



CERTIFICATE NCS/FI 29606

Our Ref. 283774-6

Product Optocoupler

Type KP1010, KP1020., KP1040., KP2010, KP3010, KP3020., KP3040., KP4010., KP4020., KP4040., KP5010., KP6010., K1010., KP1110, K2010., K3010., K1010L.

Trade mark  **cosmo**

Certificate Holder / Manufacturer Cosmo Electronics Corporation
8F, No. 258, Lian Cheng Rd., Chung-Ho Dist.
NEW TAIPEI CITY 235, TAIWAN

Technical information Operating temperature: max. 115 °C
OVC II: max. 250 Vrms / 420 Vpeak, reinforced insulation, or
OVC III: max. 300 Vrms / 420 Vpeak, basic/supplementary insulation

Other information See Appendix

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

Validity This certificate is valid until 29 June 2021 unless the standard in question has been amended or superseded with significant changes in requirements, in which case, SGS Fimko has the right to shorten the validity of the certificate based on the legislation of the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 29 June 2016

SGS Fimko Ltd

Signature



Matti Huttunen
Certification Engineer



This certificate has 1 appendix



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 site(s)

Cosmo Electronics Corp.
No. 396, Lupu Rd.
Dongshan Township
Yilan County 269, TAIWAN

Cosmo Electronics Corp.
No. 16, Ziqiang Rd.
Dongshan Township
Yilan County 269, TAIWAN

Cosmo Electronics Technology Kunshan Co., Ltd.
No. 339, Qing Yang Highway
Zhoushi Town, Kunshan
JIANSU 215300, CHINA

Additional information



“.” in the model name can be 1, 3, 4, 6, blank, S, H or L, which specify the lead form with following options:

- 1 or blank: Dual-in-line type
- 2 or S: Surface mount type
- 3 or H: Long creepage distance type (DIP)
- 6 or L: Long creepage distance for surface mount type

The optocouplers without¹⁾ internal clearance and creepage distance have been evaluated to be connected between primary circuit connected to the a.c. supply mains and secondary circuit connected to SELV.

¹⁾ Thermal cycling according to EN 60950-1:2006 clause 2.10.9 has been carried out with ten times the following sequence: 68 h at 115 °C / 1 h at 25 °C / 2 h at 0 °C / 1 h at 25°C. Thermal cycling was followed by humidity conditioning of 2.9.2 for 48 h at (29 ± 2) °C, (93 ± 3) %rH. Optocouplers have been subjected to the electric strength test of 2.10.11 at 4800Va.c. for 1 minute after treatment of 2.10.9 and after 2.9.2. No breakdown of insulation was observed.

Following additional test have been carried out to fulfill the requirements of clause 29.3.3 of EN 60335-1:2012: High temperature treatment of 150 °C for 48 h followed by 3000 VAC / 60 s electric strength test at 150 °C and after cooling down to room temperature.

Operating temperature: max. 115 °C

Minimum external clearance and creepage distance: 7,8 mm

After judgement from case to case, the optocouplers may also bridge functional, basic, supplementary or reinforced insulation, or may be used in other environments, provided that the ratings are not exceeded in normal operation.

This certificate replaces and combines the FI certificates No. 23149 A3, dated 29 May 2013, and No. 24584 A2, dated 31 May 2013, due to the updated versions of the standards EN 60950-1, EN 60065 and EN-60335-1.

Is based on test / Our ref.

283774-6



Supplement to Certificate: **NCS/FI 29606**

Our ref.
283774-6

29 June 2016

NORDIC CERTIFICATION SERVICE

We hereby confirm that the product(s) appearing from the certificate with above certificate reference also comply(ies) with requirements for secondary certification in the following countries: Sweden

NOTIFICATION

Certificate holder for Sweden	Cosmo Electronics Corporation 8F, No. 258, Lian Cheng Rd., Chung-Ho Dist. New Taipei City 235, TAIWAN Attn: Ms. Tina Gao (tina_gao@cosmo-ic.com) Please send the invoice and the certificate directly to the licence holder.
Safety standard(s) applied	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 EN 60065:2014 EN 60335-1:2012 + A11:2014
Deviations	Not applicable
EMC requirements	-
The assignment is based on	Testing in own premises.
Limitations or reservations regarding the testing / examination performed	None
Certification marks	Affixing of the certification mark(s) of the Nordic body(ies) on the product must not take place before notice about national certification is received from the individual body.
Production surveillance	Will be carried out by SGS Fimko according to agreed procedures.
Other information	Copy of the certificate, this Notification and other agreed documentation are transferred directly from SGS Fimko to SEMKO.
Test samples must be submitted to the secondary body(ies)	No
Date of issue	29 June 2016

This Notification may be challenged if it is more than 3 years old.

SGS Fimko Ltd

Signature



Matti Huttunen
Certification Engineer