

# 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.

<b>Manufacturer</b>	<b>Endress+Hauser SE + Co. KG</b>
<b>Address</b>	Hauptstrasse 1, 79689 Maulburg, Germany
<b>Type</b>	Switches - Level
<b>Description</b>	Level switch Liquiphant Type FTL31[10][20][40][50][60][110][590] [10] = Approval: AA, CA [20] = Power Supply: 1, 4 [40] = Electrical Connection: M, S, U, V, W [50] = Sensor design: 2, 3 [60] = Sensor type: AA, BA [110] = Process connection: VAJ, VBJ, VCJ, WBJ, WCJ, WDJ, WSJ, W5J, XBJ, XCJ, XDJ [590] = Further Approval: LC, LG
<b>Trade Name</b>	FTL31
<b>Application</b>	Marine applications for use in environmental categories ENV1, ENV2, ENV3 and ENV5 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2013.

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<b>Specified Standard</b>	Manufacturer's specification IACS unified requirements E10 (Rev.7 Oct 2018)
<b>Ratings</b>	Power supply: 24 VDC 230 VAC
<b>Additional Tests</b>	Low temperature test (-40°C/16hrs)
<b>Other Conditions</b>	Ratings for application in hazardous areas are to be obtained from the applicable Ex Certificates.

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.

The Design Appraisal Document HTS/ETS 40656-20/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.