



A World Leader In Power Distribution Solutions



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L-830 Series Isolation Transformers



Application

Integro (A OneMonroe Company) 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.

Where They Are Used

Integro Series Isolation Transformers are installed at most airports in the United States and Mexico, as well as international countries in South America, Europe, Asia and Africa. Our American made Series Isolation Transformers are also preferred at many military airports in the United States.

Approvals and Testing

Integro Series Isolation Transformers are approved to the FAA L-830 specification and are certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-47. All Integro Transformers undergo 100% Quality Testing which includes visual inspection, heat testing and HIPOT testing after heating and 12 hour soaking.

Design

Integro Series Isolation 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)

FAA Designation	Integro Part #	Wattage	Primary Secondary Amps	Design Frequency (Hz)	Weight (in lbs)
L-830 - 16	11717	10/15W	6.6 / 6.6	60	3.9
L-830 - 17	11729	20/25W	6.6 / 6.6	60	4.3
L-830 - 1	11680	30/45W	6.6 / 6.6	60	4.4
L-830 - 2	11681	30/45W	20 / 6.6	60	4.2
L-830 - 3	11682	65W	6.6 / 6.6	60	4.7
L-830 - 4	11683	100W	6.6 / 6.6	60	8.4
L-830 - 5	11684	100W	20 / 6.6	60	8.6
L-830 - 18	11730	150W	6.6 / 6.6	60	8.6
L-830 - 19	11731	150W	20 / 6.6	60	8.8
L-830 - 6	11685	200W	6.6 / 6.6	60	10.1
L-830 - 7	11686	200W	20 / 6.6	60	10.5
L-830 - 10	11736	300W	6.6 / 6.6	60	10.9
L-830 - 11	11760	300W	20 / 6.6	60	10.9

L-831 Series Isolation Transformers



Application

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.

Where They Are Used

Integro Series Isolation Transformers are installed at most airports in the United States and Mexico, as well as international countries in South America, Europe, Asia and Africa. Our American made Series Isolation Transformers are also preferred at many military airports in the United States.

Approvals and Testing

Integro Series Isolation Transformers are approved to the FAA L-831 specification and are certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-47. All Integro Transformers undergo 100% Quality Testing which includes visual inspection, heat testing and HIPOT testing after heating and 12 hour soaking.

Design

Integro Series Isolation 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)

FAA Designation	Integro Part #	Wattage	Primary Secondary Amps	Design Frequency (Hz)	Weight (in lbs)
	*11732	10/15W	6.6 / 6.6	50	3.9
	*11733	20/25W	6.6 / 6.6	50	4.3
L-831 - 1	11710	30/45W	6.6 / 6.6	50	4.4
	*11723	30/45W	20 / 6.6	50	4.2
L-831 - 3	11712	65W	6.6 / 6.6	50	4.7
L-831 - 4	11683	100W	6.6 / 6.6	50	8.4
	*11714	100W	20 / 6.6	50	8.6
L-831 - 18	11734	150W	6.6 / 6.6	50	8.6
L-831 - 19	11731	150W	20 / 6.6	50	8.8
L-831 - 6	11715	200W	6.6 / 6.6	50	10.1
	*11716	200W	20 / 6.6	50	10.5

^{*} Transformers conform to FAA L-831 specification

ICAO Style Earthed Series Isolation Transformers 50Hz and 60Hz



Application

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.

Where They Are Used

Integro ICAO Style Earthed Series Isolation Transformers are tested in accourdance with the FAA L-830 (60Hz) and L-831 (50Hz) 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 L-830 (60Hz) or L-831 (50Hz) specifications.

Design Frequency = 60Hz

Primary/

integro Part #	Description	Secondary Amps	weight (in ibs)
11717-G	10 / 15W	6.6 / 6.6	3.9
11729-G	20 / 25W	6.6 / 6.6	4.3
11680-G	30 / 45W	6.6 / 6.6	4.4
11681-G	30 / 45W	20 / 6.6	4.2
11682-G	65W	6.6 / 6.6	4.7
11683-G	100W	6.6 / 6.6	8.4
11684-G	100W	20 / 6.6	8.6
11730-G	150W	6.6 / 6.6	8.6
11731-G	150W	20 / 6.6	8.8
11685-G	200W	6.6 / 6.6	10.1

200W

300W

300W

Design Frequency = 50Hz

Integro Part #	Description	Primary/ Secondary Amps	Weight (in lbs)
11732-G	10 / 15W	6.6 / 6.6	3.9
11733-G	25W	6.6 / 6.6	4.3
11710-G	30 / 45W	6.6/6.6	4.4
11723-G	30 / 45W	20/6.6	4.2
11712-G	65W	6.6 / 6.6	4.7
11683-G	100W	6.6 / 6.6	8.4
11714-G	100W	20/6.6	8.6
11734-G	150W	6.6/6.6	8.6
11731-G	150W	20/6.6	8.8
11715-G	200W	6.6 / 6.6	10.1
11716-G	200W	20/6.6	10.5

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)

20 / 6.6

6.6 / 6.6

20 / 6.6

11686-G

11736-G

11760-G

10.5

10.9

10.9

L-823 "Complete Kit"



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

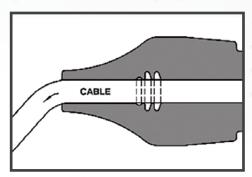
Integro "Complete Kit" Primary Connector Kits are used on all installations with our transformers and are therefore installed in all the same regions.

Approvals

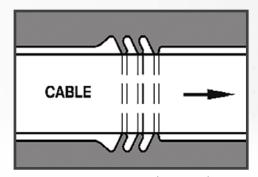
Integro "Complete Kit" Primary Connector Kits are approved to the FAA L-823 specification and are certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-26.

Design

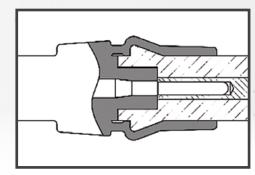
Integro "Complete Kit" Primary Connector Kits are molded in thermoplastic rubber for superior dielectric strength, and to ensure watertight connections in the field. Each molded kit housing is filled with insulating silicone to fill voids. They are rated 25 Amps and 5,000 Volts.



Extended Strain/Bend Relief prevents the back end of connector from opening and allowing water to enter. The Extended Strain/Bend Relief also keeps the cable straight in main housing when installed thereby making the primary seal better.



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.



Roll Over Flap on front of the connector provides a solid waterproof connection when installed to a transformer.

Ordering Information: 11805 - XX

(XX - Size Code)

FAA Listing	Integro Part #	Cable	Min OD	Max OD
L-823	11805-01	8 AWG	.300"	.400"
Style 3 & 10	11805-02	6 AWG	.380"	.530"
	11805-04	6 AWG	.300"	.400"
	11805-05	8 AWG	.380"	.530"
	11805-08	8 AWG	.530"	.630"
	11805-09	6 mm ²	.300"	.400"
	11805-10	6 mm ²	.380"	.530"

Suggested Tooling:

Integro Part #	Description
7-11174-18	Crimper, Thomas, & Betts TBM45S
7-11174-17	Cable Stripper/Penciller, Ripley WS 49 Series

Each Primary Connector Kit includes:

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

L-823 Primary Connector Kits Style 3 and Style 10



Ordering Information: 11174 - XX (XX - Size Code)

11174-02

FAA Listing Integro Part # Cable Min OD Max OD L-823 11174-01 8 AWG 320 .430 Style 3 & 10 11174-04 6 AWG 320 430 11174-05 8 AWG 410 .585

6 AWG

.410

Application

Integro 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 Primary Connector Kits are used on all installations with our transformers and are therefore installed in all the same regions.

Approvals

Integro Primary 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

.585

Integro Primary Connector Kits are 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. They are rated 25 Amps and 5,000 Volts.

Each Primary Connector Kit includes:

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

L-823 Secondary Connector Kits Style 4 and Style 11



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.

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 molded 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.

FAA Listing	Integro Part #	Cable	Min OD	Max OD
L-823	11254-11	10-12 AWG	.110"	.200"
Style 4	11254-21	10-12 AWG	.160"	.250"
	11254-12	14-16 AWG	.110"	.200"
	11254-22	14-16 AWG	.160"	.250"
Style 11	11255-11	10-12 AWG	.110"	.200"
	11255-21	10-12 AWG	.160"	.250"
	11255-12	14-16 AWG	.110"	.200"
	11255-22	14-16 AWG	.160"	.250"

Style 5 and Style 12



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.

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)

FAA Listing	Integro Part #	Cable	Min OD	Max OD
L-823	11432-31	10-12 AWG	.415"	.500"
Style 5	11432-41	10-12 AWG	.510"	.600"
	11432-32	14-16 AWG	.415"	.500"
	11432-42	14-16 AWG	.510"	.600"
Style 12	11433-31	10-12 AWG	.415"	.500"
	11433-41	10-12 AWG	.510"	.600"
	11433-32	14-16 AWG	.415"	.500"
9	11433-42	14-16 AWG	.510"	.600"

Complete Kit for shielded cable





Insulated Grounding Wire

		Copper	orounding
ĺ	Integro Kit	Wire Gage	Jacket OD (in

Integro Kit Part #	Wire Gage	Jacket OD (inch)	Insulation Wire OD (inch)
11869-01	8 AWG	.375"450"	.300"400"
11869-02	8 AWG	.450"525"	.300"400"
11869-03	8 AWG	.525"600"	.380"530"
11869-04	8 AWG	.600"675"	.380"530"
11869-05	6 AWG	.600"675"	.380"530"
11869-06	6 mm ²	.375"450"	.300"400"
11869-07	6 mm ²	.450"525"	.300"400"

Integro Kit Part #	Wire Gage	Jacket OD (inch)	Insulation Wire OD (inch)
11847-01	8 AWG	.375"450"	.300"400"
11847-02	8 AWG	.450"525"	.300"400"
11847-03	8 AWG	.525"600"	.380"530"
11847-04	8 AWG	.600"675"	.380"530"
11847-05	6 AWG	.600"675"	.380"530"
11847-06	6 mm²	.375"450"	.300"400"
11847-07	6 mm ²	.450"525"	.300"400"

Note: Available in color for circuit identification. Contact factory for details.

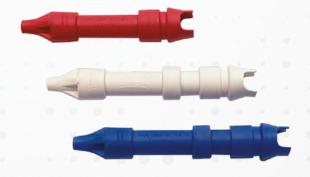
Each Primary Connector Kit includes:

- Style 3 male pin
- Style 3 male housing
- Instruction Sheet

- Style 10 female receptacle
- · Style 10 female housing
- · Paper wipe for cleaning
- · Grounded boot

Complete Kit in COLOR for circuit identification!

Ordering Information: 11805 - XX - COLOR (XX - Size Code)



FAA Listing	Integro Part #	Cable	Min OD	Max OD
L-823	11805-01	8 AWG	.300"	.400"
Style 3 &10	11805-02	6 AWG	.380"	.530"
	11805-04	6 AWG	.300"	.400"
	11805-05	8 AWG	.380"	.530"
	11805-08	8 AWG	.530"	.630"
	11805-09	6 mm ²	.300"	.400"
	11805-10	6 mm ²	.380"	.530"

Now offered in COLOR!

11805-XX-BLU 11805-XX-RED 11805-XX-GRN 11805-XX-WHT 11805-XX-ORG 11805-XX-YLW

Other colors available upon request.

L-823 Primary Leads Style 2 and Style 9



Application

Integro Primary Leads are used for custom installations that require connection to primary circuits using a factory molded L-823 Style 2 Male, or Style 9 Female connector. Both connectors are molded to #8 AWG Airport Lighting Cable.

Design

Integro Primary Leads are molded in thermoplastic rubber for superior durability and dielectric strength. They can be manufactured as blunt cut pigtails, or as extensions. Both Style 2 and Style 9 connectors are rated 25 Amps and 5,000 Volts.

Approvals

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

Ordering Information:

Base Part # 10949, 10950, 11551

Cable - #8 AWG -02 -102 (If Metric) Length -YYY (Inches) -YYY (Meters)

	FAA Listing	Integro Part #	Brief Description
	L-823	10949-02-YYY	Style 2 Male Pigtail on 8/1
		10950-02-YYY	Style 9 Female Pigtail on 8/1
	Style 2 & 9	11551-02-YYY	Style 2 & 9 Extension on 8/1

L-823 Secondary Leads Style 7 and Style 8



Application

Integro Secondary Receptacles are used for custom installations that require a connection to secondary power circuits using either a factory molded L-823 Style 7 (Straight Design) or a Style 8 (Ball Design) Female connector.

Design

Integro Secondary Receptacles are molded in thermoplastic rubber for superior durability and dielectric strength. Both the Style 7 and Style 8 connectors are designed to mate with Style 1 or Style 6 factory molded plugs, as well as in-field Style 4 or Style 5 spliced plugs. They are rated 20 Amps and 600 Volts.

Approvals

Integro Secondary Receptacles are approved to the FAA L-823 specification and are certified by ITS Testing Labs to FAA Advisory Circular 150/5345-26.

Ordering Information:

10519 - XX - YYY XX - Cable Type YYY - Length in Inches Style 7 Receptacle (If Metric - 1XX)

(If Metric - YYY - Length in Meters)

FAA Listing	Integro Part #	Brief Description
L-823 Style 7	10519-07-YYY	Style 7 on 16/2
	10519-08-YYY	Style 7 on 12/2

Ordering Information:

10875 - XX - YYY XX - Cable Type Style 8 Receptacle (If Metric - 1XX)

YYY - Length in Inches

(If Metric - YYY - Length in Meters)

FAA Listing	Integro Part #	Brief Description
L-823 Style 8	10875-05-YYY	Style 8 on 12/2
	10875-06-YYY	Style 8 on 14/2

Secondary Extension Cords



Application / Design

Integro Secondary Extension Cords are used for making above or below ground connections between taxiway, runway and sign lights, PAPI's, VASI's and other specialty lights and the Series Isolation Transformer, where they are located at different positions on the airport runway.

Integro Secondary Extension Cords are molded in thermoplastic rubber for superior durability and dielectric strength. They come with an L-823 Style 1 Male Fixture Lead on one end and either an L-823 Style 7 (Straight Design) or an L-823 Style 8 (Ball Design) Female receptacle on the other end. The Style 7 model is generally used for above ground applications, while the Style 8 model is used for applications where strain relief is required. Both female ends are designed to mate with an L-823 Style 1 Fixture Lead.

Secondary Extension (Style 1 and Style 7) Ordering Information:

11326 - XX - YYY

XX - Cable Type (If Metric - 1XX)

YYY - Length in Inches (If Metric - YYY - Length in Meters)

FAA Listing	Integro Part #	Brief Description
L-823	11326-06-YYY	Style 1 & 7 Ext on 16/2 TPR
	11326-07-YYY	Style 1 & 7 Ext on 12/2 TPR
	11326-08-YYY	Style 1 & 7 Ext on 14/2 TPR

Secondary Extension (Style 1 and Style 8) Ordering Information:

11339 - XX - YYY

XX - Cable Type (If Metric - 1XX)

YYY - Length in Inches (If Metric - YYY - Length in Meters)

FAA Listing	Integro Part #	Brief Description
L-823	11339-06-YYY	Style 1 & 8 Ext on 16/2 TPR
	11339-07-YYY	Style 1 & 8 Ext on 12/2 TPR
	11339-08-YYY	Style 1 & 8 Ext on 14/2 TPR

L-823 Style 1 and 6 Fixture Leads



Application

Integro Style 1 & 6 Fixture Leads are designed to be an FAA Approved Secondary Plug for all lights used on an airfield runway. They are used with approach, taxiway centerline and edgeway, runway centerline and edgeway, touch down zone and sign lights. They typically come installed on a purchased light, but can also be bought separately for in field installation. Our Style 1 Fixture Leads can be manufactured to fit any lamp voltage, cable type, length or other special requirements.

Where They Are Used

Integro Style 1 & 6 Fixture Leads are factory installed, and preferred worldwide by most airfield light manufacturers in the United States and Europe. Replacement leads have also been sent to the field and installed at airports throughout the world.

Design

Integro Style 1 & 6 Fixture Leads are molded in thermoplastic rubber for superior durability and dielectric strength. They are built using a number of cable configurations with varying voltage and temperature ratings. Integro Style 1 & 6 Fixture Leads can be made blunt cut, with stripped cable and wires, with quick disconnect or insulated fork terminals, or to other customer required specifications.

L-823 Style 6 Mini Fixture Leads - Rated 20A, 600V

Integro Style 6 Fixture Leads are designed with the same critical dimensions as the Style 1 Fixture Leads. The base body is smaller to fit through a 1" ID frangible coupler and for other applications where space is limited.

Approvals

Integro Style 1 & 6 Fixture Leads are approved to the FAA L-823 specification and are certified by Intertek Testing Labs to FAA Advisory Circular 150/5345-26.

FAA Listing	Integro Part #	Brief Description
L-823	10518-01-YYY	2 x 16/1
Style 1	10518-17-YYY	12/2
	10518-16-YYY	14/2
	10518-15-YYY	2 x 12/1 Teflon
	10518-14-YYY	16/2
	10518-19-YYY	2 x 12/1
Style 6	11155-03-YYY	2 x 16/1

YYY - Length in Inches (If Metric - YYY - Length in Meters)



Voltage Transformer MALSR and MASLF



Integro Part #	Description	Design Frequency (Hz)
11807	45W, 120/6.9V	60HZ
11808	45W, 240/6.9V	60HZ
11809	180W, 240/27.3V	60HZ
11810	200W, 240/30.3V	60HZ
11811	300W, 240/45.4V	60HZ

Application

Integro Voltage Transformers are used in parallel ciruits on airfields to step down the utility (line) voltage to run 6.6 Amp airfield lighting products. 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 directly buried.

Approvals and Testing

Integro Voltage Transformers are designed to conform to FAA L-830 specification. All Integro Transformers undergo 100% Quality Testing which includes visual inspection, heat testing and HIPOT testing after heating and 12 hour soaking.

Design

Integro Voltage Transformers are encapsulated in thermoplastic rubber for superior durability and dielectric strength and are manu-factured with 2 primary and 1 secondary lead.

The Leads

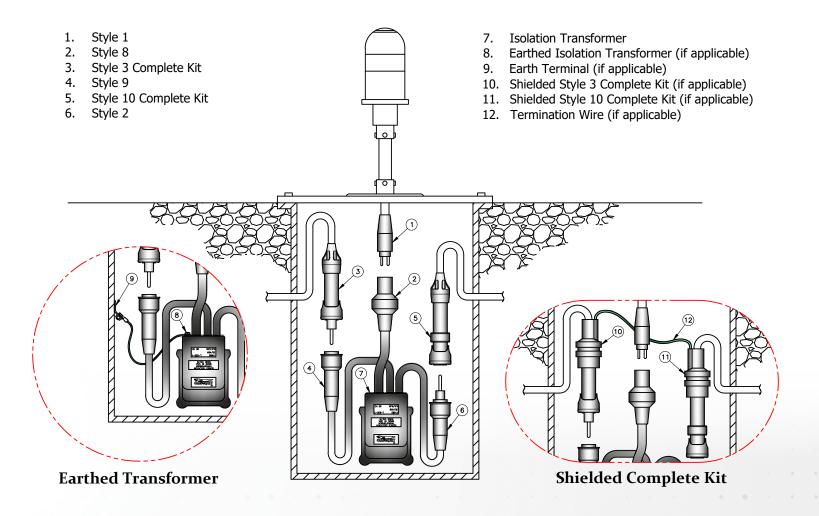
Tee Connections - Two leads on 8/1 Cable, 24" long (Both leads are rated 25 Amps and 5,000 Volts). Install using standard FAA connector kits. **Style 8** - Female Secondary Lead on 12/2 cable (Rated 20 Amps and 600 Volts).

Warranty Terms

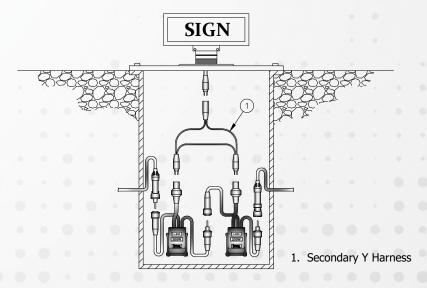
Integro (A OneMonroe Company) warranties that its airport lighting equipment has been manufactured and will perform in accordance with applicable specifications and that any defect in design, materials, or workmanship which may occur during proper and normal use during a period of one year from the date of installation or a maximum of two years from the date of shipment will be corrected by repair or replacement by Integro, FOB our facility.

Series circuit components and connectors must be installed per the recommendations shown in FAA AC 150/5340-30 (latest revision). There are many installation variables outside the control of Integro that may affect the overall circuit insulation resistance. Integro is not responsible for series circuit insulation resistance requirements above the limits defined in FAA AC 150/5340-30 or AC 150/5340-26 (latest revisions).

Typical Airfield Lighting Installation



Dual Transformer Wiring Solution



Contact Sales for ordering detail



Overview

"Integro" comes from the two cornerstones of our business - Integrity and Growth. We think our name effectively represents our strategic intentions. We manufacture airfield lighting equipment such as Isolation Transformers, Fixture Leads and Primary and Secondary Connector Kits. We also manufacture equipment used in a broad range of other fields including mining, shipbuilding and other heavy power distribution industries.

Training

Monroe Integro offers installation training to installers for its L-823 Primary Connector Kit, The Complete Kit. An instructional training and step-by-step demonstration on how to properly install The Complete Kit is offered both onsite and online via Teams Meeting.

Each trainee has the opportunity to complete a 5kv splice and will be provided a manufacturer's certificate upon completion of training. Complete your circuit with Integro's Complete Kit training to prevent issues on the airfield and ensure the most reliable and watertight connection!

We produce high quality products right here in the U.S.A!

Contact OneMonroe Integro for your entire Airfield Lighting underground needs!





(844) 851-0511



integro.sales@askmonroe.com

