

LED AIRFIELD LIGHTING



LED flash system

- SFLS(L) Sequenced Flashing Lighting System
- RTILS(L) Runway Threshold Identification Lighting System

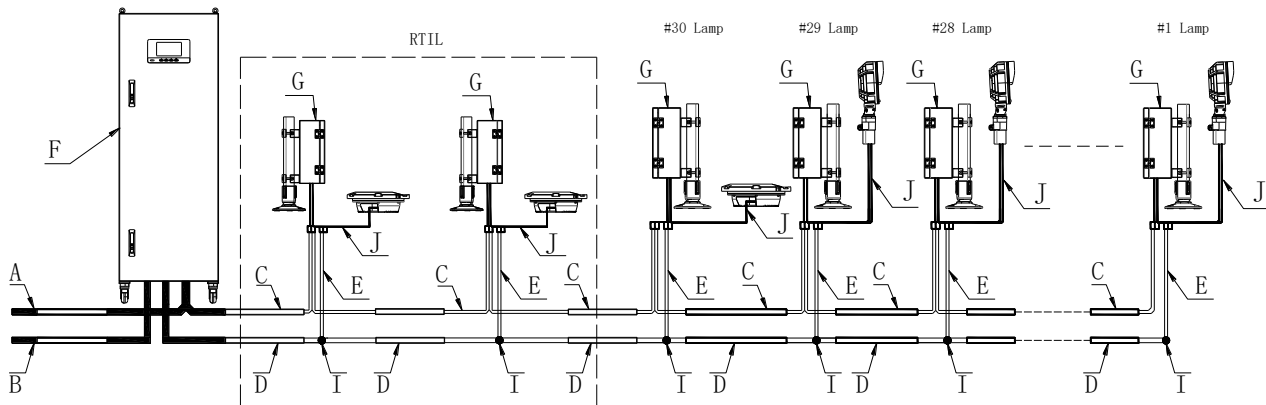
Compliance with Standards (current version)

ICAO	Annex 14, Volume 1, & Aerodrome Design Manual
EASA	CS-ADR-DSN

GENERAL

HDK's LED Flash System is designed to meet ICAO Annex 14 requirements for Sequenced flashing lights, runway threshold identification lights, or a combination of both for use in approach centerline systems. Suitable for Category I, II and III runway operation.

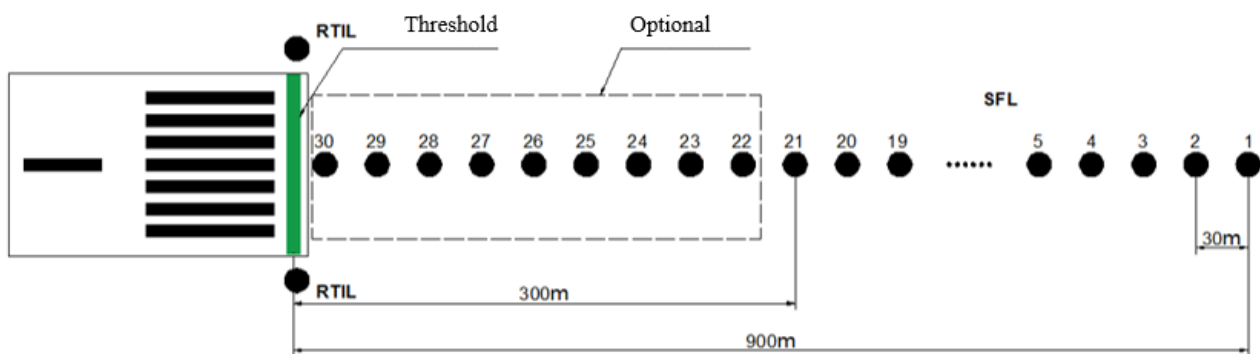
An LED-based flash system is a flash signal system that consists of the following components:



System composition

- Main control cabinet (F): It is the control unit of the system. It manages the power supply and communicates with the flash unit installed in the field
- Branch control box (G): Establish the connection and communication between the main control cabinet and the lamp
- Lamp: Inset lights and elevated lights
- Branch cable (E): Aross-sectional area $\geq 4\text{mm}^2$ three-core cable
- 485 communication cable (A): Aross-sectional area $\geq 2 \times 2 \times 2\text{mm}^2$ twisted pair shielded cable
- Power supply cable (AC 220V) (B): Aross-sectional area $\geq 25\text{mm}^2$ three-core cable
- CAN communication cable (C): Aross-sectional area $\geq 2 \times 2 \times 2\text{mm}^2$ twisted pair shielded cable
- Main cable (D): Aross-sectional area $\geq 25\text{mm}^2$ three-core cable
- Lamp Cables (J): Inset light cables and elevated light cables

LED flash system can be configured according to request:



System layout

- Sequenced Flashing Lighting System (SFLS).
- Runway Threshold Identification Lighting System (RTILS).
- The Sequenced flashing system can be configured with 21pcs/set or 30pcs/set according to requirements

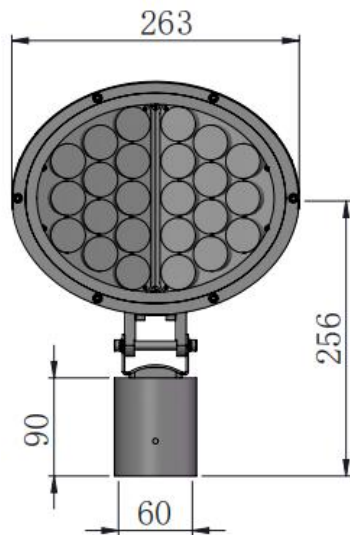
KEY FEATURES

- Flash lights use a highly efficient LED light source.
- Adopt special aviation connector, Cable plug is stable and durable and easy to plug
- Support the emergency mode, flashing autonomously when the communication is interrupted
- Support maintenance mode, The main control cabinet can be made offline to any separate control panel as the host independent work and debugging
- Main Control cabinet LCD touch screen display, intuitive and easy to operate
- Suitable for an altitude greater than 2500m

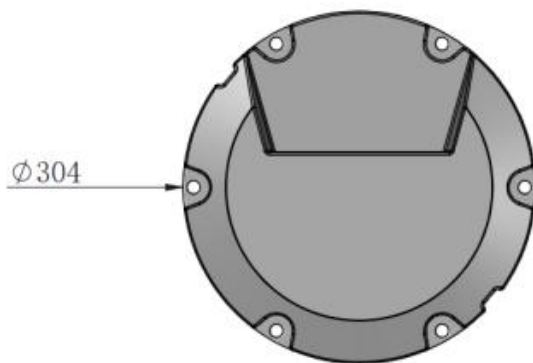
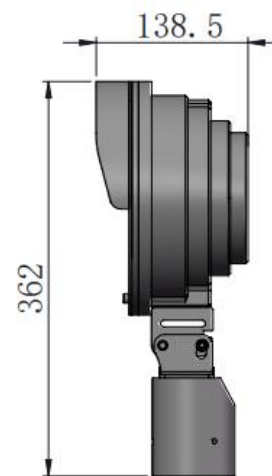
TECHNICAL DATA

Main Control Cabinet		
Power Supply	AC 220V±22V, 50/60Hz	
Rated Capacity	3000VA	
Communication Interface Remote Control	CANBUS, RS-485	
Environmental Temperature	-25℃ ~ 45℃	
Relative Humidity	10% ~ 90%	
Protection Class	IP22	
Size	600mm×830mm×1620mm	
Net Weight	133kg	
Branch Control Box		
Power Supply	AC 220V±22V, 50/60Hz	
Communication Interface Remote Control	CANBUS	
Environmental Temperature	-55℃ ~ 55℃	
Relative Humidity	0 ~ 100%	
Surge	6KV, 3KA (IEC61000-4-5)	
Protection Class	IP65	
Size	470mm×400mm×230mm	
Net Weight	11kg	
Lamps	Elevated light fixtures	Inset light fixtures
Lamp Power Supply	DC 48V	
Light Color	white	
Flash Frequency	1 time/second or 2 times/second,	
Flash Interval	0.0167 seconds	
Environmental Temperature	-55℃ ~ 55℃	
Relative Humidity	0 ~ 100%	
Wind Loading	RTILS >480km/h, SFLS >240km/h	
Protection Class	IP65 (IEC60598-1)	IP67 (IEC60598-1)
Power Consumption	31W	31W
Light Intensity	150~450 cd (step 1)	150~600 cd (step 1)
	800~2000 cd (step 2)	500~2000 cd (step 2)
	8000~20000 cd (step 3)	5000~20000 cd (step 3)
Size	263mm×256mm×138.5mm	The diameter of the lamp body is 304mm, and the thickness of the flange is 19mm
Net Weight	4.2kg	6.5kg

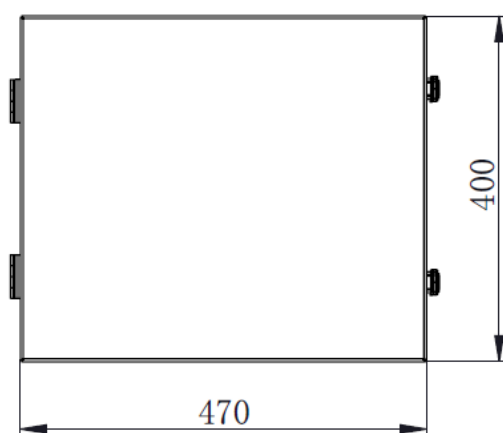
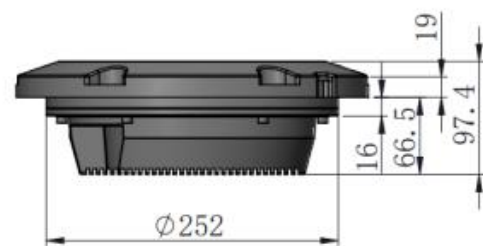
DESIGN



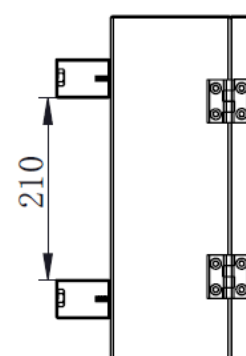
Elevated light fixture

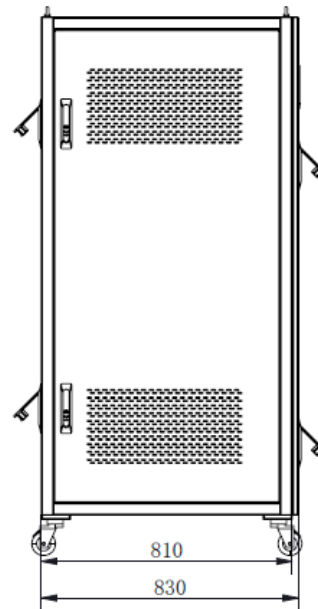
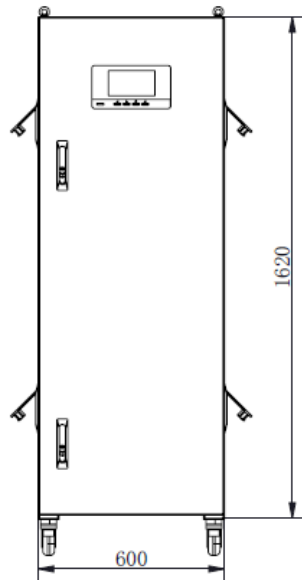


Inset light fixture



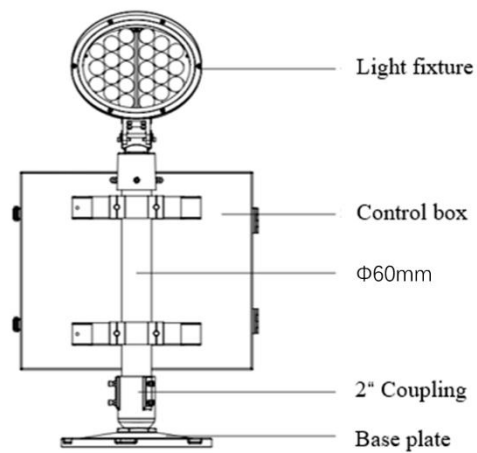
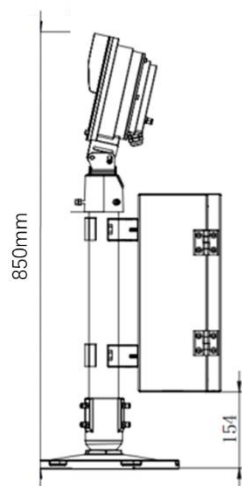
Branch control box



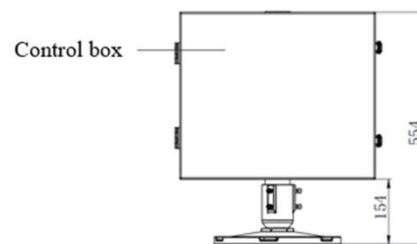
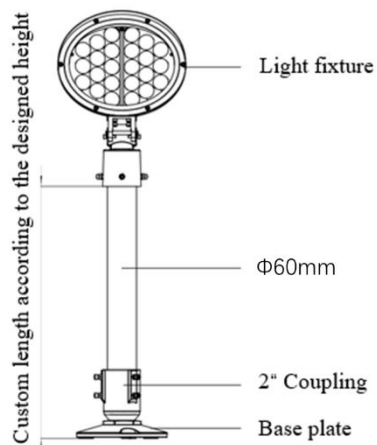


Main control cabinet

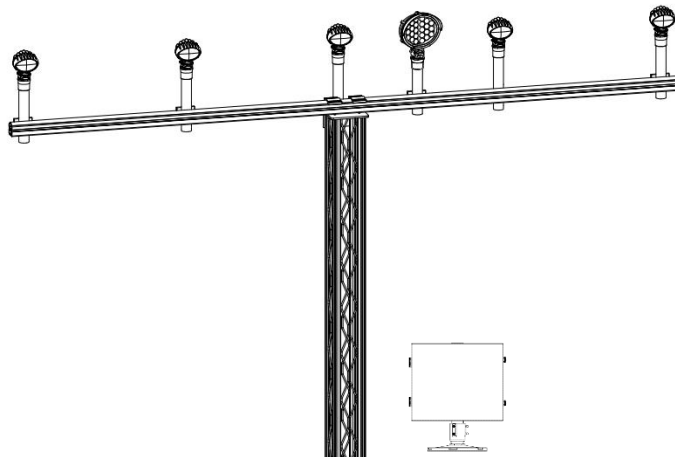
INSTALLATION



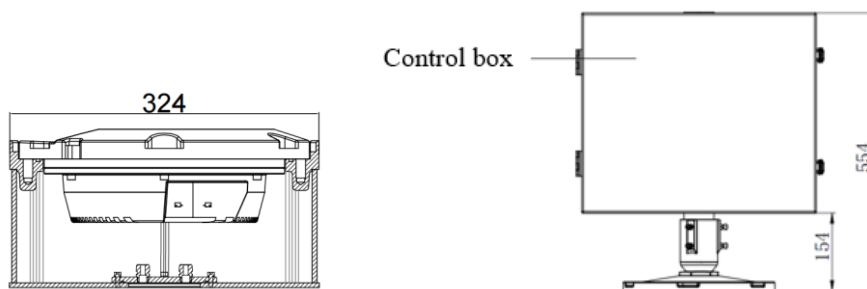
Elevated Backpack Installation



Elevated Discrete Installation



Elevated Discrete Installation (Frangible Mast)



Inset Discrete Installation

ORDERING CODE

Light System

AFLS: Approach Flashing Lighting System

Function / Application

SFLS: Sequence Flash Lights

RTILS: Runway Threshold Identification Lights

Inset light quantity^①

Optional: 0~V code selected according to configured with request

Elevated light quantity^①

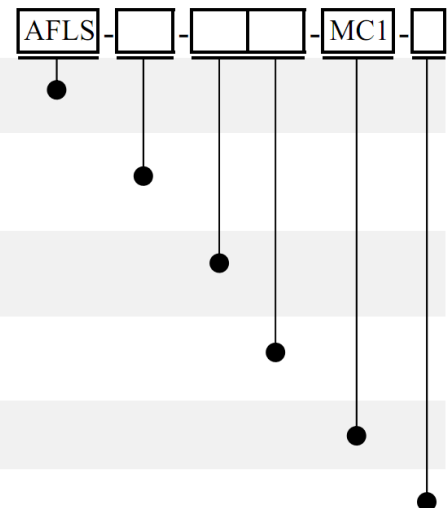
Optional: 0~V code selected according to configured with request

MCC

MC1: Main Control Cabinet (RS-485)

Version

Customize: This option is not filled in by default,unless otherwise required



ORDERING CODE NOTES

① . The quantities corresponding to the codes are shown in the table below.

Code	0	1	2	3	4	5	6	7	8	9	A
Quantity	0	1	2	3	4	5	6	7	8	9	10
Code	B	C	D	E	F	G	H	J	K	L	M
Quantity	11	12	13	14	15	16	17	18	19	20	21
Code	N	P	Q	R	S	T	U	V	W		
Quantity	22	23	24	25	26	27	28	29	30		