



# OIML BASIC CERTIFICATE OF CONFORMITY

OIML Member State  
**SWEDEN**

OIML Certificate N°  
**R51/2006-SE1-16.01**



## Applicant

Name: Cargotec CHS PTE LTD BROMMA  
Address: 15, Tukang Innovation Drive  
Singapore 618299

## Issuing authority

Name: SP Technical Research Institute of Sweden  
Address: Box 857, SE-501 15 Borås, Sweden  
Person responsible: Lennart Aronsson

Manufacturer of the certified pattern is the applicant.

## Identification of the certified pattern

A graduated, self-indicating, electronic, automatic weighing instrument.

Type Load Sensing System version 1

Accuracy class Y(b)

Number of verification scale intervals  $n \leq 200$

(Identification continued on next page.)

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation(s) of the International Organization of Legal Metrology (OIML):

R51, edition 2006, includes erratum 2010.

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation(s).

This certificate does not bestow any form of legal international approval.

The conformity was established by tests described in the associated test report 6P0240-1 dated 2016-06-28. This is the first issue of this certificate.

Borås, June 28, 2016

## SP Technical Research Institute of Sweden Certification

Lennart Aronsson  
Product Certification Manager

Bengt Gutfelt  
Certification Officer



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## SP Technical Research Institute of Sweden

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SP ref SC0552-16



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## Identification of the certified pattern

### General description

The Load Sensing System version 1 is an automatic weighing instrument with four or eight load cells integrated into the spreader twist locks. It is designed for weighing of containers during a normal lift cycle. The system is approved for container cranes.

### Construction

#### Technical data

|                   |                  |
|-------------------|------------------|
| Max capacity      | <= 52 t          |
| Min capacity      | >=1 t            |
| Scale interval, e | >=0,2 t          |
| Temperature range | -20 °C to +60 °C |
| Power supply      | 11-30 V DC mains |

### Construction

The Load Sensing System is an integrated part of the spreader and consists of a control unit, an indication unit, a CANopen network and load cells mounted on each twistlock. The spreader, in turn, is attached to a crane, for example a Yard Crane, Ship to Shore Crane or Straddle Carrier. The indicating unit can display weighing result from single-or twin spreaders.

### Indicating Unit

|              |            |        |
|--------------|------------|--------|
| Type         | SCS3, SCS4 | CR0451 |
| Manufacturer | Maximatecc | IFM    |

### Digital load cell

|              |                 |
|--------------|-----------------|
| Type         | <b>0120</b>     |
| Manufacturer | <b>Brosa</b>    |
| Capacity     | <b>15000 kg</b> |
| EMC class    | <b>E2</b>       |

### Interfaces

The instrument may be equipped with the following protective interfaces:

Crane Interface: CANopen (DS444) and CAN2. Other Interfaces: Ethernet, RS-232, USB

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