

## Risik evaluation according to Appendix I of the Machinery Directive with reference to EN 16005

### Automatic Swing Doors

#### General Remarks / Bases

According to the Machinery Directive 2006/42/EG, a risk evaluation must be carried out taking into account the intended user group of the doors. The technical safety requirements to be met by automatic door systems are specified in DIN 18650 and EN 16005 which form the basis for the selection of various protective measures. In addition, the regulations of ASR A 1.7 and AutSchR (German regulations) must also be taken into consideration.

By principle, an avoidance of hazardous points is to be given priority over a protection of hazardous points. If during the commissioning of the door system a deviation from the present risk evaluation is determined, the appropriate measures must be taken in order to guarantee a safe operation of the door system.

#### Information with regard to the installation site

The hazardous points must be identified and the appropriate protection measures be defined already in the offer phase in order to ensure the highest possible level of personal safety. To this end, the planner needs to evaluate not only the structural measures on the basis of the local conditions but also the groups of users to be expected. Basically, it is assumed that the doors will be used by vulnerable persons in need of particular protection. For this reason, the present document does not mention all the protection possibilities specified in the standard. Attention shall be drawn to residual risks..

<b>Installation site:</b>	<b>Drive type:</b>	
<b>Clear height:</b>	<b>Clear width:</b>	
<b><u>Object data:</u></b>		
Address: _____	Offer No.: _____	
Street: _____	Order No.: _____	
Post code / City: _____	Phone: _____	
Contact person: _____	E-mail: _____	
<b><u>Particular structural conditions (such as e.g. obstacle in front of the door leaf, high wind loads, sills, etc.):</u></b>		
<b>The protective measures described below must be complied with.</b>		
Date, Name	Signature Customer	Signature Seller
<b>The protection measures described below are fulfilled.</b>		
We herewith confirm that all the hazardous points have been sufficiently secured by the defined measures.		
Date, Name	Signature Fitter	

## I. Operating condition – power-operated opening cycle – protection of door leaf

### Against impact / crushing<sup>1)</sup>

- Electro-sensitive protective device according to EN 16005, 4.6.8



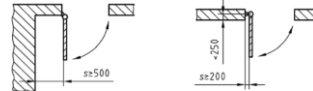
- Low energy according to EN 16005, 4.6.8

### Against crushing<sup>1)</sup>

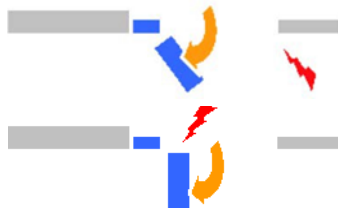
- Sufficiently dimensioned safety distances acc. EN 16005, 4.6.3.

Note:

Sufficient safety distances (EN 16005, 4.6.3.4, illustration 3):



## II. Operating condition – power-operated opening cycle – protection main and secondary closing edge



Hazardous points are irrelevant during the opening cycle

## III. Operating condition – closing cycle – protection of door leaf / secondary closing

### Against impact

- Electro-sensitive protective device



- Low energy according to EN 16005, 4.6.8

### Against crushing / shearing

- Electro-sensitive protective device acc. to EN 16005, 4.6.8

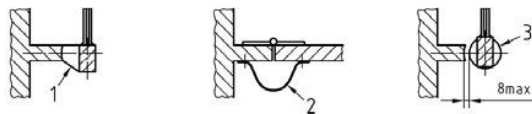


- Separating protective device<sup>1)</sup>

- Structural avoidance<sup>1)</sup>

1) See also examples from EN 16055, 4.6.3.4, illu. 3

(1 rubber-, 2 rubber- or textile-cover, 3 profile)



## IV. Operating condition – closing cycle – protection of main closing edge

### Against crushing / shearing

- Electro-sensitive protective device acc. to EN 16005, 4.6.8



- Low energy according to EN 16005, 4.6.8

### Against getting caught in



- Use of closing sequence regulator (mechanic/electric) 2) \*)

2) Note: the use of a closing sequence regulator as the sole measure is not sufficient, as this measure is only effective against crushing.

Moreover, the risk assessment does not exempt the planner from the obligation to study the product-specific EN standards and national regulations.