Certificate No: LR2029196TA
Issue Date: 16/10/2020
Expiry Date: 20/09/2025

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	**Bachofen AG**
Address	Ackerstrasse 45, Uster, 8610, Switzerland
Type	Switches - Level
Description	Trimod Besta float operated liquid level switches and mounting accessories. Types A, B, DA, DB, UA, UB, HA, HB, TDA, TDB, Z, X and P and combinations thereof, including flange modules to ANSI, DIN, BS, JIS and Besta standard and float modules.
Trade Name	A, B, DA, DB, UA, UB, HA, HB, TDA, TDB, Z, X and P
Application	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2002.
Specified Standard	Manufacturer's specification
Ratings	Operating temperature ratings: A, B: 0 to 330°C XA,XB: -30 to 330°C DA, DB: -30 to 120°C UA, UB, XUA, XUB: -30to 80°C HA, HB: 0 to 400°C TDA, TDB: -196 to 270°C

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Z:	-30 to 145°C
P:	0 to 250°C
5P:	0 to 400°C
Electrical ratings:	
A:	250 VAC 5 A 30 VDC 5 A
B:	3 VDC 300 mA
B (Ex-i application):	max.30 VDC, max. 300 mA, max. 0.12 VA Li≈ 0 µH, Ci ≈ 0 nF
Z (Ex-d application):	250 VAC 5 A 250 VDC 0.25 A
XA (Ex-d application):	250 VAC 5 A 250 VDC 0.25 A
XB (Ex-i application):	max.30 VDC, max. 300 mA, max. 0.12 VA Li ≈ 0 µH, Ci ≈ 0 nF

Additional Tests

Types A, B, HA and HB:	IP65
Types DA, DB, TDA, TDB:	IP66 / IP 67
Types UA, UB:	IP 68

Other Conditions

Z and X types have an ingress protection rating of IP 66 / IP 67 in general. Types Z, B and X are suitable for use in hazardous areas. Ratings for application in hazardous areas are to be obtained from 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 No. HTS/ETS 40537-20/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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