

CERTIFICATE FI 29128 A3



Our Ref. 280465

Product Optocoupler

Type EL817., EL816., EL819., EL815., EL814., EL829., EL824., EL825., EL826., EL827., EL717., MCT2., MCT2E., MCT210., TIL111., TIL117., CNX35U., CNX36U., CNX38U., CNX39U., SL5500., SL5501., SL5504., SL5511., EL9001., 4N29., 4N31., 4N32., 4N33., H11B255., TIL113., MOC119., MOC8020., MOC8021., MOC8030., MOC8050., MOC8080., EL301X., EL302X., EL305X., EL303X., EL304X., EL306X., EL308X., EL371., EL725., VO615A., CNY17G., CNY75., CQY80., K233., TCDT110., TCDT111., TCDT112., VO610A., TCET111., TCET120., HS817., K817P., TCET110., EL610., EL852., EL851., EL307X., 4N30., EL3120., EL406A., EL410A., EL420A., EL425A., EL435A., EL440A., EL460A., EL606A., EL610A., EL3140., EL620A., EL625A., EL635A., EL640A., EL660A., EL3150., ELT307X., ELT301X., ELT302X., ELT305X., ELT303X., ELT304X., ELT306X., ELT308X., EL3180., ELD851., ELD852., EL2501., EL2561., EL8171., EL806A., EL810A., EL820A., EL825A., EL835A., EL840A., EL860A., 4N25., 4N26., 4N27., 4N28., 4N35., See additional types in appendix 1

Trade mark EVERLIGHT

Certificate Holder/Manufacturer Everlight Electronics Co., Ltd.
No. 6-8, Zhonghua Rd., Shulin Dist., NEW TAIPEI CITY 23860, TAIWAN

Technical information 250V rms

Other information See appendices

The product is certified according to the following standard(s) EN 60065:2014
EN 60335-1:2012 + A11:2014
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
EN 61347-1:2015
EN 62368-1:2014 + A11:2017

Validity This certificate is valid until 27 September 2022 provided that the Conditions for FI certification are met. This certificate includes the right to use the FI mark under the condition that product changes (if any) will be approved at SGS Fimko before the product is brought onto market.

Date of issue 04 May 2018

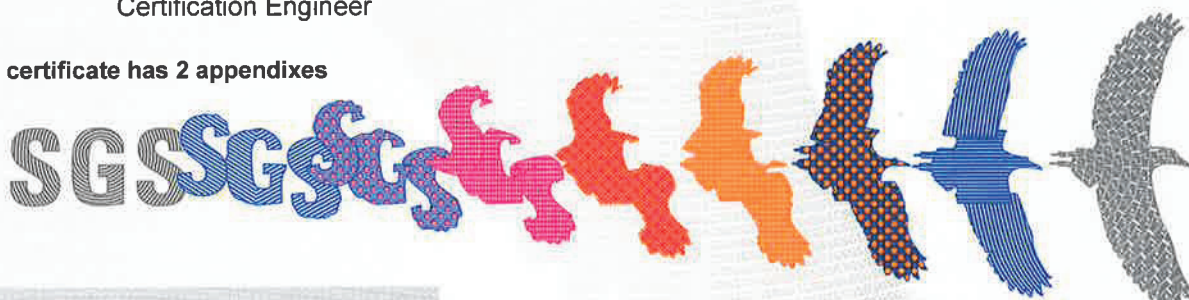
SGS Fimko Ltd

Signature



Matti Huttunen
Certification Engineer

This certificate has 2 appendixes



This certificate is issued by the company under its General Conditions for Certification Services accessible at <http://www.sgs.fi/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitations of liability defined therein and in the Test Report here above mentioned which findings are reflected in this certificate. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Manufacturing sites

Everlight Electronic (China) Co., Ltd.
No. 2135 Zhong Shan North Road, Wujiang Economy Development Zone (Yun Xi Area), Songling Town, Wujiang City, 215200 JIANGSU, CHINA

Everlight Electronics Co., Ltd.
Tongluo Plant, No. 26, Chung Hsin Rd., Chung Hsin Industrial Park, MIAOLI COUNTY, 36647, TAIWAN

Additional information

The product has certificate P15219385/A4 issued by Nemko AS in accordance with the Nordic Certification Service system.



Type

4N36., 4N37., 4N38., H11A1., H11A2., H11A3., H11A4., H11A5., CNY17-1., CNY17-2., CNY17-3., CNY17-4., MOC8111., MOC8112., MOC8113., CNY17F-1., CNY17F-2., CNY17F-3., CNY17F-4., H11AA1., H11AA2., H11AA3., H11AA4., MOC8100., MOC8101., MOC8102., MOC8103., MOC8104., MOC8105., MOC8106., MOC8107., MOC8108., CNY171-1., CNY171-2., CNY171-3., CNY171-4., CNY17F1-1., CNY17F1-2., CNY17F1-3., CNY17F1-4., EL3184., EL3161., EL3162., EL3163., H11B1., H11B2., H11B3., H11L1., H11L2., 4N50., 4N51., 4N52., 4N53., 4N54., 4N55., 4N56., 4N57., 4N58., 4N59., H11D1., H11D2., H11D3., H11D4., H11G1., H11G2., H11G3., H11L3., EL817L., EL817H.

EL817./ EL816./ EL819./ EL829./ EL826./ EL827./ EL717./ 4N25./ 4N26./ 4N27./ 4N28./ 4N35./ 4N36./ 4N37./ 4N38./ MCT2./ MCT2E./ MCT210./ CNY17-1./ CNY17-2./ CNY17-3./ CNY17-4./ MOC8111./ MOC8112./ MOC8113./ H11A1./ H11A2./ H11A3./ H11A4./ H11A5./ TIL111./ TIL117./ CNX35U./ CNX36U./ CNX38U./ CNX39U./ SL5500./ SL5501./ SL5504./ SL5511./ MOC8100./ MOC8101./ MOC8102./ MOC8103./ MOC8104./ MOC8105./ MOC8106./ MOC8107./ MOC8108./ EL9001./ CNY17F-1./ CNY17F-2./ CNY17F-3./ CNY17F-4./ H11AA1./ H11AA2./ H11AA3./ H11AA4./ HS817./ K817P./ TCET110./ TCET111./ TCET120./ VO610A./ VO615A./ CNY17G./ CNY75./ CQY80./ K233./ TCDT110./ TCDT111./ TCDT112./ EL2501./ EL2561./ EL8171./ CNY171-1./ CNY171-2./ CNY171-3./ CNY171-4./ CNY17F1-1./ CNY17F1-2./ CNY17F1-3./ CNY17F1-4./ EL610.

ELT301X./ ELT302X./ ELT305X./ ELT303X./ ELT304X./ ELT306X./ ELT308X./ ELT307X. EL3120. / EL3140./ EL3150./ EL3180./ EL3184., EL817L., EL817H.

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 110°C or 125 °C (EL817H.)

The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

Tested for 5000m.

EL806A./ EL810A./ EL820A./ EL825A./ EL835A./ EL840A./ EL860A./ EL406A./ EL410A./ EL420A./ EL425A./ EL435A./ EL440A./ EL460A./ EL606A./ EL610A./ EL620A./ EL625A./ EL635A./ EL640A./ EL660A.

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 85°C.

Appendix 2 to Certificate: 29128 A3

EL815./ EL814./EL824./ EL825.

Minimum external creepage distance is measured to 7.9mm, minimum internal creepage distance is measured to 6.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 110°C

ELD851./ ELD852./4N29./4N30./4N31./4N32./4N33./ H11B1./ H11B2./ H11B3./ H11B255./ TIL113./ MOC119./ MOC8020./ MOC8021./ MOC8030./ MOC8050./ MOC8080./ EL301X./ EL302X./ EL305X./ EL307X./ EL303X./ EL304X./ EL306X./ EL308X./ EL3161./ EL3162./ EL3163./ H11L1./ H11L2./ H11L3./ H11D1./ H11D2./ H11D3./ H11D4./ H11G1./ H11G2./ H11G3./ EL371./ EL725./ 4N50./ 4N51./ 4N52./ 4N53./ 4N54./ 4N55./ 4N56./ 4N57./ 4N58./ 4N59./ EL852./ EL851.

Minimum external creepage distance is measured to 7.7mm, minimum internal creepage distance is measured to 5.5mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation.

Maximum operating temperature: 100 °C.

The symbol "X" in type denotes X = Part no. (0,1,2,3,4).

Thermal cycling test, 10 cycles. Each cycle: 68h in 85 or 100 or 110 or 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

The product is certified according to the following standard(s)

IEC 60065:2014 (Ed.8)

IEC 60950-1:2005 (Ed 2) + A1:2009 + A2:2013

IEC 61347-1:2015 (Ed.3)

IEC 60335-1:2010 (Ed 5) + A1:2013

IEC 62368-1:2014 (Ed 2)

This certificate replaces previous certificate FI 29128 A2 dated 27 September 2017. The standard EN 62368-1:2014 has been updated by adding A11:2017. A new manufacturing site has been added.

Our ref. no.

280465-1, 280465-7

CERTIFICATE FI 29132 A3



Our Ref. 280465

Product Optocoupler

Type EL357., EL354., EL355., EL356., EL359., EL121., EL124., EL2701., EL2705., EL357N., EL356N., EL121N., EL124N., EL2701N., EL354N., EL2705N., EL3H7., EL281., EL2801., EL3H4., EL280., ELD207., ELD208., ELD213., ELD217., EL060L., EL0452., EL0501., EL050L., EL0701., EL0700., EL061A., EL0601., ELD205., ELD206., ELD211., ELM302X., EL0551., EL063X., EL0661., ELM305X., ELM307X., ELM303X., ELM301X., ELM304X., ELM306X., ELM308X., EL451., EL452., EL061N., EL0500., EL0600., EL0611., ELM452L., ELM453L., ELM600L., ELM601L., ELM611L., ELD3H5., ELD3H6., ELD3H7., ELD3H4., ELM452., ELM453., ELM600., ELM601., ELM611., ELQ3H4., ELQ3H5., ELQ3H7., ELM314., ELM454., EL3H71., EL205., EL206., EL207., EL208., EL211., EL212., EL213., EL215., EL216., EL217., EL0730., EL0731., EL0454., EL0530., EL0531., EL0453., EL0533., EL053L., EL080L., EL081L., EL3H7L., EL351., EL352., EL3571N., EL357NL., EL357NH., EL3H7H., ELM80L., ELM81L., EL083L., EL086L.

Trade mark EVERLIGHT

Certificate Holder /Manufacturer Everlight Electronics Co., Ltd.
No. 6-8, Zhonghua Rd., Shulin Dist., NEW TAIPEI CITY 23860,
TAIWAN

Technical information 250Vrms

Other information See appendixes

The product is certified according to the following standard(s) EN 60065:2014
EN 60335-1:2012 + A11:2014
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
EN 61347-1:2015
EN 62368-1:2014 + A11:2017

Validity This certificate is valid until 27 September 2022 provided that the Conditions for FI certification are met. This certificate includes the right to use the FI mark under the condition that product changes (if any) will be approved at SGS Fimko before the product is brought onto market.

Date of issue 07 May 2018

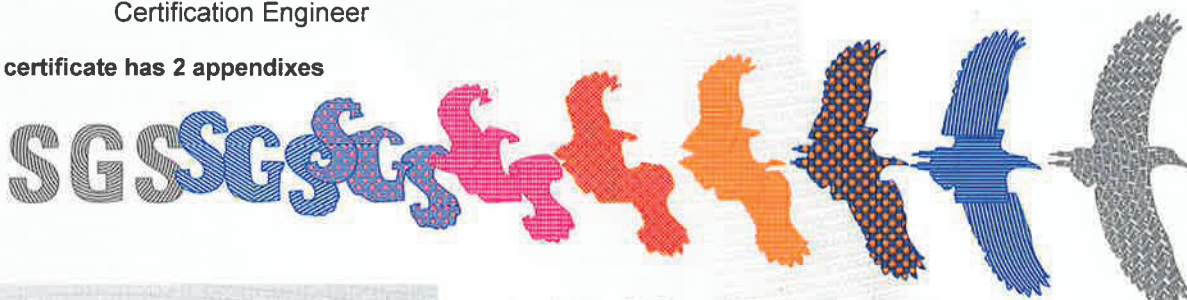
SGS Fimko Ltd

Signature



Matti Huttunen
Certification Engineer

This certificate has 2 appendixes



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Appendix to Certificate: 29132 A3

Manufacturing sites

Everlight Electronic (China) Co., Ltd.
No. 2135 Zhong Shan North Road, Wujiang Economy Development
Zone (Yun Xi Area), Songling Town, Wujiang City, 215200 JIANGSU,
CHINA

Everlight Electronics Co., Ltd.
Tongluo Plant, No. 26, Chung Hsin Rd., Chung Hsin Industrial Park,
MIAOLI COUNTY, 36647,
TAIWAN

Additional information



The product has certificate P15219385/A4 issued by Nemko AS in
accordance with the Nordic Certification Service system.

ELD3H5./ ELD3H6./ ELD3H7./ ELD3H4./ ELQ3H4./ ELQ3H5./ ELQ3H7./
ELM314./ EL2801./ EL354./ EL355./ EL356./ EL357./ EL359./ EL121./
EL124./ EL2701./ EL2705./ EL357N./ EL356N./ EL121N./ EL124N./
EL2701N./ EL354N./ EL2705N./ EL3H7./ EL281./ EL3H4./ EL280./
EL3H71./ ELM301X./ ELM302X./ ELM305X./ ELM307X./ ELM303X./
ELM304X./ ELM306X./ ELM308X./ EL451./ EL452./ EL3H7L./ EL351./
EL352./ EL3571N./ EL357NL.

Minimum external creepage distance is measured to 5.0mm, minimum
internal creepage distance is measured to 4.0mm and minimum distance
through insulation is measured to 0.4mm.

Tested for reinforced insulation.

Maximum operating temperature: 110 °C.

The symbol "X" in type denotes X = Part no. (0,1,2,3,4)

ELM452./ ELM453./ ELM600./ ELM601./ ELM611./ ELM452L./
ELM453L./ ELM600L./ ELM601L./
ELM611L./ELM454./EL357NH./EL3H7H./ELM80L./ELM81L.

Minimum external creepage distance is measured to 5.0mm, minimum
internal creepage distance is measured to 4.0mm and minimum distance
through insulation is measured to 0.4mm.

Tested for reinforced insulation.

Maximum operating temperature: 100 °C or 125°C (EL357NH./EL3H7H.)

EL205./ EL206./ EL207./ EL208./ EL211./ EL212./ EL213./
EL215./ EL216./ EL217./ ELD207./ ELD208./ ELD213./ ELD217./
ELD205./ ELD206./ ELD211.

Minimum external creepage distance is measured to 4.4mm, minimum
internal creepage distance is measured to 3.5mm and minimum distance
through insulation is measured to 0.4mm.

Tested for basic and supplementary insulation.

Maximum operating temperature: 110 °C.

Appendix 2 to Certificate 29132 A3

EL0500./ EL0501./ EL0452./ EL0453. /EL0454./ EL0600./ EL0601./
EL0611./ EL0700./ EL050L./ EL060L./ EL0701./ EL061A./ EL061N./
EL0551./ EL0530./ EL0531./ EL0533./ EL063X./ EL0661./ EL0730./
EL0731./ EL053L./ EL080L./ EL081L./ EL083L./ EL086L.

Minimum external creepage distance is measured to 4.4mm, minimum internal creepage distance is measured to 3.5mm and minimum distance through insulation is measured to 0.4mm.

Tested for basic and supplementary insulation.

Maximum operating temperature: 100 °C.

The symbol "X" in type denotes X = Part no. (0,1,L,A,N)

Thermal cycling test, 10 cycles. Each cycle: 68h in 110 or 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity.

Electric strength test between input and output 4800Vac/1 minute.
(Reinforced insulation)

Electric strength test between input and output 2400Vac/1 minute.
(Basic and supplementary insulation)

The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

The product is certified according to the following standard(s)

IEC 60065:2014 (Ed.8)

IEC 60950-1:2005 (Ed 2) + A1:2009 + A2:2013

IEC 61347-1:2015 (Ed.3)

IEC 60335-1:2010 (Ed 5) + A1:2013

IEC 62368-1:2014 (Ed 2)

This certificate replaces previous certificate FI 29132 A2 dated 27 September 2017. The type name EL070L. has been changed to EL080L. and type EL071L. to EL081L. The standard EN 62368-1:2014 has been updated by adding A11:2017. A new manufacturing site has been added.

Our ref. no.

280465-5



CERTIFICATE FI 29133 A3

Our Ref. 280465

Product Optocoupler

Type EL617., 6N135., 6N136., 6N137., 6N138., 6N139., EL2502., EL2503., EL4502., EL4503., EL253L., EL2531., EL4534., EL2730., EL2731., EL2601., EL2611., EL2630., EL2631., EL4661., EL354L., EL357L., EL355L., EL101X., EL111X., EL161X., EL151X., EL260L., EL2530., EL261A., EL261N., EL263L., EL263A., EL263N., EL250L., ELW139., ELW3184., ELW260L., ELW250L., ELW137., ELW2601., ELW2611., ELW136., ELW135., ELW4502., ELW4503., ELW138., ELW3120., ELW3140., ELW3150., ELW3180., CNY75G., CQY80.G., K233.G., TCDT110.G., TCDT111.G., TCDT112.G., HS817.G., TCET110.G., TCET111.G., TCET120.G., EL4504., EL2200., ELR2502., ELR2503., ELR1502., ELR1503., ELR3602., ELR3603., ELR2602., ELR2603., ELR1602., ELR1603., EL2211., EL847., EL844., EL845., ELW4504., EL2201., EL2202., EL2219., EL2212., EL2231., EL2232., ELR3502., ELR3503., ELR0223., ELR1223., ELR2223., ELR3223., EL101L., EL101XH., ELW2200., ELW2201., ELW2202., ELW2219., ELW2211., ELW2212.

Trade mark EVERLIGHT

Certificate Holder/Manufacturer Everlight Electronics Co., Ltd.
No. 6-8, Zhonghua Rd., Shulin Dist., NEW TAIPEI CITY 23860,
TAIWAN

Technical information 250V rms,

Other information See appendixes

The product is certified according to the following standard(s) EN 60065:2014
EN 60335-1:2012 + A11:2014
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
EN 61347-1:2015
EN 62368-1:2014 + A11:2017

Validity This certificate is valid until 27 September 2022 provided that the Conditions for FI certification are met. This certificate includes the right to use the FI mark under the condition that product changes (if any) will be approved at SGS Fimko before the product is brought onto market.

Date of issue 07 May 2018

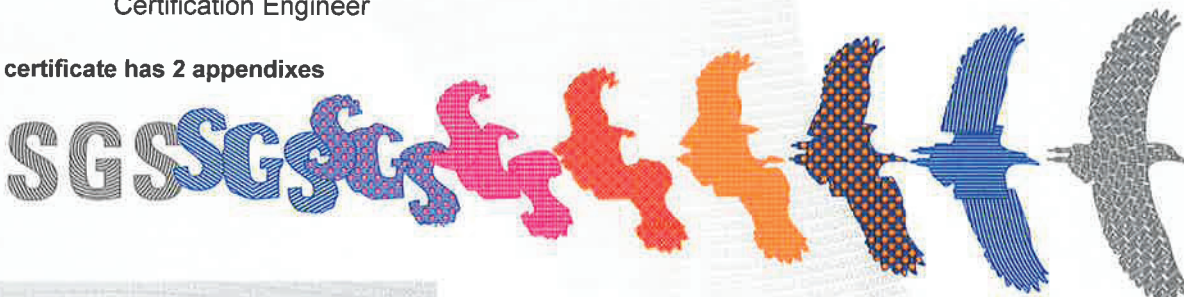
SGS Fimko Ltd

Signature



Matti Huttunen
Certification Engineer

This certificate has 2 appendixes



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Appendix to Certificate: 29133 A3

Manufacturing sites

Everlight Electronic (China) Co., Ltd.
No. 2135 Zhong Shan North Road, Wujiang Economy Development
Zone (Yun Xi Area), Songling Town, Wujiang City, 215200 JIANGSU,
CHINA

Everlight Electronics Co., Ltd.
Tongluo Plant, No. 26, Chung Hsin Rd., Chung Hsin Industrial Park,
MIAOLI COUNTY, 36647,
TAIWAN

Additional information



The product has certificate P15219385/A4 issued by Nemko AS in
accordance with the Nordic Certification Service system.

ELW137./ ELW139./ ELW2601./ ELW2611./ ELW136./ ELW135./
ELW4502./ ELW4503./ ELW138./ ELW260L./ ELW250L./ ELW4504./
ELW2200./ ELW2201./ ELW2202./ ELW2219./ ELW2211./ ELW2212.
Minimum external creepage distance is measured to 11.85mm, minimum
internal creepage distance is measured to 7.72mm and minimum
distance through insulation is measured to 0.9mm. Tested for reinforced
insulation.
Maximum operating temperature: 100 °C.

ELW3120./ ELW3140./ ELW3150./ ELW3180./ ELW3184.
Minimum external creepage distance is measured to 11.85mm, minimum
internal creepage distance is measured to 7.72mm and minimum
distance through insulation is measured to 0.9mm. Tested for reinforced
insulation.
Maximum operating temperature: 110 °C.

EL2200./EL2212./EL2231./EL2201./EL2202./EL2219./EL2211./ EL2232.
ELR3602./ ELR3603./ ELR2602./ELR2603./ ELR1602./ ELR1603./
ELR3502./ ELR3503./ ELR2502./ ELR2503./ ELR1502./ ELR1503./
ELR0223./ ELR1223./ ELR2223./ ELR3223.
Minimum external creepage distance is measured to 8.2mm, minimum
internal creepage distance is measured to 5.1mm and minimum distance
through insulation is measured to 0.5mm. Tested for reinforced
insulation.
Maximum operating temperature: 100°C

EL847./EL844./EL845.
Minimum external creepage distance is measured to 8.0mm, minimum
internal creepage distance is measured to 5.1mm and minimum distance
through insulation is measured to 0.5mm. Tested for reinforced
insulation.
Maximum operating temperature: 110°C

EL617./ CNY75G./ CQY80.G/ K233.G/ TCDDT110.G/ TCDDT111.G/
TCDDT112.G/ HS817.G/ TCET110.G/TCET111.G/ TCET120.G
Minimum external creepage distance is measured to 8.0mm, minimum
internal creepage distance is measured to 6.0mm and minimum distance
through insulation is measured to 0.5mm. Tested for reinforced
insulation.
Maximum operating temperature: 110 °C.

Appendix 2 to Certificate FI 29133 A3

6N135./ 6N136./ 6N137./ 6N138./ 6N139./ EL2502./ EL250L./ EL2503./
EL4502./ EL4503./ EL2530./ EL253L./ EL2531./ EL4534./ EL2730./
EL2731./ EL2601./ EL260L./ EL2611./ EL261A./ EL261N./ EL2630./
EL263L./ EL263A./ EL263N./ EL2631./ EL4661./ EL4504.

Minimum external creepage distance is measured to 8.0mm, minimum internal creepage distance is measured to 5.0mm and minimum distance through insulation is measured to 0.5mm. Tested for reinforced insulation. Maximum operating temperature: 100 °C.

EL101X./ EL357L./ EL355L./ EL354L./ EL111X./ EL161X./
EL151X./EL101L./EL101XH.

Minimum external creepage distance is measured to 8.1mm, minimum internal creepage distance is measured to 5.2mm and minimum distance through insulation is measured to 0.4mm.

Tested for reinforced insulation.

Maximum operating temperature: 110 °C or 125°C (EL101XH.)

The symbol "X" in type denotes X = Part no. (0,1,2,3,4,5,6,7,8,9)

Tested for 5000m.

Thermal cycling test, 10 cycles. Each cycle: 68h in 110 or 100 or 125 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute. The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

The product is certified according to the following standard(s)

IEC 60065:2014 (Ed 8)

IEC 60950-1:2005 (Ed 2) + A1:2009 + A2:2013

IEC 61347-1:2015 (Ed 3)

IEC 60335-1:2010 (Ed 5) + A1:2013

IEC 62368-1:2014 (Ed 2)

This certificate replaces previous certificate FI 29133 A2 dated 27 September 2017. The height of types EL101L., EL354L., EL357L., EL355L., EL101X., EL111X., EL161X., EL151X have been increased from 2mm to 2.2mm. The standard EN 62368-1:2014 has been updated by adding A11:2017. A new manufacturing site has been added.

Our ref. no.

280465-6

CERTIFICATE FI 29499 A2



Our Ref. 284217

Product Optocoupler

Type ELS500., ELS501., ELS511., ELS050L., ELS051L., ELS052L., ELS600., ELS601., ELS611., ELS060L., ELS061L., ELS062L., ELM440A., ELM460A., ELM640A., ELM660A., ELM840A., ELM860A., ELM60U., ELM61U., ELS60U., ELS61U., ELS62U., ELS270., ELS271., ELS272., EL2514., EL0200., EL0201., EL0202., EL0210., EL0211., EL0212., ELL300.

Trade mark EVERLIGHT

Certificate Holder/Manufacturer Everlight Electronics Co., Ltd.
No. 6-8, Zhonghua Rd., Shulin Dist., NEW TAIPEI CITY 23860, TAIWAN

Technical information 250V rms

Other information See appendixes

The product is certified according to the following standard(s) EN 60065:2014
EN 60335-1:2012 + A11:2014
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
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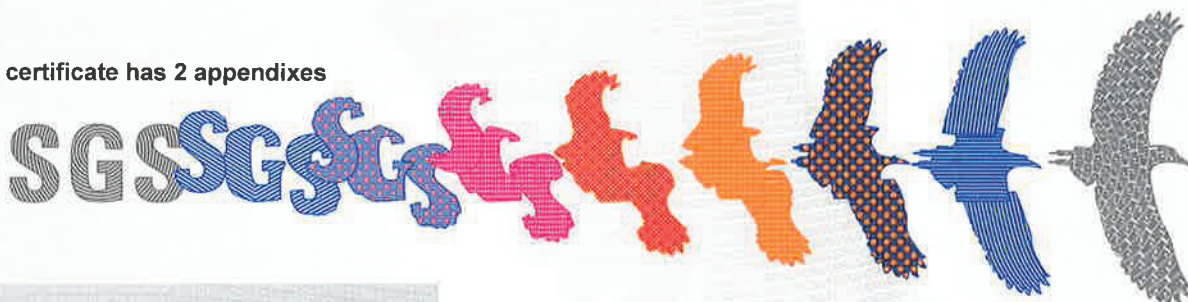
SGS Fimko Ltd

Signature



Matti Huttunen
Certification Engineer

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Tongluo Plant, No. 26, Chung Hsin Rd., Chung Hsin Industrial Park,
MIAOLI COUNTY, 36647,
TAIWAN

Additional information



The product has certificate P15219385/A4 issued by Nemko AS in
accordance with the Nordic Certification Service system.

ELS500., ELS501., ELS511., ELS050L., ELS051L., ELS052L., ELS600.,
ELS601., ELS611., ELS060L., ELS061L., ELS062L., ELS60U.,
ELS61U., ELS62U., ELS270., ELS271., ELS272.

High Speed Optocoupler

Minimum external creepage distance is measured to 8.4mm, minimum
internal creepage distance is measured to 5.56mm and minimum
distance through insulation is measured to 0.4mm.

Tested for reinforced insulation

ELM440A., ELM460A., ELM640A., ELM660A., ELM840A., ELM860A.
Solid State Relay.

Minimum external creepage distance is measured to 5.7mm, minimum
internal creepage distance is measured to 4.3mm and minimum distance
through insulation is measured to 0.3mm.

Tested for basic and supplementary insulation.

ELM60U., ELM61U.

High Speed Optocoupler

Minimum external creepage distance is measured to 5.0mm, minimum
internal creepage distance is measured to 4.0mm and minimum distance
through insulation is measured to 0.4mm.

Tested for reinforced insulation

EL2514.

Minimum external creepage distance is measured to 7.7mm, minimum
internal creepage distance is measured to 6.0mm and minimum distance
through insulation is measured to 0.5mm.

Tested for reinforced insulation

EL0200., EL0201., EL0202., EL0210., EL0211., EL0212.

High Speed Optocoupler

Minimum external creepage distance is measured to 4.4mm, minimum
internal creepage distance is measured to 3.5mm and minimum distance
through insulation is measured to 0.4mm.

Tested for basic/supplementary insulation

ELL300.

Linear Optocoupler

Minimum external creepage distance is measured to 8.0mm, minimum
internal creepage distance is measured to 0.90mm and minimum
distance through insulation is measured to 0.90mm.

Tested for basic/supplementary insulation

Appendix 2 to Certificate 29499 A2

Thermal cycling test, 10 cycles. Each cycle: 68h in 100 degree C, 1h in 25 degree C, 2h in 0 degree C and 1h in 25 degree C. After the cycling test a humidity test for 48h in 93% relative humidity. Electric strength test between input and output 4800Vac/1 minute.

The symbol "." in type designation may be blank, A~Z or numbers, and denote different pin shape.

Maximum operating temperature: 100 °C.

Maximum operating temperature: 110 °C. (EL2514., ELL300.)

The products are certified according to the following standard(s)

IEC 60065:2014 (Ed 8)

IEC 60950-1:2005 (Ed 2) + A1:2009 + A2:2013

IEC 61347-1:2015 (Ed 3)

IEC 60335-1:2010 (Ed 5) + A1:2013

IEC 62368-1:2014 (Ed 2)

This certificate replaces previous certificate FI 29499 A1 dated 27 September 2017. Addition of 16 new types. The standard EN 62368-1:2014 has been updated by adding A11:2017. A new manufacturing site has been added.

Our ref. no.

284217-2