

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 depalletising 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.:	

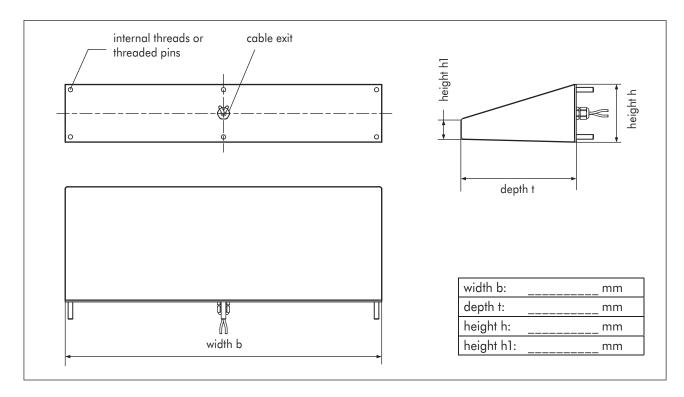
Quantity and application

Quantity:	Field of application:

Ambient conditions

At which type of machine will the bur	per be mounted?		
Is there a medium present? If yes, whi	ch one (for instance a	cids, lyes, oils)?	
	·		
Where is the application site?	□ indoor	□ outdoor	
What is the mounting orientation?	□ horizontal	□ vertical	
What is the movement travel?	□ radial	☐ linear (for instance rail-bound)	
What is the stopping travel?	mm		

Dimensions



Inquiry (cont'd)

Cable length			
1 1.000 mm (Standard)	□ mm (Upon request, surcharg	ie)	
ırface			
□ Black (standard)	☐ Black with yellow safety pattern	□ Red	
Li Black (Slandard)	(upon request, surcharge)	(upon request, surcharge)	
		(opon request, soremarge)	
lounting possibilities	S		
□ Internal threads	□ M6	□ M8	
☐ Threaded bolts	□ M6 × 20	□ M6 × 30	
	□ M8 × 20	□ M8 × 30	
Additional informatio	n		
	y application. Additional specifications can	be named here.	