

CERTIFICATE



of Conformity Low Voltage Directive 2014/35/EU

Registration No.: AN 50458596 0001

Report No.: 50034796 002

Holder: KOREA AUTO CONTROLS CO., LTD.
(Gajwa-dong),
66, Geonji-ro 250beon-gil,
Seo-gu, Incheon, 22837
Rep. of Korea

Product: Mains Switch
Control Switch, Emergency Stop Buttons

Identification: Type Designation : Ku-vwxyz series
(see test report. 50034796 002)
Serial No. : n.a. (prototypes)

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Date 03.02.2020



Certification Body

A handwritten signature in blue ink, appearing to be "TagSun Park".

TagSun Park

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with.



Constructional Data Form for Electromechanical control circuit device

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Type designation: Ku-vwxyz

u stands for	: Mounting Hole		
	(22 : 22mm	25 : 25mm	30 : 30mm
	25F : 25mm Flush	30F : 30mm Flush	
v stands for	: Switch Type Function		
	(1 : Pilot Lamp	2 : Push Button (Return)	3 : Push Button (Maintenance)
	4 : Selector (Two Step)	5 : Selector (Three Step)	6 : Selector Key (Two step)
	7 : Selector Key (Three Step)	8 : Emergency	9 :Mushroom Emergency
	BZ : Buzzer)		
w stands for	: Button Type		
	(Blank : None	1 : Non Lighted Round	2 : Non Lighted Square
	3 : Non Lighted Rectangle	4 : Lighted Round	5 : Lighted Square
	6 : Lighted Rectangle	7 : LED Lighted Round	8 : LED Lighted Square
	9 : LED Lighted Rectangle	A : None Lighted Operating Round	B : None Lighted Operating Square
	C : Lighted Operating Round	D : Lighted Operating Square)	
x stands for	: Indicator Color or Color marking		
	(R : Red	G : Green	Y : Yellow
	W : White	B : Blue	K : Black)
y stands for	: Sec. Standard		
	(RE : Pilot Flat or Push Button Extended Round		
	RF : Lighted Push Button Round Flat	RX : Pilot New Flat	
	N29 : #29 (Round Mushroom or Emergency 29mm Diam.)		
	N40 : #40 (Round Mushroom or Emergency 40mm Diam.)		
	N65 : #65 (Round Mushroom or Emergency 65mm Diam.)		
	AL : Aluminum Guard		
	B29 : Push Full Guard #29	B40 : Push Full Guard #40	B65 : Push Full Guard #65
	C29 : Metal Full Guard #29	C40 : Metal Full Guard #40	C65 : Metal Full Guard #65
	S2R : Short Lever Two Step Auto	S3LR : Short Lever Three Step Both Auto	
	S3L : Short Lever Three Step Left Auto	S3R : Short Lever Three Step Right Auto	
	L2R : Long Lever Two Step Auto	L3LR : Long Lever Three Step Both Auto	
	L3R : Long Lever Three Step Right Auto	L3L : Long Lever Three Step Left Auto	
	L : General Long Lever	W : Well Push Button	D : Double Button
	DR : Direction Button	T : Emergency Push Lock-Turn	K : Push Lock-Key Turn)
	S : Push Selector	F : Flower button	LI : Light on Lever Indicator
z stands for	: Rated voltage of Indicator Light		
	(Blank : Lamp not provide	6VDC : 6/6.3VDC	12VDC : 12VDC
	24VDC : 24VDC	12/24VDC : 12/24VDC	110VDC : 110/125VDC
	110VAC : 110/125VAC	220VAC : 220/240VAC	110/220VAC : 110/220VAC
	380VAC : 380/410VAC	440VAC : 440/480VAC)	

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50325540

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0001

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Ausstellungsdatum	<i>Date of Issue</i> (day/mo/yr)
M.S.K.	ZKR1-HSP- 50034796 001	25.01.2016	

Genehmigungsinhaber *License Holder*
KOREA AUTO CONTROLS CO., LTD.
(Gajwa-dong),
66, Geonji-ro 250beon-gil,
Seo-gu, Incheon, 22837
Rep. of Korea

Fertigungsstätte *Manufacturing Plant*
KOREA AUTO CONTROLS CO., LTD.
(Gajwa-dong),
66, Geonji-ro 250beon-gil,
Seo-gu, Incheon, 22837
Rep. of Korea

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

EN 60947-5-1:2004+A1
EN 60947-5-5:1997+A1+A11
IEC 60947-5-1:2003+A1
IEC 60947-5-5:1997+A1

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Switch Control Switch, Emergency Stop Buttons

Type Designation :	Ku-vwxyz series	6
u stands for	: Mounting Hole (22, 25, 30, 25F, 30F)	
v stands for	: Switch Type Function (1 - 9, BZ)	10
w stands for	: Button Type (1 - 9, A - D)	
x stands for	: Indicator Color or Color Marking (R, G, Y, W, B, K)	
y stands for	: Sec. Standard (RE, RF, RX, N29, N40, N65, AL, B29, B40, B65, C29, C40, C65, S2R, S3LR, S3L, S3R, L2R, L3LR, L3R, L3L, L, W, D, DR, T, K, P)	

continued on page 0002

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ANLAGE (Appendix): 1

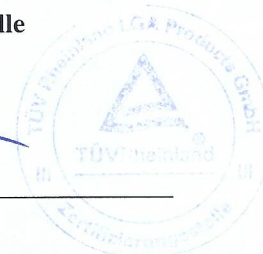
Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
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Zertifizierungsstelle

TagSun Park



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50325540

Blatt *Page*
0002

Ihr Zeichen *Client Reference*
M.S.K.

Unser Zeichen *Our Reference*
ZKR1-HSP- 50034796 001

Ausstellungsdatum
25.01.2016

Date of Issue
(day/mo/yr)

Genehmigungsinhaber *License Holder*
KOREA AUTO CONTROLS CO., LTD.
(Gajwa-dong),
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Rep. of Korea

Fertigungsstätte *Manufacturing Plant*
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Seo-gu, Incheon, 22837
Rep. of Korea

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

EN 60947-5-1:2004+A1
EN 60947-5-5:1997+A1+A11
IEC 60947-5-1:2003+A1
IEC 60947-5-5:1997+A1

Zertifiziertes Produkt (Geräteidentifikation)
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Lizenzentgelte - Einheit
License Fee - Unit

Switch Control Switch, Emergency Stop Buttons

continued from page 0001

z stands for : Rated Voltage of Indicator Light
(6VDC, 12VDC, 24VDC, 12/24VDC, 110VDC,
110VAC, 220VAC, 110/220VAC, 380VAC,
440VAC, Blank)

Utilization Category : 1) AC-12
2) AC-15
3) DC-13
Rated Operational Voltage : 1) 24V, 48V, 110V, 250V, 440V
2) 24V, 48V, 110V, 250V, 440V
3) 24V, 48V, 110V, 250V
Rated Operational Current : 1) 10A, 10A, 10A, 6A, 2A
2) 10A, 10A, 6A, 4A, 1.5A
3) 6A, 3A, 2A, 1A
Rated Insulation Voltage : 600V (Buzzer : 250V)
continued on page 0003

ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

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Zertifizierungsstelle



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Zertifikat

Certificate



Zertifikat Nr. Certificate No.
R 50325540

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0003

Ihr Zeichen Client Reference
M.S.K.

Unser Zeichen Our Reference
ZKR1-HSP- 50034796 001

Ausstellungsdatum
25.01.2016

Date of Issue
(day/mo/yr)

Genehmigungsinhaber License Holder
KOREA AUTO CONTROLS CO., LTD.
(Gajwa-dong),
66, Geonji-ro 250beon-gil,
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Rep. of Korea

Fertigungsstätte Manufacturing Plant
KOREA AUTO CONTROLS CO., LTD.
(Gajwa-dong),
66, Geonji-ro 250beon-gil,
Seo-gu, Incheon, 22837
Rep. of Korea

Prüfzeichen Test Mark



Geprüft nach Tested acc. to

EN 60947-5-1:2004+A1
EN 60947-5-5:1997+A1+A11
IEC 60947-5-1:2003+A1
IEC 60947-5-5:1997+A1

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Switch Control Switch, Emergency Stop Buttons

continued from page 0002

Rated Impulse withstand Voltage : 4kV
(Buzzer : 2.5kV)
Conventional Free Air Thermal Current : 1) 10A
2) 10A
3) 6A
Rated Conditional Short-circuit Current : 1000A
Degree of Protection : IP40
(front side only)
Pollution Degree : 3

ANLAGE (Appendix): 1

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Zertifizierungsstelle



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Zertifikat Certificate



Zertifikat Nr. *Certificate No.*
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0004

Ihr Zeichen *Client Reference*
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Unser Zeichen *Our Reference*
ZKR1-HSP- 50034796 002

Ausstellungsdatum
03.02.2020

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(day/mo/yr)

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Fertigungsstätte *Manufacturing Plant*
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Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

EN 60947-5-1:2017
EN 60947-5-5:1997+A2+A1+A11
IEC 60947-5-1:2016
IEC 60947-5-5:1997+A1+A2
EN 60947-1:2007+A1+A2
IEC 60947-1:2007+A1+A2

Zertifiziertes Produkt (Geräteidentifikation)
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Lizenzentgelte - Einheit
License Fee - Unit

Switch Control Switch, Emergency Stop Buttons

as page 0001 - 0003

Change

Test Requirements : EN 60947-5-1:2004+A1
EN 60947-5-5:1997+A1+A11
IEC 60947-5-1:2003+A1
IEC 60947-5-5:1997+A1

y stands for : Sec. Standard
(RE, RF, RX, N29, N40, N65, AL, B29,
B40, B65, C29, C40, C65, S2R, S3LR,
S3L, S3R, L2R, L3LR, L3R, L3L, L, W,
D, DR, T, K, P)

Rated Insulation Voltage : 600V (Buzzer : 250V)

continued on page 0005

ANLAGE (Appendix): 1.1

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Zertifikat Nr. Certificate No.
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0005

Ihr Zeichen Client Reference
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Unser Zeichen Our Reference
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Ausstellungsdatum
03.02.2020

Date of Issue
(day/mo/yr)

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Seo-gu, Incheon, 22837
Rep. of Korea

Prüfzeichen Test Mark



Geprüft nach Tested acc. to

EN 60947-5-1:2017
EN 60947-5-5:1997+A2+A1+A11
IEC 60947-5-1:2016
IEC 60947-5-5:1997+A1+A2
EN 60947-1:2007+A1+A2
IEC 60947-1:2007+A1+A2

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Switch Control Switch, Emergency Stop Buttons

continued from page 0004

Changed to

Test Requirements : see above

y stands for : Sec. Standard
(RE, RF, RX, N29, N40, N65, AL, B29,
B40, B65, C29, C40, C65, S2R, S3LR,
S3L, S3R, L2R, L3LR, L3R, L3L, L, W,
D, DR, T, K, S, F or LI)

Rated Insulation Voltage : 600V (Buzzer : 250V /
Double contact block : 400V)

ANLAGE (Appendix): 1.1

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Zertifizierungsstelle



TagSun Park

Prüfbericht-Nr.: <i>Test report no.:</i>	CN23OIUP 001	Auftrags-Nr.: <i>Order no.:</i>	180291642	Seite 1 von 20 <i>Page 1 of 20</i>
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2024-04-17	
Auftraggeber: <i>Client:</i>	KOREA AUTO CONTROLS CO., LTD (Gajwa-dong)66, Geonji-ro 250beon-gil, Seo-gu, Incheon, Rep. of Korea			
Prüfgegenstand: <i>Test item:</i>	Emergency stop switches			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	K22-91R-T series K22-91R series (details refer to general product information)			
Auftrags-Inhalt: <i>Order content:</i>	Emergency stop switches function and Principles for design Assessment			
Prüfgrundlage: <i>Test specification:</i>	EN ISO 13850:2015			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2023-12-07			
Prüfmuster-Nr.: <i>Test sample no.:</i>	n.a. (Proto type)			
Prüfzeitraum: <i>Testing period:</i>	2023-12-07 to 2023-12-22			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland / CCIC (Ningbo) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland / CCIC (Ningbo) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	genehmigt von: <i>authorized by:</i>			
Datum: <i>Date:</i> 2024-05-23	 Signed by: Chengjun Wang		 Signed by: Amber Dai	
Stellung / Position: Project Engineer	Ausstellungsdatum: <i>Issue date:</i> 2024-05-24			
Sonstiges / Other:	This report only give the assessment for emergency stop switches according to EN ISO 13850:2015- Safety of machinery - Emergency stop function - Principles for design. The Emergency stop switches K22-91R-T series refer to test report: 50339968 001 for details. The Emergency stop switches K22-91R series refer to test report: 50034796 001 for details.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende: 1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar	5 = mangelhaft N/T = nicht getestet
* Legend: 1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable	5 = poor N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

V05



TEST REPORT ISO 13850:2015 Safety of machinery - Emergency stop function - Principles for design	
Report Number.....	CN23OIUP 001
Date of issue.....	See cover page
Total number of pages	See cover page
Name of Testing Laboratory preparing the Report	TÜV Rheinland / CCIC (Ningbo) Co., Ltd. 3F, building C13, R&D Park, No.32 Lane 299 Guanghua Road National Hi-Tech Zone, Ningbo 315048, P.R. China
Applicant's name	KOREA AUTO CONTROLS CO., LTD
Address.....	(Gajwa-dong)66, Geonji-ro 250beon-gil, Seo-gu, Incheon, Rep. of Korea
Test specification:	
Standard	EN ISO 13850:2015
Test procedure	Emergency stop switches function and Principles for design Assessment
Non-standard test method	N/A
Test Report Form No.	EN ISO 13850:2015
Test Report Form(s) Originator	TÜV Rheinland InterCert Kft, MEEI Division
Master TRF	Dated 2023-12-22
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