



# CERTIFICATE FI/40832

Our Ref. HEL-CERT200900444-01



**Product** Optocoupler  
**Type** KMOC302x., KMOC306x., KMOC308x.

**Trademark** 

**Certificate Holder** Cosmo Electronics Corporation  
8F., No. 258, Lian Cheng Rd., Chung-Ho Dist.,  
New Taipei City, 23553, Taiwan

**Technical information** Environment temperature: max. 115 °C  
Max. 300V AC mains / OVC III: Max. 250 Vrms / MG IIIa/IIIb / PD2, reinforced insulation

**Other information** See page 2

**The product is certified according to the following standard(s)** EN IEC 62368-1:2020 + A11:2020  
EN 60601-1:2006 + A1:2013 + A12:2014

**Validity** This certificate is valid until 28<sup>th</sup> September 2025 provided that the Conditions for FI certification are met. 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** 28<sup>th</sup> September 2020

**SGS Fimko Ltd**

**Signature**



Tom Törn  
Certification Director

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**SGS Fimko Ltd**

Takomotie 8, FI-00380 Helsinki, Finland  
t. +358 9 696 361 [www.sgs.fi](http://www.sgs.fi)

Business ID 0978538-5

Member of the SGS Group (SGS SA)

**Manufacturer**

Cosmo Electronics Corporation  
No.396, Lu-Pu Road, Dong-Shan Hsiang  
269, I-Lan Hsien, Taiwan

**Manufacturing site**

1. Cosmo Electronics Corporation  
No.396, Lu-Pu Road, Dong-Shan Hsiang  
269, I-Lan Hsien, Taiwan
2. Cosmo Electronics Corporation  
No.16 Tsu-Chen Road, Dong-Shan Hsiang,  
269, I-lan Hsien, Taiwan
3. Cosmo Electronics Technology Kunshan Co., Ltd.  
No. 339, Qing Yang Highway, Zhoushi Town, Kunshan, 215300,  
Jiangsu, 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

According to standard EN IEC 62368-1:2020/A11:2020 optocoupler used as safeguard shall comply with the requirements of clause 5.4 or Annex G.12 for optocouplers which requires component to fulfill standard IEC 60747-5-5:2007. In addition, the type testing voltage Vini,a and routine testing voltage Vini,b shall be at least equal to the appropriate test voltage in EN IEC 62368-1:2020/A11:2020 clauses 5.4.9.1 and 5.4.9.2.

Models have been tested and certified by VDE certificate Ref. No. VDE 40009235 according to the standard EN 60747-5-5:2011+A1:2015. The used test voltages for Vini,a and Vini,b are 6,8 kVpeak. Minimum external clearance and creepage distance: 7,7 mm

For ITAV applications, based on test voltages, optocouplers can be used in implementation where required withstand voltage is max. 4,0kVp/(AC mains max. 300 V/OVC III). Complying other insulation requirements construction of the optocouplers, final assembly as well as environmental conditions shall be considered.

For medical applications accordin to standard EN60601-1:2006 + A1:2013 + A12:2014 insulation requirements shall be considered case by case (e.g. operator/patient interface).

This Certificate replaces the previous Certificate FI 29605, dated 29 June 2016, due to standard update.

**As shown in the Test Report(s) No(s):** 299807-3