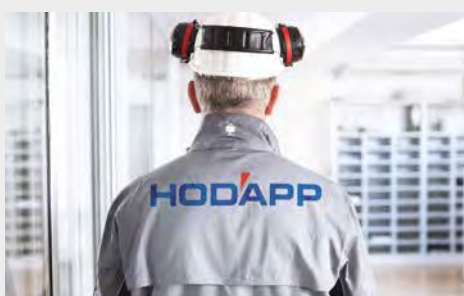


Product overview

> Doors that matter.



Your specialist for tailor-made solutions



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Our expertise, ensuring your safety



Fire
protection



Smoke
protection



Burglary-
resistant



Explosion
protection



Bullet-
resistant



Radiation
protection



Flood
protection



Sound
protection



Earthquake
protection



Shock wave
resistant



Air
permeability



HEPM
protection

Notice:

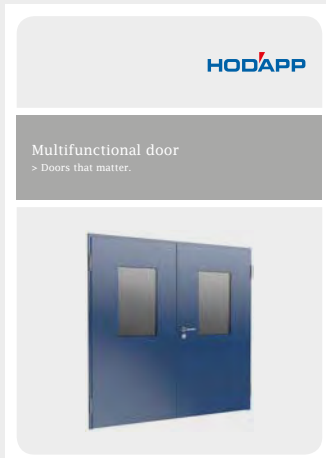
The exact performance attributes, design versions and combinations as well as installation options can be found in the corresponding additional documents. All data and illustrations in this overview are non-binding



Additional documents

> Overview

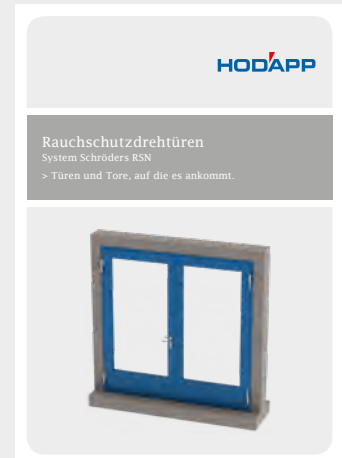
4



HoSta Multifunctional door



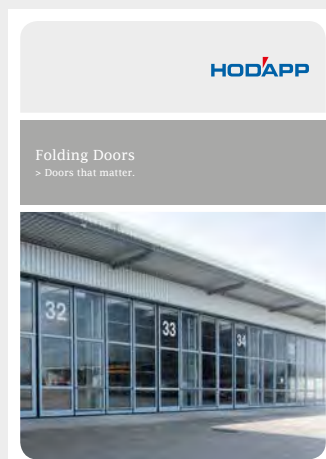
Fire protection doors TSN (DE)



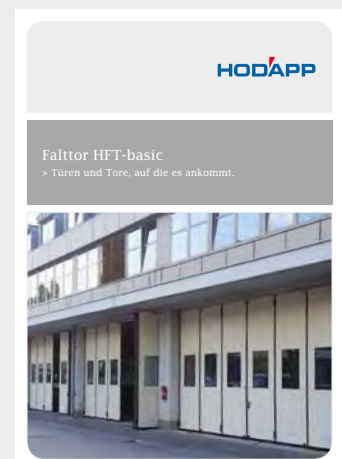
Smoke protection doors RSN (DE)



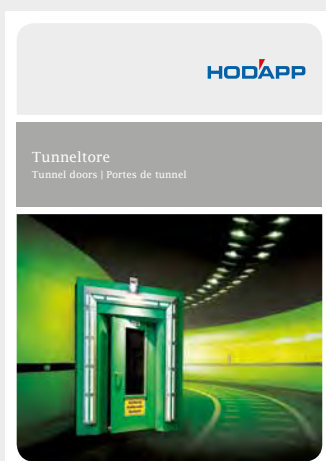
Transformer station doors (DE)



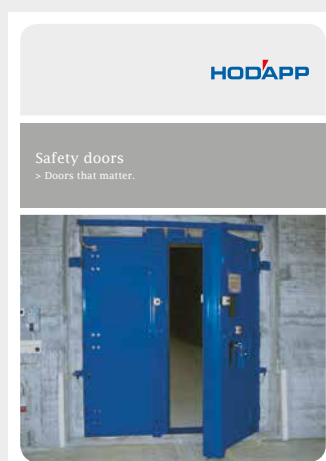
Folding gates



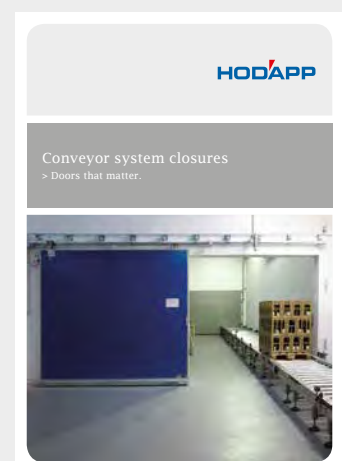
Folding gates HFT-basic (DE)



Tunnel doors



Safety doors



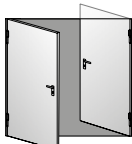
Conveyor sytem closures

Multifunctional doors

> Product overview

5



			HoSta-1	HoSta-2	HPD-1 multipurpose swing door	HPD-2 multipurpose swing door
						
Dimensions	Range of dimensions (CW)	Width	500 - 1,800	1,000 - 5,000	500 - 1,600	1,000 - 3,500
		Height	500 - 6,000	1,000 - 6,000	500 - 4,000	500 - 4,000
	Leaf thickness		69	69	69	69
	Sheet thickness		1.5	1.5	1.5	1.5
Implementation	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		●	●	●	●
	Glazing		●	●	●	●
	Ventilation grilles		●	●	●	●
	Side and/or top part		●	●	●	●
	Thick or thin rebate		●	●	unrebated	unrebated
Performance characteristics	Fire protection <i>EN 13501-2</i>		up to EI ₁ 60/EI ₂ 120	up to EI ₂ 90	-	-
	Smoke protection <i>EN 13501-2</i>		S _a -C5/S ₂₀₀ -C5	S _a -C5/S ₂₀₀ -C5	-	-
	Sound protection <i>ISO 717-1</i>		up to 60 dB	up to 54 dB	-	-
	Air tightness <i>EN 12207</i>		up to class 4	up to class 4	-	-
	Water tightness <i>EN 12208</i>		up to class 9A	in progress	-	-
	Wind load resistance <i>EN 12210</i>		up to class C5	up to class C4	-	-
	Burglary resistance <i>EN 1627</i>		up to RC-4 panic	up to RC-4 panic	-	-
	Heat transfer coefficient <i>ISO 10077</i>		U _D ≥ 1.0 W/(m²K)	U _D ≥ 1.0 W/(m²K)	-	-
	Protection class <i>EN 60529</i>		up to IP 66	-	-	-
	Bullet resistance <i>EN 1522</i>		FB 4 / FB 6	FB 4	-	-
Frame variants	Corner frame, wrap-around frame, block frame, block frame in front of the wall		●	●	block frame	block frame
	3- or 4-sided frame		●	●	3-sided frame	3-sided frame
	Installation in masonry		●	●	●	●
	Installation in reinforced concrete		●	●	●	●
	Installation in cellular concrete		●	●	●	●
	Installation in light partition walls		●	●	●	●
	Installation in clad steel construction		●	●	●	●

● possible / - not possible

CW = Civil works dimension

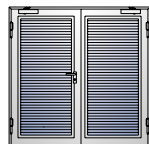
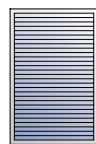
All dimensions in mm

Transformer station doors

> Product overview

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		TrafoSt-1	TrafoSt-2	TrafoLG
				
Dimensions	Range of dimensions (CW)	Width	500 - 1,500	1,000 - 3,000
		Height	500 - 3,000	500 - 3,000
	Leaf thickness		69	69
	Sheet thickness		1.5	1.5
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		●	●
	Glazing		●	-
	Ventilation grilles Slat surfaces: Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A) Aluminium silver coloured (E6/EV1) anodized		●	●
	Ventilation cross section: Steel/Stainless steel slats up to 47 % Aluminium slats up to 43 %			
	Pressure relief flap		●	●
	Side and/or top part		●	-
	Thick or thin rebate		●	-
Performance characteristics	Water tightness <i>EN 12208</i>		-	-
	Wind load resistance <i>EN 12210</i>		●	●
	Explosion pressure		up to 3000 Pa	up to 3000 Pa
	Burglary resistance <i>EN 1627</i>		up to RC-4	up to RC-4
	Protection class <i>EN 60529</i>		up to IP 43D	up to IP 43D
	PEHLA certified		●	●
Frame variants	Corner frame, wrap-around frame, block frame, block frame in front of the wall		●	●
	3- or 4-sided frame		●	●
	Installation in masonry		●	●
	Installation in reinforced concrete		●	●
	Installation in cellular concrete		●	●
	Installation in light partition walls		●	●

● possible / - not possible

CW = Civil works dimension

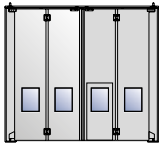
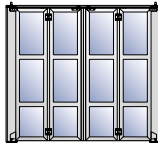
All dimensions in mm

Folding doors

> Product overview

7



			HFT-basic	HFT-classic	RFT
					
Dimensions	Range of dimensions (CW)	Width	2,500 – 7,500	2,500 – 12,000	2,500 – 12,000
		Height	2,500 – 5,000	2,500 – 5,500	2,500 – 6,000
	Door leaf width		800 – 1,220	800 – 1,500	800 – 1,500
	Possible configuration		1:2/2:1/1:3/3:1/2:2/2:3/3:2/3:3	1:2/2:1/1:3/3:1/2:2/2:3/3:2/3:3/3:4/4:3/4:4	1:2/2:1/1:3/3:1/2:2/2:3/3:2/3:3/3:4/4:3/4:4
	Depth		54	63	80
Design	Material, steel sheet thickness, surface		galvanised steel/1.0 mm/ primed, painted RAL 9002	1.5 / 2.0 / 3.0	tubular profile 80/80/3 with rolled-on glazing nose-piece
	Opening angle		90° / 180 °	90° / 180 ° (manual)	90° / 180 ° (manual)
	Glazing		Rectangular glazing Insulating safety glass Glass thickness 24 mm	Rectangular glazing Insulating safety glass Glass thickness 24 – 46 mm	Rectangular glazing Insulating safety glass Glass thickness 24 – 46 mm
	Types of drives configuration 2:2 / opening angle 90°		manual	manual semi-automatic (opening with stored energy) electromechanical central drive, centrally arranged electromechanical one spindle drive per side hydropneumatic one drive unit per side	manual semi-automatic (opening with stored energy) electromechanical central drive, centrally arranged electromechanical one spindle drive per side hydropneumatic one drive unit per side
	Wicket door /divided active leaf		poss. with threshold / poss. from 3,000 mm height	poss. also without thresh- old/possible	poss. also without thresh- old/possible
	Fittings		hidden espagnolette bolt	surface mounted or hidden espagnolette bolt	hidden espagnolette bolt
Performance characteristics	Burglary protection <i>ENV 1627 - 1630</i>		–	WK 3, WK 4	WK 3, WK 4
	Sound insulation <i>ISO 717-1</i>		25 dB	up to 39 dB	25 dB
	Thermal insulation <i>EN ISO 2567-1, EN 12428</i>		U _D ≥ 1.2 W/(m²K)	U _D ≥ 1.8 W/(m²K)	U _D ≥ 2.2 W/(m²K)
	Wind load resistance <i>DIN EN 12424</i>		●	●	●
	Air tightness <i>EN 12427, EN 12426</i>		●	●	●
	Water tightness <i>EN 12489, EN 12425</i>		●	●	●
	Ventilation grille		●	●	●
	Control		–	HPS-Motion (PCB) SPS-Control (PLC)	HPS-Motion (PCB) SPS-Control (PLC)

• possible / - not possible

CW = Civil works dimension

All dimensions in mm

Fire protection hinge doors

> Product overview T30

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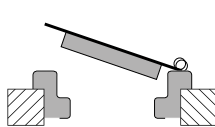
 			TSN-1	TSN-1 with side and top part	TSN-2	TSN-2 with side and top part
						
Dimensions	Range of dimensions (CW)	Width	500 – 1,500	625 – 3,428	1,375 – 4,250	1,375- 4,428
		Height	500 – 3,250	1,750 – 3,464	1,750 – 4,250	1,750 – 3,464
	Leaf thickness		69	69	69	69
	Sheet thickness		1.5	1.5	1.5	1.5
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		●	●	●	●
	Glazing		●	●	●	●
	Side and/or top part		-	●	-	●
	Thick or thin rebate		●	●	●	●
Performance characteristics	Fire protection <i>DIN 4102-5</i>		T30	T30	T30	T30
	Smoke protection <i>DIN 18095</i>		●	●	●	●
	Sound protection <i>ISO 717-1</i>		up to 45 dB	up to 45 dB	up to 42 dB	up to 42 dB
	Air tightness <i>EN 12207</i>		up to class 4	up to class 4	up to class 3	up to class 3
	Water tightness <i>EN 12208</i>		up to class 8A	up to class 8A	up to class 3A	up to class 3A
	Wind load resistance <i>EN 12210</i>		up to class C5	up to class C5	up to class C4	up to class C4
	Burglary resistance <i>EN 1627</i>		up to RC-4 (WK-4)	up to RC-4 (WK-4)	up to RC-4 (WK-4)	up to RC-4 (WK-4)
	Heat transfer coefficient <i>ISO 10077</i>		U _D ≥ 1.7 W/(m²K)	U _D ≥ 1.7 W/(m²K)	U _D ≥ 1.7 W/(m²K)	U _D ≥ 1.7 W/(m²K)
Frame variants	Corner frame, wrap-around frame, block frame		●	●	●	●
	3- or 4-sided frame		●	●	●	●
	Installation in masonry		≥ 115	≥ 115	≥ 115	≥ 115
	Installation in reinforced concrete		≥ 110	≥ 110	≥ 110	≥ 110
	Installation in cellular concrete		≥ 150	≥ 150	≥ 150	≥ 150
	Installation in light partition walls F90		≥ 100	≥ 100	≥ 100	≥ 100
	Installation in clad steel construction		≥ 100	≥ 100	≥ 100	≥ 100
	Installation in fire-resistant light partition walls with abZ		Wall thickness according to abZ	Wall thickness according to abZ	Wall thickness according to abZ	Wall thickness according to abZ

Fire protection hinge doors

> Product overview T90

9



     			TSN-11	TSN-12	THF Ceiling flap
					
Dimensions	Range of dimensions (CW)	Width	500 - 1,500	1,375 - 3,250	500 - 1,100
		Height	500 - 3,250	1,750 - 3,250	500 - 1,350
	Leaf thickness		69	69	69
	Sheet thickness		1.5	1.5	1.0
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		●	●	●
	Glazing		●	●	-
	Side and/or top part		-	-	-
	Thick or thin rebate		●	●	Thin rebate
Performance characteristics	Fire protection <i>DIN 4102-5</i>		T90	T90	T90
	Smoke protection <i>DIN 18095</i>		●	●	●
	Sound protection <i>ISO 717-1</i>		up to 45 dB	up to 42 dB	-
	Air tightness <i>EN 12207</i>		up to class 4	up to class 3	-
	Water tightness <i>EN 12208</i>		up to class 8A	up to class 3A	-
	Wind load resistance <i>EN 12210</i>		up to class C5	up to class C4	-
	Burglary resistance <i>EN 1627</i>		up to RC-4 (WK-4)	up to RC-4 (WK-4)	-
	Heat transfer coefficient <i>ISO 10077</i>		U _D ≥ 2.1 W/(m²K)	U _D ≥ 2.2 W/(m²K)	U _D ≥ 2.1 W/(m²K)
Frame variants	Corner frame, wrap-around frame, block frame		●	●	●
	3- or 4-sided frame		●	●	4-sided frame
	Installation in masonry		≥ 175	≥ 175	-
	Installation in reinforced concrete		≥ 140	≥ 140	≥ 140
	Installation in cellular concrete		≥ 175	≥ 175	-
	Installation in light partition walls F90		≥ 100	≥ 100	-
	Installation in clad steel construction		≥ 140	≥ 140	-
Installation in fire-resistant light partition walls with abZ		Wall thickness according to abZ	Wall thickness according to abZ	-	

● possible / - not possible

CW = Civil works dimension

abZ = National technical approval

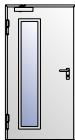
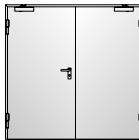
All dimensions in mm

Fire protection doors international

> Product overview

10



			HoSta-1	TSN-11	TSN-12
					
Dimensions	Range of dimensions (CW)	Width	500 - 1,450	500 - 1,500	1,375 - 3,250
		Height	550 - 2,600	500 - 3,250	1,750 - 3,250
	Leaf thickness		69	69	69
	Sheet thickness		1.5	1.5	1.5
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		•	•	•
	Glazing		•	•	•
	Thick or thin rebate		Thin rebate	•	•
Performance characteristics	Fire protection AT EN 1634-1		up to EI ₂ 90	EI ₂ 90	EI ₂ 90
	Fire protection VKF EN 1634-1		EI ₂ 30	EI ₂ 90	EI ₂ 90
	Smoke protection DIN 18095		S _a -C5/S ₂₀₀ -C5	•	•
	Sound protection ISO 717-1		up to 54 dB	up to 45 dB	up to 42 dB
	Air tightness EN 12207		up to class 4	up to class 4	up to class 3
	Water tightness EN 12208		up to class 9A	up to class 8A	up to class 3A
	Wind load resistance EN 12210		up to class C5	up to class C5	up to class C4
	Burglary resistance EN 1627		up to RC-4	up to RC-4 (WK-4)	up to RC-4 (WK-4)
	Heat transfer coefficient ISO 10077		U _D ≥ 1.6 W/(m²K)	U _D ≥ 2.1 W/(m²K)	U _D ≥ 2.2 W/(m²K)
Frame variants	Corner frame, wrap-around frame, block frame		•	•	•
	3- or 4-sided frame		•	•	•
	Installation in masonry		•	≥ 175	≥ 175
	Installation in reinforced concrete		•	≥ 140	≥ 140
	Installation in cellular concrete		•	≥ 175	≥ 175
	Installation in light partition walls F90		•	≥ 100	≥ 100
	Installation in clad steel construction		•	≥ 140	≥ 140
	Installation in fire-resistant light partition walls with abZ		•	Wall thickness according to abZ	Wall thickness according to abZ

Smoke protection doors

> Product overview

11



			RSN-1	RSN-1 with side and top part	RSN-2	RSN-2 with side and top part
						
Dimensions	Range of dimensions (CW)	Width	500 - 1,350	625 - 3,350	1,375 - 4,500	1,375- 4,000
		Height	500 - 2,500	1,750 - 3,500	1,750 - 4,500	1,750 - 3,500
	Leaf thickness		69	69	69	69
	Sheet thickness		1.5	1.5	1.5	1.5
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		●	●	●	●
	Glazing		●	●	●	●
	Side and/or top part		-	●	-	●
	Thick or thin rebate		●	●	●	●
Performance characteristics	Smoke protection <i>DIN 18095</i>		●	●	●	●
	Sound protection <i>ISO 717-1</i>		up to 45 dB	up to 45 dB	up to 42 dB	up to 42 dB
	Air tightness <i>EN 12207</i>		up to class 4	up to class 4	up to class 3	up to class 3
	Water tightness <i>EN 12208</i>		up to class 8A	up to class 8A	up to class 3A	up to class 3A
	Wind load resistance <i>EN 12210</i>		up to class C5	up to class C5	up to class C4	up to class C4
	Burglary resistance <i>EN 1627</i>		up to RC-4 (WK-4)	up to RC-4 (WK-4)	up to RC-4 (WK-4)	up to RC-4 (WK-4)
	Heat transfer coefficient <i>ISO 10077</i>		U _D ≥ 1.7 W/(m²K)	U _D ≥ 1.7 W/(m²K)	U _D ≥ 1.7 W/(m²K)	U _D ≥ 1.7 W/(m²K)
Frame variants	Corner frame, wrap-around frame, block frame		●	●	●	●
	3- or 4-sided frame		●	●	●	●
	Installation in masonry		≥ 115	≥ 115	≥ 115	≥ 115
	Installation in reinforced concrete		≥ 110	≥ 110	≥ 110	≥ 110
	Installation in cellular concrete		≥ 150	≥ 150	≥ 150	≥ 150
	Installation in light partition walls F90		≥ 100	≥ 100	≥ 100	≥ 100
	Installation in clad steel construction		≥ 100	≥ 100	≥ 100	≥ 100
Installation in fire-resistant light partition walls with abZ		≥ F30 according to DIN 4102-4	≥ F30 according to DIN 4102-4	≥ F30 according to DIN 4102-4	≥ F30 according to DIN 4102-4	

• possible / - not possible

CW = Civil works dimension

abZ = National technical approval

All dimensions in mm

Fire protection sliding gates

> Product overview T30 / T90

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			TSN-6 (1-leaf)	TSN-6-2 (2-leaf)	TSN-16 (1-leaf)	TSN-16-2 (2-leaf)
Dimensions	Range of dimensions (CW)	Width	1,000 - 8,500	2,000 - 8,500	1,000 - 8,500	2,000 - 8,500
		Height	2,000 - 6,000	2,000 - 6,000	2,000 - 6,000	2,000 - 6,000
	Leaf thickness		69	69	69	69
	Sheet thickness		1.5	1.5	1.5	1.5
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		•	•	•	•
	Glazing		•	•	•	•
	C-running rail or low camber		•	•	•	•
	Wicket door		•	•	•	•
Performance characteristics	Fire protection <i>DIN 4102-5</i>		T30	T30	T90	T90
	Smoke protection <i>DIN 18095</i>		•	-	•	-
	Air tightness <i>EN 12207</i>		-	-	-	-
	Water tightness <i>EN 12208</i>		-	-	-	-
	Wind load resistance <i>EN 12210</i>		-	-	-	-
	Burglary resistance <i>EN 1627</i>		-	-	-	-
	Heat transfer coefficient <i>ISO 10077</i>		-	-	-	-
Frame variants	In front of the wall or low lintel		•	•	•	•
	Installation in masonry		≥ 115	≥ 115	≥ 240	≥ 240
	Installation in reinforced concrete		≥ 100	≥ 100	≥ 140	≥ 140
	Installation in cellular concrete		≥ 150	≥ 150	≥ 200	≥ 200
	Installation in light partition walls F90		≥ 100	≥ 100	≥ 140	≥ 140
	Installation in clad steel construction		≥ 100	≥ 100	≥ 140	≥ 140
	Installation in fire-resistant light partition walls with abZ		Wall thickness according to abZ	Wall thickness according to abZ	Wall thickness according to abZ	Wall thickness according to abZ

Smoke protection sliding gates

> Product overview

13

			Telescopi- sliding gate T90	RSN	ST-1	ST-2
						
Dimensions	Range of dimensions (CW)	Width	625 - 1,500	1,375 - 3,250	500 - 1,600	1,000 - 3,500
		Height	500 - 3,000	1,750 - 3,000	500 - 6,000	500 - 6,000
	Leaf thickness		69	69	69	69
	Sheet thickness		1.5	1.5	1.5	1.5
Design	Galvanised steel primed / painted Stainless steel 304 L (V2A) / 316 L (V4A)		●	●	●	●
	Glazing		-	●	●	●
	C-running rail or low camber		C-running rail	●	●	●
Performance characteristics	Fire protection <i>DIN 4102-5</i>		T90	-	-	-
	Smoke protection <i>DIN 18095</i>		-	●	-	-
	Air tightness <i>EN 12207</i>		-	-	-	-
	Water tightness <i>EN 12208</i>		-	-	-	-
	Wind load resistance <i>EN 12210</i>		-	-	-	-
	Burglary resistance <i>EN 1627</i>		-	-	-	-
	Heat transfer coefficient <i>ISO 10077</i>		-	-	-	-
Frame variants	In front of the wall or low lintel		In front of the wall	●	●	●
	Installation in masonry		≥ 240	≥ F30 according to DIN 4102-4	≥ 100	≥ 100
	Installation in reinforced concrete		≥ 240	≥ F30 according to DIN 4102-4	≥ 100	≥ 100
	Installation in cellular concrete		≥ 200	≥ F30 according to DIN 4102-4	≥ 100	≥ 100
	Installation in light partition walls F90		≥ 140	≥ F30 according to DIN 4102-4	≥ 100	≥ 100
	Installation in clad steel construction		≥ 240	≥ F30 according to DIN 4102-4	≥ 100	≥ 100
	Installation in fire-resistant light partition walls with abZ		Wall thickness according to abZ	≥ F30 according to DIN 4102-4	≥ 100	≥ 100

● possible / - not possible

CW = Civil works dimension

abZ = National technical approval

All dimensions in mm

Road tunnel doors and gates

> Product overview

14



	No. of leaves	Fire protection	Smoke protection	Pressure/suction load resistance	Alternation of load	Emergency exit suitability
Hinge doors/gates HTD <i>EN 1634-1</i>	1 / 2	up to EI ₂ 180	●	up to ± 2,5 kPa	3 Mio.	●
Hinge doors/gates HCM	1 / 2	up to HCM 120/ CN 240 (N3)	●	up to ± 2,5 kPa	3 Mio.	●
Emergency exit hinge doors	1 / 2	up to EI ₂ 120	●	up to ± 2,5 kPa	3 Mio.	●
Double-action swing doors HPT	1	up to EI ₂ 120	●	up to ± 2,5 kPa	1 Mio.	●
Sliding doors HFS	1 / 2	up to EI ₂ 120	●	up to ± 2,5 kPa	3 Mio.	●*
Emergency niche doors	1 / 2	up to EI ₂ 180	●	up to ± 2,5 kPa	3 Mio.	●*
Electrical equipment rooms	1 / 2	up to EI ₂ 180	●	up to ± 2,5 kPa	3 Mio.	●
Electrical equipment niche doors	1 / 2	up to EI ₂ 180	●	up to ± 2,5 kPa	3 Mio.	●
Fire fighting niche doors	1 / 2	up to EI ₂ 180	●	up to ± 2,5 kPa	3 Mio.	●
Road restraint systems <i>according to EN 1317</i>	1 / 2	-	●	-	-	●
Ceiling flaps	1 / 2	T90 / EI ₂ 90	●	up to ± 2,5 kPa	3 Mio.	●

● possible / - not possible

* with wicket door

Railway tunnel doors and gates

> Product overview

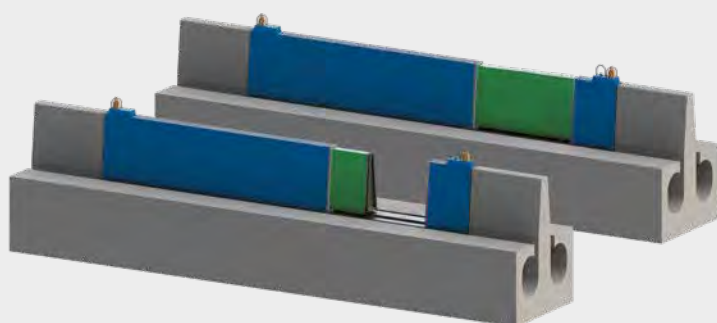
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	No. of leaves	Fire protection	Smoke protection	Pressure/suction load resistance	Alternation of load	Emergency exit suitability
Hinge doors/gates HTD <i>EN 1634-1</i>	1 / 2	up to EI ₂ 180	●	up to ± 10 kPa	3 Mio.	●
Hinge doors/gates HCM	1 / 2	HCM 120/ CN 240 (N3), HCM 120 (N3)	●	up to ± 10 kPa	3 Mio.	●
Emergency exit hinge doors	1 / 2	up to EI ₂ 120	●	up to ± 10 kPa	3 Mio.	●
Double-action swing doors HPT <i>with the approval of the Federal Railway Authority EBA</i>	1 / 2	up to EI ₂ 120	●	up to ± 10 kPa	3 Mio.	●
Sliding doors HFS	1 / 2	up to EI ₂ 120	●	up to ± 10 kPa	3 Mio.	●*
Electrical equipment rooms	1 / 2	up to EI ₂ 180	●	up to ± 10 kPa	3 Mio.	●
Transformer doors	1 / 2	-	-	-	-	●

● possible / - not possible

* with wicket door



Steel road barrier



Opening aid

Safety doors

> Product overview

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		Radiation protection door (1-/2-leaf)	Radiation protection sliding door (1-/2-leaf)	Protection door against electro-magnetic radiation (1-/2-leaf)	Safety door (1-/2-leaf)
Design	Door leaf thickness	69, 150, 450, 750*	69, 150, 450, 750*	150	69
	Material	steel, high-density polyethylene, lead*	steel, high-density polyethylene, lead*	steel / stainless steel	steel / stainless steel
	Surface	primed / painted (decontaminable coating)	primed / painted (decontaminable coating)	primed / painted	primed / painted
	Opening angle	up to 180°	-	up to 180°	up to 180°
	Glazing	●	-	-	●
	Types of drive	manual / possible with drive	manual / possible with drive	manual	manual / possible with drive
	Control	●	●	-	-
Performance characteristics	Radiation resistance	X- / gamma / scattered radiation acc. to DIN 6834 neutron radiation/ gamma radiation	neutron radiation/ gamma radiation	HPEM** up to 90 dB	-
	Burglary resistance <i>EN 1627</i>	-	-	up to RC-4	up to RC-6
	Bullet resistance <i>EN 1522</i>	-	-	up to FB 6 NS	up to FB 6 NS
	Sound protection <i>ISO 717-1</i>	up to 54 dB	up to 35 dB	up to 40 dB	up to 40 dB
	Fire protection <i>EN 13501-2</i>	up to EI ₂ 120-S ₂₀₀	up to EI ₂ 120-S ₂₀₀	up to EI ₂ 120-S ₂₀₀	up to EI ₂ 120-S ₂₀₀
	Air tightness	V < 0,5 m³/hm at ΔP 1000 Pa	V < 0,5 m³/hm at ΔP 1000 Pa	V < 0,5 m³/hm at ΔP 1000 Pa	-
	Resistance against the ingress of water	-	-	3,0 m³/hm leakage at 9 m water column	-

* Depending on the radiation resistance requirement

** HPEM = High-Power-Electro-Magnetic (electromagnetic radiation)

● possible / - not possible

All dimensions in mm

Hodapp Printed circuit board System

> Control system

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Smart control system

The solution of the **Hodapp Printboard System** is based on the components:

- HPS^{EVOLUTION}** – Hold-open device for several fire doors or gates
- HPS^{CONTROL}** – PC application for system monitoring
- HPS^{DRIVE}** – Control unit for the conveyor drive systems
- HPS^{POWER}** – Emergency power supply in case of power failure or loss of voltage

The implementation of standards enables an excellent basis for the efficient and cost-optimised realisation of projects.



FAA: Z-6.5-2225
FSA: Z-6.5-2226

System highlights

- > Especially harmonised system components
- > Very high flexibility based on configurable components
- > Significant reduction of time planning thanks to use of standard components
- > Sample circuit diagrams enable project planning without complex coordination and waiting times
- > Short delivery times thanks to the use of prefabricated standard components
- > Compact control consoles enable operation even under unfavourable conditions
- > Simplified assembly and cabling through optimal system structure
- > Reduction of start-up costs by customer-specific standards
- > Flexible extension requiring only little time and no high planning costs
- > Quick change device for all system components
- > Application range from single system up to Bus system for complex applications
- > Multilingual evaluation software for status information and events
- > System data storage on a memory card integrated in the control unit
- > Data export function for remote maintenance included
- > Compact decentralized switch device unit for conveyor drive systems
- > High performance emergency power supply from 2 kW up to 9 kW

Conveyor system closures

> Product overview

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		Sliding elements, single-leaf	Lifting / lowering elements, single-leaf	Hinged doors, single-leaf
Wall opening	Width	200 - 3,600	200 - 3,600	600 - 1,200
	Height	200 - 3,400	200 - 3,400	700 - 3,500
Building inspectorate approval		Z- 6.6 -1993	Z- 6.6 -1993	Z- 6.6 -1994
Fire protection <i>DIN 4102-5 / EN 1366-7</i>		T90	T90	T90
Closing directions				
Design		Sliding leaf either with or without sheet metal covering (t=1.0 mm) Sliding leaf realisable in segment design Floor-level or high-level installation possible Interrupted and continuous conveyor system possible	Sliding leaf either with or without sheet metal covering (t=1.0 mm) Sliding leaf realisable in segment design Floor-level or high-level installation possible Interrupted and continuous conveyor system possible	Door leaf either with or without sheet metal covering (t=1.0 mm) Conveyor system realisable as overhead conveyor or bottom running system Floor-level or high-level installation possible Interrupted and continuous conveyor system possible

All dimensions in mm



		Slider for ceiling and floor installation	Sliding elements, double-leaf	Hinged doors, double-leaf
Wall opening	Width	200 - 1,000	200 - 3,600	1,200 - 3,000
	Height	200 - 1,500	200 - 3,400	700 - 3,500
Building inspectorate approval		Z- 6.6 -1993	Z- 6.6 -1993	Z- 6.6 -1994
Fire protection <i>DIN 4102-5 / EN 1366-7</i>		T90	T90	T90
Closing directions				
Design		Sliding leaf either with or without sheet metal covering (t=1.0 mm) Used for conveyors between different levels Designed for small spaces Mounting position possible above or below the ceiling Different designs of continuous conveyor systems possible Interrupted and continuous conveyor system possible	Sliding leaf either with or without sheet metal covering (t=1.0 mm) Asymmetrical configuration of the door leaves possible Executable as overhead or floor conveyor profile, and floor-level or high-level installation possible Different designs of continuous conveyor systems possible Interrupted and continuous conveyor system possible	Door leaf either with or without sheet metal covering (t=1.0 mm) Asymmetrical configuration of the door leaves possible Realisable as overhead or floor conveyor profile, and floor-level or high-level installation possible Tested with thermal non-interrupted, continuous conveyor profile Power and Free system Interrupted and continuous conveyor system possible

All dimensions in mm



Fire protection doors and gates

Smoke protection doors



Water protection doors

Sound insulating doors

Burglary resistant doors

Bullet resistant doors



Multipurpose doors

Multipurpose sliding doors

Folding gates

Tunnel doors



Facility protection gates

Prison cell doors

Conveyor closures

Liftable gates