



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Hilti Corporation
Address	Feldkircherstrasse 100, 9494 Schaan, Liechtenstein
Place of Production	Daepac Industries Sdn. Bhd. (415215-U) No. 10, Jalan Gemilang 5, Taman Perindustrian Gemilang, Ulu Tiram, Johor, 81800, Malaysia
Place of Production	Hilti Corporation Feldkircherstrasse 100, 9494 Schaan, Liechtenstein
Place of Production	WP-Wörgartner Produktions-GmbH Bahnhofstrasse 21, Oberndorf / Tirol, 6372, Austria
Place of Production	Ningbo World Broad Hardware & Electrical Co. Ltd. No. 139 Xinyang Road, Ditang Town, Yuyao City, Ningbo City, Zhejiang, 315491, China
Type	Building Construction Elements
Description	New Generation Hilti X-BT-GR, X-BT-MR, X-BT-ER Threaded Fastener, X-FCM-R & X-FCS-R Grating Fastener.
Trade Name	Hilti X-BT Direct Mechanical System

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Jenny Wilson

Engineering - Machinery Principal Specialist
to Lloyd's Register EMEA
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Type Approval Certificate

Application	Marine, Offshore & Industrial
Specified Standard	New generation Hilti X-BT-GR, X-BT-MR and X-BT-ER Threaded Fastener Specification & Hilti X-BT-ER Data sheet & Hilti Direct Fastening Technology Manual for Grating Fasteners; EUROCODE 3
Ratings	See Appendix
Other Conditions	<p>This Type Approval certificate is to be read in conjunction with submitted Technical Report on the supplementary design documents.</p> <p>The minimum strength of the base material is to be as stated in the Hilti X-BT-GR, X-BT-MR and X-BT-ER Threaded Fastener Specification.</p>

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2435310TA

The Design Appraisal Document LR2435310TA-02 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2435310TA-02

Appendix

		X-BT-GR	X-BT-MR	X-BT-ER
Size		M8/7 SN8	M10/15 SN8 W10/15 SN8 M8/14 SN8 M6/10 SN8 W6/10 SN8	M10/7 SN8 W10/7 SN8 M8/7 SN8 M6/3 SN8 W6/3 SN8
Material	Shank & thread	S31803		S31803
	SN washer	S31635		S31635
	Sealing washer	Elastomer		Elastomer
	Guide sleeve	Plastic		Plastic
	Nuts & washers	A4/AISI grade 316		A4/AISI grade 316
Purpose		Grating	Multi-purpose	Electrical Connection

Adapter types for X-BT-ER Fasteners

Adapter	Material
M8-MR 50 M8-MR 75 M8-MR 100	Stainless Steel, (X5CrNiMo17-12-2), 1.4401-AISI 316 OR Copper Alloy, tin coated, CuSn8
M10-MR 50 M10-MR 75 M10-MR 100 W10-MR 50 W10-MR 75	Stainless Steel, (X5CrNiMo17-12-2), 1.4401-AISI 316 OR Copper Alloy, tin coated, CuSn8