



Questions to get to the right signaling device

Louder &
Brighter
since 1910.

Auer Signal

Foreword

Signaling devices are expected to indicate in a reliable and safe way a hazardous situation or the status of machines. You can choose from many different signaling devices, with different functionalities, designs and colors. It is not easy to know which signal solution is best suited for which application and it requires a certain amount of know-how. As an internationally operating producer and expert for signaling solutions, we compiled our decades of know-how in a short and clear white paper to help all interested parties in the selection of the right signaling solution. Through 11 specific questions, this paper will help you define your requirements and support you in choosing the right signaling device.

Checklist

1. Do you already have a signaling device solution?

- YES NO

2. What supply voltage does your application require?

Low voltage

- 12 V.
 24 V.
 48 V.

main voltage

- 110 V.
 115 V.
 220 V.
 230 V.
 240 V.

3. How or where should the signaling device be installed?

- | | |
|---|---|
| <input type="checkbox"/> HORIZONTAL MOUNTING | <input type="checkbox"/> POLE MOUNT |
| <input type="checkbox"/> VERTICAL MOUNTING | <input type="checkbox"/> CEILING MOUNTING |
| <input type="checkbox"/> VERTICAL MOUNTING WITH BRACKET | <input type="checkbox"/> PANEL MOUNT |

Further questions related to the mounting that could influence your choice:

Is the signaling device for the near or far range? NEAR RANGE FAR RANGE

Is the protection of the surface relevant for my type of mounting? YES NO

To which environmental conditions is the signaling device exposed? _____

4. What is to be signaled?

- HAZARDS (AUDIBLE)
 OPERATING CONDITIONS (VISUAL)
 INFORMATION (VISUAL)

If you need an audible signaling device, continue to question 9.

5. Where do you want the visual warning device to be perceived?

- INDOOR
 OUTDOOR

How should the signaling effect be aligned?



What protection class do you need? _____

6. Which lighting function is required?

- | | |
|---|---|
| <input type="checkbox"/> STROBE LIGHT | <input type="checkbox"/> MULTIFUNCTION BEACON |
| <input type="checkbox"/> FLASHING BEACON | <input type="checkbox"/> MULTICOLOR BEACON |
| <input type="checkbox"/> CONTINUOUS LIGHT | <input type="checkbox"/> SIGNALING WITH TOWER LIGHT |

7. Which illuminant is the right one?

- LED
 XENON



8. Which color is best for fulfilling the purpose?

- | | |
|----------------------------------|---------------------------------------|
| <input type="checkbox"/> RED | <input type="checkbox"/> AMBER/YELLOW |
| <input type="checkbox"/> GREEN | <input type="checkbox"/> BLUE |
| <input type="checkbox"/> CLEAR | <input type="checkbox"/> TURQUOISE |
| <input type="checkbox"/> MAGENTA | |

9. How loud do you need the acoustic signal to be?

10. Is one type of signaling sufficient or is an additional indicator or device needed?

- VISUAL-AUDIBLE SIGNALING WITH A TOWER LIGHT
- VISUAL SIGNALING WITH AN AUDIBLE INDICATOR
- AUDIBLE SIGNALING WITH AN OPTICAL INDICATOR
- VISUAL-AUDIBLE COMBINATION WITH TWO EQUALLY SIZED DEVICES
- VISUAL-AUDIBLE COMBINATION WITH OMNI-DIRECTIONAL SIGNALING OF BOTH DEVICES

11. What markings and certifications does your signaling device need?

- | | |
|---|--|
| <input type="checkbox"/> CE MARKING | <input type="checkbox"/> REACH |
| <input type="checkbox"/> UL CERTIFICATION | <input type="checkbox"/> CONFLICT MINERALS |
| <input type="checkbox"/> EU-TYPE EXAMINATION (ATEX) | <input type="checkbox"/> ISO 9001 |
| <input type="checkbox"/> ROHS | |



Question 1

Do you already have a signaling device solution?

Yes

You already have a signaling device in place and are considering switching or adding Auer Signal products?

Then contact our sales team at +43 1 813 82 20 . Our experts on signaling devices will be happy to advise you on the different possibilities and will support you in replacing your existing system in a particularly efficient manner.

In addition, we also develop and produce customized signaling devices for your application.

This service ranges from a completely independent product development, the adaptation to a customer-specific product design, to special cabling and mounting types.

We are the right partner for your special and industry-specific customer requirements.

No

Then you are still looking for the right device solution. The following questions will help you find the right signaling device. Read on.



Question

2

What supply voltage does your application require?

In most cases, the necessary supply voltage is already specified by the device. Our products work with the nominal voltages: 12V, 24V, 48V, 110V, 115V, 220V, 230V AND 240V.

Below you will find an overview of the applications for which the nominal voltages are suitable.

LOW VOLTAGE

12 V

This voltage is suitable for vehicles and mobile work devices

24 V

In machine and control cabinet construction in particular, this nominal voltage is referred to as the control voltage, since the control voltage in the devices is usually 24V.

48 V

This nominal voltage is suitable for country-specific applications. It is particularly common in France and Australia.

MAIN VOLTAGE

110 V

115 V

220 V

230 V

240 V

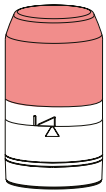
Mains voltages are often used in buildings or building services. It is suitable when no additional power supply unit needs to be installed.

Question

3

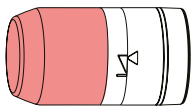
How or where should the signaling device be installed?

The type of mounting plays an important role in the selection of the appropriate signaling device. Some mounting types are more suitable for certain applications than others and depend to a large extent on the location and the application. In addition, the mounting type influences the directions of the signal. Below you will find an overview of the mounting types.



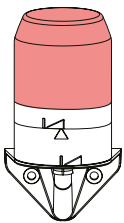
Horizontal mounting

The signaling device is mounted on a horizontal surface. The signal effect of the device depends on its directional characteristic (e.g. frontal / lateral) or the sound emission (directional / omni-directional).



Vertical mounting

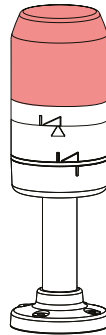
In this case, the signaling device is mounted vertically on a surface. Depending on the directional characteristic or sound emission, the signal perception may change.



Vertical mounting using bracket

Mounting brackets are used when the signal device is not mounted directly on the wall or surface, but rather mounted horizontally on a vertical mounting surface.

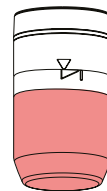
Due to the bracket, the signaling effect is perpendicular to the mounting surface.



Pole mount

Signaling devices on poles have a better visibility, as the signaling devices stick out from their surroundings and thus allow a significantly better view even from a distance.

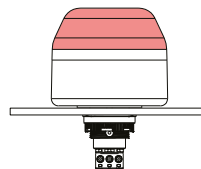
Audible devices with omni-directional sound propagation are also used for pole mounting to prevent surrounding objects from reducing the sound propagation.



Ceiling mounting

Ceiling mounting is used when the signaling effect with unrestricted view is not given due to horizontal mounting. The signaling device is mounted directly on the ceiling. The view of the signaling device is thus not blocked by installations or high devices (e.g. shelves).

The ceiling mounting allows that a larger area is covered by the audible signaling devices.



Panel mount

In case of panel mounting, the signaling equipment is integrated in a device (e.g. control cabinet, control panel) or installed directly on a device (e.g. robots, machines).

The installation is usually done by a simple single-hole mounting (M22 screw thread).



Some other questions in connection with the mounting, which are relevant for your choice:

Is the signaling for the near or far range?

Panel mounting is particularly suitable for signaling at a near range of about 5 meters.

If the distance between signaling device and receiver increases, the decibel value or light intensity becomes more decisive in many cases. This means that a signaling device has to be brighter or louder the further the signaling range is.

For more information on volume, please refer to page 18

What environmental conditions is the signaling device exposed to?

Depending on the environmental conditions, the degree of protection and impact resistance of a signal device might play a major role and should definitely be taken into account. In an environment with strong vibration, the mounting on a pole is rather unsuitable, since the very intense vibration will be transmitted to the signal device via the pole.

Therefore: The stronger the vibrations in the environment, the closer the signal device should be mounted to the surface.

Is the protection of the surface relevant for my mounting type?

If the signaling device is mounted on a sensitive surface (e.g. on a machinery) that needs, for example, to be protected against water infiltration, a flat gasket is required.



Question

4

What should be signaled?

Would you like to send a warning in case of danger, display an operating status or transmit information non-verbally and fast? What is to be signaled determines the type of appropriate signaling. In some cases, the type of signaling is specified according to regulations such as the machinery directive.

Hazards

Acoustic signaling devices are usually used to warn of possible dangers. These devices have a loud signal tone to warn their surroundings. In many cases, the signaling with an optical signaling device is not sufficient (e.g. very long distances, environmental influences).

Information

Signal lamps in the colors red, yellow, orange and green are suitable for the non-verbal transmission of information. The meaning of the colors is known from traffic lights and transferrable to a wide variety of applications. For example, for access control or at entrance gates.

Operating states

Signal lights are suitable if the signaling device is perceived easily and installed visible for the user. Frequently used applications are for status and operation indication of plants, production machines or in control cabinets. Signal towers for status indication on production machines and plants are particularly popular.



If an acoustic signaling device is required, continue to question 9.



If a visual signaling device is required, continue to question 5.



Question

5

Where should the visual warning be perceived?

In order to decide on the appropriate optical signaling device, the first decisive question is where the warning should be perceived.

Location of signaling

Different environmental factors have to be considered, depending on whether the signaling device is installed outdoors or indoors.

OUTDOOR SIGNALING

If the signaling device is used outdoors and is neither protected nor covered, it is exposed to all prevailing environmental conditions and seasons.

Is the outdoor application protected (e.g. by a roof) and therefore not exposed to all environmental conditions such as rain or direct sunlight? Our lenses and plastic parts are made of **UV-stabilized polycarbonate** and are therefore protected against fading due to extreme sunlight. This means that the signaling effect will not be affected even when exposed to extreme sunlight. The intensity of the signal light plays an important role when ensuring that it is perceived even in extreme lighting conditions as caused by sunlight.

The **IP rating** of our signaling devices gives you a good indication of whether the device is suitable for your purpose. Most of our products are IP66 and IP67 rated.

Another indicator of the strength of the device is the **IK impact resistance rating**. This provides information about the resistance of the components to impact and shock strength.

For outdoor applications, where the signal device is free-standing and exposed to harsh environmental conditions (e.g. mobile machines), a protection rate of IP65 or higher is mostly sufficient. In addition, most of our devices meet an IKo8 value and are therefore also very resistant to external influences.

INDOOR SIGNALING

As is the case with outdoor applications, there are also various examples of indoor applications exposed to a wide range of surrounding conditions. Is it for example the case of a production hall with dust or chip particles that might ingress into the device or a cold store with freezing temperatures, the IP rating of the signaling device becomes more important.

However, if the signal light is installed in a logistics facility, well protected from external influences, the required rating and IK impact resistance is of secondary importance.

Signaling in potentially explosive areas:

If the signal light is used in a highly flammable, combustible or explosive environment, a signaling device with explosion protection is advisable. ATEX signaling devices are used particularly often in the petrochemical or chemical industry. In our portfolio you will find ATEX signal lights with explosion protection for zones 1, 2, 21, 22.

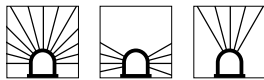


Direction of the signaling effect

The orientation of the LEDs inside the lens is decisive for the direction of the signal effect. Depending on whether the LEDs are aligned horizontally or vertically, the signal effect is also horizontal or vertical to the mounting surface. The design of the lens (angular, round, high or low), on the other hand, has only a minor influence on the signal effect.

Signal lights with vertically mounted LEDs are suitable for a particularly good 360° signal effect due to their alignment. Lights with horizontally mounted LEDs, on the other hand, have a more limited angle of radiation.

The following icons show the directional characteristics of the signal lights on our website:



Due to the different mounting types, the signal perception can be adjusted depending on the angle of radiation of the light.

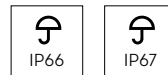
The size of the mounting type, on the other hand, is no longer decisive for the signal effect. Whereas in the past a bigger incandescent bulb meant more luminous power, today the luminous intensity is the decisive factor when choosing LED lights.

Degrees of protection

The IP rating, which is based on the EN 60529 standard, provides information about the degree of protection of electrical equipment - in our case signaling devices - against the effects of solid foreign bodies and against the penetration of liquids through the housing or covers.

The IP rating is indicated by an abbreviation consisting of the two code letters IP, which always remain the same, and two code numbers for the degree of protection. The most common IP rating for Auer Signal products are IP 66 and IP 67.

The following table provides an overview of the meanings and composition of the IP rating numbers:



1st Number

Protection against foreign bodies

0 NO PROTECTION
No special protection stopping people directly touching active or moving parts; no protection for the equipment against the ingress of solid foreign objects

1 PROTECTION AGAINST LARGE FOREIGN OBJECTS

Protection against the ingress of solid foreign objects with a diameter of more than 50 mm, e.g. hands

2 PROTECTION AGAINST MEDIUM-SIZED FOREIGN OBJECTS

Protection against the ingress of solid foreign objects with a diameter of more than 12 mm, e.g. fingers

2nd Number

Schutz gegen Flüssigkeiten

0 NO SPECIAL PROTECTION

1 PROTECTION AGAINST DRIPPING WATER - FALLING VERTICALLY

Dripping water falling vertically should not have a harmful effect

2 PROTECTION AGAINST DRIPPING WATER - FALLING AT AN ANGLE

Dripping water falling at any angle up to 15 degrees to the vertical should not have a harmful effect.



2 PROTECTION AGAINST MEDIUM-SIZED FOREIGN OBJECTS

Protection against the ingress of solid foreign objects with a diameter of more than 12 mm, e.g. fingers

3 PROTECTION AGAINST SMALL FOREIGN OBJECTS

Protection against the ingress of solid foreign objects with a diameter of 2.5 mm, e.g. tools, wires

4 PROTECTION AGAINST GRANULAR FOREIGN OBJECTS

Protection against the ingress of solid foreign objects with a diameter of more than 1 mm, e.g. fine tools, small wires

5 PROTECTION AGAINST DUST DEPOSITS

Fully protected against dust deposits:
The ingress of dust is not completely ruled out, but does not impair the functionality of the device

6 PROTECTION AGAINST INGRESS OF DUST

Fully protected against the ingress of dust

2 PROTECTION AGAINST DRIPPING WATER - FALLING AT AN ANGLE

Dripping water falling at any angle up to 15 degrees to the vertical should not have a harmful effect.

3 PROTECTION AGAINST SPRAYING WATER

Dripping water falling at any angle up to 60 degrees to the vertical should not have a harmful effect

4 PROTECTION AGAINST SPLASHING WATER

Water splashing against the equipment from all directions should not have a harmful effect

5 PROTECTION AGAINST WATER JETS

A jet of water from any direction should not have a harmful effect

6 PROTECTION AGAINST FLOODING

A harmful amount of water should not enter the equipment in the event of temporary flooding

7 PROTECTION IN THE EVENT OF IMMERSION

A harmful amount of water should not enter the equipment when it is immersed in water under the specified pressure and time conditions

8 PROTECTION IN THE EVENT OF DEEP IMMERSION

A harmful amount of water should not enter the equipment when it is immersed under water

9 PROTECTION AGAINST WATER INTRUSION DURING HIGH PRESSURE CLEANING AND STEAM CLEANING

Water must not penetrate in harmful quantities if the equipment is exposed to very intensive water jets, such as high-pressure and steam cleaners

Question

6

Which lighting function is required?

Signal lights can have a wide range of different functions. Depending on the purpose and application, certain lighting functions are particularly well suited.

Strobe beacon

The strobe beacon receives the **highest attention** among the signaling lamps. With repeated and rapid flashing of light (in the millisecond range), the signal light is perceived even when it is not directly visible. A strobe beacon is therefore ideal to warn of hazards and is often installed on machines to signal failures and thus keep downtimes as short as possible. Strobe lights are also used in building services to warn of hazards such as gas leaks.

Flashing beacon

Flashing beacons attract attention by lightening up evenly. If a high level of attention level is required and the signaling device is well visible, e.g. mounted on a machine or plant, a flashing beacon is the right choice to signal different or faulty conditions. Flashing beacons are often used when there is a need for action but no danger (e.g. filling up a machine).

Steady beacon

Steady beacons are often used to indicate the (normal) status of a device or machine. Green light can mean, for example, free passage (at cargo ports) or the operation of a machine.

Multifunction beacon

One signal light, multiple light functions. The multifunction beacons combine several lighting functions in one device. As a result, they offer **maximum flexibility** and variability. The different lighting functions can be adapted according to the needs and the purpose. In addition to the functions already mentioned, our latest multifunction beacon of the **Series R** also offers pulsating light, rotating light and a dimming function.

Multicolor beacon

Multicolor beacons from Auer Signal can display between two and seven different colors. With a single beacon, different operating states can be displayed alternately without the need for another signaling device.



Question

7

Which light source is the right one?

In electronics, there is a wide range of light sources that can be used for visual signaling. The different light sources differ in terms of power consumption, the required luminous efficacy or the desired angle of radiation.

Signaling lights with LED technology have become the worldwide standard. Therefore, all our signal lights are equipped with the latest LED technology. Individual models can still be found in conventional xenon technology.

















Question

8

Which color is best for which purpose?


The choice of the signal color plays an important role since every color has a different meaning. Depending on the application and area of use, certain signal colors are more suitable for visual signaling than others. Depending on the color of the signal light, a certain action is often required or has automatically to be taken by the observer.

The most common colors in signaling include red, yellow, amber, green, blue and white. Individual multicolor models from Auer Signal can display turquoise and magenta in addition to the standard colors.

<p>RED</p> <p> Emergency, danger alert, highest warning level</p> <p> Signaling of system failures, indication of values outside the norm, danger due to voltage or moving hazards and other hazards (gas leak, failure, malfunction, stop).</p>	<p>AMBER/YELLOW</p> <p> Warning, critical situation upcoming</p> <p> Exceeding of normal values for a short time</p>
<p>GREEN</p> <p> Normal condition</p> <p> Operation systems are ready or active</p>	<p>BLUE</p> <p> Meaning can be assigned as required, except for red, amber/yellow and green</p> <p> Any application</p>
<p>WHITE</p> <p> Meaning can be assigned as required, except for red, amber/yellow and green</p> <p> Any application</p>	<p>TURQUOISE</p> <p> Meaning can be assigned as required, except for red, amber/yellow and green</p> <p> Any application</p>
<p>MAGENTA</p> <p> Meaning can be assigned as required, except for red, amber/yellow and green</p> <p> Any application</p>	

The signal colors red and amber are most frequently found in strobe lights. In devices with a strobe light, the focus lies on signaling danger as fast as possible. For this reason, the signal colors red and orange are particularly suitable for such devices. The colors yellow and amber are most often found in signal lights or traffic light systems as continuous lights. Green is particularly suitable for the continuous light of signaling and indicator devices.

When selecting the correct color of signal lights, it should be additionally noted that the light transmittance decreases with colored lenses. With clear lenses, the light transmission hardly changes; the loss of light quantity is greatest with blue lenses

 If an audible signaling device is required, continue to question 9.

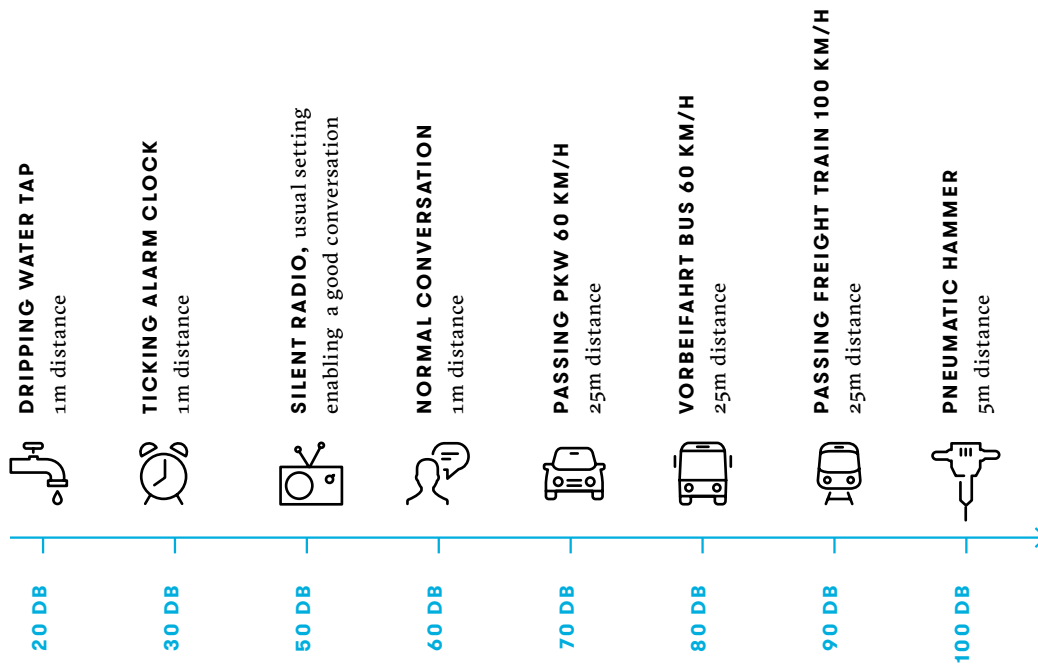
Question

9

How loud should the acoustic signal be?

Which acoustic signaling device to choose depends on where it will be used. The first thing to consider is whether the transducer is to be perceived indoors or outdoors and whether ambient noise needs to be covered up.

A sound level meter can be used to measure the ambient noise in decibels. Alternatively, the following table also provides an overview of ambient noise:



In addition to the absolute volume of a signal, the distance between the sound emitter and receiver also influences the perceived sound volume. When the distance is doubled, the sound pressure decreases by 6 dB. The signal is then perceived to be about a quarter quieter. From an increase of 10dB, the human ear perceives the volume as doubling. The following range table serves as a basis for you to estimate the sound level.

However, environmental factors such as wind speed, wind direction, humidity and general weather conditions play a role in acoustic signals, which is why these are approximate values.

THE SOUND PRESSURE DECREASES BY 6 DB WHEN THE DISTANCE IS DOUBLED

Distance (m)	Sound pressure level dB (A)																				
1	65	70	75	80	85	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120
2	59	64	69	74	79	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114
3	55	60	65	70	75	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
5	51	56	61	66	71	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106
10	45	50	55	60	65	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100
20	39	44	49	54	59	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94
30	35	40	45	50	55	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90
50		36	41	46	51	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86
100				40	45	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
200					39	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74
500							38	40	42	44	46	48	50	52	54	56	58	60	62	64	66

We basically distinguish three categories of transducers, which differ in functionality, sound generation and selection, and sound propagation:



Piezo Buzzer

Are the smallest buzzers, but still reach up to 105 dB.

Contrary to multi-tone sirens, piezo buzzers might only play a small selection of tones (e.g. continuous or pulse tone) and cannot generate different frequencies.



Multi-tone sirens

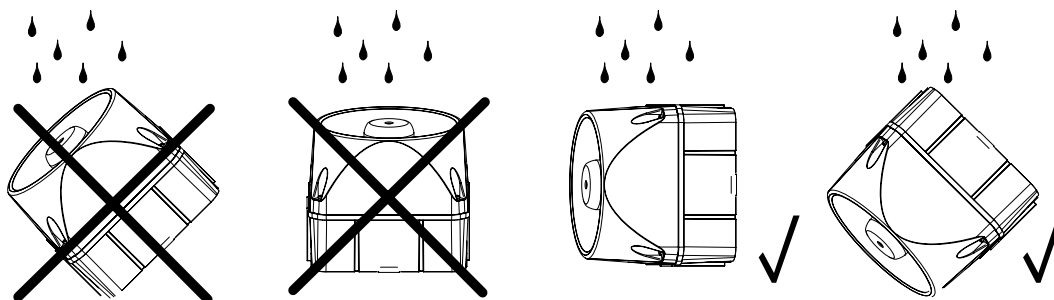
The ASX is our largest (228 mm) and loudest (up to 127 dB) multi-tone siren and can reproduce 63 tonalities. Many of these tones also correspond to standardized country tones (e.g. alarm tone Australia AS1670). Compared to piezo buzzers, the quality of the tone is better because a loudspeaker generates the sound.



Horn

The alarm horns are unique due to the classic horn sound. They generate a sound pressure of up to 112 dB. Horn models with a funnel control the sound emissions in a predetermined direction (directional).

When installing signaling devices, it is essential to ensure that under no circumstances the horn is filled with water or rain. This would prevent the sound from being emitted, and thus the warning signal.



Question

10

Is one type of signaling sufficient or is an additional indicator or device required?

Some of our products can be upgraded to an visual-audible device in case that an optical or an acoustic signaling device alone is not sufficient.

Visual-audible device combinations are used, for example, when the optical signal alone is not sufficient. A smaller, acoustic indicator enables the optical warning to be additionally amplified. If the signal light is not permanently visible by the receiver (e.g. facing back), the acoustic signal draws additional attention to the status of the signaling device.

It is possible to have the same combination for acoustic devices with a small, optical indicator. The optical indicator facilitates the allocation of the acoustic signal. Since it is generally more difficult to assign an acoustic signal to a specific location, small optical indicators are often used in addition to clearly indicate the signaling device. If there are, for example, several production machines in a large hall, it is often not possible to recognize from the acoustic signal alone which production machine is emitting the sound. Thanks to the additional lighting up of the indicator, the machine with the error message can be easily identified.

In addition to these supplementary indicators, the combination of two equivalent devices is also possible for selected product series.

While the indicator might often only be an additional support and not exactly as powerful in terms of its functions or performance as the primary signal device, this does not apply to these combinations of devices.

With the A+Q series, for example, lights and sirens of the same size can be combined and transformed into a visual-audible signaling device solution.

Which visual-audible combination is most suitable for your application depends on the importance assigned to the signaling units, how much space is available, and the scope of functions (light functions, sound types) and power (light intensity, volume) required of the two devices.



Acoustic signaling with optical indicator



Optical signaling with acoustic indicator



Optical-acoustic combination with two equally sized devices



Optical-acoustic combination with omni-directional signal effect of both devices



Optical-acoustic signaling with a tower light

Question 11

What certifications and markings does your signal device need?

Certifications for signaling devices are partly prescribed by law or a requirement of the market. The table below provides an overview of the most important certifications, markings and standards.

On our website and data sheets, you will find information about the certifications, norms and standards that our respective products fulfill.

	Application	Auer Signal products
CE UKCA	For the European Economic Area, all signaling devices must have the CE marking (Conformité Européenne, European Conformity).	All products from Auer Signal have the CE marking. With the end of the transition period, all products for the UK market will have the UKCA marking.
UL	The UL certification is one of the most important certification in the field of product safety and plays a major role for the North American market.	The majority of the Auer Signal products meet the UL standards.
ATEX EU-type examination	The EU-type examination is required for ATEX signaling devices and is carried out by a notified testing body. Thereby it verifies whether the product, which has a particular safety risk, complies with all relevant EU directives and standards. The certificate is valid for the EU market.	All ATEX products from Auer Signal have an EU-type examination certificate.
RoHS	RoHS (Restriction of Hazardous Substances) is a directive of the European Union (2011/65/EU) related to electrical and electronic equipment and its manufacture. The RoHS Directive limits the use of ten hazardous substances in electrical equipment and electronic components.	All products and components used by Auer Signal comply with the RoHS Directive.
REACH	REACH (Registration, Evaluation, Authorisation of Chemicals) is an EU regulation and relates to the protection of human health and the environment from hazardous chemicals. It applies not only to electro- nics devices (e.g. signaling devices), but also to everyday goods.	All products from Auer Signal comply with the REACH regulation and therefore do not contain any of the listed substances
Conflict Minerals	The avoidance of conflict minerals is ensured by an EU regulation (2017/821 EU). Through this regulation, which has been in force since 01.01.2021, EU companies along the supply chain are forced to ensure that only minerals and metals from responsible and conflict-free sources are used. The use of materials from conflict areas is thus to be prevented.	All products and components used comply with the Conflict Minerals Regulation and therefore do not contain any conflict minerals
ISO 9001	DIN EN ISO 9001 is an international standard for quality management systems. Companies with an ISO 9001 certified quality management work to continuously improve and optimize their processes, with a particular focus on the increasing customer satisfaction.	Since 1999 the quality management of Auer Signal has been officially ISO 9001 certified

Procurement

Were you able to find a suitable signaling device following our questions? Then it is time to purchase.

Follow these 3 steps:

3 steps to product changeover and starting the device

1. Constructive planning

In this first step, the compatibility of the existing design with the signaling device will be checked and adjusted if necessary.

Our detailed 3D models of the signaling devices are particularly helpful in this planning step.

You can integrate these into your planning software to verify or realign the design.

2. Electrical planning

During electrical planning, the compatibility of the existing connections and the power consumption is examined. Experience has shown that most existing signaling device applications are compatible.

In case you are changing from an existing signal device solution to a new signal system from Auer Signal, our team will be happy to assist you with the planning and implementation process..

Signaling devices with LED technology do usually not require maintenance nor any additional electrical services after installation within the specified service life.

3. Start the device

Once the planning process has been completed and the equipment has been delivered, the product changeover is completed by starting the device.

As for initializing the device, we would like to point out that only trained electricians should install signaling devices. Various connection options such as M12 plugs or single-hole mounting for built-in devices contribute to quick and easy installation.



3D models from Auer Signal

Detailed 3D models are available for all our signaling devices. These can be particularly helpful in the planning and decision-making process when purchasing a signaling device system.



You can integrate them into a planning software to visualize your machine or plant with a signaling device. With the help of the 3D models, you can also configure individual modules of a signal tower, create lists of parts and use these for your own planning. All our 3D models are available for free download on our website in the download area as well as on the individual product detail pages.

[AUERSIGNAL.COM](https://www.auersignal.com)

Louder &
Brighter
since 1910.

Auer Signal

Auer Signal is one of the world's leading manufacturers of signalling equipment

We are constantly working on new product developments. With innovation, vision and handshake quality, we inspire our customers since 1910. To keep it that way, we perform like our signal devices: louder & brighter.

Since 1910, we have been driven by the will to develop technical devices that keep getting better.

Auer Signal is a fourth-generation, owner-operated company with big ambitions. Trust, handshake quality and reliability are important to us as a family business.



Louder & Brighter since 1910.

In our [FAQ](#) section on our website you will find answers, tips and information on frequently asked questions about our products and services. If you do not find the answer to your request in that section, please contact us.

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