

EFLA
YOUR AGL PARTNER





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EFLA OY



EFLA OY is a leading manufacturer of high-quality AGL transformers, connector kits and prefabricated cable assemblies for Aeronautical Ground Lighting. The business started over 25 years ago in Ensto and was incorporated in 2003 under the new company Efla Oy. Efla is part of privately owned EM Group, which has 19 subsidiaries in the world and employs some 2000 people at the moment.

CUSTOMER NEED FORM the basis of Efla Oy's mission. Efla Oy offers a broad range of standard products and customized solutions. We focus on creating high-tech engineering designs with a variety of performance features in order to provide the optimum solution.

THE PRODUCTS' TECHNICAL QUALITY, design, materials, customized solutions, and electrical and dimensional specifications are based on our long experience. Our production technology is very modern and is continuously under development and improvement as is our highly skilled personnel as well.

OVER THE YEARS OUR PRODUCTS have been serving a great number of airfields worldwide, including almost every country in Europe, at locations such as Ghanghi in Singapore, Kuala Lumpur, Beijing, Schiphol, Frankfurt, Madrid, Charles de Gaulle, Moscow, Sydney, Dubai and Abu Dhabi to mention some.

Primary Connectors FAA L-823, Styles 3 and 10, Class B

Primary Connectors are available for screened (shielded) and unscreened (unshielded) cable. All of our Primary Connectors comply with the appropriate FAA 5345-26 requirements for plugs and receptacles (cable connectors).

Efla's Primary Connectors are packed and delivered in kits including all the necessary parts for making the assembly on primary cables. Each Primary Connector kit contains parts for a pair (a plug and a receptacle), resulting in a watertight post-installation connection.

Nominal rating: 25 A and 5 000V

FOR SCREENED CABLES



KD 500 -series



Quick installation with conductive parts, screen continuity and insulation parts filled with silicon grease.

KDR 600 -series, Resin type

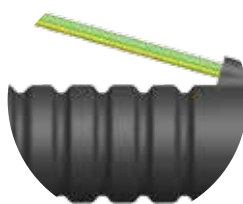


Resin-type Primary Connector for heavy-duty use. Efla's resin type connector is supplied with a high performance PU resin to be poured inside the insulation body around the connective parts and screen continuity.

KD 500



KD 500/YG



KD 500/B



Screen continuity

The standard screen continuity is a 2.5 mm² tinned copper wire, 300 mm long. Upon request, KD 500 and KDR 600 may be supplied with insulated screen continuity in yellow-green (e.g. KD 500/YG) or black (e.g. KDR 600/B). 6 mm² is also available.

FOR MORE TECHNICAL DATA OF PRIMARY CONNECTORS, PLEASE SEE PAGE 16

Dimensional data

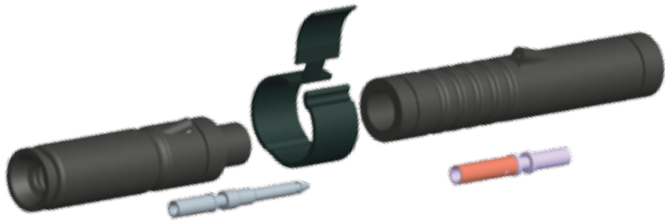
Conductor Size mm ²	AWG	Cable Diameter	<i>in inches</i>	Diameter at wire insulation	<i>in inches</i>	Diameter, Length of assembly	<i>in inches</i>	Efla Type
6 mm ²	8 *)*)	10.0 – 14.5 mm	0,393 – 0,570	7.0 – 10.5 mm	0,275 – 0,413	23,5mm, 222 mm	0,925in, 8,74in	KD 500
6 mm ²	8 *)*)	14.0 – 18.5 mm	0,551 – 0,728	10.0 – 13.5 mm	0,393 – 0,531	23,5mm, 222 mm	0,925in, 8,74in	KD 500.1
6 mm ²	8 *)*)	18.0 – 22.0 mm	0,708 – 0,866	12.5 – 16.0 mm	0,492 – 0,629	23,5mm, 215 mm	0,925in, 8,46in	KD 500.3
6 mm ²	8 *)*)	8.5 – 11.5 mm	0,334 – 0,452	5.0 – 7.5 mm	0,196 – 0,295	23,5mm, 222 mm	0,925in, 8,74in	KD 500.6
10 mm ² *)	6	14.0 – 18.5 mm	0,551 – 0,728	10.0 – 13.5 mm	0,393 – 0,531	23,5mm, 222 mm	0,925in, 8,74in	KD 500.2
10 mm ² *)	6	18.0 – 22.0 mm	0,708 – 0,866	12.5 – 16.0 mm	0,492 – 0,629	23,5mm, 215 mm	0,925in, 8,46in	KD 500.4
10 mm ² *)	6	10.0 – 14.5 mm	0,393 – 0,570	7.0 – 10.5 mm	0,275 – 0,413	23,5mm, 222 mm	0,925in, 8,74in	KD 500.5
6 mm ²	8 *)*)	9.0 – 19.0 mm	0,354 – 0,748	7.0 – 10.5 mm	0,275 – 0,413	31,0mm, 270 mm	1,22in, 10,62in	KDR 600
10 mm ² *)	6	9.0 – 19.0 mm	0,354 – 0,748	5.0 – 7.5 mm	0,196 – 0,295	31,0mm, 270 mm	1,22in, 10,62in	KDR 600.2

*) 16 mm² stranded *)*) up to 19 strands

FOR UNSCREENED CABLES



KD 510 -series



Quick installation with conductive and insulation parts filled with silicon grease.

KDR 610, Resin type



Resin-type Primary Connector for heavy-duty use. Efla's resin type connector is supplied with a high performance PU resin to be poured inside the insulation body around the connective parts.

Conductor Size mm ²	AWG	Cable Diameter	<i>in inches</i>	Diameter at wire insulation	<i>in inches</i>	Diameter, Length of assembly	<i>in inches</i>	Efla Type
6 mm ²	8 *)*)	10.0 – 14.5 mm	0,393 – 0,570	7.0 – 10.5 mm	0,275 – 0,413	23,5 mm, 222 mm	0,925in, 8,74in	KD 510
6 mm ²	8 *)*)	14.0 – 18.5 mm	0,551 – 0,728	10.0 – 13.5 mm	0,393 – 0,531	23,5 mm, 222 mm	0,925in, 8,74in	KD 510.1
6 mm ²	8 *)*)	18.0 – 22.0 mm	0,708 – 0,866	12.5 – 16.0 mm	0,492 – 0,629	23,5 mm, 215 mm	0,925in, 8,46in	KD 510.3
6 mm ²	8 *)*)	8.5 – 11.5 mm	0,334 – 0,452	5.0 – 7.5 mm	0,196 – 0,295	23,5 mm, 222 mm	0,925in, 8,74in	KD 510.6
10 mm ² *)	6	14.0 – 18.5 mm	0,551 – 0,728	10.0 – 13.5 mm	0,393 – 0,531	23,5 mm, 222 mm	0,925in, 8,74in	KD 510.2
10 mm ² *)	6	18.0 – 22.0 mm	0,708 – 0,866	12.5 – 16.0 mm	0,492 – 0,629	23,5 mm, 215 mm	0,925in, 8,46in	KD 510.4
10 mm ² *)	6	10.0 – 14.5 mm	0,393 – 0,570	7.0 – 10.5 mm	0,275 – 0,413	23,5 mm, 222 mm	0,925in, 8,74in	KD 510.5
6 mm ²	8 *)*)	9.0 – 19.0 mm	0,354 – 0,748	7.0 – 10.5 mm	0,275 – 0,413	31,0 mm, 270 mm	1,22in, 10,62in	KDR 610
10 mm ² *)	6	9.0 – 19.0 mm	0,354 – 0,748	5.0 – 7.5 mm	0,196 – 0,295	31,0 mm, 270 mm	1,22in, 10,62in	KDR 610.2

*) 16 mm² stranded *)*) up to 19 strands

FOR MORE TECHNICAL DATA OF PRIMARY CONNECTORS, PLEASE SEE PAGE 16

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Secondary Connectors FAA L-823, Class B

Efla's Secondary Connectors are packed and delivered in kits including all the necessary parts for making the assembly on secondary cables or wires. Each Secondary Connector kit contains parts for a plug or a receptacle, resulting in a watertight post-installation connection.

Nominal rating: 20 A and 600 V



For two core cable, Styles 5 and 12

«« KD 501 –series (Plug)

« KD 502 –series (Receptacle)

KD 501 and KD 502 series for two-core cables:

Type	Conductor size	AWG	Cable diameter	<i>in inches</i>	Efla Type
Plug	1.5 – 2.5 mm ²	16-14	8.5 – 13.5 mm	0,334 – 0,531	KD 501
Plug	4.0 – 6.0 mm ²	12-10 / 8	11.5 – 18.0 mm	0,157 – 0,708	KD 501.1
Plug	4.0 – 6.0 mm ²	12-10 / 8	8.5 – 13.5 mm	0,334 – 0,531	KD 501.2
Receptacle	1.5 – 2.5 mm ²	16-14	8.5 – 13.5 mm	0,334 – 0,531	KD 502
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	11.5 – 18.0 mm	0,157 – 0,708	KD 502.1
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	8.5 – 13.5 mm	0,334 – 0,531	KD 502.2

Special Secondary Connectors to be used on Approach Lines

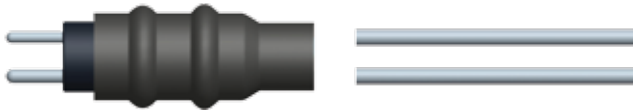
ICAO AMD6 dictates that secondary connectors, installed on frangible approach line masts, shall have means to guarantee that by-force disconnection, in the event of an airliner crash on the approach line, is not taking place in open air and thus igniting surrounding kerosene.

The KD501.X.AMD6 and KD 502.X.AMD6 have been designed for this purpose and have a 27 mm long sleeve covering the connection. The AMD6 types can only be used as a pair.



For two single wires, Styles 4 and 11

KD 503 –series (Plug)



KD 503R –series (Receptacle)



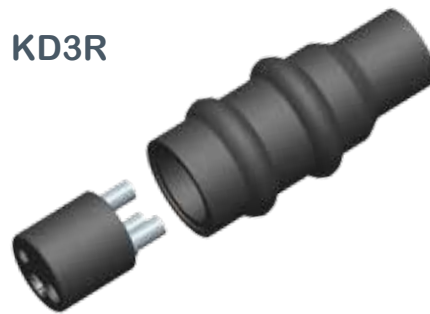
Type	Conductor size	AWG	Wire diameter	<i>in inches</i>	Efla Type
Plug	1.5 – 2.5 mm ²	16-14	2.8 – 4.0 mm (x 2)	0,110 – 0,157	KD 503
Plug	4.0 – 6.0 mm ²	12-10 / 8	3.8 – 5.5 mm (x 2)	0,149 – 0,216	KD 503.1
Plug	4.0 – 6.0 mm ²	12-10 / 8	2.8 – 3.4 mm (x 2)	0,110 – 0,133	KD 503.2
Plug	4.0 – 6.0 mm ²	12-10 / 8	5.0 – 8.0 mm (x 2)	0,196 – 0,314	KD 503.3
Receptacle	1.5 – 2.5 mm ²	16-14	2.8 – 4.0 mm (x 2)	0,110 – 0,157	KD 503R
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	3.8 – 5.5 mm (x 2)	0,149 – 0,216	KD 503R.1
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	2.8 – 3.4 mm (x 2)	0,110 – 0,133	KD 503R.2
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	5.0 – 8.0 mm (x 2)	0,196 – 0,314	KD 503R.3

3-Pole Secondary Connector

KD3P



KD3R



Caution: Secondary connectors are interconnectable with KD3R. Please take necessary measures to avoid dangerous interchangeability with 3-pole connectors of other manufactures.

Type	Conductor size	AWG	Cable diameter	<i>in inches</i>	Efla Type
Plug	1.5 – 2.5 mm ²	16-14	8.5 – 13.5 mm	0,334 – 0,531	KD 3P
Plug	4.0 – 6.0 mm ²	12-10 / 8	11.5 – 18.0 mm	0,157 – 0,708	KD 3P.1
Plug	4.0 – 6.0 mm ²	12-10 / 8	8.5 – 13.5 mm	0,334 – 0,531	KD 3P.2
Receptacle	1.5 – 2.5 mm ²	16-14	8.5 – 13.5 mm	0,334 – 0,531	KD 3R.
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	11.5 – 18.0 mm	0,157 – 0,708	KD 3R.1
Receptacle	4.0 – 6.0 mm ²	12-10 / 8	8.5 – 13.5 mm	0,334 – 0,531	KD 3R.2

FOR MORE TECHNICAL DATA OF SECONDARY CONNECTORS, PLEASE SEE PAGE 16

Efla manufactures a wide range of prefabricated leads and extension cords for installation, from half a meter to several hundred meters in length. The result is a high performance circuit and very rapid installation.

PREFABRICATED UNSCREENED PRIMARY LEADS AND EXTENSION CORDS

Our unscreened primary cables comprise a TPE insulated one core cable with a bare copper conductor (19 strands/min 6 mm²).

These cables are manufactured in accordance with the specifications FAA L-824 (MIL-C-3432 or ICEA S-66-524) or MIL-C-4921, in general.

Nominal voltage is 5 000 V.

Prefabricated, molded primary leads, with the desired cable length

- › Molded on 6 mm², 5 kV cable. Upon special request AWG 8 (8.3 mm²) is also available
 - › KDCP510.x.x: the plug connector is FAA L-823 Style 2
 - › KDCR510.x.x: the receptacle is FAA L-823 Style 9
 - › With KDCP510 and KDCR510, the other cable end is free
- The cable length is given in centimeters as a suffix in the article number, KDC 510.8.xx. (for example, KDCP510.8.60 is a Style 2 connector with a 60 cm lead)

Prefabricated unscreened primary leads

KDCP510



KDCR510



KDCE510.x.x: Extension cable with a plug and receptacle.

PLEASE SEE TABLE ON PAGE 10

PREFABRICATED SECONDARY LEADS AND EXTENSION CORDS

The leads are available with two-core cables or with two single core wires. The latter even with higher temperature resistant wires.



**Kuvat KDC 501-series
Style 1**



**KDC 502-series
Style 7**



**KDC 508-series
Style 8**



**KDC 507-series
Style 7**

Cable information:

Secondary two core cables are EPR-insulated and TPE-sheathed with stranded bare copper conductor. Cables are in accordance with the specifications FAA L-824 (MIL-C-3432 or ICEA S- 66-524) or MIL-C-4921 in general.

Possible cross-sections are 1.5 mm² (OD 8,5mm), 2.5 mm² (OD 10,0 mm) and 4 mm² (OD 12 mm). Nominal voltage is 600V. Bending radius is 5D.

Extension cords:

The types above can be made to a specific length, with plug on one end and receptacle on the other. For example KDCE501.4.3000 (4 mm² and 30 m).

PLEASE SEE ALSO TABLE ON PAGE 9 AND 10.

KDCE 501-series



Secondary Leads with two single core wires



**KDC503-series
Style 1**



**KDC503R-series
Style 7**



**KDC506-series
Style 6**



**KDC506S-series
Style 6**

150 ° C / 300F 200° / 390F

**ALSO AVAILABLE WITH ZYRAD WIRES: KDCZ506 AND KDCZ506S
OR TEFLON WIRES: KDCT506 AND KDCT506S**

CABLE AND WIRE INFORMATION

The secondary wire is bare copper, class 5 (IEC 60228). The core insulation is a special EPR compound. The outer sheath is a halogen free TPR compound (IEC60754-2/ EN 50267-2-3). The operating voltage is 0.6/1kV, with a temperature range of -40 up to +120°C. The short-circuited short-term temperature resistance is 300°C (570°F) and the bending radius 5xD. Please see table below.

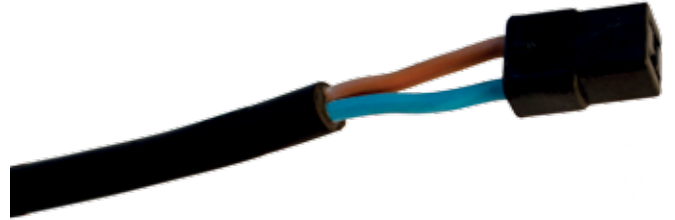
Efla Type	Diameter over insulation approx. (mm)	Outer diameter (mm)	Max. conductor resistance at 20°C (ohm/km)
2 x 1.5mm ²	0.8	8.5 ± 0.3	13.7
2 x 2.5mm ²	3.7	9.7 ± 0.3	7.98
2 x 4mm ²	4.6	11.7 ± 0.3	4.95
1 x 1.5mm ²	1.0	3.2 ± 0.3	13.7
1 x 2.5mm ²	1.2	4.6 ± 0.3	8.21
1 x 2.5mm ² (T=Teflon)	0.6	2.9 ± 0.1	13.7
1 x 2.5mm ² (Z=Zyrad)	0.8	3.7 ± 0.1	13.7

Free end of the leads

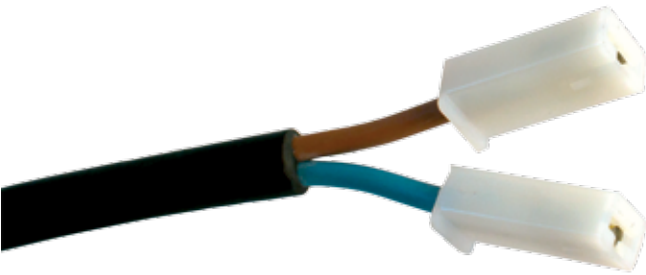
The standard free end is sheath stripping of 3 cm. The following connectors are available.



KDCO1 2 pcs 6.3 mm flat connectors, uninsulated



KDCO2 2 pcs 6.3 mm flat connectors with common insulator



KDCO3 2 pcs 6.3 mm flat connectors with 2 single insulator



KDCO4 2 pcs, diameter 4 mm, circular connectors, uninsulated

Ordering information

KDC501

. 2 .

X

Efla Type		
KDC501	secondary plug	Style 1
KDC502	secondary receptacle	Style 7
KDC503	secondary plug	Style 1
KDC503R	secondary receptacle	Style 7
KDC506	secondary plug	Style 6
KDC506S	secondary plug	Style 6
KDCT506	secondary plug	Style 6 (PTFE)
KDC508	secondary receptacle	Style 8

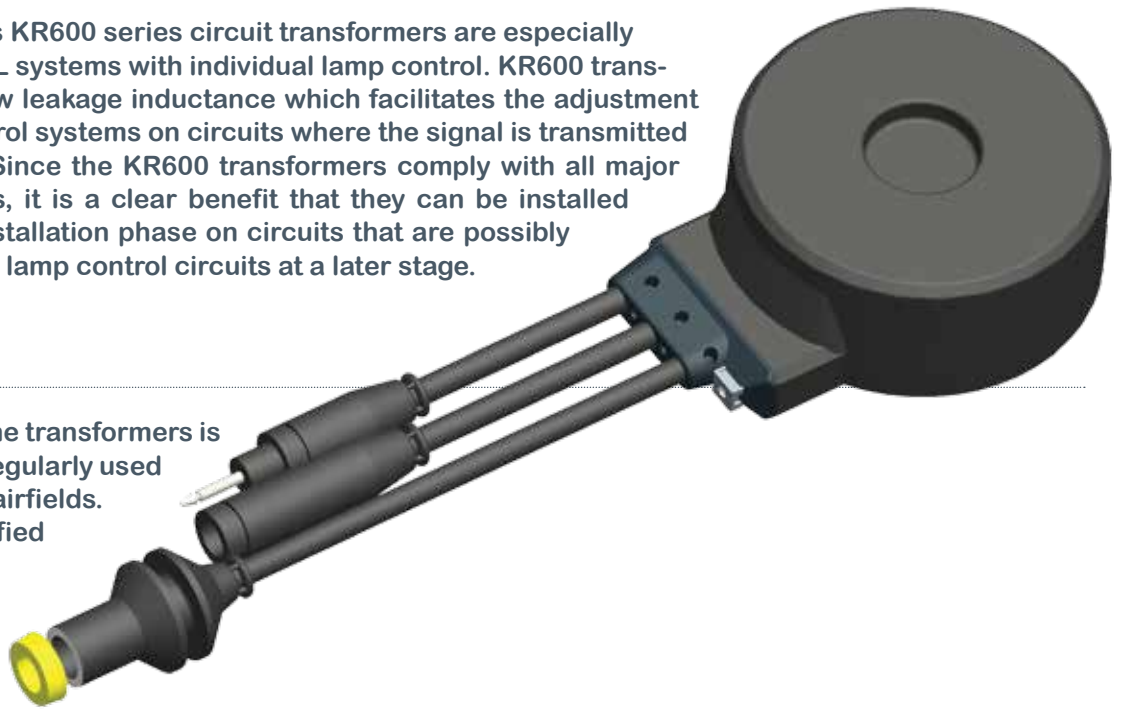
Cable cross section	
1	1,5 mm ²
2	2,5 mm ²
4	4 mm ²

Cable length = X	
Standard lengths	Customized lengths, examply
30 (cm)	
60 (cm)	
100 (cm)	5 (cm)
150 (cm)	10 (cm)
	1000 (cm)

The new range of Efla's KR600 series circuit transformers are especially designed for use in AGL systems with individual lamp control. KR600 transformers have a very low leakage inductance which facilitates the adjustment of individual lamp control systems on circuits where the signal is transmitted through series cable. Since the KR600 transformers comply with all major international standards, it is a clear benefit that they can be installed already in the initial installation phase on circuits that are possibly changed into individual lamp control circuits at a later stage.

Toroidal shape

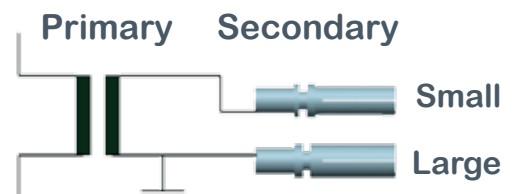
The toroidal shape of the transformers is optimum for the sizes regularly used in supplying lights in airfields. Transformers are certified by FAA and approved by IEC. They also comply with ICAO annex 14 and several national standards.



Water tightness is achieved using several water barriers resistant to the latest chemicals used in airfields, while the encapsulation material has excellent electrical characteristics and excellent resistance to weathering.

With earthing (grounding) or without earthing

Efla supplies transformers with or without earthing. If earthing is requested it is connected to the end of the secondary winding in the side of the larger socket.



Primary leads

- › The transformers have two primary leads, standard length 0.6 m, cross section min 6 mm²
- › One lead with FAA L-823, Style 2 plug
- › One lead with FAA L-823, Style 9 receptacle

Secondary leads

- › The transformers have one secondary lead of 1.2 m in length with cross-section min. 2.5 mm², 0.6 kV.
- › Secondary lead fitted with a style 8 connector
- › Upon request, the transformers can be equipped with other cable sizes and lengths or with a style 7 connector



Style 8

MATERIALS ENCAPSULATION

Thermoplastic elastomer (TPE) is a modern material with excellent electrical and mechanical properties and good chemical resistance to the chemicals typical used at airfields. TPE also has a very good resistance to weathering, its insulation withstanding UV-radiation and ozone exposure. The material is also resistant to the effects of temperature (below 135 C°, 275F).

PINS AND SOCKETS

Tin-plated copper or brass for the contact parts, while the socket is supplied with a copper beryllium sleeve--type spring, ensuring adequate contact pressure.

ISOLATION TRANSFORMERS ELECTRICAL

Rated power [W]	Rated Current [A]	Efla type with earthing	Efla type without earthing	FAA	Type	Power range [W]	Load Ohm	Efficiency %	Power Factor
10/15	6.6/6.6	KR621	KR621.1	L-830-16	L-831-16	10-15	0.34*	>70	>0.97
20/25	6.6/6.6	KR625	KR625.1	L-830-17	L-831-17	20-25	0.57*	>70	>0.97
30/45	6.6/6.6	KR631	KR631.1	L-830-1	L-831-1	25-60	0.57-1.38	>85	>0.97
65	6.6/6.6	KR636	KR636.1	L-830-3	L-831-3	50-85	1.15-1.49	>85	>0.97
100	6.6/6.6	KR641	KR641.1	L-830-4	L-831-4	80-125	1.84-2.87	>85	>0.97
150	6.6/6.6	KR646	KR646.1	L-830-19	L-831-19	120-178	2.75-4.13	>90	>0.97
200	6.6/6.6	KR651	KR651.1	L-830-6	L-831-6	160-230	3.67-5.28	>90	>0.97
300	6.6/6.6	KR661	KR661.1	L-830-10	L-831-10	220-338	5.05-8.25	>90	>0.97
500	6.6/6.6	KR681	KR681.1	L-830-14	L-831-14	400-523	12.00*	>90	>0.97

* According to FAA AC 150/5345-47



LEAKAGE INDUCTANCES

Efla type with earthing	Efla type without earthing	Power [W]	Short circuited current [A]	Open circuit voltage [V]	L (magn)	L (leak)
KR621	KR621.1	10/15	< 6.7	< 8	13.0mH	<20µH
KR625	KR625.1	20/25	< 6.7	< 8	13.0mH	<20µH
KR631	KR631.1	30/45	< 6.7	< 13	16.0mH	<30µH
KR636	KR636.1	65	< 6.7	< 16	19.0mH	<40µH
KR641	KR641.1	100	< 6.7	< 23	14.0mH	<40µH
KR646	KR646.1	150	< 6.7	< 25	24.0mH	<50µH
KR651	KR651.1	200	< 6.8	< 41	25.0mH	<60µH
KR661	KR661.1	300	< 6.7	< 70	35.0mH	<100µH
KR681	KR681.1	500	< 6.7	< 100	64.0mH	<130µH

FOR MORE TECHNICAL DATA OF SECONDARY CONNECTORS, PLEASE SEE PAGE 16

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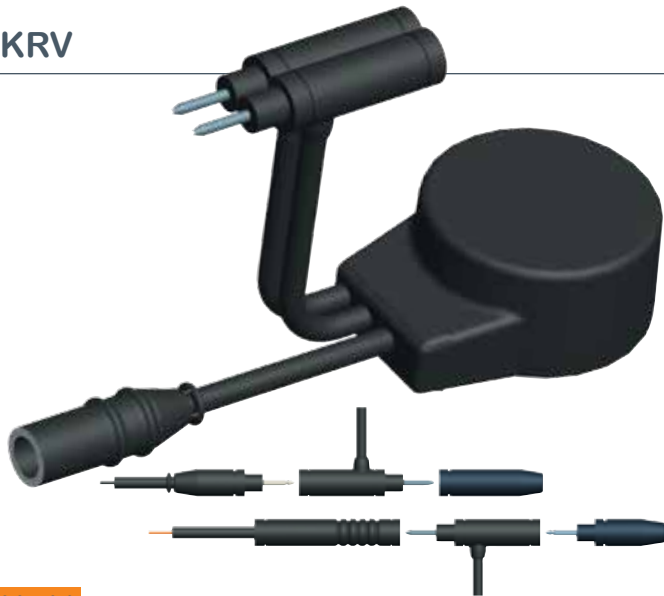
Voltage Transformers for Parallel Circuits

Parallel transformers are designed to be connected to a normal line voltage (for example, 230VAC). They are typically used in heliports and helipads.

Transformers are manufactured to supply a certain voltage on the secondary side. Normally, the voltages are received from standard 6.6 A bulbs or from 12 V bulbs.

Possible connection methods involve using one core cable (KRV-type) or two core cable (KRVS-type). The standard primary voltage is 230 VAC, the max current rating 20 A and the frequency 50/60 Hz.

KRV



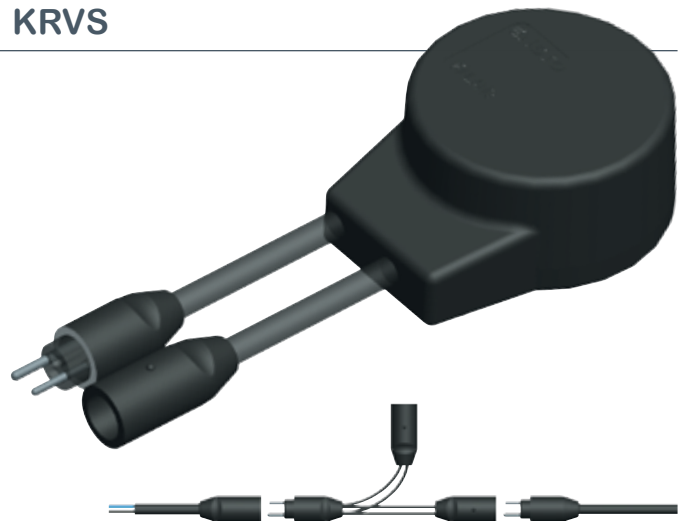
KRV transformers have two primary leads, of 0.6 m, in a T-type connector which has a FAA interface L-823, a style 2 Plug, and the other end with a FAA823, style 9 receptacle.

The secondary lead is 1.2 m in length, cable type 2 x 2.5 mm², 0.6kV with a receptacle FAA L823, style 7.

KRV transformers are installed using Efla's standard KD510 series connector kits (page 5) or prefabricated unscreened leads and extension cords (page 7). End Caps (KDCVO1) are used at the end of the circuit.

KRV transformers are installed using Efla's standard

KRVS



KD501 and KD502 series connector kits (page 5) or pre-fabricated secondary leads and extension cords (page 6). End Cap (KDVS.END) is used at the end of the circuit.

KRVS uses a standard FAA secondary connector for both incoming and outgoing interfaces. The primary lead length is 0.6 m and it has a style 1 connector. The secondary lead length is 1.2 m and it is equipped with a FAA L-823 style 7 connector.

Each transformer can be connected using a prefabricated distribution connector assembly, KDCV.P2R.

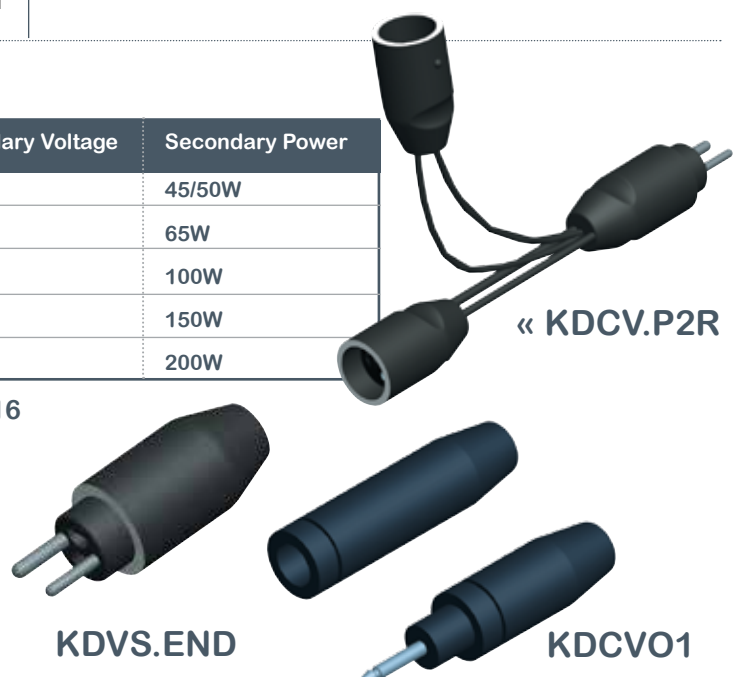
Technical specification:

Efla Type	Efla Type	Primary Voltage	Secondary Voltage	Secondary Power
KRV530	KRVS530	230V	6.8V	45/50W
KRV536	KRVS536	230V	9.85V	65W
KRV540	KRVS540	230V	15.2V	100W
KRV546	KRVS546	230V	22.7V	150W
KRV550	KRVS550	230V	30.2V	200W

FOR MORE TECHNICAL DATA, PLEASE SEE PAGE 16

Connecting accessories:

Efla Type	Description
KDCVO1	End caps for KRV -series
KDCV.P2R	Distribution connector for KRVS -series
KDVS.END	End cap for KRVS -series





ENVIRONMENTAL POLICY

Efla Oy's environmental policy seeks both to minimize the environmental impact of the company's activities and improve the firm's long-term competitiveness by anticipating requirements for environmental protection set by customers and the authorities.

Responsible care for environmental, health, safety and quality issues forms an inseparable part of Efla's policy. We constantly strive to improve our capabilities. Efla's products are manufactured with the best, economically available technology.

MANUFACTURING AND DESIGN

Efla also offers tailored products and components for various customers globally, focusing on designs with a variety of performance features to provide the optimum solution. Quality is based on skilled labor and modern production control.

Efla Oy has been certified with the 9001 (2008) Managing System and ISO 14001 (2004) ISO Environmental System.

MATERIALS ENCAPSULATION

Thermoplastic elastomer (TPE) is a modern engineering material with excellent electrical and mechanical properties and good chemical resistance to the chemicals used at airfields. TPE also has very good resistance to weathering, its insulation withstanding UV-radiation and ozone exposure. The material is also resistant to the effects of temperature (below 135°C).

Our experience lies in all classes of TPEs over a wide range of applications specially designed for airfield lighting solutions. Due to close cooperation with global suppliers, Efla Oy always uses the newest technology. Efla Oy has been molding Thermoplastic Elastomers (TPEs) for almost 30 years.

PINS AND SOCKETS

Tin-plated copper or brass for the contact parts, while the socket is supplied with a copper beryllium sleeve-type spring, ensuring adequate contact pressure.

ROHS

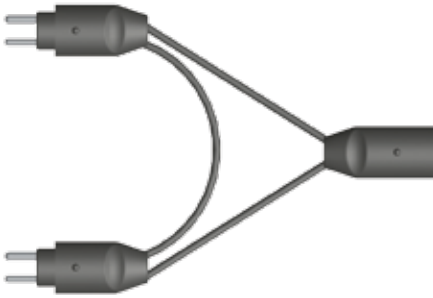
According to EU directive No 2002/95/EC, the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers (hereinafter Restricted Materials) is restricted or prohibited in electrical and electronic equipment. Based on the declarations of our suppliers and the fact that Efla does not add restricted materials during the manufacturing process, or the materials used are below the limits proposed by the technical adaptation committee of the EU, we can declare that all of our products such as insulation materials, metal parts including primary and secondary options, connectors and AGL transformers are designed and manufactured according to the EU directive. Please contact the factory if a declaration of conformity is required.

PACKING MATERIAL

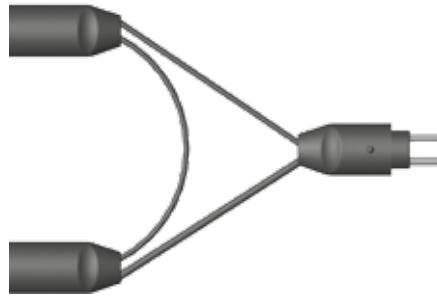
The connectors are packed in recyclable cartons. Each connector kit is individually packed in a low density polyethylene (LDPE) plastic bag. ISPM15, International Phytosanitary Standard for Wood.

SECONDARY CIRCUIT Y -CONNECTORS

KDCA.2PR



KDCA.P2R



KDC506.SHORT



KDCA.2PR

If the load supplied by standard AGL series transformers is insufficient, it is possible to use two AGL series transformers connected through KDCA.2PR.

Note: When the secondary circuit is earthed, only one of the transformers can have the earthing option. Otherwise, the secondary circuit will short circuit. Distance between connectors is approx. 20 cm.

KDCA.P2R

In some cases, it is possible to use two loads after one AGL series transformer, the KDCA.P2R being designed for this purpose. Distance between connectors is approx. 20 cm.

Materials: Both of the above mentioned products are made by assembling prefabricated products in combination. Please see page 16 for material information.

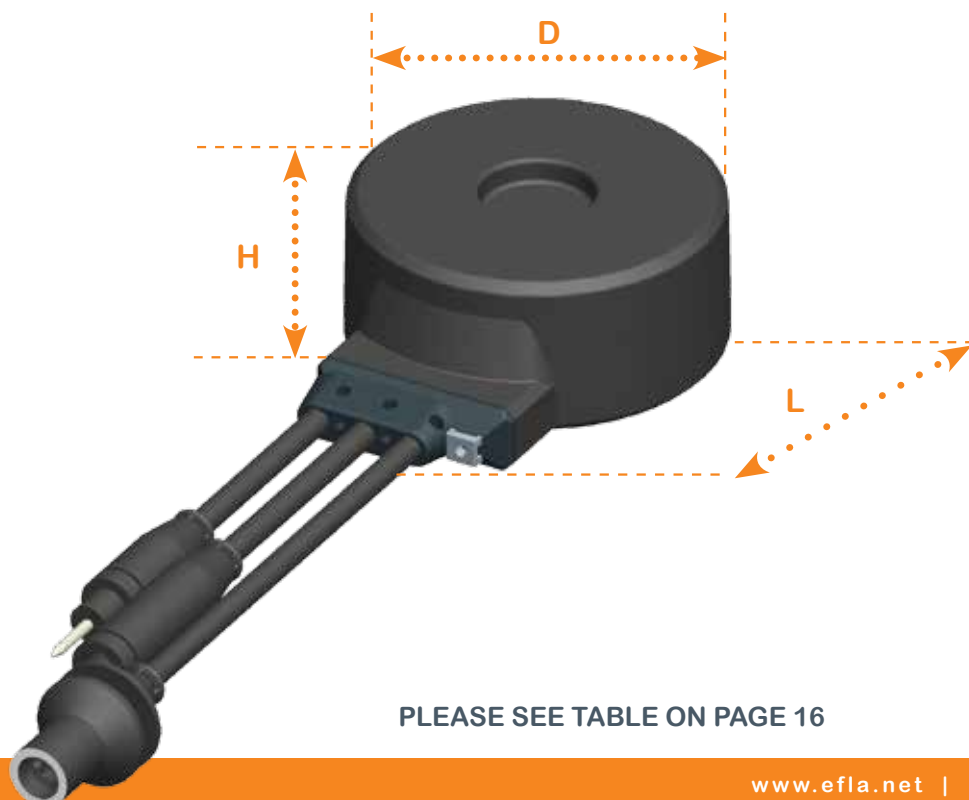
SECONDARY SHORT CIRCUITING CONNECTOR

KDC506.SHORT

This connector is designed for the short circuited secondary side of an unused AGLST, almost eliminating the impedance of the secondary side.

The connector also operates as a watertight cap.

Current rating: 20A, Voltage rating: 600V



PLEASE SEE TABLE ON PAGE 16

PRIMARY CONNECTOR KITS

Efla Type	Weight / 1pc	Standard packing	Weight / 50pcs	Cbm
KD500 -series	130 g	75 pcs	10 kg	0.03 cbm
KD510 -series	110 g	75 pcs	8.5 kg	0.03 cbm
KDR600-610 series	320 g	25 pcs	8.5 kg	0.03 cbm

SECONDARY CONNECTOR KITS

Efla Type	Weight/1pc	Standard packing	Weight /100pcs	Cbm
KD501-503 series	50 g	100 pcs	5.5 kg	0.03 cbm
KD3P & KD 3R	50 g	100 pcs	5.5 kg	0.03 cbm

CRIMPING TOOLS FOR CONNECTORS

Primary Connectors:	for instance	Elpress EWB 4099C or Klauke K24	(conductor size 4-6mm ²)
Secondary Connectors:	for instance	Elpress DKB 0760	(conductor size 1,5- 2,5mm ²)
		Elpress EWB 4099C	(conductor size 4-6mm ²)

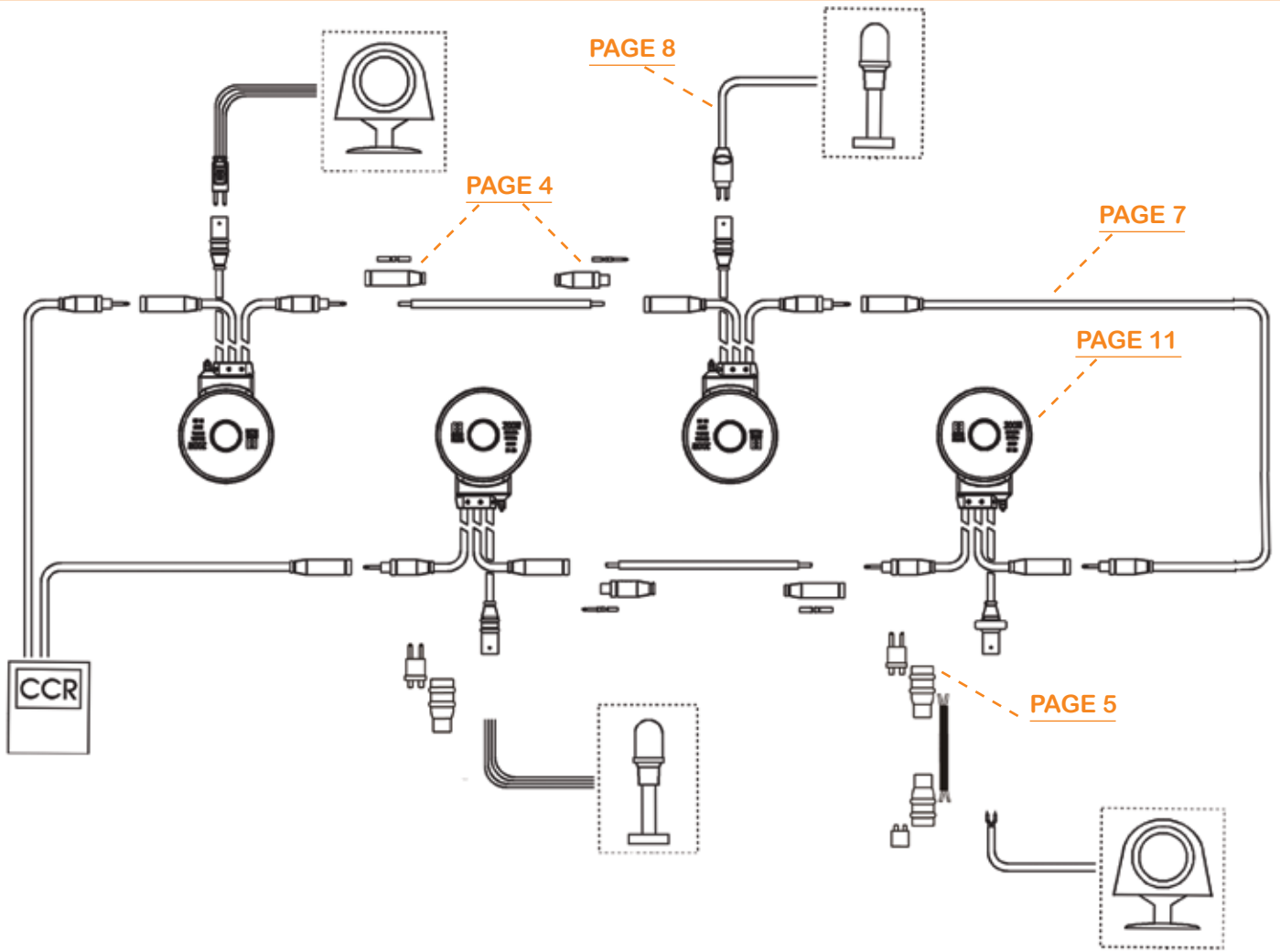
Contents of Connector Kits

	KD500	KD510	KDR600	KDR610	KD501	KD502	KD503	KD3_
Crimp type connecting parts	2	2	2	2	1	1	1	1
Plug and receptacle housings	2	2	2	2	1	1	1	1
Locking device (polypropylene)	1	1	1	1	-	-	-	-
Silicone grease (inside the housing)	X	X	X	X	X	X	X	X
Guiding pin for receptacle (PA or PP)	X	X	X	X	-	-	-	.
Resin bag and hardener	-	-	X	-	-	-	-	-
Gloves and sandpaper	-	-	X	X	-	-	-	-
Cleaning cloth	X	X	X	X	X	X	X	X
Installation instructions	X	X	X	X	X	X	X	X
2 screen continuity connectors (tinplated brass) with 350 mm long 2.5 mm Cu-wires	X	-	X	-	-	-	-	-
1 terminal block with 2 screws (nickelplated brass); connector housing made of PA 6.6	X	-	X	-	-	-	-	-

TRANSFORMERS SEE DRAWING ON PAGE 15

Efla Type	Efla Type	D mm	L mm	H mm	(weight) kg	Standard packing ** pcs	gross weight kg	cbm
KR621	KR621.1	89	115	45	1,03	220	250	0,64
KR625	KR625.1	89	115	45	1,03	220	250	0,64
KR631	KR631.1	100	125	55	1,6	208	358	0,64
KR636	KR636.1	126	168	56	2,1	160	361	0,64
KR641	KR641.1	147	193	54	3,0	144	457	0,64
KR646	KR646.1	147	193	60	3,12	144	475	0,64
KR651	KR651.1	147	193	64	3,37	126	450	0,64
KR661	KR661.1	147	193	73	4,17	108	476	0,64
KR681	KR681.1	147	193	95	5,33	90	505	0,64
KRV530	KRVS530	100	125	55	1,4	208	310	0,64
KRV536	KRVS536	126	168	56	1,5	160	260	0,64
KRV540	KRVS540	147	193	60	2,3	144	350	0,64
KRV546	KRVS546	147	193	60	2,4	144	370	0,64
KRV550	KRVS550	147	193	64	3,3	126	440	0,64

Constant Current Series Circuit



Your notes

WE ARE KNOWN FOR:

- our customer orientated approach
- quality products delivered with very competitive lead times
- fast orderhandling process
- continuously investing in research and development

FOR PRODUCT AND DATA UPDATES,
please see www.efla.net

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