



# CERTIFICATE FI 29605

Our Ref. 283774-5

<b>Product</b>	Optocoupler
<b>Type</b>	KMOC302x., KMOC306x., KMOC308x.
<b>Trade mark</b>	<b>cosmo</b>
<b>Certificate Holder / Manufacturer</b>	Cosmo Electronics Corporation 8F, No. 258, Lian Cheng Rd., Chung-Ho Dist., NEW TAIPEI CITY 235, TAIWAN
<b>Technical information</b>	Operating temperature: max. 115 °C OVC II: max. 250 Vrms / 420 Vpeak, reinforced insulation
<b>Other information</b>	See Appendix
<b>The product is certified according to the following standard(s)</b>	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 EN 60065:2014
<b>Validity</b>	This certificate is valid until 29 June 2021 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.
<b>Date of issue</b>	29 June 2016
<b>Signature</b>	<b>SGS Fimko Ltd</b>  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 sites**

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

Cosmo Electronics Corporation  
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**



"x" can be 1, 2 or 3, and specifies the minimum trigger current of the optocoupler (not safety relevant)  
"." can be blank, S, H or L, which specify the lead form with following options:  
blank: Dual-in-line type  
S: Surface mount type  
H: Long creepage distance type (DIP)  
L: Long creepage distance for surface mount type

The optocouplers without 1) 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.

Operating temperature: max. 115 °C

Minimum external clearance and creepage distance: 7,7 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. 23146 A2, dated 30 May 2013, and No. 25802 A1, dated 24 May 2013, due to the updated versions of the standards EN 60950-1 and EN 60065.

**As shown in the Test Report(s) No(s):** 283774-5