

TECHNICAL SPECIFICATION

a. Steel Deck



STS Hippo is a modular steel weighbridge with pit-mount and surface-mount options. Designed to meet European standards in its respective industry, Hippo offers a strong static build which is suitable for use in every sector where legal loading and weight measurement is required.

STS Hippo weighbridges feature a modular structure with a width of 3 m and are produced in various lengths from 4 m to 24 m with 2m intervals. Thanks to its modular structure, Hippo can be easily assembled and is suitable for international container shipping. Hippo steel weighbridge is designed not only to provide robustness and long-term durability, but also to offer easy assembly, easy handling, easy cleaning and ideal height.

STS Hippo vehicle scales are equipped with CAD Digital load cells and EL rubber mounting kits as well as ECI microprocessor-based Digital electronic weighing terminals.

Key Features

- Rubber pads
- Multiple load cells
- Low profile
- Dust covers
- Steel cable housings
- Lightning protection
- Assigning incremental sequence numbers to every weighing ticket
- Memory capacity to store 100,000 weighing operations
- Capability to recognize vehicles of fixed tare values 10 user-definable ticket data fields
- Detailed reporting between given dates
- Ability to edit ticket and report formats
- Access to any data based on given criteria
- Printer connection
- Label and report printing
- Legal metrology approval
- CE certificate
- Unique orthotropic V beam anti deflection design.

b. Advanced CAD Digital Load cells



Model CAD has double sockets, cable connection is done by jumping from one load cell to another one. It does not require a junction box so it is very easy to change in case of fault.

Model CAD load cell, is based on the shear force principle to measure forces in the compression direction. It has been developed for use in high capacity, electronic weight and force measurement applications in industrial environments. Thanks to its' perfect and rugged body, it offers high resistance to side forces and overload conditions.

Stainless steel body is resistant to corrosion. CAD load cells are suitable for heavy industrial conditions and chemical environments. It finds application in high capacity vehicle scales, platform scales, tank weighing systems and process weighing applications.

When compared to other brand digital load cells, the most important advantage of CAD load cells is that it bears an electronic angle meter inside. With this feature, the technician is alerted by colored LEDs for proper assembly during installation.

Main problem in truck scales is side forces. Platform elongation due to thermal expansion of temperature differences between summer and winter change and platform deformation due to load distribution causes errors in measurement. In both cases, the load cells which are placed perpendicular to the ground become awkward and may cause measurement error. Thanks to the patented angle compensation Technology, the vertical deflection angle of the load cell is detected via sensors to ensure an accurate weight measurement.

CAD load cells are 80% more resistant to side forces than other load cells working with column type principle. Particularly, the major

Key Features;

- Certified to OIML R60 standards
- Welded hermetic sealed body
- %100 resistant to side forces
- %300 resistant to overload
- IP68 industrial protection
- Lightning Protection
- Installation angle compensation
- Modbus communication
- Automatic corner calibration from indicator
- Measurement error detection
- 24 bit A/D converter

c. ECI Digital indicator



ECI Digital Weighing Indicator is designed for weighing with digital load cells and to be used in vehicle scales. There are two different models of ECI Digital: designed for Modbus or Canbus output digital load cells. Although ECI is designed for panel use, there are optional casings for colon or desktop use as well. ECI indicates the weighing process clearly, via its various warnings and graphics on IP65 enclosure-rated front panel touch screen and new bright graphic screen. With a standard mounted USB port; ECI offers free firmware update, backup and reporting functions.

Features;

- Weighing program with digital load cells
- Angle correction function when used with CAD series digital load cells
- Faulty load cell warning
- Weighing program with digital load cells
- Communication with load cells via Modbus or Can Bus protocols Indicator, platform scale or vehicle scale modes
- Adaptive, indexed menu system
- Easy connection with connectors (Solder-free)
- 1600 Hz measurement / 800 Hz data output rate
- USB reporting / update / backup / calibration backup
- Possibility of moving calibration data to other devices
- Multi-language option resolver multi-frequency vibration filtering technology
- Easy calibration (mV, factory, coefficient, digital)
- Intelligent plug and play type option cards and modular expansion
- Galvanic isolated communication docks
- Internal thermometer
- Service menu (self-diagnostic)
- Printer support
- USB, RS232 serial communication and external display output

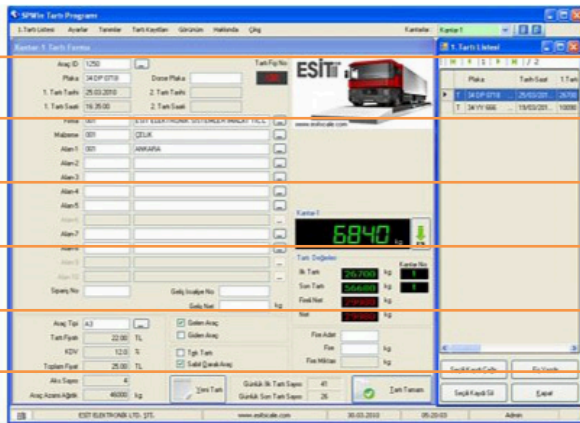
d. **SP-WIN management software (VGM COMPLIANT)**

Explanation;

SPWin Vehicle Weighing Application was prepared with our previous experience and the demands of our customers. Not only providing standard expectations SPWin meets special demands such as flexible reporting and easy adjustable report formats. During weighing, storing photos of the vehicle with a camera and displaying within the record history is among the many outstanding features of the application.

Properties;

	SP WIN	SP WIN PRO
Remote Display	+	+
Message Panel	-	+
Traffic Lights	-	+
Mechanical Barrier	-	+
Optical Security Ring	-	+
Network	-	+
Photo	-	+
Button Case (kiosk)	-	+
Printer(kiosk)	+	+
Language (TR, EN, BG, RU, GE, AZ, FR, DA, SR)		
Vehicle Define	-	+
Plate Define	-	+
RFID	-	+
Card Reader	-	+
Barcode	-	+
Integration and Data Connection		
Web Service(XML)	-	+
E-mail	-	+
SMS	-	+
VGM report	+	+



*** Features indicated with "+" are priced separately. (Excluding language option and web service)



Member State
Denmark

OIML Certificate N°
R60/2000-DK3-17.01



OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: **DELTA**
Address: Venlighedsvej 4
2970 Hørsholm
Denmark

Person responsible: J. Hovgaard Jensen

Applicant

Name: **Esit Elektronik Sistemler İmalat ve Ticaret Limited Şirketi**
Address: Nişantepe Mah. Gelinçiçeği Sok. No.36,
Çekmeköy,
34794 İstanbul
TURKEY

Manufacturer

Manufacturer
of the certified pattern: **Esit Elektronik Sistemler İmalat ve Ticaret Limited Şirketi**

Identification

of the certified pattern: **Digital compression, strain gauge load cell**
Type: CAD
Further characteristics are set out on page 2.

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 of the International Organization of Legal Metrology (OIML):

R60
edition 2000 (E)
for accuracy class C

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.


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



OIML Certificate N° R60/2000-DK3-17.01

The conformity was established by tests described in the associated test report N° DANAK-1918690 issued by DELTA, 57 pages, issued 18 Dec. 2017.

The issuing authority: **DELTA, OIML Issuing Authority DK3**
19 December 2017


J. Hovgaard Jensen
Certification Officer

Characteristics

Type designation		CAD			
Accuracy class		C3	C4	C5	C6
Maximum number of intervals	n _{LC}	3000	4000	5000	6000
Maximum capacity	E _{max}	10t, 20t, 25t, 30t, 50t			
Apportionment factor	plc	0.8			
Minimum verification interval	v _{min}	E _{max} /10000	E _{max} /20000	E _{max} /20000	E _{max} /40000
Ratio of min LC verification interval	Y	10000	20000	20000	40000
Minimum dead load output return	DR	0.0166 %E _{max}	0.0125 %E _{max}	0.0100 %E _{max}	0.0080 %E _{max}
Relative DR	Z	3000	4000	5000	6250
Excitation voltage	U _{exc}	12-24 VDC			
Excitation current		100 mA			
Minimum dead load, relative	E _{min} / E _{max}	0 %			
Safe overload limit	Lim	150 %E _{max}			
Temperature rating	T _{min} / T _{max}	-10 °C / +40 °C			
Humidity condition		CH (No marking)			
Data interface		RS485 CAN BUS			
Communication speed		115 200 baud			
Digital resolution		200 000 counts for nominal load			
Load cell material		Stainless steel			

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 or of the associated test report is not permitted, though they may be reproduced in full.