



CERTIFICATE FI 28110 M1

Our Ref. 276326

Product Optocoupler
Type CNY64, CNY64A, CNY64B, CNY64S, CNY65, CNY65A, CNY65B
Trade mark EL
Certificate Holder/ Manufacturer Everlight Electronics Co., Ltd.
 No. 6-8, Zhonghua Rd., Shulin Dist.
 NEW TAIPEI CITY 23860, TAIWAN
Technical information Reinforced insulation.
 Operation temperatures: 110 °C
 85 °C for CNY64S
 See the Appendixes to this certificate.
Other information 4-Pin DIP package
The product is certified according to the following standard(s) EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
 EN 60065:2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011
 EN 60335-1:2012
 EN 60601-1:2006

Validity This certificate is valid until 06 May 2018 unless the standard in question has been amended or superseded with significant changes in requirements, in which case, SGS Fimko has the right to shorten the validity of the certificate based on the legislation of the European Union. This certificate includes the right to use the FI mark under the condition that changes (if any) will be checked at SGS Fimko before the product is brought onto market and that the conditions for FI certification are met.

Date of issue 14 July 2014

SGS Fimko Ltd

Signature

Tom Törn
 Director, Certification Services



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

Additional information

The components have been tested with relevant parts of standards:
 EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
 EN 60065:2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011
 EN 60335-1:2012
 EN 60601-1:2006

The optocouplers have been evaluated for working voltage max. 250 V rms / 420 V peak, OVC II, PD2, material group III b, max. 2000 m altitude.

The following tests have been performed with positive result:

Types CNY64, CNY64A, CNY64B

- Distance through insulation between input and output is more than 0.4 mm; measured 3.0 mm.
- External creepage distances/clearances between input and output are more than 5 mm/4 mm; measured a minimum of 9.8 mm.
- Internal creepage distances (PD1) between input and output are more than 4 mm ; measured a minimum of 7.4 mm.
- Insulation between the input and output withstands electric strength test of 4000 V/1 minute.
- Enclosure of the component is flammability class V-0 material.

Types CNY65, CNY65A, CNY65B

- Distance through insulation between input and output is more than 0.4 mm; measured 3.0 mm.
- External creepage distances/clearances between input and output are more than 5 mm/4 mm; measured a minimum of 15 mm.
- Internal creepage distances (PD1) between input and output are more than 4 mm ; measured a minimum of 8.0 mm.
- Insulation between the input and output withstands electric strength test of 4000 V/1 minute.
- Enclosure of the component is flammability class V-0 material.

Type CNY64S

- Distance through insulation between input and output is more than 0.4 mm; measured 2.75 mm (after thermal cycling).
- External creepage distances/clearances between input and output are more than 5 mm/4 mm; measured a minimum of 9.6 mm..
- Enclosure of the component is flammability class V-0 material.
- Thermal cycling, humidity conditioning and electric strength tests according to clauses 2.10.9 and 2.10.11 have been carried out for three samples: 10 cycles, each cycle: 68h in 110°C, 1h in 25°C, 2h in 0°C and 1h in 25°C. After the cycling test a humidity test for 48h. Electric strength test at 4800 Vac / 1min between input and the output circuits for two samples. Electric strength test at 4800Vac/ 1min between the input and the output circuits for one sample without humidity test



Appendix 2 to Certificate: 28110 M1

After judgement from case to case, the optocoupler can bridge basic, supplementary, double or reinforced insulation, provided that the ratings measured above and in data sheet are not exceeded in normal operation or under fault condition in the appliance.

According to standard EN 60601-1:2006 insulation requirements shall be considered case by case (e.g. operator/patient interface).

This certificate replaces previous certificate FI 28110 A2 dated 6 May 2014, due to:

- New Model CNY64S has been added

Is based on test / Our ref. 276326-1, 276326-1 Amendment-1

