



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA25198M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, 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

Applicant:	Endress+Hauser SICK GmbH+Co. KG - Ottendorf- Ockrilla Germany
Manufacturer:	Endress+Hauser SICK GmbH+Co. KG Hamburg Poppenbüttel Endress+Hauser SICK GmbH+Co. KG Überlingen
Place of Manufacturing:	Poppenbütteler Bogen 9B, 22399 Hamburg, Germany Rengoldshauser Str. 17a, 88662 Überlingen, Germany
Product description:	Exhaust gas measuring and monitoring system
Model:	MARSIC300
Approval No.:	17A017
Valid until:	7 August 2027

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

Issued at Tokyo on 13 March 2025.



for **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.

NIPPON KAIJI KYOKAI

Attached sheet -1/3 to the Certificate No. TA25198M

Specification & documents:

1. Particulars: Power supply: 115 / 208 / 230 V, 50 / 60 Hz

Measuring ranges: SO₂: 0 - 30 ppm / 0 - 2000 ppm

CO₂: 0 - 25 vol.-%

O₂: 0 - 21 vol.-%

NO: 0 - 300 ppm / 0 - 2000 ppm

NO₂: 0 - 200 ppm / 0 - 500 ppm

CO: 0 - 200 ppm / 0 - 2000 ppm

NH₃: 0 - 50 ppm / 0 - 500 ppm

CH₄: 0 - 500 ppm / 0 - 10000 ppm

H₂O: 0 - 40 vol.-%

2. Components and reference drawings:

Component	Identification number	Specification	Drawings
Sample tube	2058125	Unheated 0.25m	MARSIC300 EPLAN EDB Nr. 9236781
	2083525	Unheated 0.5m	
	2083527	Unheated 0.8m	
	2142889	Unheated 0.5m(SFU100/150)	
	2142888	Unheated 0.8m(SFU100/150)	
	2071307	Heated 0.5m 230V	
	2071577	Heated 0.5m 115V	
	2025125	Heated 0.8m 230V	
	2028706	Heated 0.8m 115V	
Gas sample probe	2058208	SFU-BF NI GL	
	2121888	GAS SAMPLING Filter MARITIME INDOOR (SFU100)	
	2137834	GAS SAMPLING Filter MARITIME OUTDOOR (SFU150)	
Bundle of pipes	6058993	Up to 40m	
Heated sample gas line	Type AW 6031101 to 6031135	HEIZ-SHL. 230V ELH/AW 6/8 1H 1M - 35M N.LSP (1m - 35m)	
	Type AD 6028701 to 6028735	HEIZ-SHL. 230V ELH/ADW 6/8 1M - 35M N.LSP (1m - 35m)	
Analyzer	1076531	DeSO _x (SO ₂ , CO ₂)	
	1076532	DeNO _x (NO, NO ₂)	
	1076530	Emission complete (SO ₂ , CO ₂ , NO, NO ₂ , O ₂ , H ₂ O, CH ₄ , NH ₃ , CO)	

- To be continued -

NIPPON KAIJI KYOKAI

Attached sheet -2/3 to the Certificate No. TA25198M

3. Documentation and Test Reports:

Product Information (Document No. 8017965)

Technical Information MARSIC300 (Document No. 8017585/ V3-1_2017-05)

Operating Instructions MARSIC300 (Document No. 8017316/ V4-0_2020-03)

8029898_175O_OI_MARSIC300_en_V4-0_2020-03

8030681_YXD9_TI_MARSIC300_V3-1_2017-05

Type test report (Report No. MAGDE717 2015.139.B, Rev. 1.0)

Factory Test Report (9 May 2017, D-88709 Meersburg, P20170509.pkl)

Quality Control for Software (WAK_HAB_72, WAK_VAW_354)

EMC Test report No. E135389 00 (24 September 2015)

MARSIC300 – IACS E10 Rev7 Confirmation (7 April 2022)

MARSIC300 – EMC measurement (5 December 2022)

- To be continued -

NIPPON KAIJI KYOKAI

Attached sheet -3/3 to the Certificate No. TA25198M

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS UR E10 Rev. 9 basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 55°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±0.7g×1.5 hours for Analyzer unit, ±4.0g×1.5 hours for Sample probe)		X
Inclination test		X
Cold test (Temperature 5°C × 2 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test (for Bundle of pipes)		X

2. Approval condition:

The product is not allowed to be installed in the bridge or on open decks.

- The End -