N10 XC7X-R + connectors
Morocco	Casablanca Mohammed V International Airport	Aeroports du Maroc	FR-N10 XC7X-R + connectors
Netherlands	Amsterdam Schiphol	National Airport Authority	PRODOTUR FLYCY 5/10 kV
Pakistan	Bacha Khan International Airport + extension II	Siemens Pakistan	FAAL165 1x6 - 5kV - PR
	SUKKUR Airport	IKAN Engineering	
	Pakistan Airforce Base SAMUNGLI	Siemens Pakistan	
Russia	Sheremetyevo International Airport (Moscow)	National Airport Authority	PROTODUR FLYCY 5/10 kV
	Russian military Airport	AktivkapStroyService LLC	PFAAL164 1X6 5Kv - PFAAL173 1X6 5Kv
UK	Heathrow Airfield Lighting Upgrade	Ferrovial Agroman (UK) Ltd.	FAA-L-824 Type C - 8, 6 and 4 AWG / 5000 volt

COUNTRY	AIRPORT	BUYER	PRODUCT
USA	New York's JFK Airport Bay Runway Reconstruction	JFK International Airpor	FAA-L-824 Type C ./FAA-L-824 Type B 8, 6 and 4 AWG / 5000 volt
	US Airfield Lighting system	Greybar Distribution	
	US Airfield Lighting system	HyPOWER Systems	
	US Airfield Lighting system	KVE-Supply	
Uzbekistan	Tashkent Xalqaro airport	National Airport Authority	PROTODUR FLYCY 5/10 kV
Vietnam	Cat Bi Airport (Hai Phong)	National Airport Authority	FL2X(CT)2Y 1x8 AWG 2,5/5 kV
Norway	Gardermoen Oslo airport and other smaller airports in Norway	Airport Authority	PFSP 1 kV, EFSP 3 kV, PFSP-EMC 5 kV
Island	Keflavik International Airport	Airport Authority	FLYCY 5 kV

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