



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA20507M

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.

Manufacturer:	Imes GmbH
Place of Manufacturing:	Dr. -Herbert-Kittelstr. 2, D-87600 Kaufbeuren
Product description:	Cylinder pressure sensor
Model:	CPS-01, CPS-01CA, CPS-01CA K1000, CPS-03, CPS-03CA, FPS-01, FPS-01CA, FPS-02, FPS-02CA, HTT-04, HTT-04CA, HTT-06, HTT-06CA, TCS-01, TCS-01CA
Approval No.:	14A046
Valid until:	23 December 2024

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 1 October 2020.

T. Shimada
General Manager
Machinery Department

Note: 1. The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.
2. This certificate has been issued due to addition of the models.

Specification & documents:

1. Particulars: Power supply: DC 24V
2. Abbreviations:
 HTT: High Temperature Transmitter, FPS: Front Membrane Pressure Sensor,
 CPS: Cylinder Pressure Sensor, TCS: Two Stroke Compression Sensor
3. Components and reference drawings:

Type	Drawing No.	Type	Drawing No.
CPS-01	599 125	FPS-01	903 998
CPS-01CA	599 099	FPS-01CA	905 164
CPS-01 K1000	599 105 599 128	FPS-02	905 327
CPS-03	905 527-01	FPS-02CA	905 161
CPS-03CA	905 492-01	HTT-04	600 696
TCS-01	905 413-01	HTT-04CA	600 695
TCS-01CA		HTT-06	905 488-00
		HTT-06CA	905 537-00

4. Documentation and Test Reports:
 U-0328-3059-01 ME, 2235167KAU001, 20TH0284-IEC60068_0, 2235473KAU001,
 2234581KAU001, S-0328-3060-00BT, 09TH0043-BV-Rules_2,
 20TH0284-IEC60068_HTT04_0, 20TUR0028_BV-rules_0, 20TUR0029_BV-rules_0,
 20TUR0028_BV-rules_1, 20TUR0029_BV-rules_1,
 Sensor type comparison (CPS, Dated 14 February 2014),
 Sensor type comparison (Document No. SP01_004, Dated 23 June 2020)

- To be continued -

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS UR E10 Rev.7 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 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4.0g)		X
Inclination test		--
Cold test (Temperature -25°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		X

2. Approval condition:

The product is not to be allowed to be installed on open decks.

- The End -