The DBF 4000 warning system combines the advantages of the DBS 4000 with a range of functions specially developed for use in airports. The system's individually selectable features ensure that traffic control and Follow Me vehicles are optimally equipped for use. The amber DBF 4000 warning system is tested in accordance with ICAO type C.



#### **Configured to customer requirements**

- Mounted using a modular system
- Easily adaptable to individual needs
- Switching of flash patterns possible **Aerodynamic housing**
- Low wind resistance and reduced noise levels

### Variety of mounting options

- Quick and easy mounting options for flat or curved vehicle roofs
- Vehicle-specific carrier systems offer additional mounting options

### Maximum warning effect

- State-of-the-art lighting technology
- Automatic day/night switching

#### **Easy operation**

• Digital control using the CANBus protocol, based on the CANopen Standard 447 using the HBE 300 Follow Me hand-held control unit

### Variety of lengths

• Lengths: 1100, 1200, 1400, 1600, 1800 and 2000 mm



### **RANGE OF FUNCTIONS AVAILABLE:**

- Direction indicator (turning light)
- Working light
- Additional flashers
- Alley lights: 0° or 20° tilt
- Full matrix display amber or red
- Front cover glass printing
- Day/night switching (automatic)
- also available as switchable blue/amber version (tested in accordance with ICAO type C). Further information on page 41.

#### **FOLLOW ME FEATURES:**

- LED main beacons with amber or red\* high-performance LEDs
- Rear-facing full matrix with amber or red high-performance LEDs and displaying message "FOLLOW ME", "STOP" and arrows
- Option to activate arrows using the vehicle's direction indicator
- Contact with brakes activates the "STOP" message
- Control of the lightbar using CANopen Standard 447 with HBE 300 Follow Me digital control unit
- Integration of a 614/624 amplifier for public address with an undercarriage loudspeaker for public address via the HBE 300 Follow Me control unit possible
- Mounting of undercarriage loudspeakers possible
- Switching of flash pattern (between ECE-R65 and ICAO type C) possible

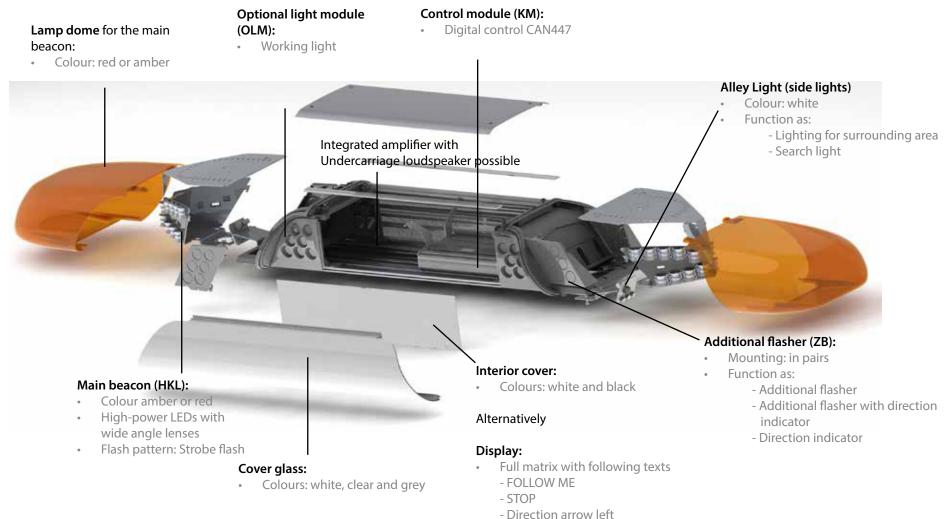
\* if red LEDs are mounted, the warning system does not comply with the test in accordance with ICAO type C

Technical data:			
Designation:	DBF 4000		
Voltage:	12 V		
Flash frequency (ECE-R65):	> 2 Hz (beacon)		
Flash frequency (ICAO type C)	1 - 1.5 Hz (beacon)		
Average power consumption:	from 4 A (at 12 V)		
Lengths:	1100, 1200, 1400, 1600, 1800, 2000 mm		
Depth:	300 mm		
Height:	135 mm		
Weight:	from 9.5 kg		
Material:	Lamp dome/cover glass: PC / housing: Aluminium		
Type of protection:	IP5K4K/IPX9K		
Homologation: (Germany and international)			
Light in accordance with ECE-R65:	TA2(E1)00 3111 (amber)		
EMC in accordance with ECE-R10:	(E1)10R-05 6209		









- Direction arrow right

various additional texts possible on request



### **Basic lightbar**

#### Possible lengths:

1100, 1200, 1400, 1600, 1800, 2000 mm

Main beacon (HKL)	
Function	
Main beacon (red or amber)	<ul> <li>High-power LEDs with wide angle lenses</li> <li>K2 homologation with day/night switching</li> <li>Integrated function monitoring</li> <li>Flash pattern: Strobe flash</li> <li>Optional: helicopter recognition, fourfold, infrared rotating, for night vision devices</li> </ul>

Control module (KM)	Control module (KM)	
Function	Function	
Digital control	<ul> <li>For CAN447 control units (HBE 300 Follow Me)</li> <li>Serial control by 2-wire cable</li> <li>Compatibility of other control units on request</li> </ul>	

Roof mounting	Roof mounting	
Rubber mouldings	For flat or curved vehicle roofs	
Mounting brackets	Universal and various vehicle-specific models available	
Flat sealing	For flat vehicle roofs	

Electrical connection	Electrical connection	
Function		
Cable outlet	<ul> <li>Cable outlet, passenger side: Standard</li> <li>Cable outlet, driver side</li> <li>Separate cable outlet (power supply and signal line are laid separately)</li> </ul>	



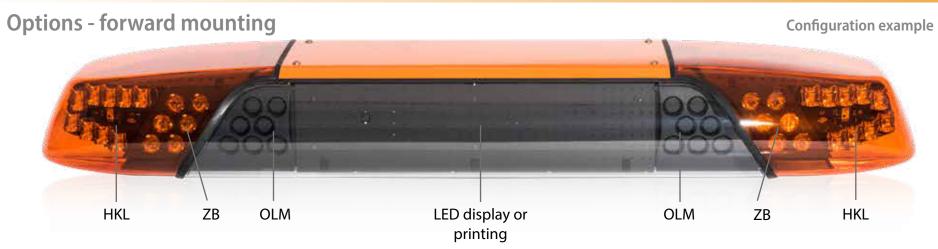
### Options

Acoustics			
Function	Function Possible for		
Acoustic SV 614/624	<ul> <li>Integrated amplifier for public address</li> <li>Undercarriage loudspeaker directed towards the rear and/or the front for public address*</li> </ul>	• 12 V	
* A second undercarriage loudspeaker directed towards the rear or the front can be optionally mounted.			

Alley lights (side lights)			
Function			Possible for
	hting for surround- g area	Colour: white Tilt angle: 20° Mounted in pairs (left and right)	• 12V
Sea	arch lights • •	Colour: white Without tilt angle Mounted in pairs (left and right)	• 12V

Display and printing	
Function	
Cover glass (colours: white, clear, blue and grey)	<ul> <li>Standard: white without printing</li> <li>Optional: white with printing (backlighting possible)</li> <li>Optional: clear without printing (interior cover or display required). A clear cover glass is mandatory when OLMs or a display are used</li> </ul>
Interior cover (colours: white and black)	<ul> <li>Standard: white without printing</li> <li>Optional: white with printing</li> <li>Optional: black without printing</li> </ul>
Display	<ul> <li>Full matrix with the following messages:         <ul> <li>FOLLOW ME</li> <li>STOP</li> <li>Direction arrow, left</li> <li>Direction arrow, right</li> </ul> </li> <li>Various additional messages possible on request (traffic control, accident, oil slick, slow, and many more)</li> <li>With red or amber high-performance LEDs</li> </ul>

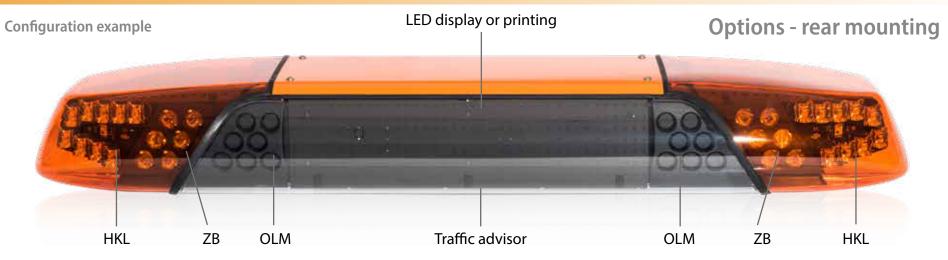




Additi	onal flasher (ZB)		
Functi	on		Possible for
ZB	Additional flashers (pair)	<ul> <li>Consists of 12 amber LEDs</li> <li>Directional</li> <li>Synchronisation with respective main flasher</li> <li>Deactivated in night mode</li> </ul>	• 12V
ZB	Additional flasher with     direction indicator (pair)	<ul> <li>Consist of 6 amber LEDs (ZB) and 8 amber LEDs (direction indicator)</li> <li>Directional</li> <li>Additional flasher: deactivated in night mode; synchronisation with respective main flasher</li> <li>Direction indicator: Function as direction indicator or hazard warning light (synchronisation with vehicle direction indicator required)</li> </ul>	• 12V
ZB	Direction indicators (pair)	<ul> <li>Consist of 8 amber LEDs</li> <li>Directional</li> <li>Function as direction indicator or hazard warning light (synchronisation with vehicle direction indicator required)</li> </ul>	• 12 V

Option	al light module (OLM)		
OLM	Working light (ASW)	<ul> <li>Consists of 3 white LEDs per module</li> <li>Standard: mounted right (passenger side)</li> <li>An additional unit may be mounted on the left side (driver side) as an option</li> <li>Light value: <ul> <li>600 lumens</li> <li>1500 lumens</li> <li>(with a 15° tilt angle in each case)</li> </ul> </li> </ul>	• 12V • 12V





Add	litio	nal flasher (ZB)		
Fund	ctior	า		Possible for
ZB	•	Additional flashers (pair)	<ul> <li>Consists of 12 amber LEDs</li> <li>Directional</li> <li>Synchronisation with respective main flasher</li> <li>Deactivated in night mode</li> </ul>	• 12 V
ZB	•	Additional flasher with direction indicator (pair)	<ul> <li>Consists of 6 amber LEDs (ZB) and 8 amber LEDs (direction indicator)</li> <li>Directional</li> <li>Additional flasher: deactivated in night mode; synchronisation with respective main flasher</li> <li>Direction indicator: Function as direction indicator or hazard warning light (synchronisation with vehicle direction indicator required)</li> </ul>	• 12 V
ZB	•	Direction indicators (pair)	<ul> <li>Consist of 8 amber LEDs</li> <li>Directional</li> <li>Function as direction indicator or hazard warning light (synchronisation with vehicle direction indicator required)</li> </ul>	• 12V
Opti	iona	l light module (OLM)		
OLM	1.	• Working light (ASW)	<ul> <li>Consists of 3 white LEDs per module</li> <li>Standard: mounted right (passenger side)</li> <li>An additional unit may be mounted on the left side (driver side) as an option</li> <li>Light value: <ul> <li>600 lumens</li> <li>1500 lumens</li> <li>(with a 15° tilt angle in each case)</li> </ul> </li> </ul>	• 12V • 12V



Special functions		
Designation		
Helicopter detection	<ul> <li>4 integrated infrared LEDs</li> <li>Rotating flash pattern</li> <li>Allows detection by night vision devices</li> </ul>	
Traffic advisor*	<ul> <li>Consists of 6 amber LED modules with 3 LEDs each</li> <li>For rear mounting</li> <li>Choice of different flash patterns (warning function, RWS function) or traffic advisor function (arrow stick function)</li> </ul>	





