

Report No. : H23034E-3
9th May, 2003

TEST REPORT

ON

Illuminated Push Button Switch

- Note : 1. This report is valid for the apparatus.
2. Only the original report is guaranteed.

KOREA INSTITUTE OF MACHINERY AND MATERIALS
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원본은 응인서 플러이 ...

KOREA INSTITUTE OF MACHINERY & MATERIALS(KIMM)

An independent, government
designated, nonprofit
institute for ship safety

TEST CERTIFICATE

OF

ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES

(Issued under Authority vested by the Government of Republic of Korea)

Cert. No. : EX23IP908 Date : 9th May, 2003

Description of apparatus : Illuminated Push Button Switch

Model(Type) : KBL25W Series, KBL30W Series

Manufacturer(name) : KUN HUNG ELECTRIC CO., LTD.

(address) : #113-4, Changan-dong, Dongdaemoon-ku, Seoul, Korea

Drawing No. : PL-25M-012

Manufacturer's serial No. : not applicablle

THIS IS TO CERTIFY that the above mentioned apparatus has been tested and inspected by KIMM in accordance with the standard of IEC 60529 and has been found to comply with the requirements of the standard.

Type of protection : IP65

Test report No. : KIMM No. H23034E-3

Marking : KIMM No. EX23IP908, IP65



B. S. Choi

Beom - Shik Choi

Engineer, Explosion Proof Department,
Industrial Safety Research Center

Chun-Ha Lee

Chun-Ha Lee, Ph. D.

Director, Explosion Proof Department,
Industrial Safety Research Center

TEST REPORT

Date : 9th May, 2003

1. Name of test : Dust & Water Protection Test
2. Applicant (name) : KUN HUNG ELECTRIC CO., LTD.
(address) #113-4, Changan-dong, Dongdaemoon-ku, Seoul, Korea
3. Manufacturer : ditto
4. Test specimen
 - 1) Name : Illuminated Push Button Switch
 - 2) Model(Type) : KBL25W Series, KBL30W Series
 - 3) Type of protection : IP65
 - 4) Construction : Refer to Appendix 4.
5. Applied Standard : IEC 60529
6. Test Period : 1st May, 2003 ~ 9th May, 2003
7. Test Result : Test specimen satisfied the performance criteria in IEC-Pub. 60529
(Refer to test results of Appendix 1.)

This is to certify that the above mentioned test have been properly carried out.

Tested by :

Approved by :

B. S. Choi

Beom-Shik, Choi
Engineer, Explosion Proof Department,
Industrial Safety Research Center

Chun-Ha Lee

Chun-Ha Lee, Ph. D.
Director, Explosion Proof Department
Industrial Safety Research Center

(This report consists of 5 pages)

TEST RESULTS

Test Item	Tested	Results	Remarks
I. Degree of protection			
1. First characteristic numeral	<input type="radio"/>	Satisfactory	Refer to Appendix 2.
2. Second characteristic numeral	<input type="radio"/>	Satisfactory	Refer to Appendix 3.
II. Marking	<input type="radio"/>	Satisfactory	IP65

Test results for dust protection (first characteristic numeral 6)

Description of test

1. Degree of protection :

No ingress of dust.

2. Testing method :

The test was made using equipment incorporating with the principles in which talcum powder was maintained in suspension in a suitable closed test chamber. The talcum powder used should pass a square-meshed sieve whose nominal wire diameter was $50\mu\text{m}$ and the nominal width between wires was $75\mu\text{m}$.

The amount of talcum powder was 2kg per cubic meter of the chamber volume.

The equipment under test was supported in its normal operating position inside the test chamber, but is not connected to a vacuum pump. Any drain-hole normally open shall be left open for the duration of test. The test shall be continued for a period of 8h.

3. Test results : No ingress of dust

Test results for water protection (second characteristic numeral 5)

Description of test

1. Degree of protection :

Water from projected by a nozzle against the enclosure from any direction shall have no harmful effect.

2. Testing method :

The test was made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle.

The conditions were as follows.

- nozzle internal diameter : 6.3mm;
- delivery rate : 12.5 l / min \pm 5%;
- water pressure : to be adjusted to achieve the specified delivery rate;
- test duration per square metre of enclosure surface area likely to be sprayed : 1min;
- minimum test duration : 3 min;
- distance from the nozzle to the machine surface : approximately 3m.

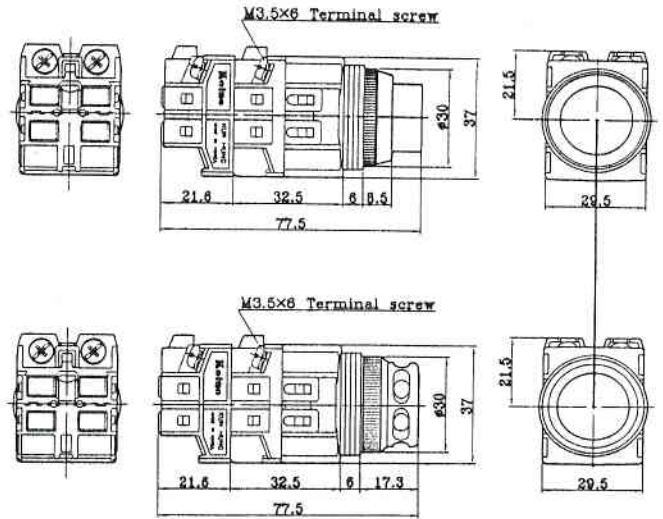
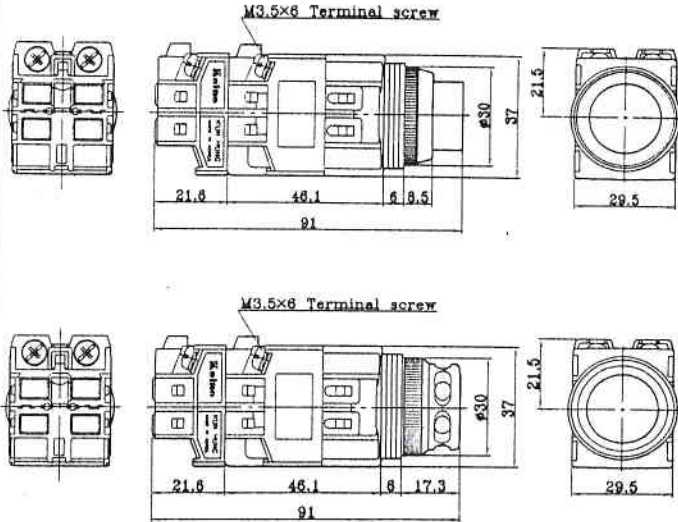
3. Test results : No Harmful immersion was found

조광형 누름버튼 스위치
조광형 누름버튼 걸림형 스위치

트랜스포머 내장형

KBL25WM / KBL25WMP
KBL25WAT / KBL25WAP

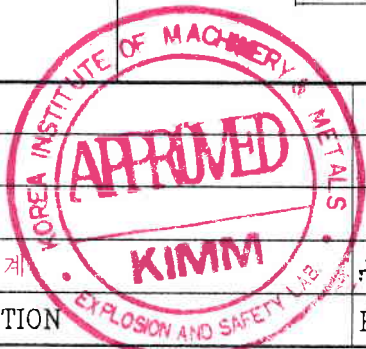
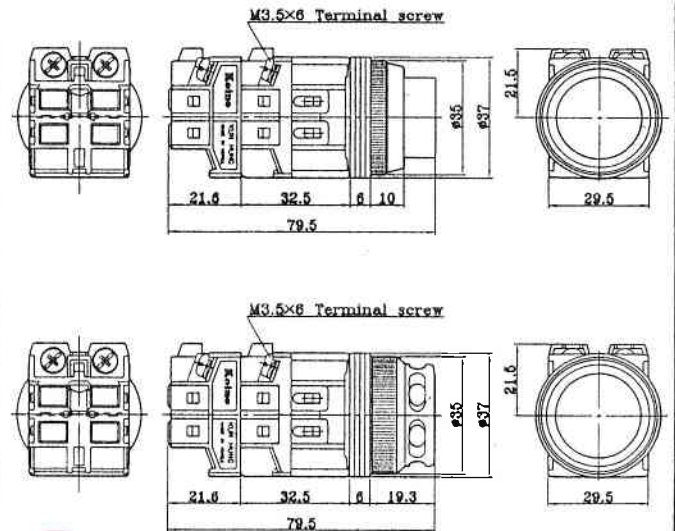
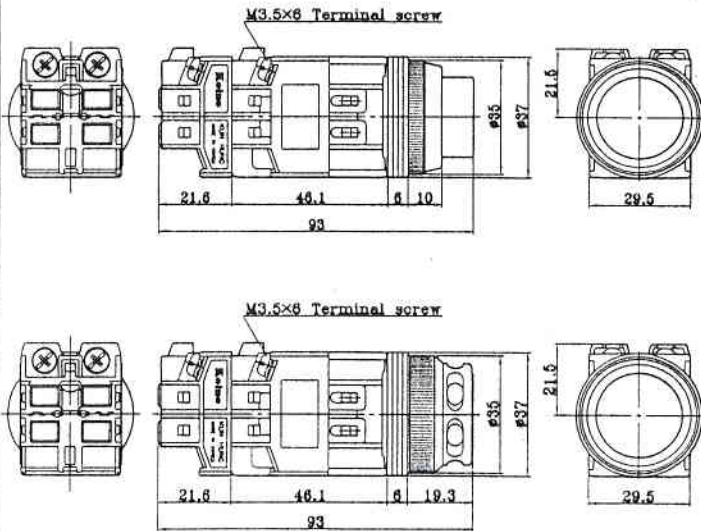
전전압식



트랜스포머 내장형

KBL30WM / KBL30WMP
KBL30WAT / KBL30WAP

전전압식



0	2002.10.21	최초 설계	홍재민	2002.10.25		
Rev.	DATE	DESCRIPTION	PREPARED	REVIEWED	APPROVED	

TITLE:	외형치수도	DWG No.:	IP-25M-012	MODEL:	KBL Series
Koino® KUN HUNG ELECTRIC CO., LTD.			Qty. :	-	Scale: 45/100