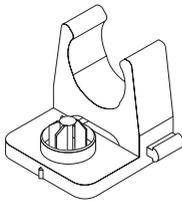
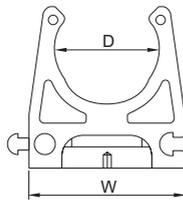
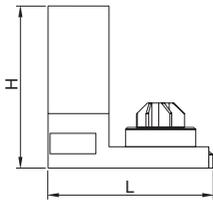


X-EKS-E MX Electrical Conduit Fasteners

Product data

Dimensions

X-EKS-E MX



Features and benefits

- Easy and convenient fastening of flexible and rigid conduits
- Quick and cost-efficient installation method for electrical conduit applications

General information

Material specification

X-EKS-E MX: HDPE
halogen and silicon free
light grey

Applications

Example



X-EKS-E for flexible and rigid conduits

Load data
Recommended load (Concrete / Sandlime stone)

Fastener	N _{rec} [N]	
	Flexible conduits	Rigid conduits
X-EKS-E MX	4.5	8.8

Design conditions:

- All visible failures must be replaced.
- Predominantly static loading.
- Valid for soft and tough concrete with strength of $f_{CC} \leq 50 \text{ N/mm}^2$, that may contain medium sized aggregate e.g. limestone, pit gravel. Please refer to **Concrete Fastener Selection** section in Hilti Direct Fastening Technology Manual (DFTM).
- Valid for sandlime stone.
- Observance of all application limitations and recommendations.
- Long-term behavior of X-EKS-E MX plastic material considered.
- Maximum spacing $\leq 100 \text{ cm}$

Fastener capacity

Fastener designation	Conduit size Ø [mm]
X-EKS-E 16 MX	16.0
X-EKS-E 20 MX	20.0
X-EKS-E 25 MX	25.0

Nail recommendations

For **concrete** base material

Fastening tool	Nail types	Length [mm]	Tip	Shank Ø [mm]	Material	Hardness [HRC]	Coating [µm]
BX3-ME	X-P B3 MX	20 - 24	Ballistic	3.0	Carbon steel	57.5	Zinc, 2-13 µm
GX3-ME	X-P G3 MX					57.5	Zinc, 2-13 µm
GX120-ME	X-GHP MX					57.5	Zinc, 2-13 µm

- For the X-EKS-E MX element, only 20 mm and 24 mm pin lengths are recommended in order to ensure sufficient embedment depth.
- Premium nails (as listed above) are recommended for wall and ceiling application (soft and some tough concrete and sandlime stone, GX/BX tools). For more details regarding nail classification and concrete types, please refer to **Concrete Fastener Selection** section in Hilti Direct Fastening Technology Manual (DFTM).

Fastening tool	Nail types	Length [mm]	Tip	Shank Ø [mm]	Material	Hardness [HRC]	Coating [µm]
BX3-ME	X-C B3 MX	20 - 24	Cut	3.0	Carbon steel	56.5	Zinc, 2-13 µm
GX3-ME	X-C G3 MX	20 - 27				56.5	Zinc, 2-13 µm
GX120-ME	X-GN MX	20 - 27				53.5	Zinc, 2-13 µm

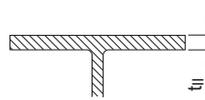
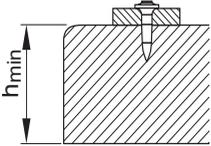
- For the X-EKS-E MX element, only 20 mm, 24 mm and 27 mm pin lengths are recommended in order to ensure sufficient embedment depth.
- Standard nails (as listed above) are recommended for floor application (soft concrete and sandlime stone, GX/BX tools). For more details regarding nail classification and concrete types, please refer to **Concrete Fastener Selection** section in Hilti Direct Fastening Technology Manual (DFTM).

For **steel** base material

Fastening tool	Nail types	Length [mm]	Tip	Shank Ø [mm]	Material	Hardness [HRC]	Coating [µm]
BX3-ME	X-S B3 MX	14	Ballistic	3.0	Carbon steel	57.5	Zinc, 2-13 µm
GX3-ME	X-S G3 MX					57.5	Zinc, 2-13 µm
GX120-ME	X-EGN MX					57.5	Zinc, 2-13 µm

Application requirements

Thickness of base material



Concrete

X-P B3 MX, X-P G3 MX,
X-C B3 MX, X-C G3 MX $h_{min} = 60 \text{ mm}$
X-GHP MX, X-GN MX

Steel

X-S 14 B3 MX
X-S 14 G3 MX $t_{II} \geq 4.0 \text{ mm}$
X-EGN 14 MX

Spacing and edge distance

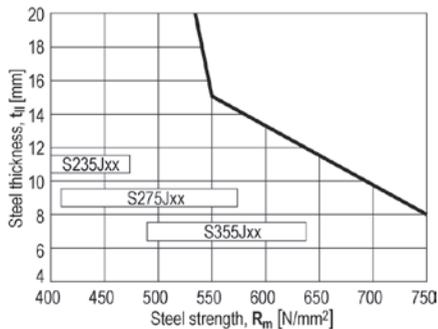
Space fastenings (50 – 100 cm) as needed to control and maintain alignment of conduits.

Min. spacing and edge distance when installed on concrete base material = 70 mm.

Min. spacing and edge distance when installed on steel base material = 14 mm.

Application limits for fastenings on steel base material

X-S 14 B3, X-S 14 G3, X-EGN 14



Corrosion information

Zinc-coated fasteners are not suitable for long-term service outdoors or in otherwise corrosive environments. For further detailed information on corrosion see relevant chapter in **Direct Fastening Principles and Technique** section.

Fastener selection and system recommendation

Fastener program

Designation	Item no.	D [mm]	W [mm]	L [mm]	H [mm]
X-EKS-E 16 MX	2141710	15.5	22	30	26
X-EKS-E 20 MX	2141711	19.5	29	30	30
X-EKS-E 25 MX	2141712	24.0	33	30	31

Tool selection

X-GHP MX, X-GN MX, X-EGN 14 MX : GX 120-ME

X-P G3 MX, X-C G3 MX, X-S G3 MX: GX 3-ME

X-P B3 MX, X-C B3 MX, X-S B3 MX: BX 3-ME

System recommendation

GX 3-ME Gas can GC 40, GC 41 and GC 42

GX 120-ME Gas can GC 20, GC 21 and GC 22

BX 3-ME No gas can required

Fastening quality assurance

