LED PAPI
PRECISION APPROACH PATH INDICATOR L-880 (L), L-881 (L)

LED TYPE **110-230VAC**

POWERED BY

SE-700 SOLAR ENGINE MAX

UNINTERRUPTIBLE POWER SUPPLY

Check relevant product brochures for more information

Compliance:
ICAO Annex 14 Vol. I (8th. Edition, July 2018)
EASA CS-ADR-DSN
FAA 150/5345-28H
TP312 (5th Edition, 2015)
CASA Part 139 (Aerodromes) Manual of Standards 2019

FEATURES

- NVG Compatible
- Replaceable Optic Elements
- Automatic Tilt Switch
- Radio Control Monitoring
- Visibility Range: more than 10 km

APPLICATION

Precision Approach Path Indicator (PAPI) or Abbreviated Precision Approach Path Indicator (A-PAPI).

TECHNICAL SPECIFICATIONS

Optics
- One-projector PAPI unit (optional: double projector)
- LED Type
- NVG capable (optional)
- Vertical adjustment 0-10
- Transition: Better than 3 minutes of arc on beam axis
- Maximum power consumption: 80W per unit
- Adjustable intensity level in five steps
- LED lifespan: 50.000 hrs
- Azimuth range: +/- 8 (ICAO) or +/- 10 (FAA)
- LED module replacement does not require re-alignment
- PAPI projector is removable from the mounting frame

Power Supply
- 110 - 230 VAC

Power Control Unit
- Single Power Supply (Single Circuit)
- Double Power Supply (Dual Circuit) (optional)

Manual Control (Via Board Control Box)
- System manual ON/OFF control
- Switch to radio remote or local operation
- Switch to visible or infrared operation
- Five intensity levels: 1%, 3%, 10%, 30%, 100% (or customizable per request)
- Photosensor activation and deactivation
- Night level setting on two intensity steps (5% and 20% as per FAA requirements)
- Tilt sensor activation and deactivation
- Lens heater activation and deactivation

Wireless Control
- Wireless mesh type network
- Operating frequency: 868 MHz (optional 2.4 GHz or 915 MHz)
- Operating range: up to 1.5 km, relayed
- Devices capable control by:
  - UR-101 Handheld Controller
  - UR-201 Control & Monitoring Unit
    - VHF activation (Air-band Radio)
  - ALCMS Computer Interface (requires UR-201)
- Photoelectric intensity control

Environmental Conditions
- Temperature range: -35 to 55°C (-31 to 131 °F)
- Optional: -55 to 55°C (-67 to 131 °F)
- Ingress protection: IP-65
- Resistant to accumulation of rain and snow on lens surface
- Internal temperature, external temperature and humidity sensors

Safety & Reliability
- 4x types of critical fault detection
- 16x types of fault detection
- Tilt-fail detection
- Individual PCU per PAPI unit (optionally equipped with double power supply)

Monitoring
- Via status LED
- Advanced Fault Detection via a separate communication cable, ie Modbus
- Advanced Fault Detection via radio communication

Casing & Components
- Cabinet and body material: stainless steel
- Base frame: stainless steel, breakable coupling: aluminum
- Set of 3 anchor bolts for PAPI: stainless steel
- Lens heater (optional)
- PCU included
- Dimensions (LxW): 1055 x 980 mm
- Height: 680 - 1000 mm (adjustable)
- Weight: 47 kg

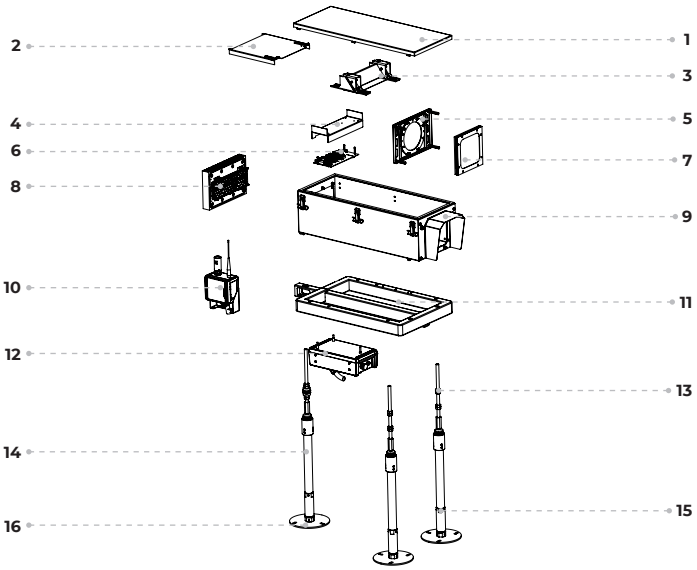
Compliance

Photometric	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, Figure A2-23
	EASA CS ADR-DSN, Figure U-26
	FAA AC 150/5345-28H, Figure 3-1
	TP312, 5th Edition dated 2015, clause 5.2.16.12, Figure B-19
	CASA Part 139 (Aerodromes) Manual of Standards 2019
Chromaticity	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.5.30, Figure A1-1b
	EASA CS ADR-DSN.M.645.c.2.i, Figure U-1B
	FAA AC 150/5345-28H, clauses 3.2.1 & 4.9.1
	TP312, 5th Edition dated 2015, clause 5.3.16.13
Multi-lamp PAPI projector	EASA CS ADR-DSN.M.645
Infrared	FAA «Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Googles (NVGs)» Engineering Brief No. 98, dated December 2017, clause 8.3

Accredited Laboratory Testing

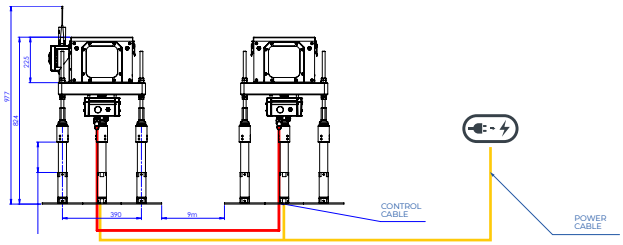
Photometric & Chromaticity	TÜV Rheinland

PARTS DESCRIPTION



1.	Top cover
2.	Divider metal sheet
3.	Metal holder for divider glass
4.	Circuit board cover
5.	Glass lens
6.	Circuit board
7.	Front glass
8.	LED panel with radiator
9.	Projector body
10.	Control panel
11.	Base frame
12.	Power Supply Unit
13.	Stainless steel mandrel
14.	Aluminium leg
15.	Frangible coupling
16.	Round Baseplate

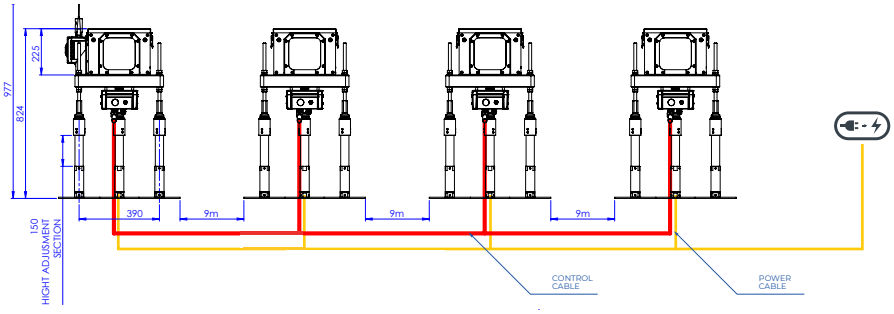
A-PAPI SYSTEM CONFIGURATION



Items included in A-PAPI System

- 2x LED PAPI projectors
- 1x Manual control box
- 2x Power Control Units (PCU)
- 1x Signal cable
- 2x Mounting frames
- 6x Adjustable mounting legs
- 6x Frangible connectors
- 6x Mounting bases

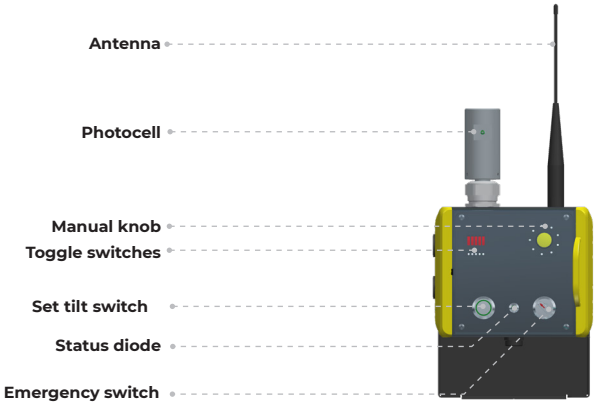
PAPI SYSTEM CONFIGURATION



Items included in PAPI System

- 4x LED PAPI projectors
- 1x Manual control box
- 4x Power Control Units (PCU)
- 3x Signal Cables
- 4x Mounting frames
- 12x Adjustable mounting legs
- 12x frangible connectors
- 12x Mounting bases

MANUAL CONTROL BOX DESCRIPTION



Night Vision Mode
Light is visible only through NVG (Night Vision Goggles)

Photo Sensor Activation
PAPI system activates automatically after sunset and deactivates after sunrise with use of photocell

Tilt Sensor
TILT mode alerts the user about the tilt angle of the PAPI unit changes and deactivates the system in case of excessive tilt change

Night Level Setting
Night mode activates PAPI system automatically in 5% or 20% intensity

Lens Heater
Lens heater prevents PAPI projector from condensation and accumulation of ice and snow

ORDERING CODES

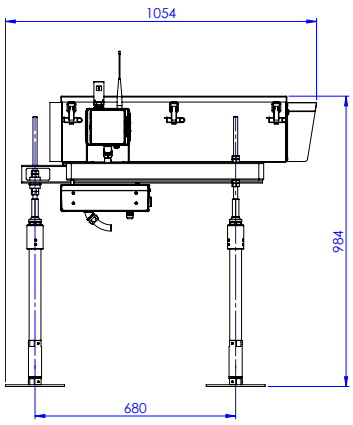
S4GA PAPI 110-230V X - X - X - X - XXX

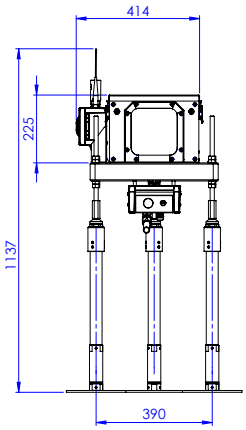
Projector	**1** - One projector (default) **2** - Double projector
Photometrical Compliance	**2** - L-881(L) / Abbreviated PAPI (2x Lighthouse Assemblies) **4** - L-880(L) / PAPI (4x Lighthouse Assemblies)
Power Supply	**1** - Single Power Supply (default) **2** - Dual Power Supply
Color	**1** - ICAO Yellow (default) **2** - FAA Orange **3** - Desert Sand **4** - NATO Green

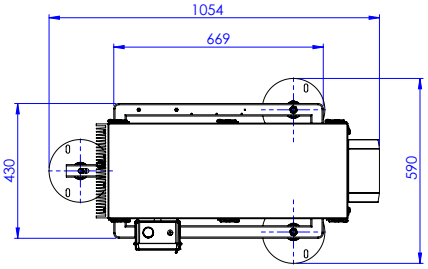
ADDITIONAL FUNCTIONS

Heated Lens	**0** - No (default) **1** - Yes
Infrared	**0** - No (default) **1** - Yes
Tilt Switch	**0** - No (default) **1** - Yes
Fault Detection	**0** - No (default) **1** - Yes

TECHNICAL DRAWING

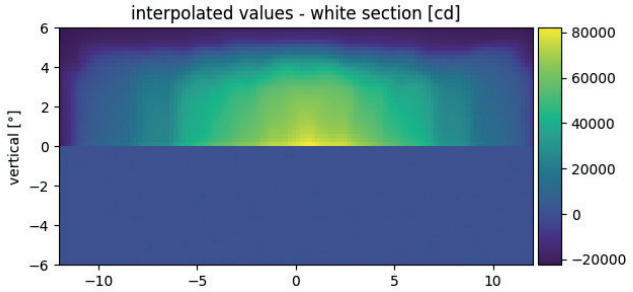




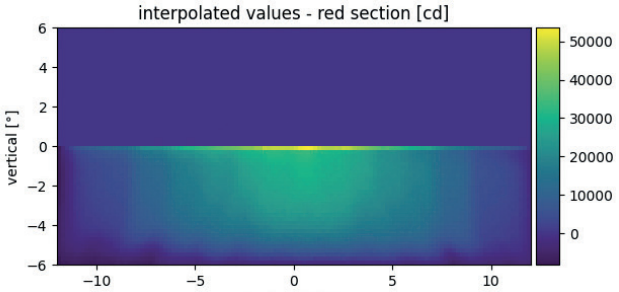


PHOTOMETRIC PERFORMANCE

Measured values - white section



Measured values - red section



SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
LED PAPI (1x LHA)	1070 mm x 980 mm x 500 mm	58 kg