



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR LIQUID LEVEL GAUGE / HIGH LEVEL ALARM

Certificate No. TA24086M



This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in the Chapter 7, Part 6 and Chapter 4, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	Bachofen AG
Place of Manufacturing:	Ackerstrasse 42, 8610 Uster SWITZERLAND
Product description:	Trimod Besta Level Switch
Model:	See the Attached sheet -1/2
Approval No.:	19LG001
Valid until:	17 March 2029

The details are described in the attached sheet(s).

Issued at Tokyo on 1 February 2024.



S. Oishi
General Manager
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

Specification & documents:

1. Components and reference drawings:

Model	Document No.	Ex - Type
Switch module - A..., B...	3080-000EN	-
Switch module - FP..., FM...	3080-005EN	-
Switch module - I..., IE9...	3080-007EN	-
Switch module - P..., M...	3080-008EN	-
Switch module - Z...	3080-020EN	Ex eb db IIC T5...T6 Ga/Gb Ex ia IIC T6...T2 Ga/Gb
Switch module - I..., IE9...	3080-021EN	Ex eb db IIC T5...T6 Ga/Gb Ex ia IIC T6...T2 Ga/Gb
Switch module - B...	3080-022EN	Ex eb db IIC T5...T6 Ga/Gb Ex ia IIC T6...T2 Ga/Gb
Flange module - Standard range	3078-011EN	-
Flange module - Special range	3078-002EN	-
Flange module - Industrial range	3078-003EN	-
Flange module - Plastic range	3078-004EN	-
Float modules	Catalogue LTKEN2210 - pages 30 to 34	-

2. Documentation and Test Reports:

Test Report (3012/95, 3013/95, 3014/95, 3016/95, 20181115.A02.01)

Catalogue - Trimod Besta Level Switch (Doc. LTKEN2210)

Market Information - Shipbuilding (English) (Doc. LTH100EN1907)

Management Handbook Company Policy (Doc. 1-2)

Management Handbook Marketing (Doc. 2-1)

Management Handbook Development (Doc. 2-2)

Management Handbook Production (Doc. 2-3)

Management Handbook Health and Operational Safety (Doc. 3-5)

Statement of compliance with IACS UR E10 Rev.8

- To be continued -

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Attached sheet -2/2 to the Certificate No. TA24086M

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS UR E10 Rev.8 basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		--
Power supply fluctuation test	Electric	--
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		X
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±0.7g × 1.5 hours)		X
Inclination test		X
Cold test (Temperature -25°C × 16 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		--
Radiated radio frequency immunity test		--
Conducted low frequency immunity test		--
Conducted high frequency immunity test		--
Burst / Fast transient immunity test		--
Surge immunity test		--
Radiated emission test		--
Conducted emission test		--
Mechanical test for float		--
Flame retardant test		--

2. Approval condition:

1). The following tests on the individual product are to be carried out at the manufacturing plant.

(a) Visual Inspection (b) Performance Test

2). Compatibility of construction material with individual cargos is to be checked on each vessel.

The End -