

Original operating instructions

BTP0710M

Loop guard



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Leuze electronic GmbH + Co. KG

In der Braike 1

73277 Owen / Germany

Phone: +49 7021 573-0

Fax: +49 7021 573-199

www.leuze.com

info@leuze.com

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1 Overview

The BTP0710M loop guard is an accessory for mounting the LBK SBV safety radar sensors.

The BTP0710M loop guard protects the radar sensors, including their mounting brackets, from mechanical impacts. Alignment of the sensor is thereby maintained even in the event of contact and damage is prevented. The loop guard protects primarily against lateral impacts.

The loop guard protrudes over the front edge of the sensor without impairing the field of vision of the aligned sensor.

Properties

- Protection is ensured by a metal housing that protrudes beyond the sensor, i.e., it encloses the sensor.
- The alignment of the loop can be adapted to the horizontal alignment of the sensor.
- Even if the radar sensor is aligned in various ways, the BTP0710M loop guard provides mechanical protection without limiting the field of vision.

NOTICE



The BTP0710M loop guard can only be used in combination with the original mounting bracket of the LBK SBV radar sensor. The mounting material for mounting the original mounting bracket is included with delivery.

Scope of delivery

The loop guard is delivered in individual parts and consists of the following components:

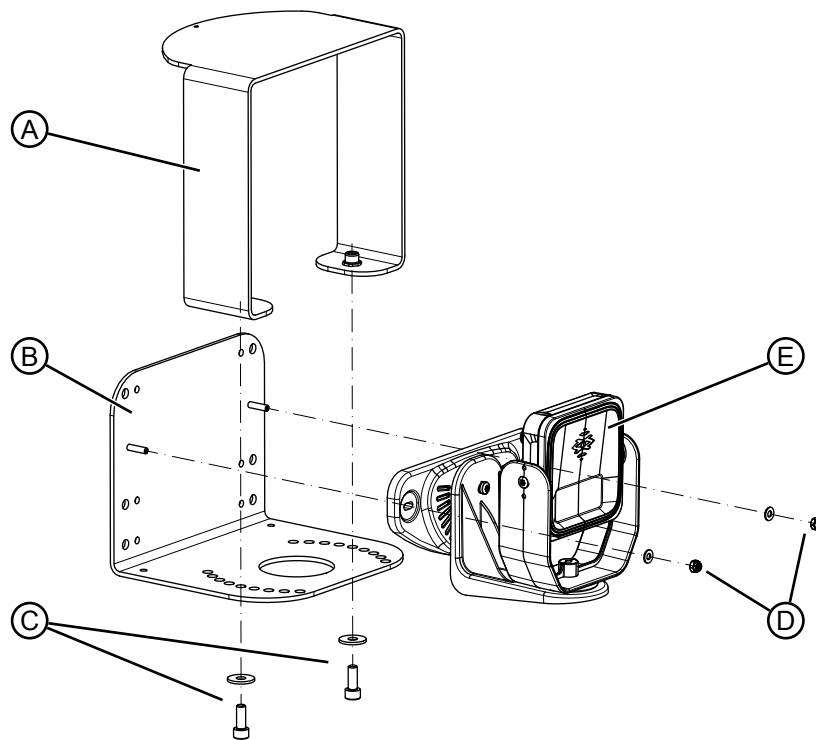


Fig. 1.1: Components of the loop guard

A	Loop	
B	Mounting plate	
C	Mounting material for the loop	2 x M6 x 16 cheese head screw 2 x M6 washer
D	Mounting material for the sensor bracket	2 x M4 locknut 2 x M4 washer
E	LBK SBV sensor with sensor bracket	Not included in the scope of delivery

2 Mounting

Required tool:

- Torque key (adjustment range 1-9 Nm)
 - For fastening the original sensor bracket: appropriate socket head for torque key with WAF 7 mm hexagon head
 - For fastening the loop: appropriate socket head for torque key with WAF 5 mm hexagon socket

↳ Observe the manual of the LBK SBV sensor.

Mounting the mounting plate on the mounting surface of the machine or wall

Select the mounting surface of the mounting plate so that it covers the entire surface of the mounting plate and extends beyond mounting plate.

Mount the mounting plate on the mounting surface (mounting material not included in the scope of delivery).

Aligning the mounting plate:

- If the field of view of the sensor faces upward, the horizontal arm of the mounting plate should be under the sensor.
- If the field of view of the sensor faces downward, the horizontal arm of the mounting plate should be above the sensor.

↳ Screw down the mounting plate with two screws on both ends. For this purpose, the mounting plate is provided with 6 holes for screws with an outer diameter of 6 mm and 6 holes for screws with an outer diameter of 4 mm.

Mounting and aligning the LBK SBV sensor

↳ Fasten the original sensor bracket to the mounting plate. To do this, use the provided M4 washers and locknuts. Tightening torque: 1 Nm

↳ Align the sensor so that it satisfies the requirements of the application.

NOTICE



Comply with the following angular restrictions to avoid covering the field of view of the sensor:

- Adjustment range of x-axis: 0° ... 40°
- Adjustment range of y-axis: -40° ... 40°
- Adjustment range of z-axis: -40° ... 40°

NOTICE



If the sensor is aligned in all three axes, the adjustment range may be limited in some combinations.

- ↳ Check the function of the sensor according to the instructions given in the manual of the LBK SBV sensor.

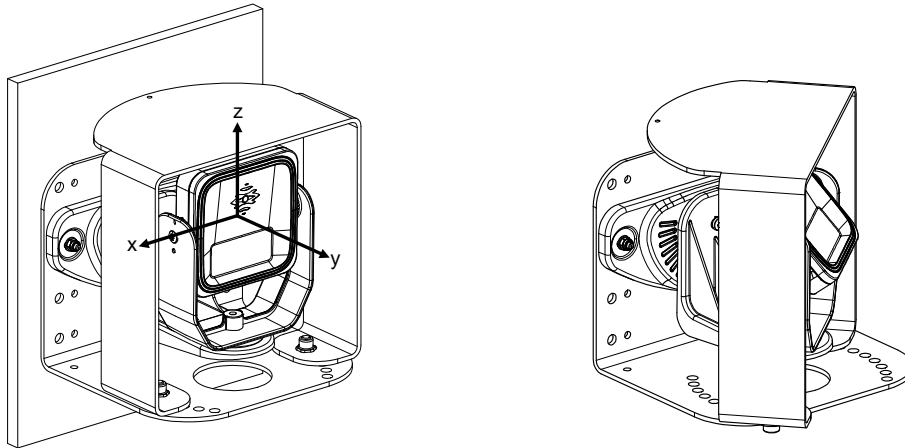


Fig. 2.1: Mounting and alignment of loop guard and sensor

Mounting the loop

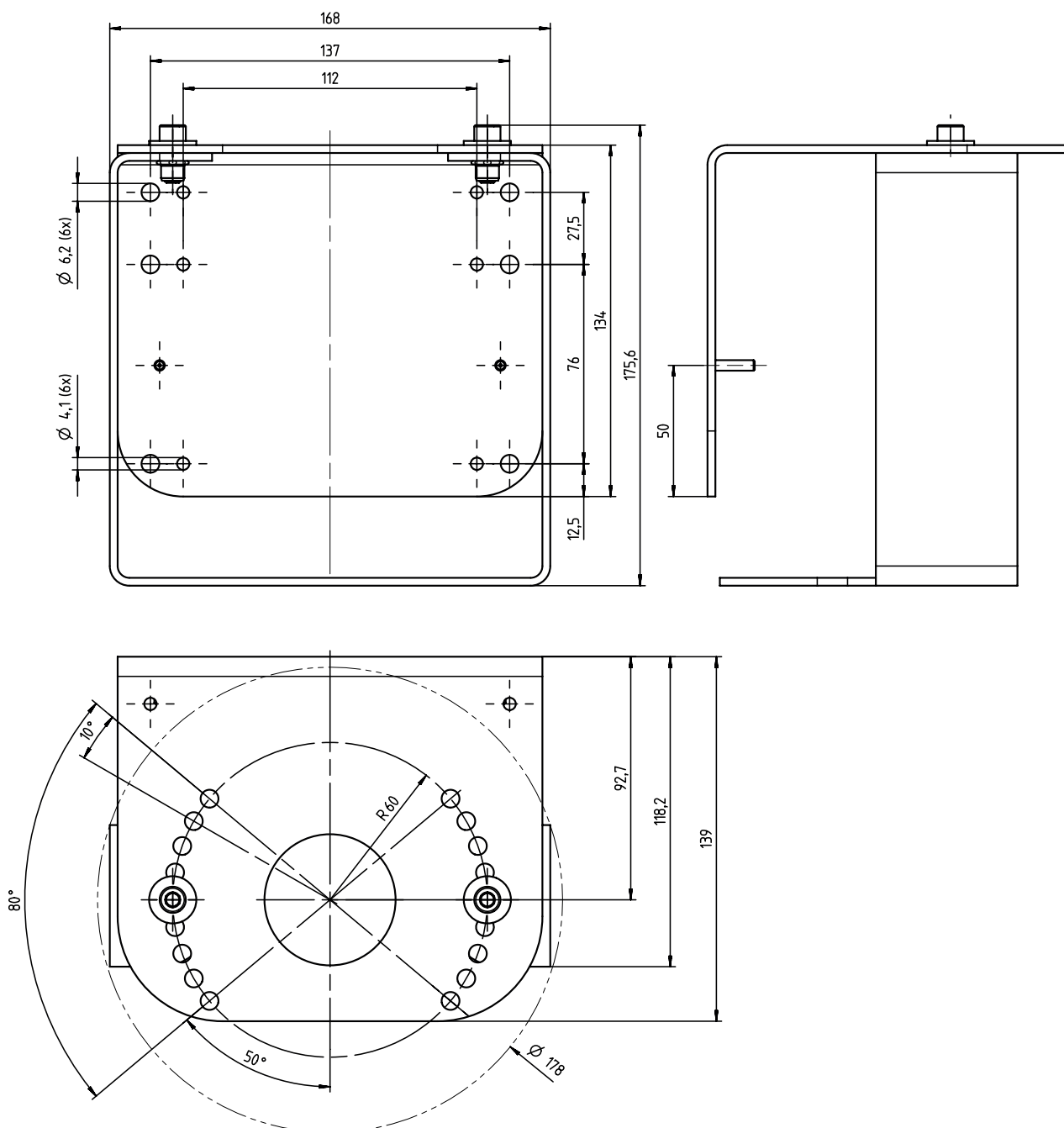
- Align the loop so that the front edge of the loop and the front edge of the sensor are parallel.
- Then slightly turn the loop so that the nuts in the loop are aligned directly over a hole in the base plate. The bore holes in the hole circle of the mounting plate are arranged in 10° increments.
- Fasten the loop to the mounting plate. To do this, use the provided M6 washers and cheese head screws. Tightening torque: 9 Nm

3 Technical data

Tab. 3.1: Loop guard BTP0710M

Part no.	50150219
Description	Loop guard for protecting sensors from mechanical damage and altering the alignment
To be used with	the LBK SBV sensor including the original sensor bracket
Dimensions	See dimensional drawing

Dimensioned drawing



All dimensions in mm

Fig. 3.1: Loop guard BTP0710M