SIGNAL LAMPS AND ACOUSTIC INDICATORS

Extensive product portfolio for state indication

www.leuze.com
A wide range of the latest LED signal lamps and acoustic indicators round out our offerings for reliable industrial automation. Visualization and state indication are essential for successful process optimization as well as for sustainable increases in efficiency.

Our solutions can …
- Reduce reaction times and warn of emergency situations in advance
- Increase machine availability and avoid system downtime
- Check on complex processes and minimize monitoring times

INCREASE SAFETY, PRODUCTIVITY AND AVAILABILITY

A professional visualization and state indication system enables process optimization and increased efficiency.
ONE THING IS IMPORTANT HERE — MAXIMUM RELIABILITY

Regardless of whether visual or acoustic signaler, anyone who uses such devices is counting 100% on their functional reliability. Our solutions are therefore equipped with an especially long-lasting technology that ensures a service life of up to 100,000 hours. The shock-resistant plastic, the high degree of protection of up to IP 66 as well as a temperature range from -30 °C to 60 °C also guarantee reliable operation, even in demanding environments. The consistent use of especially energy-saving, bright LED technology also sets standards in the areas of ecology and economy.

easy handling.

- Ready-made column versions
- Simple mounting and connection of the modular columns via bayonet lock
- Standard M22 mounting for all built-in types
- Split and multicolor optical signalers in one housing

think modular.

- Modular, individual configuration of the signalers as 40 mm or 70 mm column; can also be combined on request with sound module
- Single- and multicolor built-in lamps with various diameters 30 / 45 / 65 mm
- Optical, acoustic and combined signalers

Optical status indicator in the area of protective door monitoring
Optical signaler for wall mounting for the visualization of a safety area
The Right Solution for Every Application

Our wide product range of signaling columns and signalers with or without sound module covers all requirements.

### Signaling Columns

**Ready-made C3 / modular E4 and E7**

<table>
<thead>
<tr>
<th></th>
<th>C3</th>
<th>E4</th>
<th>E7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenses Ø</td>
<td>30 mm</td>
<td>40 mm</td>
<td>70 mm</td>
</tr>
<tr>
<td>Signaling</td>
<td>Continuous LED light</td>
<td>Continuous or flashing LED light, combinable with acoustic indicator</td>
<td></td>
</tr>
<tr>
<td>Colors</td>
<td>Fixed: red, orange, green</td>
<td>Selectable: red, clear, green, orange, blue, yellow</td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>24 V AC/DC, ±10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current consumption</td>
<td>0.090 A</td>
<td>0.027 A to 0.039 A</td>
<td>0.051 A to 0.092 A</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 65</td>
<td>IP 66</td>
<td></td>
</tr>
<tr>
<td>Connection</td>
<td>Standard UL cable, yellow, 1 m, open ends</td>
<td>Terminal</td>
<td></td>
</tr>
</tbody>
</table>

**Modular E4 and E7**

- Flexible configuration and mounting
- Mounting bracket for wall, post and horizontal mounting
- Vertical mounting: up to 5 modules
- Horizontal mounting: 2-sided, up to 10 modules
- Optional sound modules with the same high degree of protection

### Signaling for Wall Mounting

**EMS and FBA / D9 wall lamp**

<table>
<thead>
<tr>
<th></th>
<th>EMS siren</th>
<th>FBA signal lamp</th>
<th>D9 wall lamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>94 x 94 x 97 mm</td>
<td>90 x 194 x 45 mm</td>
<td></td>
</tr>
<tr>
<td>Signaling</td>
<td>Various sound types</td>
<td>Continuous or flashing LED light</td>
<td>Continuous LED light, continuous or pulsed tone</td>
</tr>
<tr>
<td>Colors</td>
<td>Housing: red</td>
<td>Selectable: red, orange</td>
<td>Fixed: red, orange, green</td>
</tr>
<tr>
<td>Voltage</td>
<td>24 V AC/DC, ±10% or 230/240 V AC</td>
<td>24 V AC/DC, ±10%</td>
<td></td>
</tr>
<tr>
<td>Current consumption</td>
<td>0.022 A or 0.120 A</td>
<td>0.06 A or 0.110 A</td>
<td>0.194 A</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 66</td>
<td>IP 65</td>
<td></td>
</tr>
<tr>
<td>Connection</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EMS alarm indicator**

- Sound chart (32 sounds) includes standardized signal sounds for, e.g., fire alarm
- Volume adjustable via potentiometer, max. 113 dB

**FBA single lamp for rough environments**

- Bright, vibration-resistant, shock-resistant
- Also suitable for outdoor use

**Individual solutions through combination of EMS and FBA**

- Can be mechanically combined by means of mounting kit
- Also suitable for a traffic-light-type solution

**D9 wall lamp in refined design**

- Complete 3-color, semicircular signal lamp with sound module in gray housing for wall mounting
- Adjustable sound pressure 70–90 dB
- 180° visibility
Signalers for built-in mounting
Built-in elements for M22 P series

<table>
<thead>
<tr>
<th>PDS</th>
<th>PDV</th>
<th>PDW</th>
<th>PBZ</th>
<th>PDSBZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>30, 45, 65 mm</td>
<td>65 mm</td>
<td>30 mm</td>
<td>45, 65 mm</td>
</tr>
<tr>
<td>Signaling</td>
<td>Continuous or flashing LED light</td>
<td>Continuous LED light</td>
<td>Continuous or pulsed tone</td>
<td>Continuous or flashing LED light, continuous or pulsed tone</td>
</tr>
<tr>
<td>Colors</td>
<td>Selectable: red, clear, green, orange, blue, yellow</td>
<td>Fixed: red, green</td>
<td>Fixed: red, green, yellow</td>
<td>Red, orange</td>
</tr>
<tr>
<td>Display of the lens color</td>
<td>Single-color, entire lens</td>
<td>Split, half lens</td>
<td>3-color, entire lens</td>
<td>Single-color, entire lens</td>
</tr>
<tr>
<td>Voltage</td>
<td>24 VAC/DC, ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current consumption</td>
<td>0.026 A/0.037 A/0.060 A</td>
<td>0.030 A/0.039 A/0.044 A</td>
<td>0.043 A</td>
<td>0.046 A/0.047 A/0.058 A</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection</td>
<td>Removable terminal</td>
<td>Pre-wired</td>
<td>Removable terminal</td>
<td></td>
</tr>
</tbody>
</table>

Reliable signaling of the muting state
- Long-lasting and reliable LED muting lamp
- High redundancy through 6 LED strands connected in parallel
- Current monitoring possible
- e.g., as accessory for Leuze electronic safety light curtains or protective sensors

Optical, acoustic and combined
M22 built-in elements
- Two or more states in one element
- Simple connection through removable terminal
- Continuous or flashing light selectable through connection (PDS and PDSBZ)

<table>
<thead>
<tr>
<th>MS 70</th>
<th>MS 851</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens Ø</td>
<td>70 mm</td>
</tr>
<tr>
<td>Signaling</td>
<td>LED or incandescent lamp</td>
</tr>
<tr>
<td>Colors</td>
<td>Clear, yellow</td>
</tr>
<tr>
<td>Voltage</td>
<td>MS70 24 V DC, ± 20%</td>
</tr>
<tr>
<td>Current consumption</td>
<td>0.060 A</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 65</td>
</tr>
<tr>
<td>Connection</td>
<td>Terminal</td>
</tr>
</tbody>
</table>

Optical, acoustic and combined
M22 built-in elements
- Two or more states in one element
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SIGNALING EXACTLY AS YOU NEED IT

Three simple steps for a custom signaling column

1. SELECT A TYPE OF MOUNTING
   All bracket variants are available with a diameter of 40 mm or 70 mm.

   - **MP1**
     - Horizontal mounting
     - Length: 100 / 250 / 400 mm
     - Up to 5 modules
   - **MH1**
     - Horizontal mounting
     - Interior screw fitting
     - Up to 5 modules
   - **MW1**
     - Vertical mounting
     - 1-sided mounting
     - Up to 5 modules
   - **MW2**
     - Vertical mounting
     - 2-sided mounting
     - Up to 10 modules

2. SELECT THE NUMBER AND COLOR OF LENSES
   All lens models are available in diameters of 40 mm or 70 mm.

   - **E4/E7-DS** — continuous LED light
   - **E4/E7-DB** — flashing LED light

3. SELECT AN OPTIONAL SOUND MODULE
   Sound module variants are available for E4 with a diameter of 40 mm and for E7 with a diameter of 70 mm.

   - **E4-BZ1**
   - **E7-BZ1**

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**BAYONET LOCK**
- Combine the modules without tools
- Electrical through-connection without manual wiring
- Discrete markings

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**Mount**

**Rotate**

**Connected**
With regard to our product developments, we systematically place emphasis on the especially good usability of all devices. To this end, simple mounting and alignment are taken into account — just as the uncomplicated integrability of the sensors in existing field bus systems and easy configuration, e.g. via a web browser, are.

Whoever can do it all, can do nothing right. Which is why we concentrate on selected target sectors and applications. We are specialists and know all aspects inside out. For this purpose, we optimize our solutions and offer a comprehensive product range that makes it possible for our customers to obtain the absolute best solutions from a single source.

The technical and personal closeness to our customers, and a skilled, straightforward handling of queries and problems, are among our strengths — and will remain so. Consequently, we will continue to expand our service offerings and, indeed, also forge ahead in new directions to persistently redefine the utmost in customer service. Whether on the phone, in the Internet or on-site with our customers — regardless of when and where the expertise of the sensor people is needed at any time.

Info at: www.leuze.com
Switching Sensors
Optical Sensors
Ultrasonic Sensors
Fiber Optic Sensors
Inductive Switches
Forked Sensors
Light Curtains
Special Sensors

Measuring Sensors
Distance Sensors
Sensors for Positioning
3D Sensors
Light Curtains
Forked Sensors

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Data Transmission
Safe Control Components
Signaling Devices
Connection Technology and Passive Distributors

Industrial Image Processing
Light Section Sensors
Smart Camera