

## Stacklights

### Construction materials

- Lenses - transparent polycarbonate
- Terminal elements – high impact black polyamide
- Bulbs
  - BA 15d, max. 42mm, max 5W
  - KLB24, 24V, 208mA
  - KLB1, 115V, 45mA
  - KLB2, 230V, 22mA
- Terminal element
  - Connecting element with sealing cover for tube mounting or surface mounting
- Permanent light
  - KL70-401 ★ - 12-240 VAC/VDC
- Blinking light
  - KL70-302 - 24VAC/VDC, 100mA
  - KL70-312 - 115VAC/VDC, 20mA
  - KL70-322 - 230VAC/VDC, 10mA
- Flashing light
  - KL70-203 - 24VDC/125mA
  - KL70-113 - 115VAC/20mA
  - KL70-123 - 230VAC/15mA
- LED Permanent light
  - KL70-305 - 24VAC/VDC, 60mA
- LED Blinking light
  - KL70-306 - 24VAC/VDC, 40mA
- LED Rotating light
  - KL70-307 - 24VAC/VDC, 70mA
- Buzzer element
  - KB70-3001 - 85db, 24VAC/VDC, 25mA
  - KB70-3101 - 85db, 115VAC/VDC, 25mA
  - KB70-1201 - 85db, 230VAC, 25mA
- Siren element
  - KS70-2002 - 108db, 24VDC, 100mA
  - KS70-3004 - 100db, 24VAC/VDC, 80mA
  - KS70-1104 - 100db, 115VAC, 40mA
  - KS70-1204 - 100db, 230VAC, 40mA
  - KS70-2004 - 100db, 24VDC, 80mA

### Cleaning

Clean the product from the outside with a light, non-scouring cleaning agent. Never use abrasive or diluting agents and never use benzine.

## Signal beacons

### Features

- Vandal-proof construction withstands every mechanical and natural challenge both indoors and outdoors
- High protection rating IP65
- Cap consists of high impact polycarbonate (up to 20J).
- Bulb change can be accomplished in seconds through lamp holder with bayonet

### Function

Signal beacons produce visible (blinking, flashing or permanent light) or audible signals (buzzer, siren) via electrical signals. Signal beacons are approved according to EN 60598 / VDE 0711 T1.

### Safety instructions

- Wiring must be installed by a qualified electrician.
- Turn off the power supply before connecting the signal beacon
- Only operate signal beacons when completely assembled.
- Observe the correct nominal voltage.
- The volume of signal element can cause damage to hearing when used at close quarters

### Technical specifications

- Dimensions: 68mm x 96.5mm (diameter x height)
- Housing: PC/ABS-blend, high impact, black
- Cap: Polycarbonate, transparent; shock resistance 20J according to EN 50014
- Mounting: Drilled hole  $\varnothing$  37mm (PG 29)
- Terminal: Screw, M3; Pull relief; Flex radial or axial laid; Contact - voltage proof according to VDE

### Permanent light

- Operating voltage: 12 - 240V
- Bulb socket: B15d, 10 W max.
- Bulb change: Bayonet
- Current consumption: depends on bulb (bulb not included with assembly)
- Starting current: depends on bulb (bulb not included with assembly)

### LED Model

- Permanent light: 24 VAC/VDC; 115VAC; 230VAC
- Blinking light: 24 VAC/VDC; blink frequency ca. 1 Hz
- Rotating light: 24 VAC/VDC; rotation frequency ca. 120 U/min
- Current consumption:
  - 24VDC: Permanent light, 60mA; Blinking light, 40mA; Rotating light, 70mA
  - 115VAC: 30mA
  - 230VAC: 30mA
- Starting current: <500mA

### Flashing light

- Flash frequency: ca. 1 Hz
- Flash energy: 2W
- Operating voltage: 12VDC, 24VDC, 115VAC, 230VAC
- Current consumption:
  - 12VDC: 200mA
  - 24VDC: 125mA
  - 115VAC: 20mA
  - 230VAC: 15mA
- Starting current
  - 24VDC: <0.5A
  - 115VAC: <0.5A
  - 230VAC: <0.25A

### Bulbs

- 12V, 7W
- 24V, 7W
- 115V, 7W
- 230V, 7W

## Technical data

### Signal tower with AS-interface element

#### Description

Signal towers KombiSIGN 50 and 70 with AS-interface element are capable of total communication: By simple integration of an AS-interface element, the actuators are connected to the networking system actuator-sensor interface; this considerably reduces complex wiring. This element is to be mounted as the lowermost element in the signal tower just like a light element.

#### Technical specifications

Item	AS-Interface element	AS-Interface element with additional external voltage
Dimensions	KS70: 67mm x 67mm	KS50: 52mm x 67mm
Number of signal elements	4	4
Type of signal elements	Flashing light element LED element Buzzer element Siren element (The total consumption of the single elements must not exceed 200 mA)	Permanent light element Flashing light element ① LED element Buzzer element Siren element ①
IO-Code	8	8
ID-Code	F	F
Power supply	through bus conduction	through bus conduction
Operating voltage	18.5V – 31.6V	18.5V – 31.6V
Current consumption	210mA	75mA ① / 50mA ②
Reverse battery protection	integrated	integrated
Watchdog	integrated	integrated
Terminals	4, electronic	4, relays
On-load voltage	through bus conduction	additional external voltage: 10V – 120V = ① 10V – 30V = ② 10V – 230V –
Current carrying cap. $\Sigma$ I <sub>max</sub>	200mA	1.5A
Short current/overload protection	integrated	fuse M 1.6A
Working temperature	-20° – +50°C	-20°C – +50°C
Protection rating	IP 54	IP 54

① Valid for KombiSIGN 70

② Valid for KombiSIGN 50

# Technical data

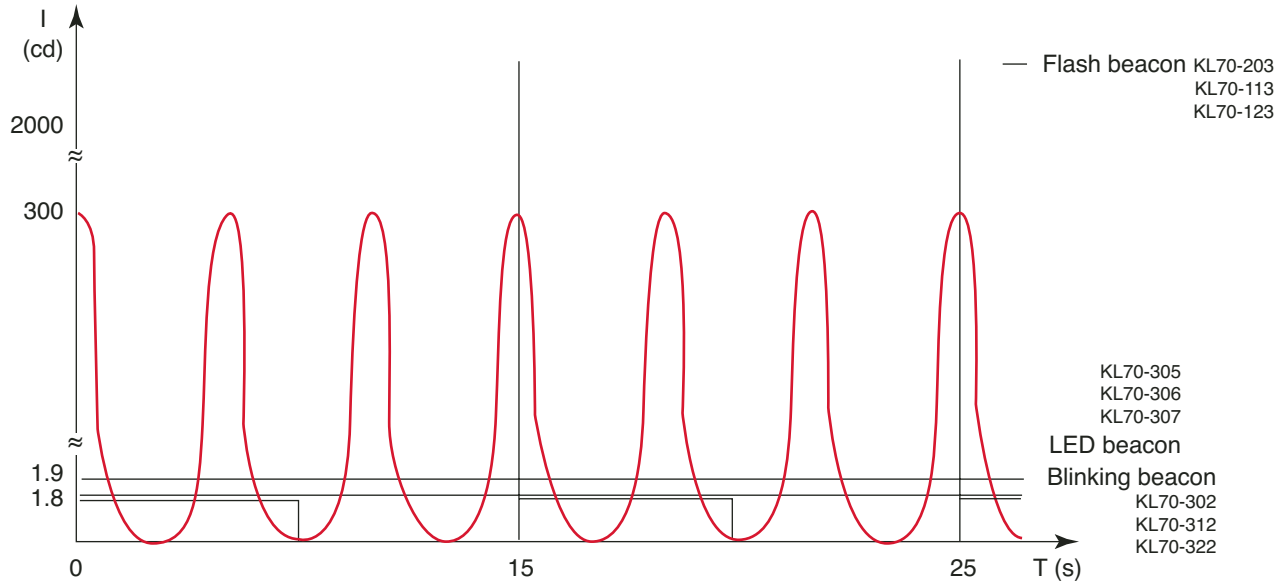
## Signal beacons & stacklights

### Light intensity of LED

Details pertaining to beacons with LED are based on a standing from December, 1999. Component-related improvements are continually developing; please inquire as to the current light intensity should the need arise.

### Light intensity of beacons with bulbs

Light intensity pertains to the bulbs used by ABB; the use of other bulbs may lead to discrepancies.



### Optical signals

Signal tone	Meaning
Red	Extreme danger hazardous conditions
Yellow	Beware / dangerous conditions imminent
Green	Normal conditions
Blue	Conditions requiring defined action
White / Clear	No particular meaning

### Audible signals

Signal tone	Meaning
<b>Multi-tone</b> Scale in differing frequencies (various high/low frequencies) with regular, cyclical intervals	Extreme danger Immediate action
<b>Two-tone</b> Scale in differing frequencies (one high, one low frequency) with regular, cyclical intervals	Extreme danger Immediate action
<b>Modulated tone</b> Permanent tone with graduated decrease and increase of sound frequencies	Danger Immediate action
<b>Intermittent tone</b> Regular intervals between on and off-cycle	Danger Immediate action
<b>Linear tone</b> Permanent tone in specific frequency	Safety