



Intended use

Bumpers are used for protecting against risks at shearing and crushing edges, for instance at machine guards, lifting tables, packaging machines, palletizing and depalletizing systems, automated guided vehicles (AGV's), theatre stages and many others.

All Safety Bumpers of series HSB® meet the requirements for safety components according to the Machinery Directive 2006/42/EC.

Please note: When using cooling agents, oils, acids etc. or for usage in outdoor applications please contact manufacturer for more information.

Function

Except for dimensions and shapes, the Safety Bumpers have a generally identical design. They contain the following components:

- Haake Safety Contact chain HSC® (opening N/C contacts)
- Carrier plate made of Al, MDF or steel for attaching the bumper at the component to be protected
- Double-insulated connection cables to the machine control system
- Coated PUR foam body, alternatively PUR foam body with protective hood

Upon actuation of the Safety Bumper (sensor), the current flow is interrupted, based on the special geometry of the chain links inside the sensor. This interruption represents the OFF condition of the output signal switching device and thus transfers the safety output signal to the machine control system.

The Safety Bumper meets the requirements for automatic reset, since after removing the operating force, it will return by itself into the ON condition.

If it is required to work with a manual reset, this has to be implemented according to DIN EN 1760-3 by the machine control system.

Due to the positive break of the supply (current circuit is broken), a separate safety control unit is not required. Safety Bumper and control system together have to achieve the Performance Level that has been determined in the risk assessment.

Technical Data

Operating temperature:	-20 ... +50 °C
Enclosure sealing:	IP54 (standard)
Nominal voltage:	<50 V AC, 75 V DC (with safe separation from the supply system) A voltage source for SELV or PELV systems according to DIN VDE 0100-410 shall be used.
Nominal current:	max. 0.5 A, AC/DC The power supply shall be protected externally. (Fuse 0.5 A nominal value)!
Control category:	3 (to DIN EN ISO 13849-1)
Performance Level:	Possible up to d
Connection cable:	Double-insulated, highly flexible single-core cables
Sensor:	Embedded in polyether foam, PUR skin
Fastening rail:	Aluminium

Inquiry

First and last name:		E-Mail:	
Company:			
Street and no.:			
Postal code/ZIP and city:		Country:	
Phone no.:		Fax no.:	

Quantity and application

Quantity:	Field of application:
-----------	-----------------------

Ambient conditions

At which type of machine will the bumper be mounted?	
Is there a medium present? If yes, which one (for instance acids, lyes, oils)?	
Where is the application site?	<input type="checkbox"/> indoor <input type="checkbox"/> outdoor
What is the mounting orientation?	<input type="checkbox"/> horizontal <input type="checkbox"/> vertical
What is the movement travel?	<input type="checkbox"/> radial <input type="checkbox"/> linear (for instance rail-bound)
What is the stopping travel?	_____ mm

Dimensions

The technical drawings illustrate the bumper's geometry. The top view shows a rectangular bumper with a central cable exit and four mounting points (two on each side) labeled 'internal threads or threaded pins'. The side view shows a tapered bumper with a 'depth t' and a 'height h1' at the narrow end and a 'height h' at the wide end. The front view shows the bumper's width 'b' and its mounting feet.

width b:	_____ mm
depth t:	_____ mm
height h:	_____ mm
height h1:	_____ mm

Inquiry (cont'd)

Cable length

<input type="checkbox"/> 1.000 mm (Standard)	<input type="checkbox"/> _____ mm (Upon request, surcharge)
--	---

Surface

<input type="checkbox"/> Black (standard)	<input type="checkbox"/> Black with yellow safety pattern (upon request, surcharge)	<input type="checkbox"/> Red (upon request, surcharge)
---	--	---

Mounting possibilities

<input type="checkbox"/> Internal threads	<input type="checkbox"/> M6	<input type="checkbox"/> M8
<input type="checkbox"/> Threaded bolts	<input type="checkbox"/> M6 × 20	<input type="checkbox"/> M6 × 30
	<input type="checkbox"/> M8 × 20	<input type="checkbox"/> M8 × 30

Additional information

Please describe your safety application. Additional specifications can be named here.