Technical Sheet

FM-MP3 evo A4
Heavy Duty Three Segments Through Anchor

The FM-MP3 evo A4 is an anchor made of A4 stainless steel, which is placed into a drilled hole and anchored by torque-controlled expansion.







Applications

Applications

- Safety barriers
- Fencing
- Railings

Suitable for

- Multiple use for non-structural applications on cracked and non-cracked concrete

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Dados técnicos

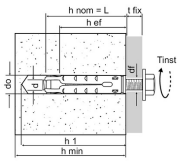
Material

- Steel
- White zinc plated

Benefits

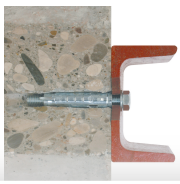
- Universal metallic anchor even for hollow base materials
- Single shell body with exclusive cone containing system
- Accessories for all types of fixing requirements
- Fire resistance R120

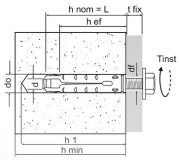




Product Dimensions - Anchor Only

Referência	Metallic fixings dimensions								Dados de instalação			
	Dimensões e valores caraterísticos[mm]		Referência do produto	Outro					Dados de instalação			Spacing and edge distances
	Plug[mm]	For screw		Ø furo [d0] [mm]	Profundidade de ancoragem mini[mm]	Ø do furo da peça a ser fixada [df].[mm]	Qtd por caixa[stk]	Qtd por embalagem	Profundidade mínima de perfuração [h1][mm]	Profundidade de ancoragem nominal [hnom].[mm]	Par de instalação [Tinst] [Nm]	Espessura mínima do suporte [hmin]. [mm]
** Certified product when coupled with stainless steel A4-70 hex head screw DIN933 and stainless steel A4 washer DIN125-1 or ISO 7089.*												





Product Dimensions - Hex Head Screw

Product Dimensions - Hex Head Screw
See full table online ➡️

Referência											Dado	
											Dados de i	
	Plug[mm]	Hex head	Comprimento	Referência do produto	peça a fixar com	Ø furo	Profundidade de	da peça	Qtd por	Qtd por	Profundidade mínima de	Profur

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Recommended loads / for single anchors / with no edge distances or spacings - ETA-09/0067

Referência	Metallic fixings dimensions	Metallic fixings loads								
	Referência do produto	Cargas recomendadas - Betão não fissurado (3)								
		Momento de flexão Mrec[Nm]	Tensão - Nrec(1)[kN]				Cisalhamento - Vrec (1-2)[kN]			
			C20/25[kN]	C30/37[kN]	C40/50[kN]	C50/60[kN]	C20/25[kN]	C30/37[kN]	C40/50[kN]	C50/60[kN]

1. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4. The loading figures
are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10 mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per
ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile
stress within the concrete induced by external loads, anchors loads included).

Design capacities - single anchor - no edge distances

Referência	Metallic fixings dimensions	Metallic fixings loads								
	Referência do produto	Design capacity - Non-cracked concrete (3)[kN]								
		Bending moment MRd[Nm]	Tension - NRd (1)				Shear - VRd (1-2)[kN]			
			C20/25[kN]	C30/37[kN]	C40/50[kN]	C50/60[kN]	C20/25[kN]	C30/37[kN]	C40/50[kN]	C50/60[kN]
7330101205000	FM-MP3 evo A4	24	6.7	-	-	-	7.7	-	-	-
7330101506000	FM-MP3 evo A4	48	8.9	-	-	-	9.7	-	-	-
7330101808000	FM-MP3 evo A4	84	13.9	-	-	-	18.6	-	-	-

1. The design loads loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

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Recommended loads / for single anchors / with no edge distances or spacings - ETA-10/0074

Referência	Metallic fixings dimensions	Metallic fixings loads
	Referência do produto	Recommended loads for single anchor with no edge distances or spacings - ETA-10/0074
		Design capacity - cracked and Non-cracked concrete
		Tension and Shear - F_{reC} [kN] - C20/25-C50/60

1. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4. The loading figures
are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10 mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per
ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

Execução

Installation data

Referência	Metallic fixings dimensions	Dados de instalação					
	Referência do produto	Dados de instalação					Spacing and edge distances
		Ø furo de perfuração[mm]	Profundidade mínima de perfuração[mm]	Ø dispositivo de perfuração[mm]	Par de instalação [Tinst][Nm]	Profundidade de embutimento[mm]	Espessura mínima do suporte [hmin].[mm]
7330101205000	FM-MP3 evo A4	12	70	10	15	43	100
7330101506000	FM-MP3 evo A4	15	80	12	30	50	100
7330101808000	FM-MP3 evo A4	18	100	14	50	69	140

** Not covered by CE certification

Spacings and edge distances - ETA-09/0067

Referência	Metallic fixings dimensions	Dados de instalação			
	Referência do produto	Spacings and edge distances - Mutiple support			
		Min. edge distance[mm]	Min. spacing[mm]	Characteristic edge distance[mm]	Characteristic spacing(5) - Scr,N[mm]

Spacings and edge distances - ETA-10/0074

Referência	Metallic fixings dimensions	Dados de instalação			
	Referência do produto	Spacings and edge distances - Mutiple support			
		Characteristic spacing(5) - Scr,N[mm]	Characteristic edge distance[mm]	Min. edge distance[mm]	Min. spacing[mm]

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