

OIML Member State

The Netherlands

Number R 117/2007-B-NL1-18.05

Project number 1901947

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Issuing authority
Person responsible: NMI Certin B.V.
C. Oosterman

Applicant and
Manufacturer Liquid Controls LLC
105 Albrecht Drive
IL-60044, Lake Bluff
United States of America

Identification of the
certified type **A special gas extractor**
Type: EGS_1 and EGS_2

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"

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.

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Issuing Authority **NMI Certin B.V., OIML Issuing Authority NL1**
26 November 2018



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The conformity was established by the results of tests and examinations provided in the associated report(s):

- No. CPC-9200487-01 dated 22 November 2010 that includes 14 pages;
- No. NMI-1901947-01 dated 26 November 2018 that includes 25 pages.

Characteristics of the special gas extractor

In Table 1 the general characteristics of the measuring instrument are presented.
The construction of the measuring instrument is recorded in the Documentation folder no. TC7329-5.

Part: special gas extractor
 Producer: Liquid Controls LLC
 Type: EGS_1 and EGS_2
 Documentation folder: TC7329-5

Table 1 General characteristics of the gas elimination device type EGS_1 and EGS_2

There are two configurations of the **special gas extractor** :

| | Type | | Description |
|--|---|--------------------|-------------|
| | EGS_1 | EGS_2 | |
| Gas eliminator ⁽¹⁾ | 421xx ⁽²⁾ ; A8xxx ⁽²⁾ | | |
| Filter type | F; FD ⁽³⁾ ; FMP | F | |
| Number of LC-sound gas indicators ⁽⁵⁾ | 2 | 1 | |
| Two stage valve | Yes | Yes ⁽⁴⁾ | |
| Intended for | Hydrocarbon based oils, fuels, chemical and industrial liquids with a viscosity of 1 – 5 mPa·s at 20 °C; LPG. | | |
| Q _{max} [L/min] | See table 2 below. | | |
| P(e) max [kPa] | 1024; 2413 with F and FD filters 1930; 5100 with FMP filters. Equal to the maximum P(e) max. of the measuring system in which the Special Gas Extractor is used and not above 5100 kPa. | | |

Remarks:

- (1) The gas eliminator is mounted on top of the filter. Depending on the size, one or more gas eliminators are used.
- (2) Types 42100, 42101, 42104, A8170, A8180; A8200 and A8340A
- (3) FD filter is only used for the 4 inch diameter.
- (4) A two stage valve is used which is either pneumatically or hydraulically controlled. For the EGS_2 a so called air check valve is required. See the documentation folder 7329-5.
- (5) The LC-sound gas indicator operates on the ultra sonic principle.



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Table 2 Maximum flowrate of the gas elimination device type EGS_1 and EGS_2

| Maximum Flowrate [L/min] | Test Characteristics | Remarks |
|-----------------------------|-----------------------------|-----------------------|
| 500 | 2 LCS and 500 mm inlet pipe | Mounted on M7 meter |
| 800 | 1 LCS and 500 mm inlet pipe | Mounted on M15 meter |
| 1500 | 2 LCS and 500 mm inlet pipe | Mounted on M30 meter |
| 3300 | 2 LCS | Mounted on MS75 meter |

Production location

The special gas extractor is produced at one of the following production locations:

- Liquid Controls LLC, 105 Albrecht Drive, IL-60044, Lake Bluff, United States of America