

EN 16005

SAFETY REQUIREMENTS FOR SWING DOORS



SENSING SOLUTIONS



EN 16005 INSTALLATIONS



IS IT LAW ?

An automatic door is a machine. Therefore all installations must comply with the Machinery Directive which is European law.

The easiest way to meet the essential health and safety requirements of the Machinery Directive is to follow the EN 16005 standard, which is a harmonised standard under the Machinery Directive.

By meeting the provisions of EN 16005 your installation is presumed to comply with the minimum legal health and safety requirements related to machines.

GENERAL RULE

"THE ON-SITE RISK ANALYSIS TAKES INTO ACCOUNT THE PREVENTION OF CONTACT BETWEEN THE MOVING DOOR LEAF AND THE USER, IF A SIGNIFICANT PROPORTION* OF THE USERS ARE VULNERABLE"

*Significant proportion means sufficiently great or important to be worthy of attention because of the potential consequence.

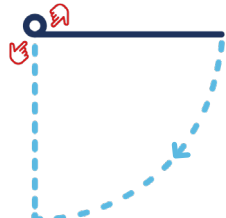
TOLERATED RISK

Office, administration, building,...



CONTACT WITH THE DOOR IS TOLERATED

LOW ENERGY

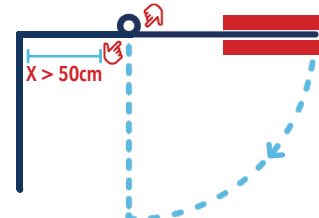


NO SAFETY for low energy doors tolerated if :

- Min. opening/closing time: 4,5sec
- Max. contact force : 67 Newton

NO SOLUTIONS NEEDED (Hinge protection required)

PARTIAL SAFETY



SECURE PARTIALLY the leading edge according the annexe G + hinge

EXCEPTIONS :

- Door opens on traffic area
- Distance X to wall/obstacle <50cm

> GO TO FULL SAFETY

HIGH RISK

Hospital, kindergarten, elderly home,...



CONTACT WITH THE DOOR IS FORBIDDEN

FULL SAFETY

SECURE THE WHOLE WIDTH of the door + hinge

- No contact with the door is allowed in high risk area
- Even for low energy doors

SOLUTIONS

4SAFE 1 CARD

- Door leaf protection + additional finger protection

FLATSCAN SW

- Full door leaf protection ALL IN ONE COMPLIANCY

SOLUTIONS

4SAFE 2 CARDS

- Door leaf protection + additional finger protection

FLATSCAN SW

- Full door leaf protection + additional finger protection*

* depending on risk assessment

FLATSCAN 3D

- 3D full door leaf protection
- 3D hinge protection ALL IN ONE COMPLIANCY

GUIDELINE TO COMPLY WITH THE EN 16005

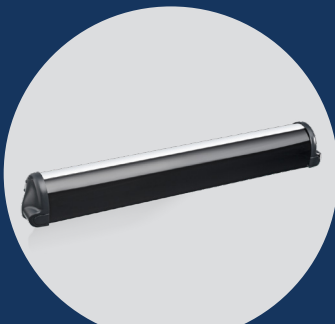
CHOICE OF SENSOR ACCORDING TO THE LEVEL OF SAFETY

CHOOSE YOUR SITUATION

LEVEL OF SAFETY REQUIRED	FULL ENERGY DOORS		LOW ENERGY DOORS
	FULL SAFETY	PARTIAL SAFETY	
Majority of elderly people, disabled people and children	✓	✗	✗
Contact between a person and the door is allowed	✗	✗/✓	✓
Door opens on traffic area	✓	✗	✗
Safety distance between the hinge and wall/barrier ≤ 50cm	✓	✗	✗
First 80° opening of the door is faster than 3sec	✓	✓	✗
First 80° closing of the door is faster than 3sec	✓	✓	✗
Last 10° closing of the door is faster than 1,5sec	✓	✓	✗
The force of the door in movement is higher than 67N	✓	✓	✗
Protection of the hinge area is mandatory (ESPE, structural protection or mechanical protection)	✓	✓	✓
RECOMMENDED SENSORS	<ul style="list-style-type: none"> 4SAFE 2L + finger protection FLATSCAN SW + finger protection FLATSCAN 3D 	<ul style="list-style-type: none"> 4SAFE 1L + finger protection FLATSCAN SW FLATSCAN 3D 	NONE

BEA EN 16005 PRODUCTS

SWING DOORS



4SAFE

- Safety during opening and closing
- Edge safety up to 2,5m
- Easy and reliable installation



FLATSCAN SW

- Safety during opening and closing
- Edge safety up to 2,5m
- Full door leaf coverage
- Hinge protection
- Fully compliant
- Easy and reliable installation



FLATSCAN 3D

- Safety during opening and closing
- Dynamic edge safety
- 3D door leaf coverage
- 3D hinge protection
- All in one compliancy
- Easy and reliable installation



A Halma company

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