

Specifications

Model	LKEH-□□FV
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27 Apr '09	25 Apr '09	20 Apr '09

PATLITE Corporation

for reference

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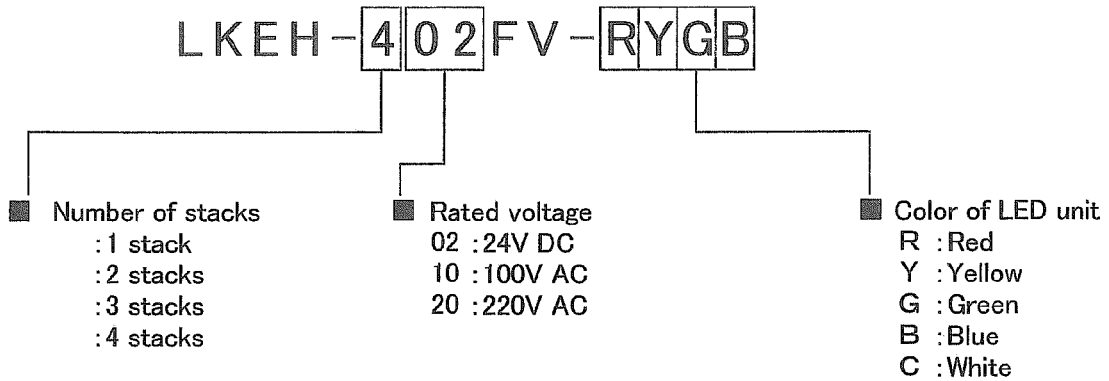
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1. Model Indicating Format



2. General specifications

Model	LKEH-□02FV	LKEH-□10FV	LKEH-□20FV
Rated voltage	24V DC	100V AC 50/60Hz	220V AC 50/60Hz
Operating voltage	24V DC ± 10%	100V AC ± 10%	220V AC ± 10%
Power consumption	LKEH-102FV MAX.10.6W	LKEH-110FV MAX.17.0W	LKEH-120FV MAX.17.0W
	LKEH-202FV MAX.12.4W	LKEH-210FV MAX.20.0W	LKEH-220FV MAX.20.0W
	LKEH-302FV MAX.14.2W	LKEH-310FV MAX.23.0W	LKEH-320FV MAX.23.0W
	LKEH-402FV MAX.16.0W	LKEH-410FV MAX.26.0W	LKEH-420FV MAX.26.0W
Operating temperature range	-10 ~ 50°C		
Relative humidity	85%RH or lower (no condensation)		
Mounting direction	Upright direction only		
Protection level	IP 53 (Upright direction only)		
Insulation resistance	DC 500V 1MΩ or more (Between live parts and dead metal parts)		
Dielectric Voltage-Withstand	500V AC for 1 minute	1000V AC for 1 minute	1500V AC for 1 minute
	Between live parts and dead metal parts	Between live parts and dead metal parts	Between live parts and dead metal parts
	19.6m/s ² (30Hz, Back and force 2h·Right and Left 2h·Up and down 4h)		
Mass	LKEH-102FV 1.4kg ± 10%	LKEH-110FV 2.1kg ± 10%	LKEH-120FV 2.1kg ± 10%
	LKEH-202FV 1.6kg ± 10%	LKEH-210FV 2.3kg ± 10%	LKEH-220FV 2.3kg ± 10%
	LKEH-302FV 1.8kg ± 10%	LKEH-310FV 2.5kg ± 10%	LKEH-320FV 2.5kg ± 10%
	LKEH-402FV 2.0kg ± 10%	LKEH-410FV 2.7kg ± 10%	LKEH-420FV 2.7kg ± 10%
Notes	<ul style="list-style-type: none"> • Type LKEH-□02FV complies with EC Directive(EMC Directive) and CE Marking is indicated. • This product complies with the RoHS Directive(DIRECTIVE 2002/95/EC) 		

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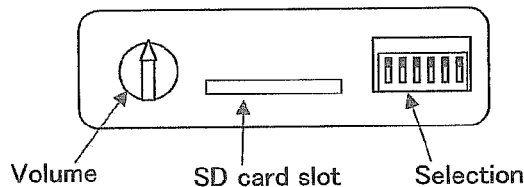
3.Performance specifications

Sound pressure level	MAX. 105dB Volume-adjustable (Fit the product on the plate of □300mm, and measure the level with the sine wave of 1kHz at the distance of 1m from the center of the product, in the front direction.) The sound pressure level may be lowered depending on the tone and the usage environment.
Sound reduction level	20dB±2dB(At a maximum volume, reproduction with the sine wave of 1kHz)
Light source	LED
Brightness	Red(R):2100mcd or more Yellow(Y):2400mcd or more Green(G):5200mcd or more Blue(B):700mcd or more White(C):5500mcd or more
Number of blinks	60±3 times/minute
Output lines	BUSY+、BUSY-(ON during voice playing)
Input interface	Signal line:14 lines (LED:5 lines, Sound:5 lines, STOP,Sound reduction, Blinking common, Common) Selection switch,SD card slot
Input method of sound signal line	Bit input:Pulse input/Binary input:Pulse input (Switchable by selection switch)
Fixing time of voice input signal	Pulse input width 100ms or more
Number of playing messages	Bit input: 8 Binary input: 31
Priority order for the channel	STOP>CH5>CH4>CH3>CH2>CH1 (Only bit input)
Internal memory size	504kbyte(Total of MP3 data)/Maximum playing time:63 sec.(At playing of the standard bit rate data)
Voice file	MPEG1 Audio Layer III(MP3)
Memory card	SD card Recommendation:SDV-128P (Sold separately)
SD card format	FAT16
Starting time	At the start of power supply:500ms or less At the start of signal line:300ms or less(Refer to the timing chart)

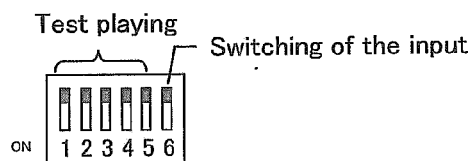
3-1. Setting Method

This product can change the setting from front side under installed condition.
The configurable function is as follows.

Inside the front cover



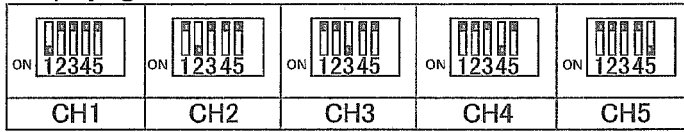
- Adjustment of sound volume
It is possible to adjust the sound volume by the Volume.
- Rewriting of messages
It is possible to rewrite the messages by using the SD card.
- Selection switch
It is possible to switch the 'Test playing' and 'Input mode'



for reference

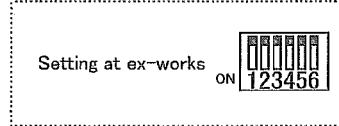
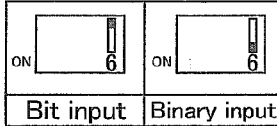
3-2. Selection switch setting

Test playing



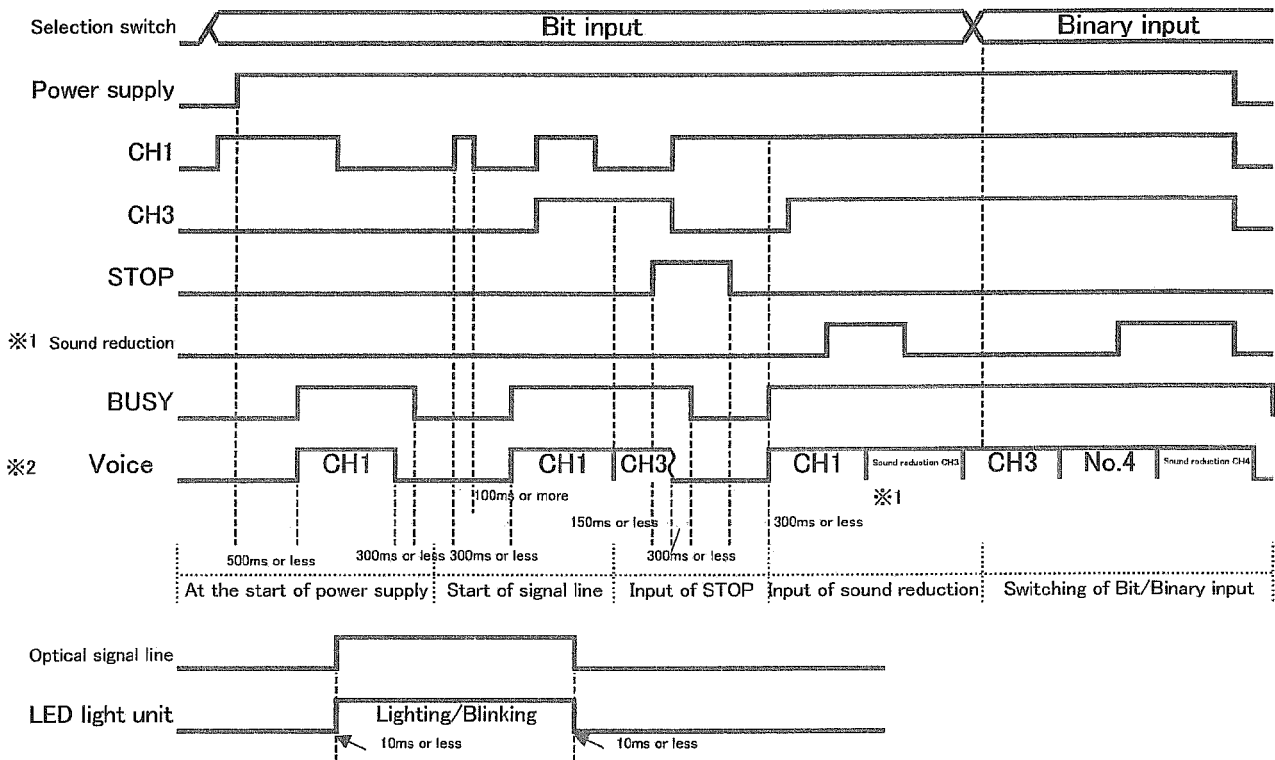
Playback priority in test play mode when any of the channels are activated simultaneously.
CH5>CH4>CH3>CH2>CH1

Switch Bit input/Binary input



If message registration is up to No.5:
Bit input mode
If message registration is No.6 and above:
Binary input mode

3-3. Input timing chart



- ※1 The sound level of playback sound is reduced while the sound reduction function is activated.
In case the sound reduction function is activated during the sound playback, the sound level is not reduced until next phrase.
(Refer to 3-4. Sound reduction function)
- ※2 Once the playback signal is input, no more playback signal is accepted until the playback is finished.

3-4. Sound reduction function

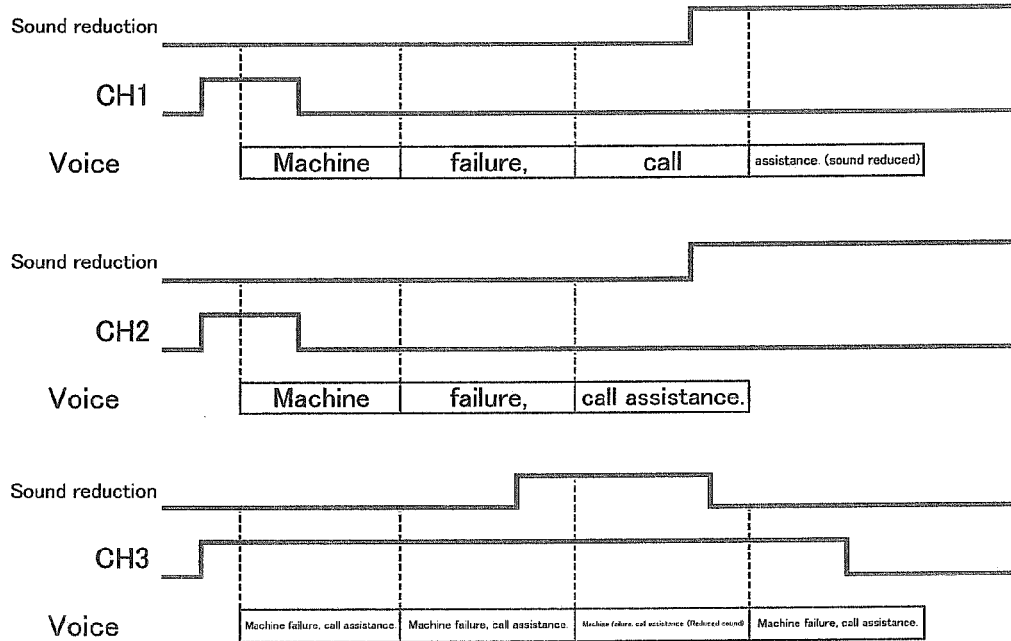
When the common line and the sound reduction signal line are short-circuited, a sound pressure level at voice playing is lowered.

The message can be configured by maximum 16 phrases per 1 channel.

Sound level can be reduced per each phrase with sound reduction function.

[Example]

	Phrase 1	Phrase 2	Phrase 3	Phrase 4
CH1	Machine	failure,	call	assistance.
CH2	Machine	failure,	call assistance.	
CH3	Machine failure, call assistance.			



3-5. Binary code table

By setting of the selection switch 6 to ON, the binary input mode is selected.

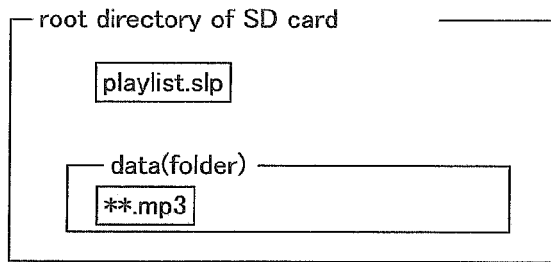
In the binary input mode, by short-circuiting the common line and each CH of below table, the corresponding tone is played. In case of input CH which are not described in the table,

Input CH					Message number	Input CH					Message number
CH1	CH2	CH3	CH4	CH5		CH1	CH2	CH3	CH4	CH5	
○					1	○				○	17
	○				2		○			○	18
○	○				3	○	○			○	19
		○			4			○		○	20
○		○			5	○		○		○	21
	○	○			6		○	○		○	22
○	○	○			7	○	○	○		○	23
			○		8				○	○	24
○			○		9	○			○	○	25
	○		○		10		○		○	○	26
○	○		○		11	○	○		○	○	27
		○	○		12			○	○	○	28
○		○	○		13	○		○	○	○	29
	○	○	○		14		○	○	○	○	30
○	○	○	○		15	○	○	○	○	○	31
				○	16						

○ means short circuit of the sound signal line and the common line.

3-6. Rewriting method of voice data

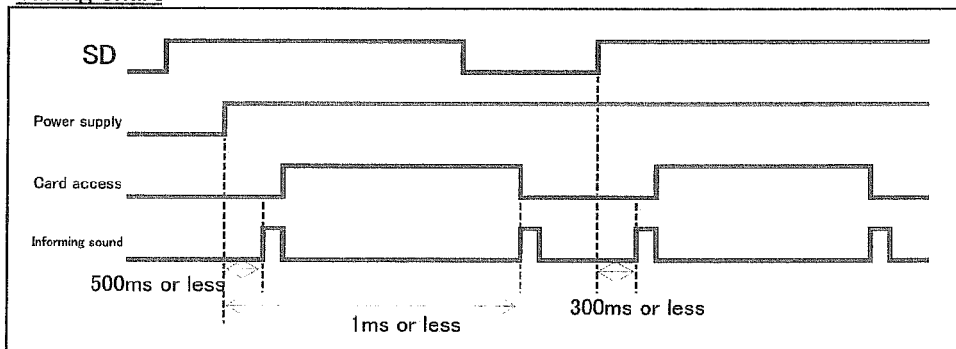
1. Prepare the SD card stored the below.



※The 'playlist.slp' can be made by the playlist editor software or Model FV-WIN, separate vending.

2. Check if the power of the product is supplied.
3. Insert the SD card that has stored the rewriting data into the card slot.
4. It is informed by the sound 'Pipo,' and rewriting is started.
5. When rewriting of the data has finished, it is informed by the sound "Pee." Then, pull out the SD card. Writing will be finished within 60seconds. If it is informed by the sound "Pipipipi" or there is no reaction, the rewriting is not normally completed. In addition, pay attention that, the informing sound cannot be heard if the volume is at the minimum level.
6. Play the voice of each CH, and confirm that rewriting has been normally completed.

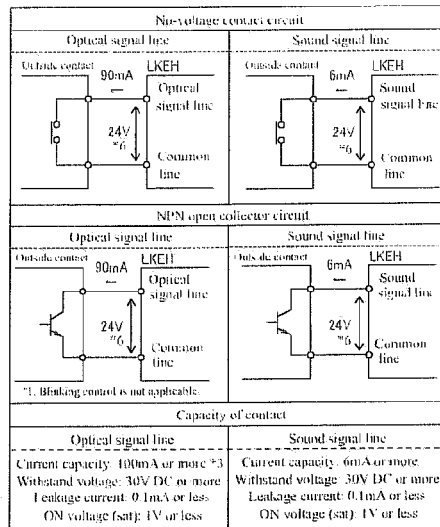
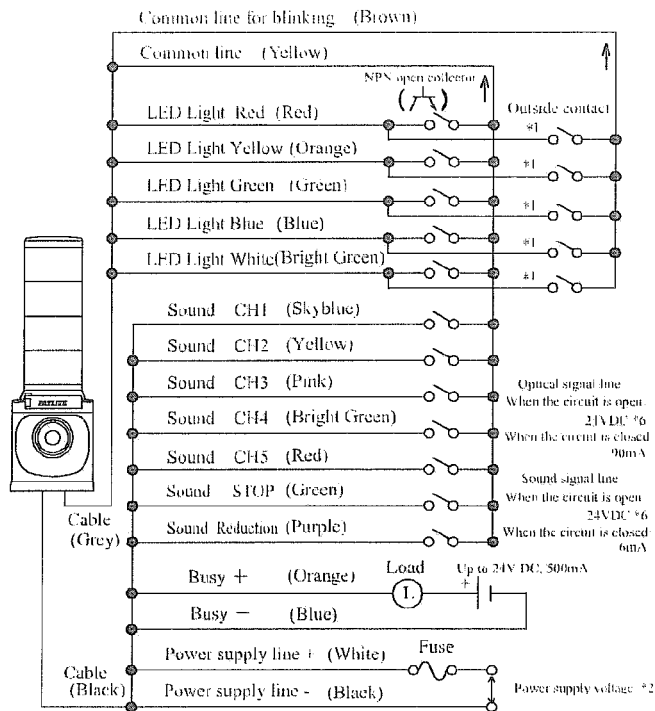
Timing chart



- * When the SD card is reading, input of the sound signal line has no effect.
- * When the signal inputs, the SD card doesn't read.

for reference

3-7. Wiring Method

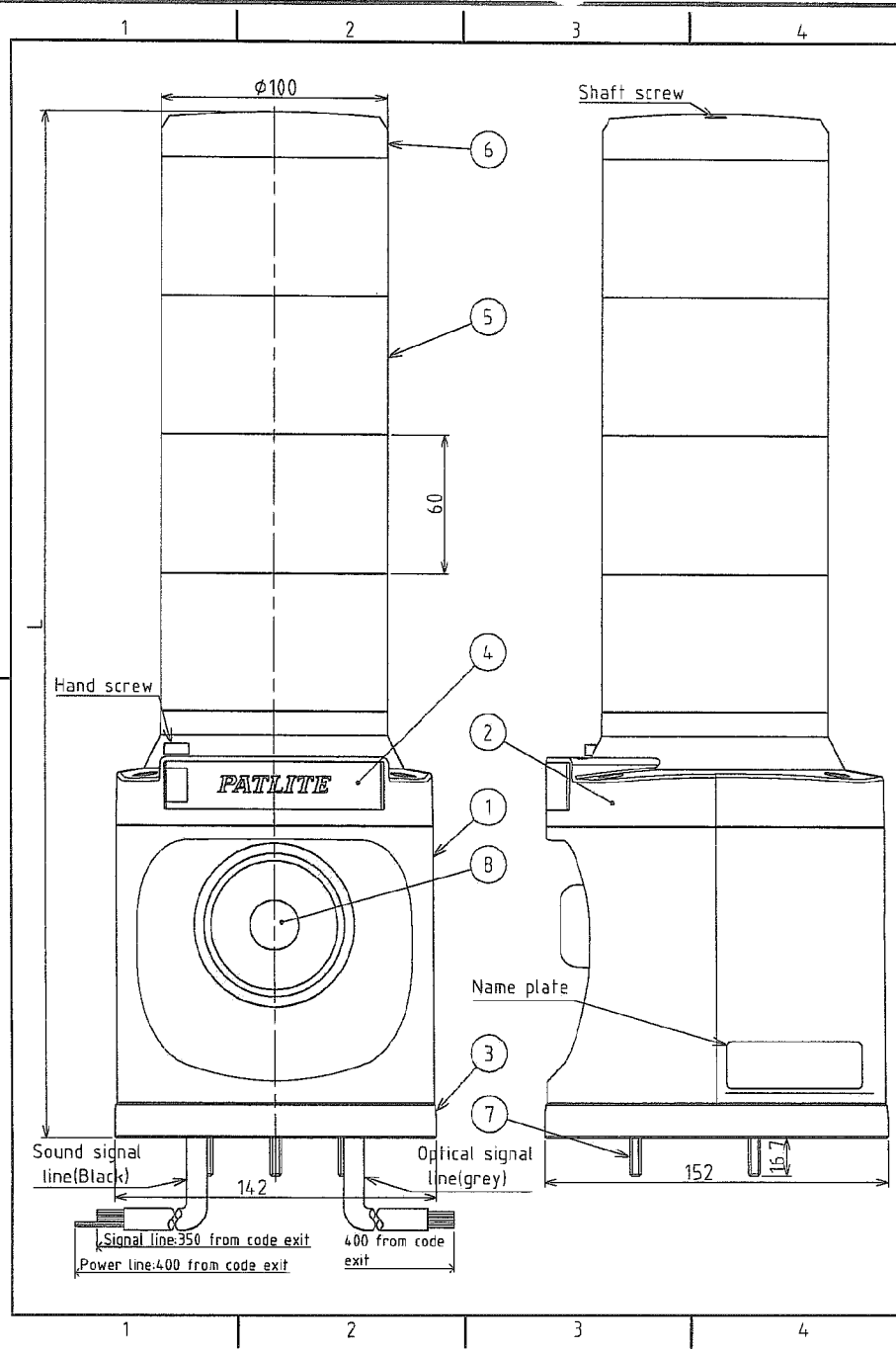


Model	Rated voltage	Rush current *3	Fuse capacity *5
LKEH-□02FV	24V DC	10A	2A(normal)
LKEH-□10FV	100V AC	12A	0.5A(time lag)
LKEH-□20FV	220V AC	6A	0.5A(normal)

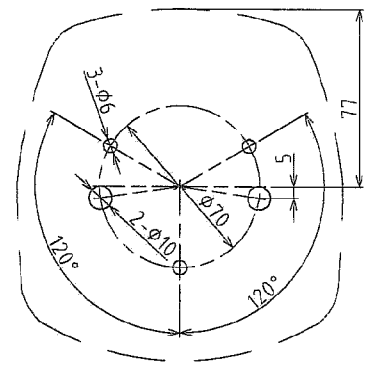
*** Do not apply voltage on each signal line. Or else, there is a risk of breaking down the product.**

- *1. Blinking control is applicable only for the no-voltage contact circuit.
- *2. Regarding LKEH-□02FV, connect the power supply line (black) at the minus (terminal).
- *3. Current capacity of the contact per one stack of the LED light units.
When using a plurality of LED light units with a same color, confirm the contents of following [Request](#).
- *4. At the maximum using voltage, and when power supply is switched on
- *5. For LKEH-□10FV, use a fuse of the time-lag type.
If the normal type is used, there is a risk of melting down by rush current.
- *6. In case of LKEH-□02FV, this is power supply voltage.

LKEH-FV-A18B-9_9

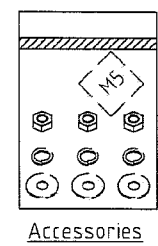


指定公差 General Tolerance	角度公差 ±f [°]			寸法公差 ±[mm]				符号 Svm.	年月日 Date	訂正履歴 Revisions			記印 Ssn.	検印 Chk.	承認 App.	
	角公差 Angular tolerance	線公差 Line tolerance	面公差 Surface tolerance	細 C	中 M	粗 F	公差 Tolerance			修正 Rev.	日期 Date	修正 Rev.				日期 Date
外 Ext.	10	50	100	±0.05	±0.1	±0.2	±0.4	±0.6	△							
公 Gen.	f	1	0.5	0.3	0.1	0.2	0.4	0.6	△							
粗 C	v	3	1.5	1	0.5	粗	c	0.3	0.5	1	1.2	2	△			



L dimension

Stack	L
1 stack	265.2
2 stacks	325.3
3 stacks	385.4
4 stacks	445.5



for reference

8	Horn		1		
7	Mounting feet		3	MFZn M5	
6	Head cover		1	PBT/ABS (Light grey)	
5	LED unit		1-4	PC Red/Amber/Green/Blue/White	
4	Front cover		1	AES (Light grey)	
3	Bottom plate		1	AES (Light grey)	
2	Base cover		1	AES (Light grey)	
1	Body		1	AES (Light grey)	
番号 No.	部品名 Part Name	品目コード Part No.	数量 Qty.	材料 & 寸法 & 処理 Material & Size & Finish	記事 Remarks