

5kV Airfield lighting cables
400Hz Ground power supply cables
Pressline emergency stop system



Linking the Future

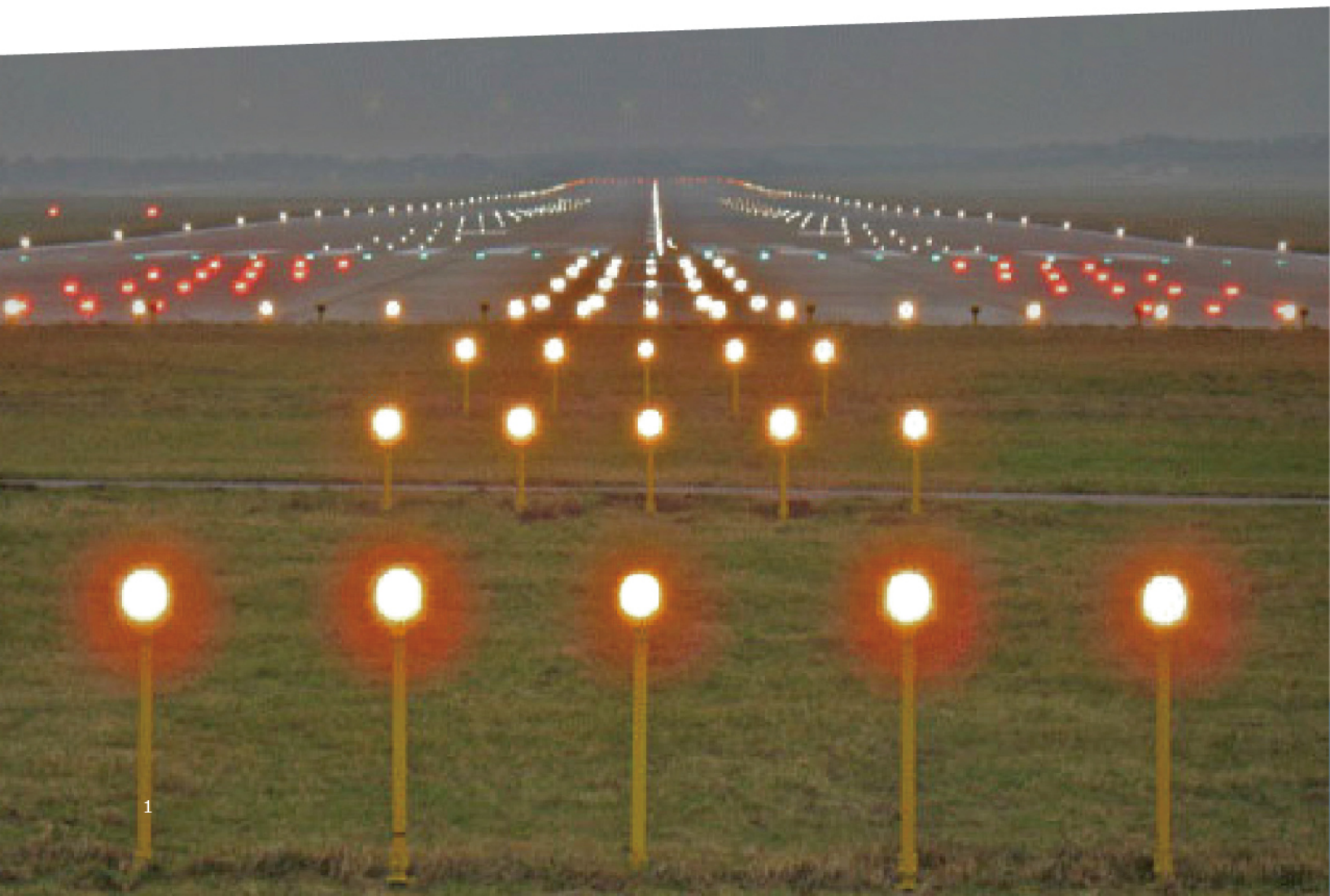
As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

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, profitable growth.

In 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.

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

Drawing on over 140 years' experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the precise needs of our customers across all continents, at the same time shaping the evolution of our industry.





Airfield Ground Lighting Cables

Introduction

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 airport cables and accessories ensure the continuous operation of these lighting systems, across airport runways, taxiways, buildings, towers and other obstacles.

Including connectors and terminations for medium-voltage and transformer circuits, Prysmian airport cables ensure airport safety worldwide. Adhering to the ICAO (International civil aviation organisation) standard, as well as national standards (FAA, BVM, NF and others), each product in the range has been designed to withstand constant exposure to water, UV radiation, cleaning fluids, defrosting fluids, fuel, oil and grease, mechanical stresses.



Ground Power Supply Cables

Introduction

Prysmian 400Hz ground power supply cables are specially designed for the power supply of aircraft, computer systems and radar stations, comprising both static cables in buildings as well as flexible connections between aircraft, passenger bridges, hangars and buildings. The 400Hz 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 future aircraft requirements.

We cater for a broad range of requirements, with cable types to reflect the applications in which they are employed. From standardized ranges cables type, we provide resistance to

severe mechanical, electrical, chemical, temperature and radioactive constraints, on the back of the unparalleled know-how and experience of Prysmian Group in materials and cables for all handling equipment and most demanding applications for flexible cables, from mining and crane to wind turbines, rolling stock and even subsea cables.

All our products are produced with dimension and weight-reduction requirements 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.



Pressline emergency stop system

Introduction

Pressline as Pysmian emergency stop system 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 proved particularly successful for conveyor systems in Airport Baggage Control. The actuating device is a patented pressure sensitive cable that can follow any route up to 10km. Activation is by pressing, bending 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, Pysmian has developed an enviable reputation for product quality and innovative design. Pysmian Components manufactures and supplies to accredited Business Management System BS EN ISO9001, BS EN ISO14001 and is certified to OHSAS 18001.

Index 目录

Airfield lighting cables

FAA L-824 Type B Primary Cable	page 7
Airport Unshielded and unsheathed Lighting Cables	page 8
Airport unshielded PVC sheathed Lighting Cables	page 9
Primary cable: Type C, unshielded lighting cable	page 10
Primary cable: Type C, shielded and sheathed lighting cable	page 11
Primary cable: Type B, unshielded and sheathed lighting cable	page 12
Primary cable: Type B, shielded and sheathed lighting cable	page 13
FAA-L-824 Type C Airport Lighting Power Cable	page 14
ICAO Style Earthed Series Isolation Transformers	page 15
L-823 “Complete Kit” Primary Connector Kits	page 16
L-823 Secondary Connector Kits	page 17

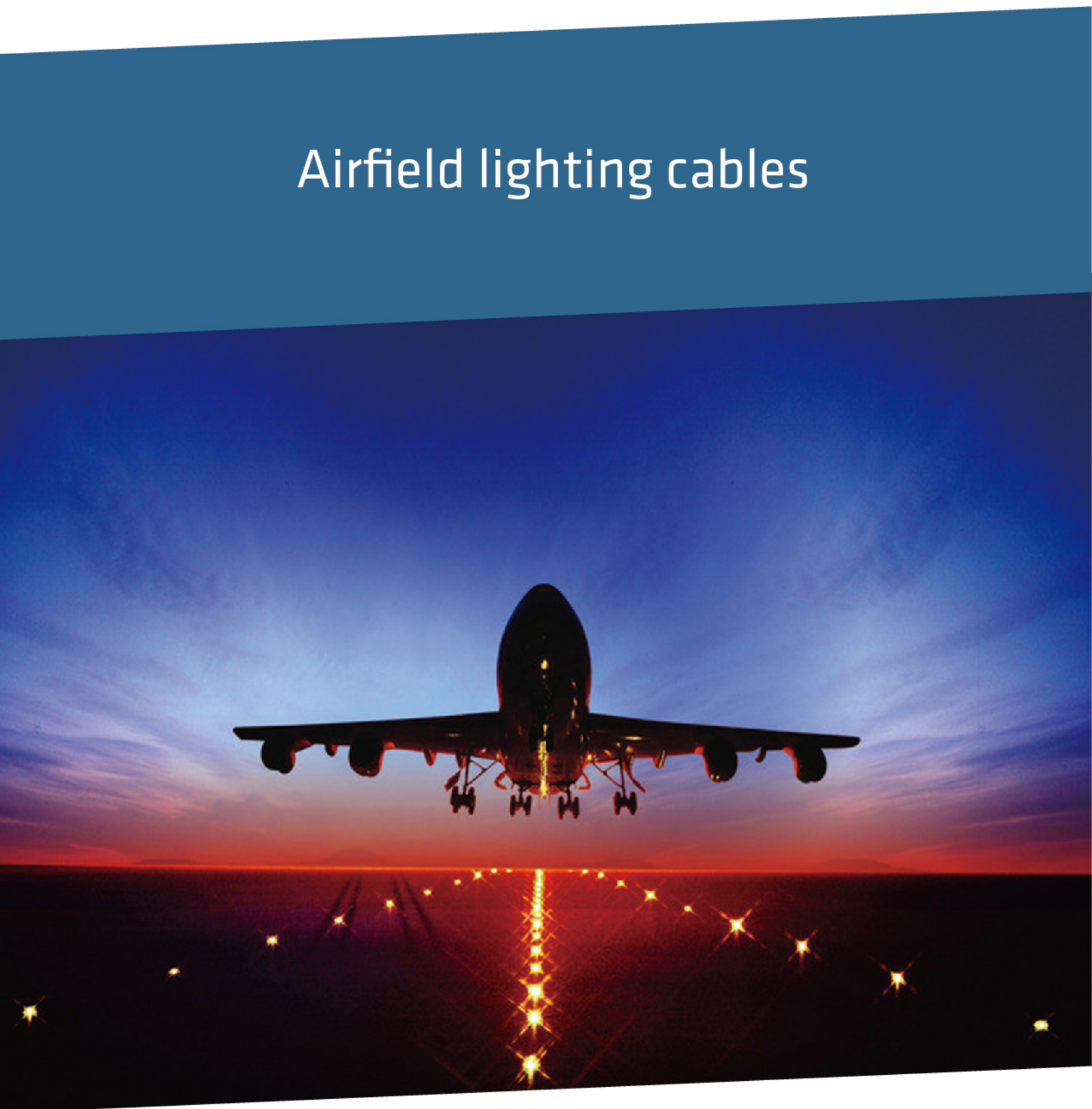
400Hz Ground power supply cables

PryFlex AV8R Ground Power Supply cables for Mobile application, 1+6 core	page 19
PryFlex AV8R Ground Power Supply cables for Mobile application, triplex core	page 20
PryFlex AV8R Ground Power Supply cables for Static application, 1+6 core	page 21

Pressline emergency stop system

Pressline emergency stop system	page 23
--	---------

Airfield lighting cables



FAA L-824 Type B Primary Cable Single Conductor/CPE Jacket/EPR Insulation/5kV

Components

- A:** #8 AWG Class B (7 strand), soft drawn, bare copper.
- B:** 4-mil thick semi-conducting tape longitudinally applied over the conductor.
- C:** 90 mils (2.29 mm) of heat and moisture resistant, ethylene propylene rubber (EPR).
- D:** 30 mils (0.76 mm) of heat and moisture resistant, thermoplastic chlorinated polyethylene (CPE).

Electrical / Optical Characteristics

Voltage: 5kV

Specifications

- Conductor:** ASTM B 3, ASTM B 8
- Insulation:** ICEA S-96-659 (NEMA WC 71) and FAA L-824 Type B
- Jacket:** ICEA S-96-659 (NEMA WC 71) and FAA L-824 Type B

Ratings

FAA L-824

The cable is suitable for use in ducts or direct burial installations.

Physical Characteristics

- Cable Weight:** 118 lb/mft (176 kg/km)
- Copper Weight:** 51 lb/mft (76 kg/km)
- Nominal Cable OD:** 0.410 in (10.4 mm)
- Colour:** Black

- Maximum Pulling Tension: By conductor:** 129 lb (573 N)
- Maximum Pulling Tension: By jacket grip:** 129 lb (573 N)
- Minimum Bending Radius: Training:** 1.7 in (4.3 cm)
- Minimum Bending Radius: Pulling:** 2.6 in (6.6 cm)



PROGRAM ADMINISTRATOR
DEPARTMENT ALECP
INTERTEK
3933 U.S. ROUTE 11
CORTLAND, NY 13045-0950

DRAKA CABLETEQ USA
1 TAMAQUA BLVD
SCHUYLKILL HAVEN, PA 17872

REVISION DATE: November 12, 2016

ORIGINAL ISSUE DATE: July 28, 2010

Recertification due: July 2018

An Activity Sponsored and Administered by
Intertek

**AIRPORT LIGHTING
EQUIPMENT
CERTIFICATION PROGRAM
CERTIFICATE OF
CONFORMANCE**

The product described below is hereby approved for listing in the next issue of the Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5345-53, Appendix 3 Addendum "Airport Lighting Equipment Certification Program". The approval is based on successful completion of tests in accordance with the specifications listed in, and the requirements for approval described in the Advisory Circular, and the reporting to the Program Administrator the results of such tests, accompanied by related documents by an Intertek recognized testing laboratory. This Certificate is only confirmable in conjunction with equipment being listed in AC 150/5345-53, Appendix 3, Addendum, as currently published by the FAA. The certification is not valid for a product modified with non-OEM replacement parts or non-production components.

L-824 - Underground Electrical Cable for Airport Lighting Circuits (AC 150/5345-53)			Manufacturer's Catalog Number
Manufacturer	Type	Voltage Rating	
Draka Cableteq USA	B	5000	388270; 388270-XX; 388271; 388271-XX; 388150; 388150-XX
	B	5000	389270; 389270-XX; 389271; 389271-XX; 389150; 389150-XX
	C	5000	389171; 389171-XX; 389172; 389172-XX; 389181; 389181-XX
	C	5000	389201; 389201-XX; 389202; 389202-XX; 389203; 389203-XX
C	5000	389221; 389221-XX; 389222; 389222-XX; 389223; 389223-XX	

1. This Equipment requires continuing validation in accordance with the requirements of AC 150/5345-53, and the Intertek Airport Lighting Equipment Certification Program.


2. Product tested and Report issued by: Draka Cableteq, USA

(A) Report No: 2010-07-011; 2014-05-033; 2015-09- (B) Date of Report: 7/2010; 6/2014; 10/2015

026

NOTE: PLEASE REVIEW, AND ADVISE
ADMINISTRATOR AT INTERTEK IMMEDIATELY
IF DATA, AS SHOWN, NEED TO BE
CORRECTED.

Approved for Certification by:


Jeremy N. Downs, PE, Program Administrator
Date: November 12, 2015

Form AL-3 1/2006

Colourable FAA-L-824 Type C Primary Cable Single conductor for airport lighting / 8, 6 & 4 AWG / XLPE insulation / 5kV



Applications

These are single conductor 5kV non shielded power cables suitable for L-824 underground installation for lighting at airports per FAA L-824 Type C and AC 150/5345-53 Appendix 3. FAA L-824 cables are suitable for use at 90°C wet or dry in conduit, duct, aerial and direct burial installations.

This cable is available in solid colours for permanent circuit identification: blue, grey, orange, green, red, white, yellow, black and terracotta.

Specifications and Ratings

- FAA Advisory Circular 150/5345-7E Airport Lighting Equipment Certification Program AC150/5345-53 appendix 3 in accordance with Underground Electrical Cable for Airport Lighting Circuits per spec L-824 and ICEA S-96-659 (NEMA WC71).**
- Draka's airport lighting cables have been certified as 100% Buy American by the FAA.**

Airport Unshielded and unsheathed Lighting Cables

Standard

Based on FAA-L-824

Cable Type

FL2X

Nominal Voltage

5000 V

Electrical and Dimensions Tests

According to FAA-L-824

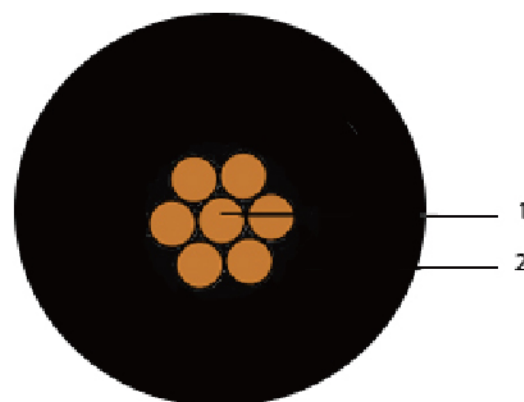
1. Conductor

Stranded annealed copper conductor, according to FAA-L-824

2. Insulation & Sheath

XLPE Insulation according to FAA-L-824

Insulation thickness according to FAA-L-824



Outer sheath Marking

PRYSMIAN FL2X 1x16 2,5/5 kV YEAR and METER

Core No. Of cross-sec. Area	Conductor			Insulation		Cable		Weight Max. Kg/km	Current Carrying Capacity in air
	No. Of wire & wire diameter	Max. DC Resistance at 20°C	Diameter	Insulation thickness	Min. Thickness at any point	Diameter Min.	Diameter Max.		
N x mm ²	N x mm	Ohm/km	mm	mm	mm	mm	mm		
1x6 mm ²	7x1,02	3,08	3,06	2,80	2,42	9,0	10,5	106,0	73
1x10 mm ²	7x1,32	1,83	3,96	2,80	2,42	9,8	11,4	150,0	101
1x16 mm ²	7x1,75	1,15	4,75	2,80	2,42	10,6	12,0	204,0	137

Airport unshielded PVC sheathed Lighting Cables

Standard

Based on FAA-L-824 and TS IEC 60502

Cable Type

FL2XY

Nominal Voltage

5 kV

Electrical and dimensions tests

According to FAA-L-824 and IEC 60502

1. Conductor

Stranded annealed copper conductor, according to IEC 60502

2. Insulation

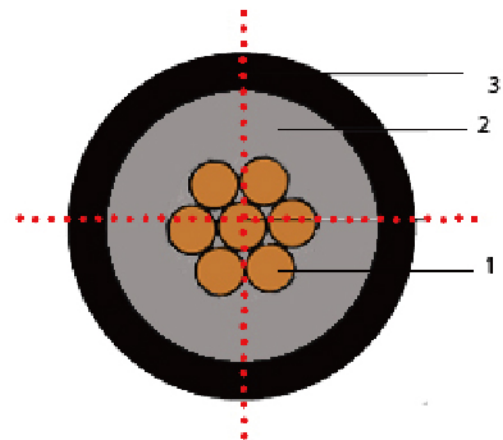
XLPE Insulation according to IEC 60502

Insulation thickness according to customer drawing

3. Outer Sheath

PVC sheath according to IEC 60502-2

Sheath thickness according to Customer drawing



Outer sheath Colour

Black

Outer sheath marking

PRYSMIAN FL2XY 1x6 5 kV YEAR and METER

Core No. Of cross-sec. Area N x mm ²	Conductor			Insulation		Cable		Weight Max. Kg/km	Current Carrying Capacity in air
	No. Of wire & wire diameter N x mm	Max. DC Resistance at 20°C Ohm/km	Diameter mm	Insulation thickness mm	Min. Thickness at any point mm	Diameter Min. mm	Diameter Max. mm		
1x6 mm ²	7x1,02	3,08	3,1	3,0	2,60	1,2	11,5	165,0	101

Primary cable: Type C, unshielded lighting cable 5kV CU/XLPE

Standard

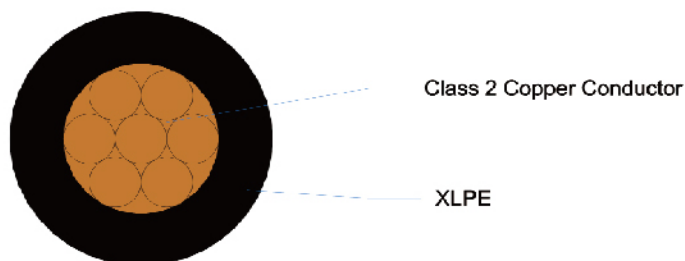
Refer to IEC60502-2, FAA AC 150/5345-7F(L824)

Conductor

Class 2 uncompact copper conductor

Insulation

XLPE Black (Note: Colour per customer request)



Characteristics

Rated voltage	5kV
AC test voltage	13kV/5min
Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Min. bending radius	15D

Marking:

Eg.: PRYSMIAN TIANJIN CABLES CO., LTD. CU/XLPE 5kV 1X** year *** m

Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C Ω /km
1X10	4.1	10.1±2	155	1.83
1X16	5.1	11.1±2	217	1.15
1X25	6.4	12.4±2	313	0.727

Primary cable: Type C, shielded and sheathed lighting cable 5kV CU/XLPE/CT or BT /HDPE or PVC

Standard

Refer to IEC60502-2, FAA AC 150/5345-7F(L824)

Conductor

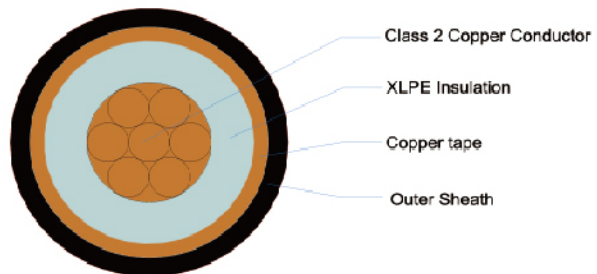
Class 2 uncompact copper conductor

Insulation

XLPE

Screen

Copper tape or Brass tape



Outer sheath

HDPE or PVC Black (Note: Colour per customer request)

Characteristics

Rated voltage	5kV
AC test voltage	13kV/5min
Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Min. bending radius	15D

Marking:

Eg.: PRYSMIAN TIANJIN CABLES CO., LTD. CU/XLPE/CT/HDPE 5kV 1X** year *** m

Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C Ω /km
1X6	3.1	11.9±2	185	3.08
1X10	4.1	12.9±2	238	1.83
1X16	5.1	13.9±2	308	1.15
1X25	6.4	15.2±2	412	0.727

Primary cable: Type B, unshielded and sheathed lighting cable 5kV CU/EPR/HDPE or CPE

Standard

Refer to IEC60502-2, FAA AC 150/5345-7F(L824)

Conductor

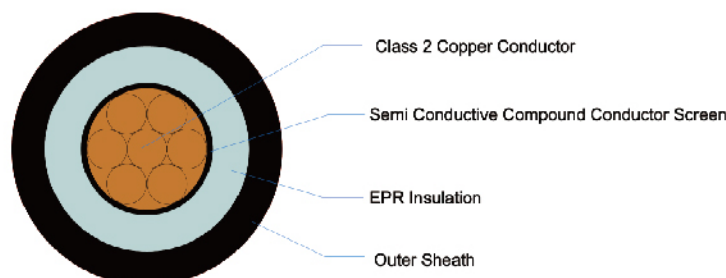
Class 2 uncompact copper conductor

Semi-conductive compound layer

Semi-conductive compound layer

Insulation

EPR



Outer sheath

HDPE or CPE Black (Note: Colour per customer request)

Characteristics

Rated voltage	5kV
AC test voltage	13kV/5min
Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Min. bending radius	6D

Marking:

Eg.: PRYSMIAN TIANJIN CABLES CO., LTD. CU/EPR/HDPE 5kV 1X** year *** m

Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C Ω /km
1X10	4.1	13.3±2	236	1.83
1X16	5.1	14.3±2	307	1.15
1X25	6.4	15.6±2	411	0.727

Primary cable: Type B, shielded and sheathed lighting cable 5kV CU/EPR/CT or BT/HDPE or CPE

Standard

Refer to IEC60502-2, FAA AC 150/5345-7F(L824)

Conductor

Class 2 uncompact copper conductor

Semi-conductive compound layer

Semi-conductive compound layer

Insulation

EPR

Semi-conductive Tape

Semi-conductive tape

Screen

Copper tape or Brass tape

Outer sheath

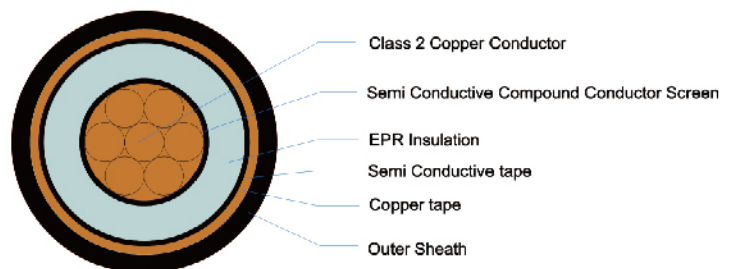
HDPE or CPE Black (Note: Colour per customer request)

Characteristics

Rated voltage	5kV
AC test voltage	13kV/5min
Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Min. bending radius	15D

Marking:

Eg.: PRYSMIAN TIANJIN CABLES CO., LTD. CU/EPR/HDPE 5kV 1X** year *** m



Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C Ω /km
1X6	3.1	13.5±2	232	3.08
1X10	4.1	14.5±2	289	1.83
1X16	5.1	15.5±2	365	1.15
1X25	6.4	16.8±2	474	0.727

FAA-L-824 Type C Airport Lighting Power Cable

Single conductor /8, 6 and 4 AWG/XLPE insulation/Shield/PVC jacket/5kV

Applications

These are single conductor 5kV shielded power cables suitable for underground installation for use as airport lighting circuits per FAA L-824 Type C and listed in the FAA AC 150/5345-53 Appendix 3. They are rated for use at 90°C in wet or dry conditions. FAA L-824 cables are suitable for use in conduit, duct, aerial and direct burial installations up to 5kV. The PVC jacket offers additional protection from de-icing fluids. Copper shielding provides protection against EMI. Draka's airport lighting cables have been certified as 100% Buy American by the FAA.

Ratings and Approvals

FAA Advisory Circular 150/5345-7E Airport Lighting Equipment Certification Program per AC150/5345-53 Appendix 3 Underground Electrical Cable for Airport Lighting Circuits per spec L-824 Type C ICEA S-93-639 / NEMA WC74 UL-1072 Type MV-90.

DRAKAFLEX H07RNF Secondary Cable

Flexible cable with Polychloroprene sheath



Electrical properties:

Voltage rating: 450/750 V

Test voltage: 2,5 kV

Applications

- Flexible connection of electrical equipment, like machines, engines, tools and other appliances in factories and workshops, in situations where medium mechanical stress occurs.
- The multicore types are very suitable as control cables for the connection of portable electrical appliances, especially when the cords have to endure rough usage.

Properties regarding fire performance:

- Self-extinguishing in accordance with NENENIEC 603321

DrakaFlex H07 RN-F

117313 - 2.5mm x 2

117309 - 2.5mm x 3

General properties:

- Very flexible
- Strong and abrasion resistant sheath
- Excellent resistance to oil and greases
- Good resistance to weather influences (including ozone)
- Moderate waterproof

117531 - 4.0mm x 2

117533 - 4.0mm x 3

117532 - 6.0mm x 2

117534 - 6.0mm x 3

Remarks:

- For special water resistant applications choose NWPK AQUA

ICAO Style Earthed Series Isolation Transformers 50 Hz and 60 Hz

Applications

Integro FAA approved series isolation transformers are 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.

Approvals

Integro ICAO style earthed series isolation transformers are tested in accordance with the FAA L830 (60 Hz) and L831 (50 Hz) specifications per FAA Advisory Circular 150/5345-47. All Integro earthed transformers undergo 100% quality testing which includes visual inspection, heat testing and HIPOT testing.

Design

Integro ICAO style earthed series isolation transformers are equipped with an earthed stud for grounding in the field. Although earthed transformers are not listed under FAA guidelines, Integro earthed transformers are manufactured in accordance with L830 (60 Hz) or L831 (50 Hz) specifications.

Design Frequency 50Hz

Integro Part #	Description	Primary/Secondary	Weight (kg)
11732-G	10/15W	6.6/6.6	1.63
11733-G	25W	6.6/6.6	1.63
11710-G	30/45W	6.6/6.6	1.97
11723-G	30/45W	20/6.6	1.91
11712-G	65W	6.6/6.6	2.07
11683-G	100W	6.6/6.6	3.9
11714-G	100W	20/6.6	3.86
11734-G	150W	6.6/6.6	3.9
11731-G	150W	20/6.6	3.9
11715-G	200W	6.6/6.6	4.81
11716-G	200W	20/6.6	4.67

Design Frequency 60Hz

Integro Part #	Description	Primary/Secondary	Weight (kg)
11717-G	10/15W	6.6/6.6	1.64
11729-G	20/25W	6.6/6.6	1.91
11680-G	30/45W	6.6/6.6	1.91
11681-G	30/45W	20/6.6	1.91
11682-G	65W	6.6/6.6	2.04
11683-g	100W	6.6/6.6	3.9
11684-G	100W	20/6.6	3.86
11730-G	150W	6.6/6.6	3.9
11731-G	150W	20/6.6	3.9
11685-G	200W	6.6/6.6	4.81
11686-G	200W	20/6.6	4.67
11736-G	300W	6.6/6.6	5.22
11760-G	300W	20/6.6	5.67
11755-G	300W	20/20	5.67



The leads are:

- Style 2 - Male Primary Lead on 8/1 cable, 24" long
- Style 9 - Female Primary Lead on 8/1 cable, 24" long
(Both leads are rated 25 Amps and 5kV)
- Style 8 - Female Secondary Lead on 12/2 SOW cable
(rated 20 Amps and 600V) 48" long

L-823 “Complete Kit” Primary Connector Kits Style 3 and 10

Application

Integro “Complete Kit” primary connector kits are 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. Where they are used Integro “Complete Kit” primary connector kits are used on all installations with our transformers and are therefore installed in all the same regions.

Approvals

Integro “Complete Kit” primary connector kits are approved to the FAA L-823 specification and are certified by ITS Testing Labs to FAA Advisory Circular 150/5345-26.

Design

Integro “Complete Kit” primary connector kits are moulded in thermoplastic rubber for superior dielectric strength, and to ensure watertight connections in the field. Each moulded kit housing is filled with insulating silicone to fill voids. They are rated 25 Amps and 5kV.

Ordering Information

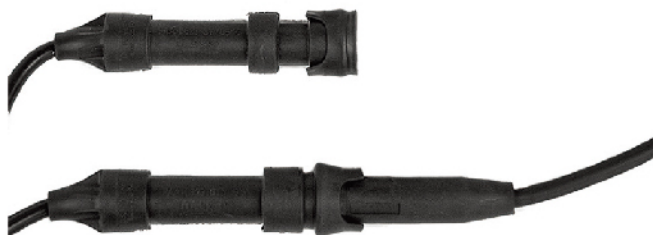
11805 - XX

(XX - Size Code)

FAA Listing	Integro Part #	Cable	Min OD (mm)	Max OD (mm)	Weight (kg)
L-823	11805-01	8 AWG	7.62	10.16	0.15
Style 3 & 10	11805-04	6 AWG	9.65	12.7	0.15
	11805-05	8 AWG	7.62	10.16	0.15
	11805-02	6 AWG	9.65	12.7	0.15

Each Primary Connector Kit includes:

- Style 3 male pin
- Style 3 male housing
- Instruction sheet
- Style 10 female receptacle
- Style 10 male housing
- Paper wipe for cleaning



L-823 Secondary Connector Kits

Application

Both types of Integro secondary connector kits are used to make serviceable in field splice connections on both single wires (Style 4 and Style 11) and two conductor cable (Style 5 and Style 12) in secondary lighting circuits. They can be used to assemble a secondary extension, terminate a fixture lead, or connect a transformer secondary lead.

Approvals

Integro secondary connector kits are approved to the FAA L-823 specification and are certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-26.

Design

Both types of Integro male and female secondary connector kits are molded in thermoplastic rubber for superior dielectric strength, and to ensure watertight connections in the field. Each kit comes with a moulded male or female connector and connector housing, as well as an instruction sheet and grease packet for easy installation. They are rated 20 Amps and 600 volts.

Ordering Information

11254-XX Style 4 Male - two wires
 11255-XX Style 11 Female - two wires
 11432-XX Style 5 Male - two conductor cable
 11433-XX Style 12 Female - two conductor cable
 (XX - Size Code)

Style 4 and Style 11



FAA Listing	Integro Part #	Cable	Min OD (mm)	Max OD (mm)
L-823	11254-11	10-12 AWG	2.8	5.0
Style 4	11254-21	10-12 AWG	4.0	6.4
	11254-12	14-16 AWG	2.8	5.0
	11254-22	14-16 AWG	4.0	6.4
Style 11	11255-11	10-16 AWG	2.8	5.0
	11255-21	10-16 AWG	4.0	6.4
	11255-12	14-16 AWG	2.8	5.0
	11255-22	14-16 AWG	4.0	6.4

Style 5 and Style 12



FAA Listing	Integro Part #	Cable	Min OD (mm)	Max OD (mm)
L-823	11432-31	10-12 AWG	10.5	12.7
Style 5	11432-41	10-12 AWG	13.0	15.2
	11432-32	14-16 AWG	10.5	12.7
	11432-42	14-16 AWG	13.0	15.2
Style 12	11433-31	10-16 AWG	10.5	12.7
	11433-41	10-16 AWG	13.0	15.2
	11433-32	14-16 AWG	10.5	12.7
	11433-42	14-16 AWG	13.0	15.2

400 Hz Ground power supply cables



400Hz Ground Power Supply cables PryFlex AV8R Ground Power cables for Mobile application, 1+6 core

Standard

Refer to IEC60502-1

Phase Core Conductor

Class 6 bare copper conductor

Insulation

EPR Black core with white num.

Neutral Core Conductor

Class 6 bare copper conductor , FRP reinforced

Insulation

EPR Blue

Control Core Conductor

Class 5 tinned copper conductor

Insulation

XLPE white core with black num.

Inner sheath

PUR Orange

Reinforcement braiding

High strength fibers

Outer sheath

PUR Black (Note: Colour per customer request)

Characteristics

Rated voltage

0.6/1kV

AC test voltage

3.5kV/5min

Max. permissible temperature at conductor

90 °C

Max. short circuit temperature of the conductor

250 °C

Min. bending radius

Static

4D

Mobile

6D

Fire retardant

IEC 60332-1

Halogen free

IEC 60754-1

Resistance to oil

IEC 60811-2-1

Resistance to abrasion

YES

UV resistance

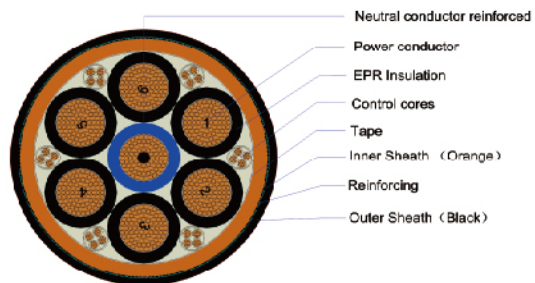
YES

Resistance to torsion (5000 circles based wind power cable standard GB/T29631)

No breakdown and cracking

Resistance to flexing (3000 circles based on IEC60227-6)

No breakdown and cracking



Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C ¹ Ω /km
-------------------------	-----------------------------	---------------------------------	-----------------	---

7 × 25 + 6 × (4 × 1)	6.8	39	2650	0.780
-------------------------	-----	----	------	-------

7 × 35 + 6 × (4 × 1)	8.3	44	3400	0.554
-------------------------	-----	----	------	-------

Spec mm ²	Max rating current in free air 30°C A	Inductance mH / km	Conductor Perm short current 1 sec (KA) Max	Voltage drop at 70 ° C cosφ = 0,8 / 400 Hz mV/Am
-------------------------	---	-----------------------	---	---

7 × 25 + 6 × (4 × 1)	215	0.119	3.57	0.552
-------------------------	-----	-------	------	-------

7 × 35 + 6 × (4 × 1)	270	0.118	5.0	0.441
-------------------------	-----	-------	-----	-------

400Hz Ground Power Supply cables

PryFlex AV8R Ground Power cables for Mobile application, triplex core

Standard

Refer to IEC60502-1

Phase Core Conductor

Class 6 tinned copper conductor

Insulation

EPR

Neutral Core Conductor

Class 5 tinned copper conductor

Control Core Conductor

Class 5 tinned copper conductor

Insulation

XLPE white core with black num.

Inner sheath

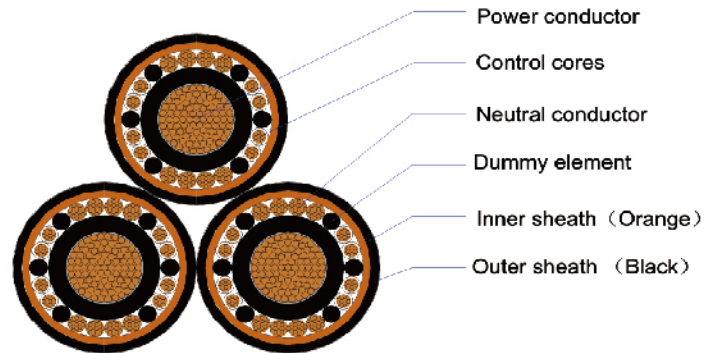
PUR Orange

Reinforcement braiding

High strength fibers

Outer sheath

PUR Black (Note: Colour per customer request)



Characteristics

Rated voltage	0.6/1kV
AC test voltage	3.5kV/5min
Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Min. bending radius	
Static	3D
Mobile	4D
Fire retardant	IEC 60332-1
Halogen free	IEC 60754-1
Resistance to oil	IEC 60811-2-1
Resistance to abrasion	YES
UV resistance	YES
Resistance to torsion (5000 circles based wind power cable standard GB/T29631)	No breakdown and cracking
Resistance to flexing (3000 circles based on IEC60227-6)	No breakdown and cracking

Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C ¹ Ω /km
----------------------	-----------------------	---------------------------	--------------	---

3 × (1 × 50 / 20 + 8 × 1)	9.4	45	2800	0.393
3 × (1 × 70 / 25 + 8 × 1)	11.2	48	3600	0.277

Spec mm ²	Max rating current in free air 30°C A	Inductance mH / km	Conductor Perm short current 1 sec (KA) Max	Voltage drop at 70 ° C cosφ = 0,8 / 400 Hz mV/Am
----------------------	---------------------------------------	--------------------	---	--

3 × (1 × 50 / 20 + 8 × 1)	220	0.324	7.14	0.869
3 × (1 × 70 / 25 + 8 × 1)	280	0.305	10.0	0.746

400Hz Ground Power Supply cables PryFlex AV8R Ground Power cables for Static application, 1+6 core

Standard

Refer to IEC60502-1

Phase Core Conductor

Class 5 bare copper conductor

Insulation

XLPE Black core with white num.

Neutral Core Conductor

Class 5 bare copper conductor

Insulation

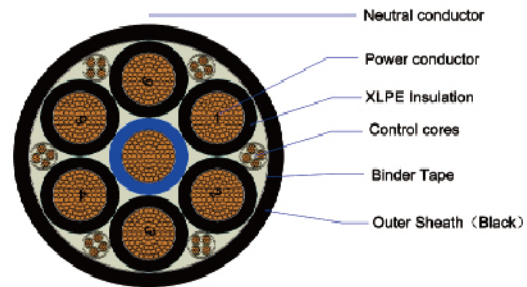
XLPE Blue

Control Core Conductor

Class 5 tinned copper conductor

Insulation

XLPE white core with black num.



Outer sheath

PUR Black (Note: Colour per customer request)

Characteristics

Rated voltage	0.6/1kV
AC test voltage	3.5kV/5min
Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Min. bending radius	
Static	4D
Mobile	6D
Halogen free	IEC 60754-1
UV resistance	YES

Spec mm ²	Conductor diameter mm	Overall diameter range mm	Weight kg/km	Max. DC resistance at 20°C ¹ Ω /km
7 × 70 + 6 × (4 × 1)	10.8	44	5470	0.277
7 × 50 + 6 × (4 × 1)	8.9	40	4030	0.393
7 × 35 + 6 × (4 × 1)	7.5	36	2963	0.565
7 × 25 + 6 × (4 × 1)	6.4	36	2300	0.795

Spec mm ²	Max rating current in free air 30°C A	Inductance mH / km	Conductor Perm short current 1 sec (KA) Max	Voltage drop at 70 ° C cosφ = 0,8 / 400 Hz mV/Am
7 × 70 + 6 × (4 × 1)	379	0.113	10.1	0.318
7 × 50 + 6 × (4 × 1)	329	0.112	7.15	0.364
7 × 35 + 6 × (4 × 1)	267	0.117	5.0	0.443
7 × 25 + 6 × (4 × 1)	210	0.121	3.58	0.535

Pressline emergency stop system



Pressline emergency stop system

Features and Benefits

- Continuous emergency stop switching along routes up to 10km.
- Actuating cable can follow any route, regardless of its complexity.
- Solid state technology eliminates the nuisance tripping often associated with contact failure on traditional systems.
- 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.

Applications

The Pressline system is in use in many applications throughout the world. It has proved particularly successful for conveyor systems in the following areas.

- Airport Baggage Control
- Bottling Plants
- Assembly Lines
- Paper Mills
- Hi-Tec Manufacturing Environments
- Sorting & Distribution Centres
- Quarries & Mines

Why is Pressline better?

- Pressline offers emergency stop activation over a continuous length that can include complex and convoluted routings. Traditional emergency stop buttons can leave personnel 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 contacts 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.

Specification and Approvals

- The system has been designed and tested in accordance with the principals of the Machinery Safety Directive 2006/42/EC.
- Safety and reliability figures in accordance with BS EN ISO 13849-1:2008 - "Safety of machinery. Safety-related parts of control systems. General principles for design" Performance Level, PL=C & Probability of dangerous failure per hour, $PFH_d = 2.53 \times 10^{-6}$
- The system is fully compliant with the Electromagnetic Compatibility (EMC) Directive 2014/30/EU, BS EN 61000-6-2 & BS EN 61000-6-4

Reputation

- With origins stretching back over 100 years, Prysmian has developed an enviable reputation for product quality and innovative design. Prysmian Components manufactures and supplies to accredited Business Management Systems BS EN ISO 9001, BS EN ISO 14001 and is certified to OHSAS 18001.



Pressline emergency stop system

System design

- Pressline emergency stop systems are simple to specify and install.
- The fundamental elements are the control box, the pressure sensitive cable and the termination box. Pressline accessories are then employed to tailor the system to the precise requirements of the installation.

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 industrial environments. It consists of two conducting layers held apart by a spacer thread.
- When pressure is applied to the cable (whether 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.

Sheath Application Requirements

Polyurethane	High abrasion resistance
Low Smoke and Fume, Zero Halogen	Superior reaction to fire

Control Unit

- The Pressline Control Unit employs dual microprocessor 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:

Reset

- Push button on control unit
- Key reset on control unit
- Remote reset

Option Advantages

- Reset is available to all
- Reset restricted to authorised personnel
- Reset can only be made at a remote and secure location

- The unit can be operated from 240V AC, 110V AC, or 24V DC with selection made by insertion links.
- The enclosure is high impact polycarbonate with an Ingress Protection rating of IP65 and is therefore suitable for outdoor installation.

Termination Box

- Termination boxes are required at the start and finish of a Pressline cable run. For a looped system, where start and finish points 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.

Pressline Accessories

- Installation is assisted by the use of CORNER CLEATS (to allow the cable to turn through 90° 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).

Technical Support

- Each control unit is supplied with comprehensive instructions. However, Prysmian and our specialist distributors recognise that every application of Pressline is potentially unique and are always available to offer advice on system design, installation and operation.

System Details

- Pressline is available from specialist distributors (call our sales office for details) or for certain projects, directly from our factory. Please use the part numbers below.

Pressline emergency stop system

Pressline Components

	Pack Quantity	Prysmian Part Number
1. Pressline Cable		
Polyurethane Sheathed Pressure Sensitive Cable	per metre	F105 720 966
LSOH Sheathed Pressure Sensitive Cable	per metre	F105 722 606
2 Core Screened Interconnection Cable	per metre	F105 721 490
2. Control Unit		
Control Unit - Push Button Reset	1	W8 2351 20 00
Control Unit - Key Switch Reset	1	W8 2350 20 00
Control Unit - Remote Reset	1	W8 2352 20 00
3. Termination Box		
Termination Box - Aluminium Stove Enamelled Grey	1	W8 2353 00 00
Termination Box - Gun Metal	1	W8 2353 00 01
4. Corner Cleat		
Corner Cleat - Nylon	5	W8 2356 00 03
Corner Cleat - Aluminium Stove Enamelled Grey	5	W8 2356 00 01
Corner Cleat - Gun Metal	5	W8 2356 00 02
5. End Cleat		
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
6. Cable Support		
Galvanised Steel Pigtail	10	W8 2999 00 08
Suspension Cable Cleat	100	385AA-05
Floor Mounting Cable Cleat	100	385AA-02
7. Termination Accessories		
Pressline Cable Termination Kit	2	W8 2354 00 00
Sleeving Pliers	1	W8 4998 00 08
Crimping Tool	1	W8 4998 00 07
Glands for Control Unit	2	W8 2999 00 32



苏州特雷卡电缆有限公司

地址：苏州市相城经济开发区康元路88号
邮编215131

电话：+86 512 6578 9888
传真：+86 512 6578 9858

Suzhou Draka Cable Co., Ltd.

Add:No.88 Kangyuan Road, Xiangcheng Economic
Development District, Suzhou,215131

T: +86 512 6578 9888
F: +86 512 6578 9858

普睿司曼（天津）电缆有限公司

地址：天津市西青经济开发区大寺工业园津荣道16号
邮编300385

电话：+86 22 2753 9605
传真：+86 22 8398 0773

Prysmian Tianjin Cables Co., Ltd.

Add:16, Jin Rong Road, Dasi Town, Xiqing
District, Tianjin, P. R. China 300385

T: +86 22 2753 9605
F: +86 22 8398 0773

Prysmian
Group

