



MECHANICAL/ ELECTRICAL CLIPS & HANGERS

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MECHANICAL/ELECTRICAL CLIPS AND HANGERS

PRODUCT DESCRIPTION

X-DR and X-DR MX Drop Rods

For suspending telecommunications, electrical cables or conduits from concrete ceiling or steel members. Available as single clip with 1/4" and 3/8" coupler options or with a preassembled 1/4" threaded or smooth rod. Drop rods are available with premium pre-mounted fasteners (X-DR) for use with powder actuated tools or without pre-mounted fasteners (X-DR MX) for use with battery actuated tools and X-S B3/B4 or X-P B3/B4 fasteners. Two generations of X-DR and X-DR MX products are available. Second generation products, which contain "(02)" in their nomenclature, feature a secondary 0.275 in. (7 mm) diameter hole for use with secondary fastening methods. For more information regarding secondary fastening methods see [Allowable Loads](#). These products are listed in UL/cUL E505554 - Conduit and Cable Hardware, per NEC requirements. Products meet ANSI/TIA/EIA-568-A/-569-A, UL 2239 standards for cable and conduit support devices, which limits center-to-center spacing for hangers to 5' or less.

X-BW Batwing Clip

For suspending single thin wall and small rigid conduits or single metal clad electrical cables to a 1/4" threaded or smooth rod, 8 to 12 ga. wire, or steel flange. These products are listed in UL/cUL E505554 - Conduit and Cable Hardware.

X-MS and X-MS BW MC stackers

For suspending multiple metal clad electrical cables to a 1/4" threaded or smooth rod, or 8 to 12 ga. wire. These products are listed in UL/cUL E505554 - Conduit and Cable Hardware.

X-HS and X-HS MX Hangers

Threaded rod hangers available with pre-mounted fasteners (X-HS W6 and X-HS W10) or without pre-mounted fasteners (X-HS W6 MX) for use with magazine tools. For attachment of 1/4" (W6) or 3/8" (W10) threaded rods to concrete or steel. X-HS hangers are listed in UL/cUL E217969 - Conduit and Cable Hardware.

Threaded Studs with Couplers

For attachment of 1/4" (X-W6) or 3/8" (W10) threaded rods to concrete or steel. More information on Threaded Studs can be found in [Stud Fasteners for Attachment to Concrete](#) and [Stud Fasteners for Attachment to Steel](#).

X-DH, X-DH MX, and X-DH BW Data Hooks

For suspending telecommunication cables in wall mounting or ceiling applications (X-DH). Two generations of X-DH are available. First generation X-DH products come preconfigured for either wall or ceiling orientations. Second generation products, which contain "(02)" in their nomenclature, feature a hinge design to allow for use of one product in both wall and overhead orientations and include a pre-mounted X-ALH premium fastener for use with powder actuated tools. The new X-DH MX (02) data hooks also feature a hinge design for both wall and ceiling fastening and are for use with battery actuated tools and X-S B3/B4 (steel) or X-P B3/B4 (concrete) fasteners. Second generation products also include a secondary 0.275 in. (7 mm) diameter hole for use with secondary fastening methods. For more information regarding secondary fastening methods see [Allowable Loads](#). This product line is also available with a batwing connection (X-DH BW) for suspending telecommunication cables attachments to a 1/4" threaded or smooth rod or 8 to 12 ga wires. These products are UL/cUL listed in E505554 - Conduit and Cable Hardware and plenum rated (for air handling spaces).



Listings / Approvals

ICC-ES (International Code Council)
ESR-2795 (X-HS, X-DR, X-DR (02), X-DR MX, and X-DR MX (02)) with LABC/LARC Supplement

FM (Factory Mutual)

W10-30-27P10, W10-30-32P10 and W10-30-42P10 fasteners for sprinkler pipe hangers in concrete
EW10-30-15P10, X-EW10H, X-EW6H and X-HS U19 fasteners for sprinkler pipe hanger in steel

UL (Underwriters Laboratories)

X-ECH, X-EKB and X-ECT hangers for positioning devices
W10-30-32P10, W10-30-42P10, EW10-30-15P10, X-EW10H and X-EW6H fasteners for sprinkler pipe hangers

Cable and Conduit Hardware Hangers
X-HS W6, X-HS W10, X-DR, X-DR (02), X-DR MX, X-DR MX (02), X-DH, X-DH (02), X-DH MX (02), X-DH BW, X-BW, X-MS, X-MX BW, X-BR, X-BR (02), X-BR MX, X-BR MX (02), X-BR S, X-BR S (02), X-BR S MX, and X-BR S MX (02)



Threaded and smooth rod hangers



Cable and conduit attachment

X-ECH Cable Holder

For supporting telecommunication or electrical cable from concrete or steel. UL/cUL listed in E201485 - Positioning Devices and plenum rated (for air handling spaces).



X-BR S and X-BR S MX Bridle ring with saddle

For telecommunication cable applications. Bridle ring with saddle increases the cable holding surface and provides optimal bending radius for cables. Product is available with premium pre-mounted fasteners (X-BR S) for use with powder actuated tools or without pre-mounted fasteners (X-BR S MX) for use with battery actuated tools. Two generations of X-BR S and X-BR S MX products are available. Second generation products, which contain "(02)" in their nomenclature, feature a secondary 0.275 in. (7 mm) diameter hole for use with secondary fastening methods. For more information regarding secondary fastening methods see section [Allowable Loads](#). UL/cUL listed in UL E505554 -- Conduit and Cable Hardware, plenum rated (for air handling spaces).



X-BR and X-BR MX Bridle Ring

For telecommunication, network wiring, or metal clad electrical cable fastenings to concrete ceilings. Products are available with premium pre-mounted fasteners (X-BR) for use with powder actuated tools or without pre-mounted fasteners (X-BR MX) for use with Battery-actuated Tools. Two generations of X-BR and X-BR MX products are available. Second generation products, which contain "(02)" in their nomenclature, feature a secondary 0.275 in. (7 mm) diameter hole for use with secondary fastening methods. For more information regarding secondary fastening methods see section [Allowable Loads](#). UL/cUL listed in UL E505554 -- Conduit and Cable Hardware.



X-EKB MX Cable Clamps

For telecommunications and network wiring applications. Cable clamp attached directly to base material; designed to support multiple cables approximately 1/4" in diameter. UL/cUL listed in UL E201485 -- Positioning Devices.



X-ECT Cable Tie Fastener

For telecommunications and premise wiring applications. Cable or conduit support using an adjustable cable tie to secure cable or pipe. UL/cUL listed in UL E201485 -- Positioning Devices.



X-EMTC and X-BX/EMTC MX Thin Wall Conduit Clips

Thin wall conduit clips available with standard pre-mounted fastener (X-EMTC C27) or premium pre-mounted fastener (X-EMTC U22.) Also available without pre-mounted fastener for use with magazine tools (X-BX/EMTC MX) for use with magazine tools. For fastening thin wall conduit.



X-EMTSC MX Stand-Off Conduit Clips

Similar to EMTC clips to hold conduits away from base material and align conduit to knockouts on junction boxes.



X-ECC MX

Metal ceiling clip for light-duty electrical/mechanical fastenings on ceiling and use with collated fasteners. For use with cable trays and electrical applications. This product is also available with pre-tied light duty wire, using the nomenclature **X-CC MX**.



MATERIAL SPECIFICATIONS

Clip/Hanger Designation	Fastener Material	Fastener Plating ¹	Clip/hanger Material	Clip/Hanger Plating
X-HS W10/W6	Carbon Steel	5 um Zinc	Carbon Steel	5 um Zinc
X-HS W6 MX	Carbon Steel	5 um Zinc ²	Carbon Steel	5 um Zinc
X-ECH	Carbon Steel	5 um Zinc	Nylon Plastic	N/A
X-EKB MX	Carbon Steel	5 um Zinc ²	Plastic	N/A
X-ECT MX	Carbon Steel	5 um Zinc ²	Plastic	N/A
X-EMTC	Carbon Steel	5 um Zinc	Carbon Steel	5 um Zinc
X-BX/EMTC MX	Carbon Steel	5 um Zinc ²	Carbon Steel	5 um Zinc
X-EMTSC MX	Carbon Steel	5 um Zinc ²	Carbon Steel	5 um Zinc
X-DR	Carbon Steel	5 um Zinc	Carbon Steel	5 um Zinc
X-DR (02)	Carbon Steel	5 um Zinc	Carbon Steel	5 um Zinc
X-DR MX	Carbon Steel	5 um Zinc ²	Carbon Steel	5 um Zinc
X-DR MX (02)	Carbon Steel	5 um Zinc ²	Carbon Steel	5 um Zinc
X-ECC MX / X-CC MX	Carbon Steel	5 um Zinc ²	Carbon Steel, Plastic	5 um Zinc
X-BR / X-BR S	Carbon Steel	5 um Zinc	Carbon Steel, Polyamid (Saddle)	5 um Zinc
X-BR (02) / X-BR S (02)	Carbon Steel	5 um Zinc	Carbon Steel, Polyamid (Saddle)	5 um Zinc
X-BR MX / X-BR S MX	Carbon Steel	5 um Zinc ²	Carbon Steel, Polyamid (Saddle)	5 um Zinc
X-BR MX (02) / X-BR S MX (02)	Carbon Steel	5 um Zinc ²	Carbon Steel, Polyamid (Saddle)	5 um Zinc
X-DH / X-DH BW	N/A	N/A	Carbon Steel, Nylon Plastic (Saddle), Spring Steel (Batwing)	5 um Zinc
X-DH (02)	Carbon Steel	5 um Zinc	Carbon Steel, Nylon Plastic (Saddle)	5 um Zinc
X-DH MX (02)	Carbon Steel	5 um Zinc ²	Carbon Steel, Nylon Plastic (Saddle)	5 um Zinc
X-BW	N/A	N/A	Spring Steel	5um zinc
X-MS / X-MS BW	N/A	N/A	Carbon Steel, Plastic, Spring Steel	5 um Zinc

¹The 5 um coating is in accordance with ASTM B633, SC1, Type III. Reference Section 2.3.3.1 for more information.

²Noted clips/hangers do not come with a pre-mounted power-actuated fastener. Collated battery actuated fasteners are recommended to be used with those clips. Material and plating information provided for the powder-actuated fasteners commonly used with these clips.

Table 1. Allowable loads in normal weight concrete^{1,2}

Description	Fastener	Shank diameter in. (mm)	Concrete compressive strength					
			2000 psi			4000 psi		
			Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)
Threaded Rod Hanger with pre- mounted fastener	X-HS U32	0.157 (4.0)	75 (0.33)	100 (0.44)	60³ (0.27)	85 (0.38)	150 (0.67)	120³ (0.53)
	X-HS U22	0.157 (4.0)	50 (0.22)	—	—	50 (0.22)	—	—
X-DR and X-DR (02) Drop rod with pre- mounted fastener	X-ALH 22	0.177 (4.5)	—	—	—	40 (0.18)	—	—
	X-ALH 27	0.177 (4.5)	—	—	—	50 (0.22)	—	100 (0.44)
X-DR MX and X-DR MX (02) Drop rod	X-P 20 B3/B4	0.118 (3.0)	—	—	—	30 (0.13)	—	—
X-ECC MX and X-CC MX	X-P 20 B3/B4	0.118 (3.0)	—	—	—	30⁴ (0.13)	—	—

¹The tabulated allowable load values are for the low-velocity fasteners only, using a safety factor that is greater than or equal to 5.0, calculated in accordance with ICC-ES AC70.

²Multiple fasteners are recommended for any attachment. Threaded or smooth rod must be investigated in accordance with accepted design criteria.

³Allowable loads for 45-degree applications are based on testing. For allowable loads at other angles of installation, refer to [Combined Loading of Power-Actuated Fasteners in Concrete](#).

⁴Nail stand-off must be less than or equal to 0.2-inch, testing was done using concrete with 3,500 psi compressive strength

Table 2. Allowable loads in minimum $f'_c = 3000$ psi structural lightweight concrete¹

Fastener	Shank diameter	Fastener location														
		Installed into concrete			Installed through 3" deep metal deck into concrete ²						Installed through 1-1/2" deep metal deck into concrete ³					
		Tension	Shear	45-Degree	Upper flute			Lower flute			Upper flute			Lower flute		
		lb (kN)	lb (kN)	lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)
X-HS U32 ^{4,5,6}	0.157 (4.0)	95 (0.42)	115 (0.51)	105 ⁷ (0.47)	125 (0.56)	220 (0.98)	175 ⁷ (0.78)	95 (0.42)	220 (0.98)	135 ⁷ (0.60)	95 (0.42)	220 (0.98)	135 ⁷ (0.60)	95 (0.42)	220 (0.98)	135 ⁷ (0.60)
X-DR ALH22 and X-DR ALH22 (02)	–	–	–	–	100 (0.44)	–	–	60 (0.27)	–	–	–	–	–	–	–	–
X-DR ALH27 and X-DR ALH27 (02)	–	–	–	–	100 (0.44)	–	–	80 (0.36)	–	–	–	–	–	–	–	–
X-DR MX and X-DR MX (02) with X-P20 B3/B4	–	–	–	–	80 (0.36)	–	–	60 (0.27)	–	–	–	–	–	–	–	–
X-ECC MX and X-CC MX with X-P20 B3/B4	–	–	–	–	80 (0.36)	–	–	40 (0.18)	–	–	–	–	–	–	–	–

¹The tabulated allowable load values are calculated using a safety factor that is greater than or equal to 5.0, in accordance with ICC-ES AC70. Multiple fasteners are recommended for any attachment. Threaded rod must be investigated in accordance with accepted design criteria.

²The steel deck profile for the 3" deep composite floor deck has a minimum thickness of 20 gauge (0.0358") and a minimum $F_y = 33$ ksi. Lower and upper flute width must be a minimum of 3-7/8". Figure 1 in [Fastener Locations When Installing Into Lightweight Concrete Over Metal Deck](#) shows the nominal flute dimensions, fastener locations and load orientations for the deck profile. Structural lightweight concrete fill above top of steel deck must be minimum 3-1/4".

³The steel deck profile for the 1-1/2" deep composite floor deck has a minimum thickness of 20 gauge (0.0358") and a minimum $F_y = 33$ ksi. Lower flute and upper flute widths must be a minimum of 1-3/4" and 3-1/2", respectively. This deck may also be inverted as shown in Figure 3 in [Fastener Locations When Installing Into Lightweight Concrete Over Metal Deck](#). Figure 2 and Figure 3 in [Fastener Locations When Installing Into Lightweight Concrete Over Metal Deck](#) show the nominal flute dimensions, fastener locations and load orientations for the deck profile. Structural lightweight concrete fill above top of steel deck must be minimum 2-1/2".

⁴Nailhead Standoff, h_{NVS} , must be less than or equal to 3/8" for the X-HS U32 hanger assembly. Reference [Technical Data](#).

⁵Allowable loads apply to X-HS threaded rod hanger assemblies with either the 1/4" or 3/8" diameter internally threaded hole.

⁶Values shown for the X-HS threaded rod hanger assembly are for use with the X-U powder-actuated fastener.

⁷Allowable loads for 45-degree applications are based on testing. For allowable loads at other angles of installation, refer to [Combined Loading of Power-Actuated Fasteners in Concrete](#).

Table 3. Allowable loads in minimum ASTM A36 ($F_y \geq 36$ ksi; $F_u \geq 58$ ksi) steel^{1,2,3}

Fastener description	Fastener	Shank diameter in. (mm)	Steel thickness in. (mm)											
			3/16 (4.8)			1/4 (6.4)			3/8 (9.5)			1/2 (12.7)		
			Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)	Tension lb (kN)	Shear lb (kN)	45-Degree lb (kN)
Threaded rod hanger with pre-mounted fastener	X-HS U19	0.157 (4.0)	270 (1.20)	220 (0.98)	275 ⁴ (1.22)	270 (1.20)	220 (0.98)	275 ⁴ (1.22)	270 (1.20)	220 (0.98)	275 ⁴ (1.22)	270 (1.20)	220 (0.98)	275 ⁴ (1.22)
X-DR and X-DR (02) Drop rod with pre-mounted fastener	X-ALH 22	0.177 (4.5)	100 (0.44)	–	–	100 (0.44)	–	–	–	–	–	100 (0.44)	–	–
X-DR MX and X-DR MX (02) Drop rod for BX technology	X-S 14 B3/B4	0.118 (3.0)	90 (0.40)	–	–	85 (0.38)	–	–	–	–	–	80 (0.36)	–	–

¹The tabulated allowable load values are for the low-velocity fasteners only, using a safety factor that is greater than or equal to 5.0, calculated in accordance with ICC-ES AC70. Threaded rod must be investigated in accordance with accepted design criteria.

²Low-velocity fasteners shall be driven to where the point of the fastener penetrates through the steel base material in accordance with [Base Steel Thickness](#) and [Fastener Driving Distance Requirements](#).

³Multiple fasteners are recommended for any attachment. Reference [Technical Data](#) for installation instructions for X-HS.

⁴Allowable loads for 45-degree applications are based on testing. For allowable loads at other angles of installation, refer to [Fastener Clamping and Nailhead Stand-Off](#).

Table 4. Allowable loads values for Hangers and Clips installed with power actuated fasteners

X-HS W6 MX^{1,2} Allowable load N_{rec} lb (kN) 16.6 (0.07)		X-ECT MX^{1,2} Allowable load N_{rec} lb (kN) 10 (0.04)	
X-EKB 4 MX^{1,2} Allowable load N_{rec} lb (kN) 5 (0.02)		X-BX 3/8" MX^{1,2,3} X-EMTC MX^{1,2,3} Allowable load N_{rec} lb (kN) 10 (0.04)	
X-EKB 8 MX^{1,2} Allowable load N_{rec} lb (kN) 10 (0.04)		X-EMTSC 1/2" MX^{1,2} X-EMTSC 1" MX^{1,2} Allowable load N_{rec} lb (kN) 15 (0.07)	
X-DH X-DH (02) Allowable load N_{rec} lb (kN) 70 (0.31)		X-DH BW Allowable load N_{rec} lb (kN) 30 (0.13)	
X-DH MX (02) Allowable load N_{rec} lb (kN) 16.6 (0.07)			
X-BR ALH 27, X-BR S ALH27, X-BR MX, X-BR MX (02), X-BR S MX (02), X-BR ALH27 (02), X-BR S ALH27 (02)⁴ Allowable load N_{rec} lb (kN) 16.6 (0.07)		X-BW Allowable load N_{rec} lb (kN) 15 (0.07)	
X-MS BW Allowable load N_{rec} lb (kN) 16.6 (0.07)		X-MS Allowable load N_{rec} lb (kN) 16.6 (0.07)	

¹The allowable load capacities are based on tests with the predecessors to the X-P 20 B3/B4/G3, X-C 27 G3, and X-S 14 fasteners, using a safety factor that is greater than or equal to 5.0.

²X-P 20 B3/B4/G3 must be installed at a minimum penetration depth of 9/16" into concrete. X-C 27 must be installed at a minimum penetration depth of 3/4" into CMU or mortar joint. X-S 14 must be installed at a minimum penetration depth of 0.320" through or into steel. Hanger assemblies must be firmly clamped to the base material.

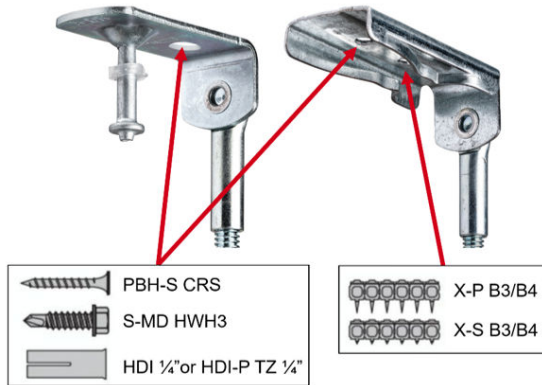
³Load capacities are based on armored cable and EMT.

⁴X-P24 B3 fasteners are not recommended for X-BR MX or X-BR MX (02) applications.

⁵Concrete base materials include 2000 to 6000 psi normal weight or lightweight types and also includes attachment through steel deck into concrete.

⁶Steel base materials include 1/8" or thicker carbon steel base material with minimum yield strength $F_y = 36$ ksi.

⁷CMU base materials include hollow or grout-filled concrete masonry units conforming to ASTM C90.


Table 5. Allowable Loads when installing Generation 02 hanger products using the backup hole


Base Material:	Wood ¹	Steel ²	Concrete ²
Fastener Used:	PBH S CRS	S-MD HWH3	HDI 1/4" and HDI-P TZ 1/4"
Hanger Product	Allowable loads lb (kN)		
X-DR ALH (02)	20 (0.09)	30 (0.13)	30 (0.13)
X-DR MX (02)	20 (0.09)	30 (0.13)	30 (0.13)
X-BR (02), X-BR S (02)	16.6 (0.07)	16.6 (0.07)	16.6 (0.07)
X-BR MX (02) X-BR S MX (02)	16.6 (0.07)	16.6 (0.07)	16.6 (0.07)
X-DH (02)	20 (0.09)	30 (0.13)	30 (0.13)
X-DH MX (02)	16.6 (0.07)	16.6 (0.07)	16.6 (0.07)

¹For wood base materials, the wood's specific gravity will have a significant impact on the allowable load. An allowable load of 20 lbs for PBH-S CRS screws can be conservatively assumed for wood with a specific gravity of at least 0.40.

²Tabulated loads for fastening to steel and concrete have a safety factor greater than or equal to 5.0.


ORDERING INFORMATION

X-HS and X-HS MX Threaded Rod Hangers


Fastener description	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Thread rod Ø	
Concrete				
X-HS W6 U32 P8S15	1-1/4 (32)	0.157 (4.0)	UNC 1/4-inch	
X-HS W10 U32 P8S15	1-1/4 (32)	0.157 (4.0)	UNC 3/8-inch	
X-HS W6 U22 P8S15	7/8 (22)	0.157 (4.0)	UNC 1/4-inch	
X-HS W10 U22 P8S15	7/8 (22)	0.157 (4.0)	UNC 3/8-inch	
Steel				
X-HS W10 U19 P8S15	5/8 (16)	0.157 (4.0)	UNC 3/8-inch	
X-HS W6 U19 P8S15	5/8 (16)	0.157 (4.0)	UNC 1/4-inch	
MX Version (without pre-mounted fastener)				
X-HS W6 MX	N/A	N/A	UNC 1/4-inch	

Always reference the full Instructions For Use (IFU) for the hanger product for fastener placement and selection.


Threaded studs

Fastener description	Shank length in. (mm)	Fastener shank Ø in. (mm)	Thread length in. (mm)	Thread Ø	
Steel					
X-EW6H-11-9 FP8	3/8 (9)	0.145 (3.7)	1/2 (11)	UNC 1/4-inch	
X-EW6H-20-9 FP8	3/8 (9)	0.145 (3.7)	3/4 (20)	UNC 1/4-inch	
X-EW6H-28-9 FP8	3/8 (9)	0.145 (3.7)	1-1/8 (28)	UNC 1/4-inch	
X-EW6H-38-9 FP8	3/8 (9)	0.145 (3.7)	1-1/2 (38)	UNC 1/4-inch	
X-EW10H-30-14 P10	9/16 (14)	0.205 (5.2)	1-3/16 (30)	UNC 3/8-inch	


Couplers

Fastener description	Overall length in. (mm)	Thread Ø stud	Thread Ø rod	
Coupler 1/4-20	1 (25)	UNC 1/4-inch	UNC 1/4-inch	
Coupler 3/8-16	1-1/8 (28)	UNC 3/8-inch	UNC 3/8-inch	
Adapter B-1/4x3/8	7/8 (22)	UNC 1/4-inch	UNC 3/8-inch	


X-ECH Cable Holder

Fastener description	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Number of 1/4" Ø cables	 X-ECH
Without pre-mounted fastener				
X-ECH-F/R-S	N/A	N/A	15-22	
X-ECH-F/R-M	N/A	N/A	30-37	
X-ECH-F/R-L	N/A	N/A	45-52	
With pre-mounted fastener				
X-ECH-F/R-S U37	1-1/2 (37)	0.157 (4.0)	15-22	
X-ECH-F/R-M U37	1-1/2 (37)	0.157 (4.0)	30-37	
X-ECH-F/R-L U37	1-1/2 (37)	0.157 (4.0)	45-52	
Tool accessories				
ECH adapter	For use with DX 351 and DX 5-F8			

X-EKB MX Cable Clamps



Fastener description	Max diameter of cable in. (mm)	Maximum no. of cables	
X-EKB 4 MX	1/4 (6)	4	 X-EKB MX
X-EKB 8 MX	1/4 (6)	8	

X-ECT MX Cable Tie Fastener*

Fastener description	Cable tie* size in. (mm)	
X-ECT MX	1/2 (12)	 X-ECT without Cable Tie


*Cable tie is not available through Hilti.

X-EMTC and X-BX/EMTC MX Conduit Clips



Fastener description	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Conduit Ø in. (mm)	
Premium grade (with pre-mounted fastener)				 X-EMTC
X-EMTC-3/8" U22	7/8 (22)	0.157 (4.0)	3/8 (10)	
X-EMTC-1/2" U22	7/8 (22)	0.157 (4.0)	1/2 (13)	
X-EMTC-3/4" U22	7/8 (22)	0.157 (4.0)	3/4 (19)	
X-EMTC-1" U22	7/8 (22)	0.157 (4.0)	1 (25)	
Standard grade (with pre-mounted fastener)				
X-EMTC-3/8" C27	1 (27)	0.138 (3.5)	3/8 (10)	
X-EMTC-1/2" C27	1 (27)	0.138 (3.5)	1/2 (13)	
X-EMTC-3/4" C27	1 (27)	0.138 (3.5)	3/4 (19)	
X-EMTC-1" C27	1 (27)	0.138 (3.5)	1 (25)	
MX version (without pre-mounted fastener)				 X-BX/EMTC MX
X-BX 3/8" MX	N/A	N/A	3/8 (10) ¹	
X-EMTC 1/2" MX	N/A	N/A	1/2 (13)	
X-EMTC 3/4" MX	N/A	N/A	3/4 (19)	
X-EMTC 1" MX	N/A	N/A	1 (25)	
X-EMTC 1-1/4" MX	N/A	N/A	1-1/4 (32)	

¹Also valid for 3/8" metal jacketed cable.

X-EMTSC Stand-Off Conduit Clips



Fastener description	Conduit Ø in. (mm)	
MX version (without pre-mounted fastener)		
X-EMTSC 1/2" MX	1/2 (13)	 X-EMTSC MX
X-EMTSC 3/4" MX	3/4 (19)	
X-EMTSC 1" MX	1 (25)	

X-DR Drop Rod (Generation 02)

Fastener description ¹	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Rod Coupler thread Ø	Rod Type	
With pre-mounted fastener					
X-DR 1/4 ALH27 (02)	1 (27)	0.177 (4.5)	UNC 1/4"	N/A	
X-DR 3/8 ALH27 (02)	1 (27)	0.177 (4.5)	UNC 3/8"	N/A	
X-DR # T 1/4 ALH27 (02)	1 (27)	0.177 (4.5)	UNC 1/4"	Threaded	
X-DR # S 1/4 ALH27 (02)	1 (27)	0.177 (4.5)	UNC 1/4"	Smooth	
X-DR 1/4 ALH22 (02)	7/8 (22)	0.177 (4.5)	UNC 1/4"	N/A	
X-DR 3/8 ALH22 (02)	7/8 (22)	0.177 (4.5)	UNC 3/8"	N/A	
X-DR # T 1/4 ALH22 (02)	7/8 (22)	0.177 (4.5)	UNC 1/4"	Threaded	
Without pre-mounted fastener					
X-DR 1/4 MX (02)	N/A	N/A	UNC 1/4"	N/A	
X-DR # T 1/4 MX (02)	N/A	N/A	UNC 1/4"	Threaded	
X-DR # S 1/4 MX (02)	N/A	N/A	UNC 1/4"	Smooth	


¹The "#" symbol in the fastener description represents the rod length options in feet. Each pre-mounted rod option is available in lengths of 1, 2, 3, 4, or 6 feet.

X-DR MX Drop Rod (Generation 01)



Fastener description ¹	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Threaded Rod Ø in.	Rod Type	
With pre-mounted fastener					
X-DR ALH27	1 (27)	0.177 (4.5)	UNC 1/4"	N/A	
X-DR # T ALH27	1 (27)	0.177 (4.5)	UNC 1/4"	Threaded	
X-DR # S ALH27	1 (27)	0.177 (4.5)	UNC 1/4"	Smooth	
X-DR ALH22	7/8 (22)	0.177 (4.5)	UNC 1/4"	N/A	
X-DR # T ALH22	7/8 (22)	0.177 (4.5)	UNC 1/4"	Threaded	
Without pre-mounted fastener					
X-DR MX	N/A	N/A	UNC 1/4"	N/A	
X-DR # T MX	N/A	N/A	UNC 1/4"	Threaded	
X-DR # S MX	N/A	N/A	UNC 1/4"	Smooth	

¹ The "# " symbol in the fastener description represents the rod length options in feet. Each pre-mounted rod option is available in lengths of 1, 2, 3, 4, or 6 feet.


X-DH and X-DH BW Data Hooks* (Generation 01)

Fastener description	Batwing attachable to	Number of CAT 5e cables (70% fill rate)	Number of CAT 6 cables (70% fill rate)	Number of CAT 6A cables (70% fill rate)	Number of CAT 7A cables (70% fill rate)	
With preassembled batwing, max. recommended overbending distance 1 in. (25 mm)						
X-DH 1" BW	1/4-inch rod, 8-12 ga wire	30	20	12	10	
X-DH 2" BW	1/4-inch rod, 8-12 ga wire	95	70	40	35	
X-DH 4" BW	1/4-inch rod, 8-12 ga wire	360	260	155	125	
Without preassembled batwing						
X-DH 2" C	N/A	95	70	40	35	
X-DH 2"	N/A	95	70	40	35	
X-DH 4"	N/A	360	260	155	125	



X-DH (02) and X-DH MX (02) Data Hooks* (Generation 02)

Fastener description	Fastener shank length in. (mm)	Fastener shank Ø in. (mm)	Number of CAT 5e cables (70% fill rate)	Number of CAT 6 cables (70% fill rate)	Number of CAT 6A cables (70% fill rate)	Number of CAT 7A cables (70% fill rate)	
Without premounted fastener for use with battery powered tools							
X-DH 1" MX (02)	N/A	N/A	30	20	12	10	
X-DH 2" MX (02)	N/A	N/A	95	70	40	35	
With premounted X-ALH fastener for use with powder actuated tools							
X-DH 1" ALH27 (02)	1 (27)	0.177 (4.5)	30	20	12	10	
X-DH 2" ALH27 (02)	1 (27)	0.177 (4.5)	95	70	40	35	
X-DH 4" ALH27 (02)	1 (27)	0.177 (4.5)	360	260	155	125	
X-DH 1" ALH22 (02)	7/8 (22)	0.177 (4.5)	30	20	12	10	
X-DH 2" ALH22 (02)	7/8 (22)	0.177 (4.5)	95	70	40	35	
X-DH 4" ALH22 (02)	7/8 (22)	0.177 (4.5)	360	260	155	125	



X-MS MC Stacker*

Fastener description	Batwing attachable to	Max. pieces of 14-2 MC cables	Max. pieces of 8-3 MC cables	
With preassembled batwing, max. recommended overbending distance 1 in. (25 mm)				
X-MS 3" BW	1/4-inch rod, 8-12 ga wire	7	4	
Without preassembled batwing				
X-MS 3"	N/A	7	4	


X-BR Bridle Ring*

Fastener description	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Number of fire alarm 18/2 cables (70% fill rate)	Number of MC Cables	
With premounted fastener					
X-BR 1-1/4" ALH27	1 (27)	0.177 (4.5)	39	1	
X-BR 1-1/4" ALH27 (02)	1 (27)	0.177 (4.5)	39	1	
X-BR 2" ALH27	1 (27)	0.177 (4.5)	60	3	
X-BR 2" ALH27 (02)	1 (27)	0.177 (4.5)	60	3	
Without premounted fastener					
X-BR 1-1/4" MX	N/A	N/A	39	1	
X-BR 1-1/4" MX (02)	N/A	N/A	39	1	
X-BR 2" MX	N/A	N/A	60	3	
X-BR 2" MX (02)	N/A	N/A	60	3	

X-BR S Bridle Ring with Saddle

Fastener description	Fastener length in. (mm)	Fastener shank Ø in. (mm)	Number of CAT 5e cables (70% fill rate)	Number of CAT 6 cables (70% fill rate)	Number of CAT 6A cables (70% fill rate)	Number of CAT 7A cables (70% fill rate)	
With premounted fastener							
X-BR S 2" ALH 27	1 (27)	0.177 (4.5)	37	30	17	15	
X-BR S 2" ALH27 (02)	1 (27)	0.177 (4.5)	37	30	17	15	
Without premounted fastener							
X-BR S 2" MX	N/A	N/A	37	30	17	15	
X-BR S 2" MX (02)	N/A	N/A	37	30	17	15	

X-BW Batwing

Fastener description	Number of EMT / MC Cables	Maximum Recommended Overbending Distance in. (mm)	
X-BW 1/2"	1	1.2 (30)	 X-BW 1/2" X-BW 3/4"
X-BW 3/4"	1	1.2 (30)	
X-BW 1"	1	1.2 (30)	
X-BW W	1	0.6 (16)	

Application	Size	Attachable to						
		Wire #12, #10	Wire #9, #8	Rod 1/4"	Flange 1/8 to 1/4"	Flange 5/16 to 3/8"	Flange 7/16 to 1/2"	
EMT	1/2"	X-BW 1/2"	X-BW 1/2"	X-BW 1/2"	X-BW 1/2"	X-BW 3/4"	X-BW 3/4"	 X-BW 1" X-BW W
	3/4"	X-BW 3/4"	X-BW 3/4"	X-BW 3/4"	X-BW 3/4"	X-BW 1"	X-BW 1"	
	1"	-	X-BW 1"	X-BW 1"	X-BW 1"	X-EMTC 1"	X-EMTC 1"	
MC cable	14-2 to 14-4	X-BW W	X-BW W	X-BW 1/2"	X-EMTC 3/8"	X-EMTC 3/8"	X-EMTC 3/8"	
	12-2 to 10-3	X-BW W	X-BW W	X-BW 1/2"	X-BW 1/2"	X-EMTC 3/8"	X-EMTC 3/8"	
	10-4	X-BW W	X-BW 1/2"	X-BW 1/2"	X-BW 1/2"	X-EMTC 3/8"	X-EMTC 3/8"	
Rigid	1/2"	X-BW 1/2"	X-BW 3/4"	X-BW 3/4"	X-BW 3/4"	X-BW 3/4"	X-BW 1"	
	3/4"	X-BW 3/4"	X-BW 3/4"	X-BW 1"	X-BW 1"	-	-	

*For spacing requirements, please refer to TIA 569.



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