

OIML Member State
The Netherlands

Number R 117/2007-B-NL1-19.06
Project number 2353542
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Issuing authority
Person responsible: NMi Certin B.V.
C. Oosterman

Applicant and
Manufacturer: Total Control Systems
2515 Charleston Place,
Fort Wayne, IN 46805,
Unites states of America.

Identification of the
certified type: An **electronic calculating and indicating device**
Type: TCS 3000

Characteristics: See page 2 and further

This OIML Certificate is issued under scheme B

This Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 117-1 (2007) "Dynamic measuring systems for liquids other than water"

Accuracy class: 0,5

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above. This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority: **NMi Certin B.V., OIML Issuing Authority NL1**
15 April 2019


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The conformity was established by the results of tests and examinations provided in the associated reports:

- No. NMI-13200303-01 dated 12 May 2015 that includes 68 pages;
- No. NMI-13200303-02 dated 12 May 2015 that includes 16 pages;
- No. NMI-15200806-01 dated 3 March 2016 that includes 5 pages.

Characteristics of the electronic calculating and indicating device

In Table 1 the general characteristics of the electronic calculating and indicating device are presented. The construction of the electronic calculating and indicating device is recorded in the Documentation folder no. TC8392-1.

Table 1 General characteristics

Accuracy class	0,5
Environmental classes	M3 / H3 / E3 (including E2)
Ambient temperature range	-40 – +55 °C; condensing humidity.
Product temperature range	See table 2
Intended for the measurement of	Liquids
Power supply voltage	24 V AC
Software identification	See table 3

Table 2 Temperature and density range of the electronic calculating and indicating device

product	product temperature range	product density range
Generalized products, such as Diesel, Fuel oil etc.	-40 – +90 °C	670 kg/m ³ – 1070 kg/m ³
Liquefied Petroleum Gas (LPG)	-46 – +80 °C	490 kg/m ³ – 685 kg/m ³

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Table 3 Software identification

device	identification	checksum
application	1.4.3	90268C841BB0CFE57BD99C5F18537503
		988CE5A5E366F85788B9C53A33B3C8ED
firmware	V10.04.14	A687
	V10.09.14	A3E7
	V10.14.15	A14B
operating system	3.12.18	887e2f7ba0e1c887445798fbecaf76fa
		1cd85424e85b5ee929aeca4a1986ffc3