MODULE OVERVIEW
RTK⁷ – Visual and acoustic warning systems for 12 V applications

KL-LR 2
→ Extremely intensive, powerful signal for preceding and following traffic thanks to compact SMD LED placement on high-gloss metallised reflector in trough form, signal front/rear can be switched separately as an option

KL-LM 2
→ With 2-level function for day and night mode, high-power LEDs with additional bundled lens arranged in a semi-circle provide optimised visibility, even from the side

KL-LM 3
→ Bi-coloured module – Can change from blue to yellow
→ LED 2-level module in blue for optimum signal loudness day and night
→ Additional LED for yellow warning light
→ 360-degree flash in blue and yellow; can be switched separately at the front/rear

KL-LM 4
→ As module KL-LM 2, with extended functionality for rotating signal radiation analogue to the classic rotary mirror signal

KL-LM 5
→ As KL-LM 2, with flashing infrared signal

KL-LM 6
→ As KL-LM 4, with rotating infrared signal

KL-LM 7
→ With 2-level function for day/night mode (flashes in daylight, rotates at night) with infrared flight visibility marking

KL-ER
→ Classic halogen rotating mirror, powerful basic features

Domes
→ Available in transparent, light blue, dark blue, red and orange.
### Light modules in the dome
Optional equipment for:
- LED alley lights
- LED worklights, identical to alley lights. 1 module integrated in each dome.
- Hazard warning light modules

### Alley lights
- With 4 LEDs for intensive close-range illumination along the side of the vehicle

### Worklights
- HP halogen, up to two headlamps at front and rear

### LED Signal Bar LSB
- Integrated amber chaser signal for warning and securing at the rear of the vehicle
- Traffic control possible thanks to different signal directions
- 3 variants available, with 5, 6 or 8 modules depending on the housing width
- Automatic day/night mode using photometric sensor; can be switched manually using the control unit
- K-approval for fixed flashing hazard lights in accordance with section 53a of the German Road Licensing Regulations (StVZO) (K1091 = 5 modules, K1092 = 6 modules, K1093 = 8 modules)

### LED stop signal generator ASG
- Matrix with fixed lettering, additional lettering signals freely programmable
- Alternatives include e.g. STOP POLICE (280 mm), EMERGENCY DOCTOR (280 mm), STOP POLICE / PLEASE FOLLOW (380 mm)
- 3 module sizes: 280 mm, 380 mm and 560 mm for different device configurations
- Automatic day/night mode, switching through photometric sensor
- Optional red stop flash from the BSF-LED long-range flash module

### LED stop signal generator ASG (amber)
- Matrix with fixed lettering, additional lettering signals freely programmable
- Automatic day/night mode, switching through photometric sensor
- On request

### Licence plate loudspeaker N-LSP
- Innovative acoustic module in the form of a licence plate bracket
- Mounting possible on any vehicle (for vehicle fronts up to 6°)
- Free signal projection to the front for increased integrated and reduced noise on the interior
- The sound aperture is located beneath the licence plate, therefore guaranteeing free signal radiation and increased safety

### Internal acoustic module LSP-I
- Integrated loudspeaker facing the front (Fig. A)
- Optionally facing the rear (Fig. B)

### Long-range flash module BSF-LED
- Bundled, extremely wide-range warning signal
- Effective warning during high-speed missions (e.g. on the motorway)
- Red stop flash to support the stopping process initiated by the stop signal generator
- 3 variants: blue, blue with red stop light, red stop flash

### External LED stop signal generator ASG-E
- Separate ASG module for internal and external mounting
- Flat design
- For use on the vehicle interior or attachment to vertical bodywork

### Hazard blinking lights module/direction indicator
- Allows switchover from blue light to amber hazard warning signal at the site of the emergency
- Automatic synchronisation of indicator light with the hazard warning light frequency
- ECE type tested
eAZD and AZD control unit
- Preliminary setup for additional high-mounted beacon
- For long-range protection
- The beacon stand with integrated plug is available in 2 lengths (170 mm and 1,000 mm)
- Can be switched with software coding

Information module (congestion warning)
- Set-up for congestion warning sign
- Congestion warning sign with highly reflective surface for particularly easy recognition from a long distance

Digital operation
- Control unit HA115 for Germany
- HA 112 Control Unit Europe
- Gateway

Backlighting module
- LED technology
- For housing widths of 900 - 1,600 mm
- Front and/or rear

PC tool
- Software configuration of RTK², RTK²-VE and matrix stop signal generators via the gateway
- Software updates to a standardised software level based on the software update stick, see below
- Change and set PIN codes

eAZD and AZD control unit
- For the electronic control of the optical and acoustic functions of special signaling systems
- eAZD control unit (Fig. A)
- AZD switch (police or fire department, Fig. B)

KL-A plug-on beacon
- Preliminary setup for additional high-mounted beacon
- For long-range protection
- The beacon stand with integrated plug is available in 2 lengths (170 mm and 1,000 mm)
- Can be switched with software coding

KL-IR
- Auxiliary module infrared in-flight visibility marking for recognising the emergency vehicle from the air by means of FLIR/DLIR night vision equipment
- Flashing pattern frequency synchronised with main beacons

RTK² software update stick
- Enables fleet operators (from software version 01/11) the licensed update of different software versions of
  - the central control unit (ZSE),
  - stop signal encoder (ASG) and the gateway within a vehicle fleet so as to have a standardised operation.

KL-A plug-on beacon
- Preliminary setup for additional high-mounted beacon
- For long-range protection
- The beacon stand with integrated plug is available in 2 lengths (170 mm and 1,000 mm)
- Can be switched with software coding

Information module (congestion warning)
- Set-up for congestion warning sign
- Congestion warning sign with highly reflective surface for particularly easy recognition from a long distance

Digital operation
- Control unit HA115 for Germany
- HA 112 Control Unit Europe
- Gateway

Backlighting module
- LED technology
- For housing widths of 900 - 1,600 mm
- Front and/or rear

PC tool
- Software configuration of RTK², RTK²-VE and matrix stop signal generators via the gateway
- Software updates to a standardised software level based on the software update stick, see below
- Change and set PIN codes

eAZD and AZD control unit
- For the electronic control of the optical and acoustic functions of special signaling systems
- eAZD control unit (Fig. A)
- AZD switch (police or fire department, Fig. B)