

# Yamatake Corporation

# 製品仕様書 SPECIFICATIONS

## 1. CATALOG LISTING

### 1-1. INTEGRATED PUSHBUTTON SWITCH

SHADED PORTION SHOWS THE PRODUCT PRODUCED AFTER ORDER RECEIPT.

#### 1-1-1. SINGLE SECTION (INTEGRATED PUSHBUTTON SWITCH)

LPK11-

BUTTON SHAPE

BUTTON SHAPE CODE	
SQUARE	D
RECTANGULAR	E

HOUSING COLOR

COLOR CODE	
GRAY	G
BLACK	B

ACTION AND CONTACT MATERIAL

ACTION CONTACT	SILVER GOLD
MOMENTARY	1
ALTERNATING	2
	4

TERMINAL SHAPE

TERMINAL SHAPE CODE	
#110/SOLDER	T

\*SWITCH TERMINALS ARE GOLD PLATED

\* TRANSPARENT MAT DIMPLE BUTTON

LED VOLTAGE, CIRCUIT

VOLTAGE	CIRCUIT	CODE
DC 5V	ANODE	05A
DC 12V	COMMON	12A
DC 24V		24A

COLOR WHEN LED ON/OFF

LED ON	LED OFF	CODE
RED	RED	R
PINK	WHITE	P
AMBER	WHITE	W
ORANGE	ORANGE	D
YELLOW	YELLOW	Y
GREEN	GREEN	G
LIGHT YELLOWISH GREEN	WHITE	N

REFERENCE : LED COLOR/  
FILTER COLOR

LED COLOR	RED	YELLOW	GREEN	ORANGE
	GREEN	RED	WHITE	~
RED	~	~	P	~
AMBER	~	~	W	D
GREEN	~	Y	G	N

### 1-1-2. 2-SECTION (INTEGRATED PUSHBUTTON SWITCH)

LPK12-

~  ARE SAME AS THOSE OF SINGLE SECTION

THE CODE FOR  IS SAME AS FOR  OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF  AND

MICRO MARK SIDE



THE SECTION TO BE ITS COLOR SPECIFIED

### 1-1-3. 3-SECTION (INTEGRATED PUSHBUTTON SWITCH)

LPK13-

~  ARE SAME AS THOSE OF SINGLE SECTION

HOWEVER, CODE D CAN NOT BE APPLIED IN

SQUARE BUTTON WITH 3-SECTION IS NOT AVAILABLE

THE CODE FOR  IS SAME AS FOR  OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF   AND

MICRO MARK SIDE



THE SECTION TO BE ITS COLOR SPECIFIED

14	00
13	00
12	00
11	00
10	00
9	00
8	00

7	00
6	00
5	00
4	00
3	00
2	00

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.

作成DR. SHIMIZU	尺度SCALE	記入のない公差 TOL. UNLESS NOTED
1, '17, '00		~
検図CHK UEDA	形番	LPK1*----- LPK21----- LPK3*-----
2, '4, '00	MODEL	
認可APPD MURATA	名称	LIGHTED PUSHBUTTON SWITCH AND INDICATOR
2, '10, '00	図番	AD53056E
日付DATE	NO.	改番REV
2, '10, '00		00 / 14

1-2. INTEGRATED INDICATOR

SHADED PORTION SHOWS THE PRODUCT AFTER ORDER RECEIPT

1-2-1. SINGLE SECTION (INTEGRATED INDICATOR)

LPK11-12345678

1 BUTTON SHAPE

2 HOUSING COLOR

3 ACTION

4 TERMINAL SHAPE

BUTTON SHAPE CODE	
SQUARE	S
RECTANGULAR	R

COLOR CODE	
GRAY	G
BLACK	B

ACTION CODE	
INDICATOR	0

TERMINAL SHAPE CODE	
#110/SOLDER	T

\* TRANSPARENT GROSSY FLAT BUTTON

5167 LED VOLTAGE, CIRCUIT

VOLTAGE	CIRCUIT	CODE
DC 5V	ANODE	05A
DC 12V	COMMON	12A
DC 24V		24A

8 COLOR WHEN LED ON/OFF

LED ON	LED OFF	CODE
RED	RED	R
PINK	WHITE	P
AMBER	WHITE	W
ORANGE	ORANGE	D
YELLOW	YELLOW	Y
GREEN	GREEN	G
LIGHT YELLOWISH GREEN	WHITE	N

REFERENCE: LED COLOR/  
FILTER COLOR

LED COLOR	RED	YELLOW	GREEN	WHITE	ORANGE
RED	R	~	~	P	~
AMBER	~	~	~	W	D
GREEN	~	Y	G	N	~

1-2-2. 2-SECTION (INTEGRATED INDICATOR)

LPK12-123456789

1~7 ARE SAME AS THOSE OF SINGLE SECTION.

THE CODE FOR 8/9 IS SAME AS FOR 8/9 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF 8 AND 9

THE SECTION TO BE  
ITS COLOR SPECIFIED

MICRO MARK  
SIDE



1-2-3. 3-SECTION (INTEGRATED INDICATOR)

LPK13-12345678910

1~7 ARE SAME AS THOSE OF SINGLE SECTION

HOWEVER CODE 8 CAN NOT BE APPLIED IN SQUARE BUTTON WITH 3-SECTION IS NOT AVAILABLE

THE CODE FOR 8/9/10 IS SAME AS FOR 8/9 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF 8, 9 AND 10

THE SECTION TO BE  
ITS COLOR SPECIFIED

MICRO MARK  
SIDE



尺 度 SCALE 記入のない公差 TOL. UNLESS NOTED

作成 DR. SHIMIZU 1, '17, '00

検図 CHK. UEDA 2, '4, '00

認可 APPD. MURATA 2, '10, '00

形 番 LPK1\*-\*\*\*\*\*  
LPK21-\*\*\*\*  
MODEL LPK3\*-\*\*\*\*\*

名 称 名称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR

日付 DATE : 2, '10, '00

図 番 NO. AD53056E

改番 REV. 00 / 14

Yamatake Corporation 製品仕様書  
SPECIFICATIONS

1-3. PUSHBUTTON SWITCH HOUSING UNIT

LPK21-1 2 3 4

1	HOUSING SHAPE	2	HOUSING COLOR	3	ACTION AND CONTACT MATERIAL	4	TERMINAL SHAPE
	HOUSING SHAPE CODE		COLOR CODE		ACTION CONTACT SILVER GOLD		TERMINAL SHAPE CODE
	SQUARE S		GRAY G		MOMENTARY 1		#110/SOLDER T
	RECTANGULAR R		BLACK B		ALTERNATING 2		

\*SWITCH TERMINALS ARE GOLD PLATED

1-4. INDICATOR HOUSING UNIT

LPK21-1 2 3 4

1	HOUSING SHAPE	2	HOUSING COLOR	3	ACTION	4	TERMINAL SHAPE
	HOUSING SHAPE CODE		COLOR CODE		ACTION CODE		TERMINAL SHAPE CODE
	SQUARE S		GRAY G		INDICATOR 0		#110/SOLDER T
	RECTANGULAR R		BLACK B				

作成DR. SHIMIZU 1, 17, '00	尺 度 SCALE 記入のない公差 TOL. UNLESS NOTED		~
検図CHK UEDA 2, 4, '00	形 番 LPK1*-***** LPK21-***** LPK3*-*****	MODEL	
認可APPD MURATA 2, 10, '00	名 称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR	図 番	AD53056E
日付DATE 2, 10, '00	改 番 REV.	NO.	00 / 14
検 閱 APPD.	担 当 BY	日 付 DATE	来 歴 RECORD

# Yamatake Corporation 製品仕様書 SPECIFICATIONS

## 1-5. PUSHBUTTON SWITCH BUTTON UNIT

SHADED PORTION SHOWS THE PRODUCT AFTER ORDER RECEIPT

### 1-5-1. SINGLE SECTION (PUSHBUTTON SWITCH BUTTON UNIT)

LPK31-1 2 3 4 5 6

1 BUTTON SHAPE 2 MODEL 3 4 5 LED VOLTAGE, CIRCUIT

BUTTON SHAPE CODE	MODEL CODE
SQUARE D	SWITCH 1
RECTANGULAR E	

VOLTAGE	CIRCUIT	SIGN
DC 5V	ANODE COMMON	05A
DC 12V	COMMON	12A
DC 24V		24A

\* TRANSPARENT DIMPLE MAT BUTTON

6 COLOR WHEN LED ON/OFF

LED ON	LED OFF	CODE
RED	RED	R
PINK	WHITE	P
AMBER	WHITE	W
ORANGE	ORANGE	D
YELLOW	YELLOW	Y
GREEN	GREEN	G
LIGHT YELLOWISH GREEN	WHITE	N

REFERENCE : LED COLOR / FILTER COLOR

LED COLOR	RED	AMBER	GREEN	YELLOW	GREEN	WHITE
FILTER COLOR	RED	AMBER	GREEN	YELLOW	GREEN	WHITE
	~	~	~	~	~	~
	P	W	D	Y	G	N
	~	~	~	~	~	~
	ORANGE	WHITE	ORANGE	WHITE	ORANGE	WHITE

### 1-5-2. 2-SECTION (PUSHBUTTON SWITCH BUTTON UNIT)

LPK32-1 2 3 4 5 6 7

1 5 ARE SAME AS THOSE OF SINGLE SECTION

THE CODE FOR 6 7 IS SAME AS FOR 6 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF 6 AND 7

THE SECTION TO BE ITS COLOR SPECIFIED

MICRO MARK SIDE



### 1-5-3. 3-SECTION (PUSHBUTTON SWITCH BUTTON UNIT)

LPK33-1 2 3 4 5 6 7 8

1 5 ARE SAME AS THOSE OF SINGLE SECTION

HOWEVER CODE D CAN NOT BE APPLIED IN 1

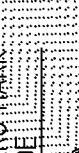
SQUARE BUTTON WITH 3-SECTION IS NOT AVAILABLE

THE CODE FOR 6 7 8 IS SAME AS FOR 6 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF 6 7 AND 8

THE SECTION TO BE ITS COLOR SPECIFIED

MICRO MARK SIDE



### 1-5-4. 2-SECTION VERTICAL SPLIT PUSHBUTTON SWITCH BUTTON UNIT

LPK34-1 2 3 4 5 6 7

1 2 ARE SAME AS THOSE OF SINGLE SECTION

HOWEVER CODE B CAN NOT BE APPLIED IN 1

SQUARE BUTTON WITH 2-SECTION VERTICAL SPLIT IS NOT AVAILABLE

THE CODE FOR 3 4 5 APPLY FOR 24A ONLY SQUARE BUTTON WITH

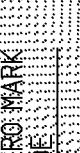
2-SECTION VERTICAL SPLIT IS AVAILABLE FOR 24V ONLY

THE CODE FOR 6 7 IS SAME AS FOR 6 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF 6 AND 7

THE SECTION TO BE ITS COLOR SPECIFIED

MICRO MARK SIDE



改番 REV. 00 / 4

来歴 RECORD 日付 DATE 2, '10, '00 担当 BY 検閱 APPD. 2, '10, '00


図 番 NO. AD53056E

尺 度 SCALE 記入のない公差 TOL. UNLESS NOTED

作成 DR. SHIMIZU 1, '17, '00	尺 度 SCALE 記入のない公差 TOL. UNLESS NOTED
検 図 CHK UEDA 2, '10, '00	形 番 LPK1*-*****
認 可 APPD MURATA 2, '10, '00	MODEL LPK21-*****
	名 称 LPK3*-*****
	LIGHTED PUSHBUTTON SWITCH AND INDICATOR
	改 番 REV 00 / 4

# Yamatake Corporation 製品仕様書 SPECIFICATIONS

## 1-6. INDICATOR BUTTON UNIT

 SHADED PORTION SHOWS THE PRODUCT AFTER ORDER RECEIPT

### 1-6-1. SINGLE SECTION (INDICATOR BUTTON UNIT)

LPK31-1 2 3 4 5 6

1 BUTTON SHAPE 2 MODEL

3 4 5 LED VOLTAGE, CIRCUIT

BUTTON SHAPE CODE	MODEL CODE
SQUARE S	INDICATOR 0
RECTANGULAR R	

VOLTAGE	CIRCUIT	CODE
DC 24V	ANODE COMMON	05A
DC 24V	COMMON	12A
DC 24V		24A

\* TRANSPARENT GLOSSY FLAT BUTTON

6 COLOR WHEN LED ON/OFF

REFERENCE \* LED COLOR/  
FILTER COLOR

LED ON	LED OFF	CODE
RED	RED	R
PINK	WHITE	P
AMBER	WHITE	W
ORANGE	ORANGE	D
YELLOW	YELLOW	Y
GREEN	GREEN	G
LIGHT YELLOWISH GREEN	WHITE	N

LED COLOR	FILTER COLOR
RED	WHITE
AMBER	GREEN
GREEN	YELLOW
	ORANGE
	WHITE
	~
	P
	~
	W
	~
	D
	~
	Y
	~
	G
	~
	N

### 1-6-2. 2-SECTION (INDICATOR BUTTON UNIT)

LPK32-1 2 3 4 5 6 7

1 5 ARE SAME AS THOSE OF SINGLE SECTION

THE CODE FOR 6 7 IS SAME AS FOR 6 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE LOCATION OF 6 AND 7

THE SECTION TO BE  
ITS COLOR SPECIFIED  
MICRO MARK  
SIDE



### 1-6-3. 3-SECTION (INDICATOR BUTTON UNIT)

LPK33-1 2 3 4 5 6 7 8

1 5 ARE SAME AS THOSE OF SINGLE SECTION

HOWEVER CODE 6 CAN NOT BE APPLIED IN 1

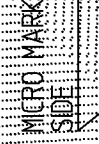
SQUARE BUTTON WITH 5 SECTION IS NOT AVAILABLE

THE CODE FOR 6 7 8 IS SAME AS FOR 6 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE

LOCATION OF 6 7 AND 8

THE SECTION TO BE  
ITS COLOR SPECIFIED  
MICRO MARK  
SIDE



### 1-6-4. 2-SECTION VERTICAL SPLIT (INDICATOR BUTTON UNIT)

LPK34-1 2 3 4 5 6 7

1 2 ARE SAME AS THOSE OF SINGLE SECTION

HOWEVER CODE D CAN NOT BE APPLIED IN 1

SQUARE BUTTON WITH 2 SECTION VERTICAL SPLIT IS NOT AVAILABLE

THE CODE FOR 3 4 5 APPLY FOR 24A ONLY SQUARE BUTTON WITH

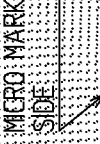
2 SECTION VERTICAL SPLIT IS AVAILABLE FOR 24V ONLY

THE CODE FOR 6 7 IS SAME AS FOR 6 OF SINGLE SECTION

REFER TO THE ILLUSTRATION ON THE RIGHT FOR THE

LOCATION OF 6 AND 7

THE SECTION TO BE  
ITS COLOR SPECIFIED  
MICRO MARK  
SIDE



作成DR. SHIMIZU 1, '17, '00	尺 度 SCALE 記入のない公差 TOL. UNLESS NOTED ~
検図CHK. UEDA 2, '10, '00	形 番 LPK1*-***** LPK21-***** LPK3*-*****
認可APPD. MURATA 2, '10, '00	MODEL
日付DATE 2, '10, '00	名 称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR
検 閱	図 番 AD53056E
	NO.

# Yamatake Corporation

# 製品仕様書 SPECIFICATIONS

## 2. RATINGS · CHARACTERISTICS · SPECIFICATIONS

### 2-1. STANDARDS

- Conform to; JIS C 4521 IEC947-5-1
- Approved by; EN60947-5-1 (File R9850734 TÜV UL 508 (File E96090) C-UL (CSA C22.2 No14)

### 2-2 STRUCTURE

- Type of Contact; SPDTx2
- Shape of Contact Silver Contacts: Rivet Gold Contacts: Cross bar
- Protective Structure; IP00
- Shape of Terminal; Soldered Terminal Used Together With #110 TAB
- Degree of protection against electrical shock from outside of the switch when mounted according to documentation, Class II





### 2-3. RATINGS

- Contacts Ratings Silver Contacts: 250VAC-3A, 30VDC-3A Gold Contacts: 125VAC-0.1A, 30VDC-0.1A

### · LED Circuit Ratings

Voltage	Current			Recommended Voltage
	Rectangular	Square		
	Single Section	3-Section	Single Section 2-Section	
DC24V	16mA	16mAx3	16mA 15mAx2	DC24V ±5%
DC12V	31mA	16mAx2	31mA 16mAx2	DC12V ±5%
DC 5V	72mA	36mAx2 18mAx2	54mA 33mAx2	DC 5V ±5%

### · Ratings (Identified)

Silver Contacts	Gold Contacts	Indicator
 LAMP MAX. 28V/12W 3A-AC250V,DC30V cULus	 LAMP MAX. 28V/12W 0.1A-AC125V,DC30V cULus	 LAMP MAX. 28V/12W cULus EN60947-5-1
1A-AC250V,DC30V EN60947-5-1	0.1A-AC125V,DC30V EN60947-5-1	

SP. No.

# Yamatake Corporation

## 製品仕様書 SPECIFICATIONS

### 2-4. PERFORMANCE PER EN60947-5-1





	Silver contacts	Gold contacts
Rated voltage (Ue)	AC250V DC30V	AC125V DC30V
Utilization category	AC-15 DC-12	AC-12 DC-12
Rated current(Ie)	1A	0.1A
Conventional free air thermal cureent (Ith)	3A	0.5A
Frequency	45~65Hz or "d.c."	
Short circuit protection device and rating	Fast fuse rating 10A (Bussmann ABC10 or equivalent)	
Conditional short-circuit current	100A	

Rated insulation voltage (Ui)	250V
Impulse voltage (Uimp)	4,000V
Switch category	Category III
IP code	IP00
Pollution degree	3
Degree of protection against electric shock from outside of the switch when mounted according to documentation	Class II
Form of contact	C

Structure and rating are overlapping these performance portion.

頁 改番  
PAGE REV.

改番 REV. : 日付 DATE : 担当 BY : 検閲 APPD.

作成DR. SHIMIZU 1, 17, '00	尺度SCALE 記入のない公差 TOL. UNLESS NOTED		CFD	~
検図CHK. UEDA 2, 4, '00	形番 LPK1*-***** LPK21-***** LPK3*-*****		LPK1*-***** LPK21-***** LPK3*-*****	
認可APPD. MURATA 2, 10, '00	名称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR		名称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR	
日付DATE 2, 10, '00	図番 AD53056E		改番REV. 00	7/14

**2-5. CHARACTERISTICS**

- Operating Force; Momentary **7N** max.  
Alternating **8N** max.

- Button Stroke; **3.5 ± 0.4**

**2-6. ELECTRICAL CHARACTERISTICS**

- Insulation Resistance and Dielectric Strength; (Measure Dielectric strength with 1mA leak current.)

Portions to be measured	Insulation Resistance (500VDC megger)	Dielectric Strength (50~60Hz, for 1 minute)
Between unconnected terminals	100 MΩ	750 VAC
Between terminals of different polarities	100 MΩ	3750 VAC
Between terminals of lamp	100 MΩ	1250 VAC
Between each terminal and non-live metal part	100 MΩ	3750 VAC

- Contact Resistance  
Silver Contacts;  
**50** mΩ max. (initial) Measured by the voltage drop method at 6 to 8 VDC **1A**.  
Gold Contacts;  
**100** mΩ max. (initial) Measured by the voltage drop method at 6 to 8 VDC **0.1A**.

- Temperature Rise, **30** °C max. When the terminal temperature is measured after applying max. rated current

- 30** °C max. When temperature of button surface is measured with LED ON

- Contacts Capability (in amperes)

Silver Contacts

Current	Voltage	Load	
		Resistive	Inductive
AC	250 VAC	3	2
	125 VAC	5	3
DC	125 VDC	0.4	0.05
	30 VDC	3	2

Gold Contacts

Current	Voltage	Load	
		Resistive	Inductive
AC	125 VAC	0.1	~
DC	30 VDC	0.1	~

Notes 1. Inductive load; Power factor 0.4(AC),  
time constant 7 ms (DC)

- Minimum Contact Operating Current

Silver Contacts; **24VDC-10mA, 12VDC-20mA**  
Gold Contacts; **5VDC-10mA**

2-7 MECHANICAL CHARACTERISTICS

- Actuator Strength; Withstand **100N** in the operating direction for 1 minute.
- Terminal Strength; Withstand **64N** pull force applied for 1 minute.
- Shock; **150 m/s<sup>2</sup>**  
Misoperation of the contact shall be 1 ms max. in the free position and the total travel position.
- Vibration, Peak-to-peak amplitude 1.5 mm Vibration frequency 10 to 55 Hz for continuous 2 hours.  
Misoperation of the contact shall be 1 ms max. in the free position and the total travel position.
- Mechanical Operating Frequency, **1800** cycles/hour max.

2-8. LIFE

- Mechanical Life, Momentary **1000k** cycles min.  
Alternating **200k** cycles min.
- Electrical Life;

The conditions at operation frequency of 20 cycles a minute are satisfied.

Contact	Condition	Operation cycle
Silver Contacts	Rated load	<b>100k</b> cycles min.
Gold Contacts	Rated load	<b>200k</b> cycles min.

2-9. ENVIRONMENTAL CHARACTERISTICS

- Operating Temperature; **-20** to **40** ° (at no freezing or dewing)
- Operating Humidity ; **85** %RH max.
- Storage Temperature, **-30** to **65** ° (at no freezing or dewing)

2-10. MOUNTING

- Panel Thickness **1~5mm**
- Panel Cutout Dimension **Refer To Page14/14**

作成DR. SHIMIZU 1, 17, '00	尺度 SCALE 記入のない公差 TOL. UNLESS NOTED		~
検図CHK UEDA 2, 4, '00	形番 LPK1*-***** LPK21-***** LPK3*-*****		
認可APPD MURATA 2, 10, '00	名称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR		
日付DATE 2, 10, '00	図番 AD53056E		00

**PRECAUTIONS**  
FOR SAFETY

- CONDUCT WIRING AFTER TURNING OFF THE POWER SUPPLY OF THE EQUIPMENT TO AVOID THE POSSIBLE ELECTRICAL SHOCK OR SUDDEN MACHINE START BY THE POWER APPLIED.
- WHEN RE-ASSEMBLE SWITCH BUTTON AFTER REMOVAL, SWITCH MACHANISM IS INEVITABLY ACTUATED, THEREFORE BE SURE TO TURN OFF MAINS BEFORE DOING SO.
- USE WITHIN THE SPECIFIED RANGES FOR THE ELECTRICAL RATINGS AND OPERATION LIFE. IF USED IN EXCESS OF THE RATINGS, ABNORMAL HEAT OR SMOKE GENERATION MIGHT OCCUR.

FOR APPLICATION

(1) MOUNTING

- CHECK FOR PROPER CLEARANCE BETWEEN EACH TERMINAL AND METAL PARTS (IF ANY) AFTER ASSEMBLED.

(2) SOLDERING

- USE 60W SOLDERING IRON (TIP TEMPERATURE, 350℃ max.), SOLDER WITHIN 5 SECONDS. DO NOT MOVE TERMINALS OR PULL WIRES AFTER SOLDERING AT LEAST 1 MINUTE.

(3) ENVIRONMENT

- THIS SWITCH IS NOT A SEALED MODEL. THE SWITCH PERFORMANCE MIGHT BE DETERIORATED ACCORDING TO THE AMBIENT CONDIONS. AVOID THE USE OR STOCK OF THIS SWITCH AT THE PLACE WHERE CORROSIVE GAS OR SILICON GIVING BAD INFLUENCE TO THE CONTACT EXISTS, OR WHERE THEREUS MUCH DUST.
- THIS SWITCH IS NOT A WATERPROOF MODEL. DO NOT USE AT THE PLACE WHERE SPLASH IS GIGEN.

(4) OTHERS

- OPERATE SWITCH WITH FINGER, NEVER PUSH SWITCH BUTTON USING HAMMER, DRIVER AND LIKE.
- CONFIRM THE QUALITY UNDER THE ACTUAL APPLICATION CONDITION TO ENSURE THE RELIABILITY IN ACTUAL USE.

**⚠ CAUTION**

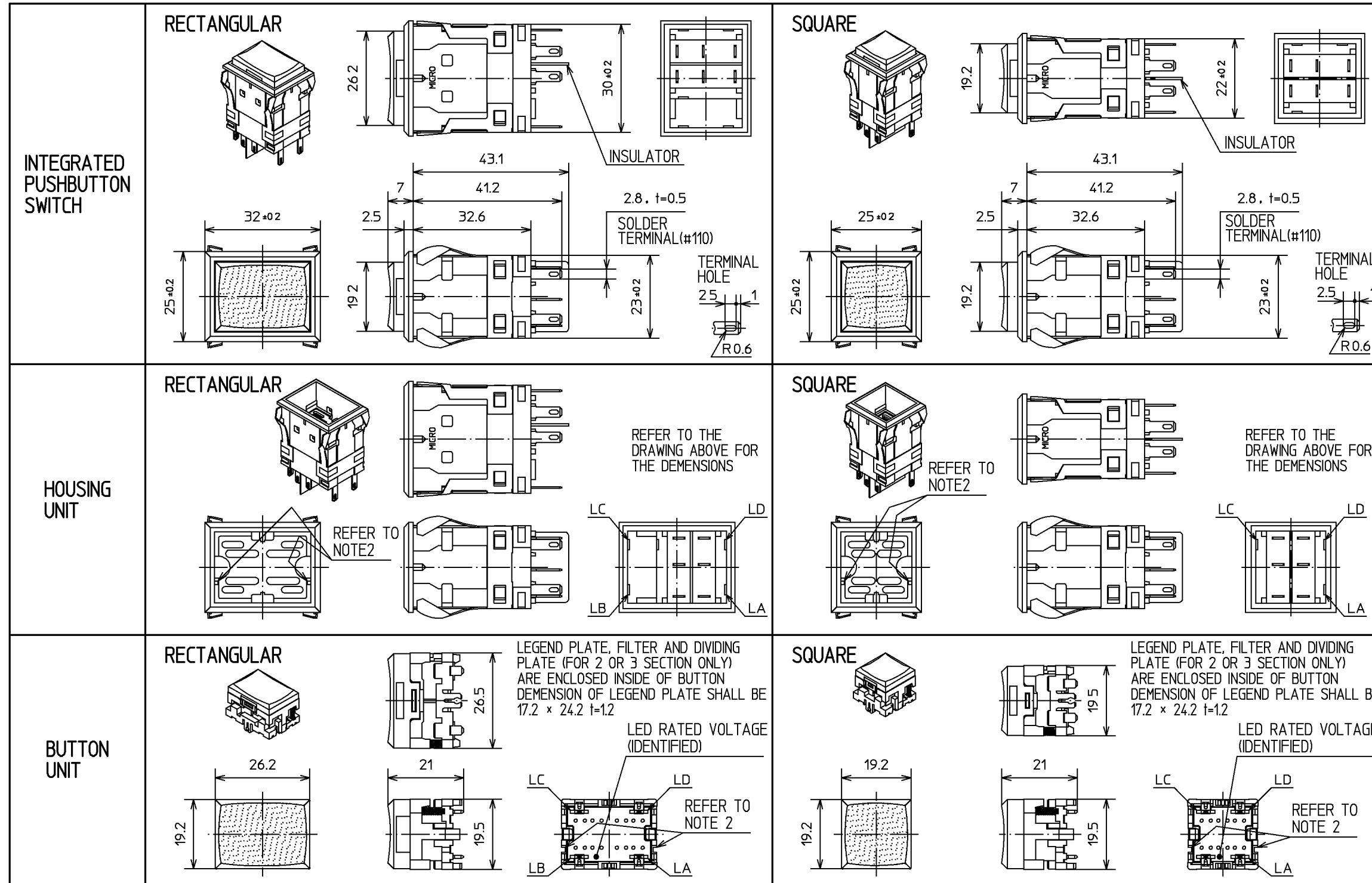
THESE PRODUCTS DEVELOPED AND MANUFACTURED FOR GENERAL-PURPOSE APPLICATION IN MACHINES AND EQUIPMENT. WHEN USED IN THE APPLICATIONS LISTED BELOW THAT REQUIRE SPECIAL SAFETY, PARTICULAR CARE SHOULD BE TAKEN TO IMPLEMENT FAIL-SAFE AND/OR REDUNDANT DESIGN SYSTEMS, AND SCHEDULED MAINTENANCE MUST BE CARRIED OUT PUNCTUALLY.

- SAFETY DEVICES FOR WORKER PROTECTION
- CONTROL DEVICES FOR TRANSPORTION AND MATERIAL HANDLING MACHINES
- AERONAUTICAL/AEROSPACE MACHINES
- CONTROL DEVICES FOR NUCLEAR REACTORS

DO NOT USE THESE PRODUCTS IN APPLICATIONS WHERE SAFETY MAY BE PUT DIRECTLY AT RISK.

作成DR. SHIMIZU 1, 17, '00	尺 度 SCALE 記入のない公差 TOL. UNLESS NOTED	⊕ C/D	〜
検図CHK UEDA 2, 4, '00	形 番 LPK1*-***** LPK21-****	形 番 LPK1*-***** LPK21-****	〜
認可APPD MURATA 2, 10, '00	MODEL LPK3*-*****	MODEL LPK3*-*****	〜
日付DATE 2, 10, '00	名 称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR	名 称 LIGHTED PUSHBUTTON SWITCH AND INDICATOR	〜
来 歴 RECORD	図 番 NO.	図 番 NO.	改 番 REV 00 / 14
日付 DATE	担 当 BY	検 閱 APPD.	

4. DIMENSION  
4-1. PUSHBUTTON

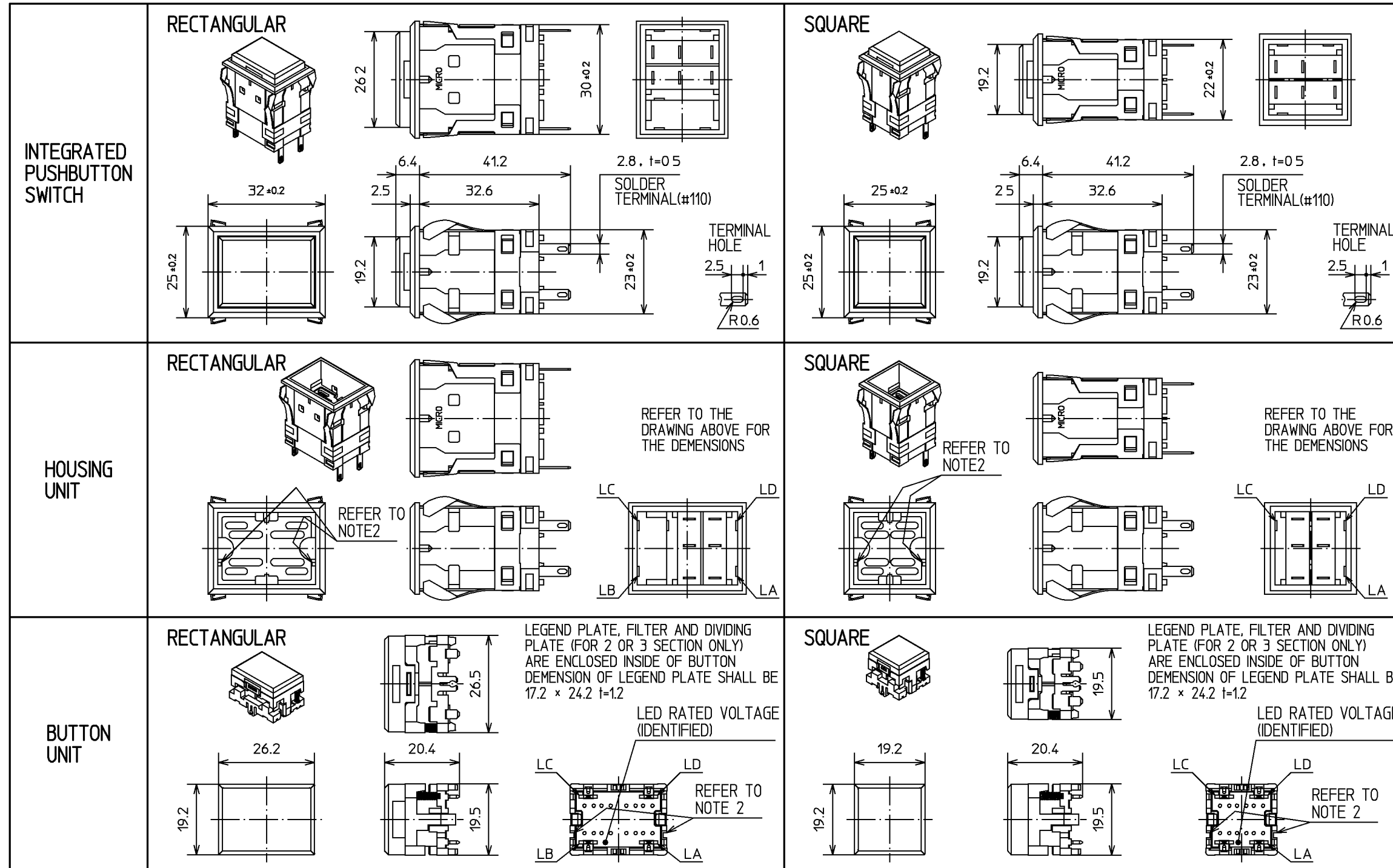


- NOTES
1. A INTEGRATED PUSHBUTTON SWITCH CONSISTS OF A HOUSING UNIT AND A BUTTON UNIT.
  2. HOUSING UNIT AND BUTTON UNIT HAVE MATING KEY. WHEN ASSEMBLE BUTTON UNIT TO HOUSING UNIT, ALIGN THE SLOT OF BUTTON UNIT WITH THE KEY OF HOUSING UNIT.
  3. WHEN USE LEGEND FILM INTO BUTTON, USE HEAT RESISTIVE MATERIAL HAVING FOLLOWING DIMENSIONS FOR RECTANGULAR TYPE;  $17 \pm 0.2 \times 24 \pm 0.2$   $t=0.2$ max. FOR SQUARE TYPE;  $17 \pm 0.2 \times 17 \pm 0.2$   $t=0.2$ max.
  4. TERMINALS OF BUTTON UNIT CONTACT WITH THE TERMINALS OF HOUSING UNIT HAVING SAME IDENTIFICATION.

作成DR. SHIMIZU 1, 17, '00		尺度 SCALE	記入のない公差 TOL. UNLESS NOTED ±0.4
検図CHK. UEDA 2, 4, '00	形番 MODEL	LPK1*-***** LPK21-**** LPK3*-*****	
認可APPD MURATA 2, 10, '00	名称 NAME	LIGHTED PUSHBUTTON SWITCH AND INDICATOR	
日付DATE 2, 10, '00	図番 NO.	AD53056E	改番REV 00

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
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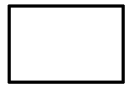
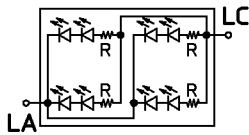
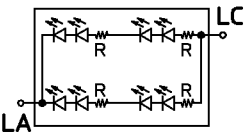
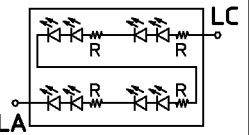
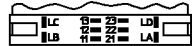
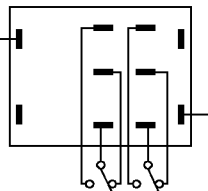
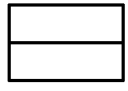
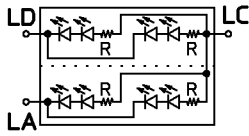
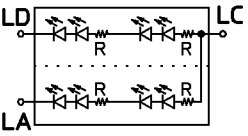
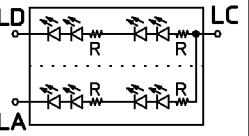
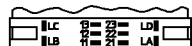
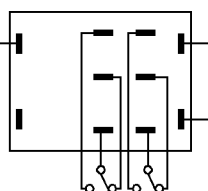
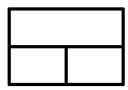
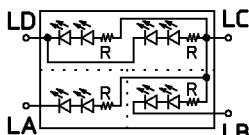
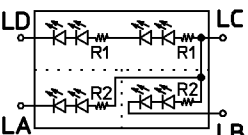
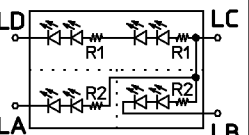
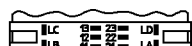
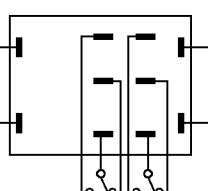

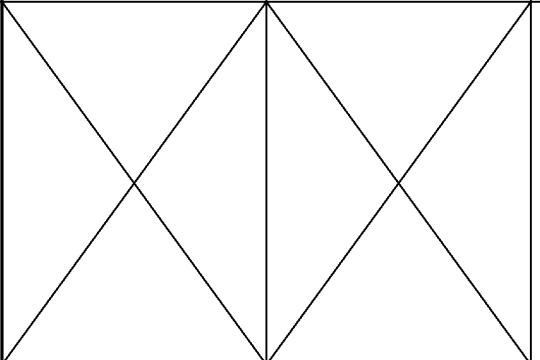
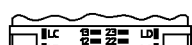
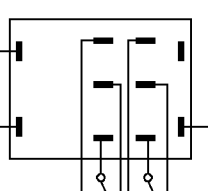
4-2. INDICATOR


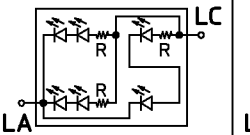
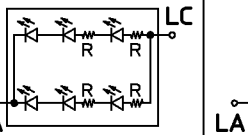
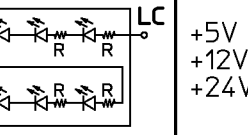

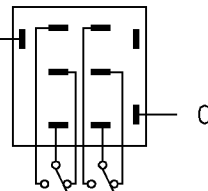
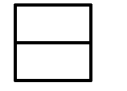
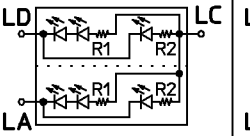
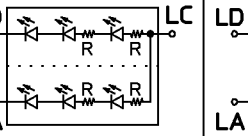
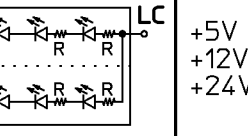

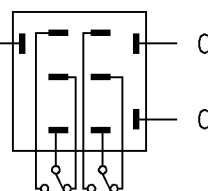


- NOTES
1. A INTEGRATED INDICATOR CONSISTS OF A HOUSING UNIT AND A BUTTON UNIT.
  2. HOUSING UNIT AND BUTTON UNIT HAVE MATING KEY. WHEN ASSEMBLE BUTTON UNIT TO HOUSING UNIT, ALIGN THE SLOT OF BUTTON UNIT WITH THE KEY OF HOUSING UNIT.
  3. WHEN USE LEGEND FILM INTO BUTTON, USE HEAT RESISTIVE MATERIAL HAVING FOLLOWING DIMENSIONS FOR RECTANGULAR TYPE;  $17 \pm 0.2 \times 24 \pm 0.2$   $t=0.2\text{max.}$  FOR SQUARE TYPE;  $17 \pm 0.2 \times 17 \pm 0.2$   $t=0.2\text{max.}$
  4. TERMINALS OF BUTTON UNIT CONTACT WITH THE TERMINALS OF HOUSING UNIT HAVING SAME IDENTIFICATION.


作成DR. SHIMIZU 1, 17, '00		尺度 SCALE	記入のない公差 TOL. UNLESS NOTED $\pm 0.4$
検図CHK. UEDA 2, 4, '00	形番 MODEL	LPK1*-***** LPK21-**** LPK3*-*****	
認可APPD MURATA 2, 10, '00	名称 NAME	LIGHTED PUSHBUTTON SWITCH AND INDICATOR	
日付DATE 2, 10, '00	図番 NO.	AD53056E	改番REV 00

5. TERMINAL ARRANGEMENT AND INTERNAL CIRCUIT

SECTION	LIGHTS CIRCUIT OF LED LAMP			WIRING DIAGRAM (REFER TO NOTE3)
	5V	12V	24V	
RECTANGULAR SINGLE SECTION 				TERMINAL IDENTIFICATION  
RECTANGULAR 2-SECTION 				TERMINAL IDENTIFICATION  
RECTANGULAR 3-SECTION 			 REFER TO NOTE2	TERMINAL IDENTIFICATION  
RECTANGULAR 2-SECTION VERTICAL SPLIT 				TERMINAL IDENTIFICATION  

SECTION	LIGHTS CIRCUIT OF LED LAMP			WIRING DIAGRAM (REFER TO NOTE3)
	5V	12V	24V	
SQUARE SINGLE SECTION 				TERMINAL IDENTIFICATION  
SQUARE 2-SECTION 				TERMINAL IDENTIFICATION  

NOTES 1. LED CIRCUIT DIAGRAM SHOWS FRONT VIEW, TEMINAL ARRANGEMENT DIAGRAM IS IN REAR VIEW WITH MICRO MARKING UPWARD.  
 2. LEDES IN 3-SECTION CAN NOT BE LIGHTED SIMULTANEOUSLY.  
 3. REFER TO PAGE 11/14 OR 12/14 FOR THE CONNECTION BETWEEN THE UNITS.

作成DR SHIMIZU 1, 17, '00		尺度 SCALE UN	記入のない公差 TOL. UNLESS NOTED ± 0.4
検図CHK. UEDA 2, 4, '00	形番 MODEL	LPK1*-***** LPK21-**** LPK3*-*****	
認可APPD MURATA 2, 10, '00	名称 NAME	LIGHTED PUSHBUTTON SWITCH AND INDICATOR	
日付 DATE 2, 10, '00	図番 NO.	AD53056E	改番REV 00/13/14

6. PANEL CUTOUT DIMENSION  
6-1. RECTANGULAR

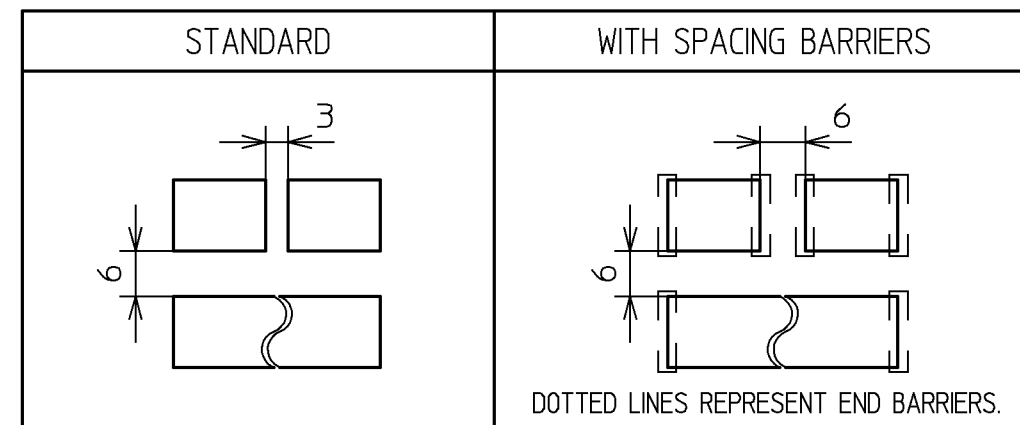
PANEL THICKNESS 1-5

MOUNTING		MOUNTED VIEW	PANEL CUTOUT DIMENSION
STANDARD	SINGLE HORIZONTAL with MICRO marking upward		
	SHORT SIDES ABUTTING with MICRO marking upward		
	SINGLE VERTICAL REFER TO NOTE 1		
	LONG SIDES ABUTTING REFER TO NOTE 1		
WITH SPACING BARRIERS	SINGLE HORIZONTAL with MICRO marking upward		
	SHORT SIDES ABUTTING with MICRO marking upward		
	SINGLE VERTICAL REFER TO NOTE 1		
	LONG SIDES ABUTTING REFER TO NOTE 1		

6-2. SQUARE

MOUNTING		MOUNTED VIEW	PANEL CUTOUT DIMENSION
STANDARD	SINGLE HORIZONTAL with MICRO marking upward		
	SIDES ABUTTING with MICRO marking upward		
WITH SPACING BARRIERS	SINGLE HORIZONTAL with MICRO marking upward		
	SIDES ABUTTING with MICRO marking upward		

6-3. DIMENSIONS REQUIRED BETWEEN SWITCHES OR BLOCKS



NOTES 1. REPLACE MOUNTING BRACKET ASSEMBLES WITH LONG MOUNTING BRACKETS WHEN RECTANGULAR SWITCH IS MOUNTED VERTICALLY.

作成DR SHIMIZU 1, 17, '00	検図CHK. UEDA 2, 4, '00	認可APPD MURATA 2, 10, '00	形番 MODEL LPK1*-***** LPK21-**** LPK3*-*****	名称 NAME LIGHTED PUSHBUTTON SWITCH AND INDICATOR	日付DATE 2, 10, '00	改番REV 00	14/14
尺度SCALE 記入のない公差TOL. UNLESS NOTED ±0.4			図番 NO. AD53056E		改番REV 00		

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
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