

LIPS[®] Metric[™] Static Dimensioner ST115b Datasheet

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Revision History

Ver.	Release Date	Description	Author
1.2.4	2024/4/09	Slightly modified the wording in all Chapters.	Hank.C
1.2.3	2024/2/17	Add the description of Restful API on page9	Hank.C
1.2.2	2024/01/16	Modified the spec for w/ electric scale on page12/13	Hank.C
1.2.1	2023/12/14	Modified the architecture for Chapter 4	Hank.C
1.2	2023/11/29	Removed some functions that were not ready.	Hank.C
1.1	2023/11/21	Update the measurement spec	Hank.C
1.0	2022/11/30	PM's first version released	Ethan

1. Overview

1.1. Features

LIPSMetric™ Static Dimensioner (ST115b) is an all-in-one package scanner that allows instant size measurement for parcels of any size with a single workstation for increased packaging efficiency. The LIPSMetric™ Static Dimensioner (ST115b) comes with a manual calibration function that can easily adapt to indoor environments. The built-in, adjustable LIPS 3D Camera has a maximum Z-accuracy of 98%.

1.2. Applications

This LIPSMetric™ Static Dimensioner (ST115b) could be adopted for parcel measurement in the post office, logistics industry, retail industry, airlines, etc. These industries' applications include measuring small, medium, and large parcels. Customers can use LIPSMetric™ Static Dimensioner (ST115b) for parcel dimensioning automatically. Thus, an economic operation can save time, human resources, and cost.

2. System Architecture

This LIPSMetric™ Static Dimensioner (ST115b) main application runs on the single-board computer housed in the IO box, which operates a Windows 10 system. The main application is preinstalled in the IO box and available on the system **Desktop**.

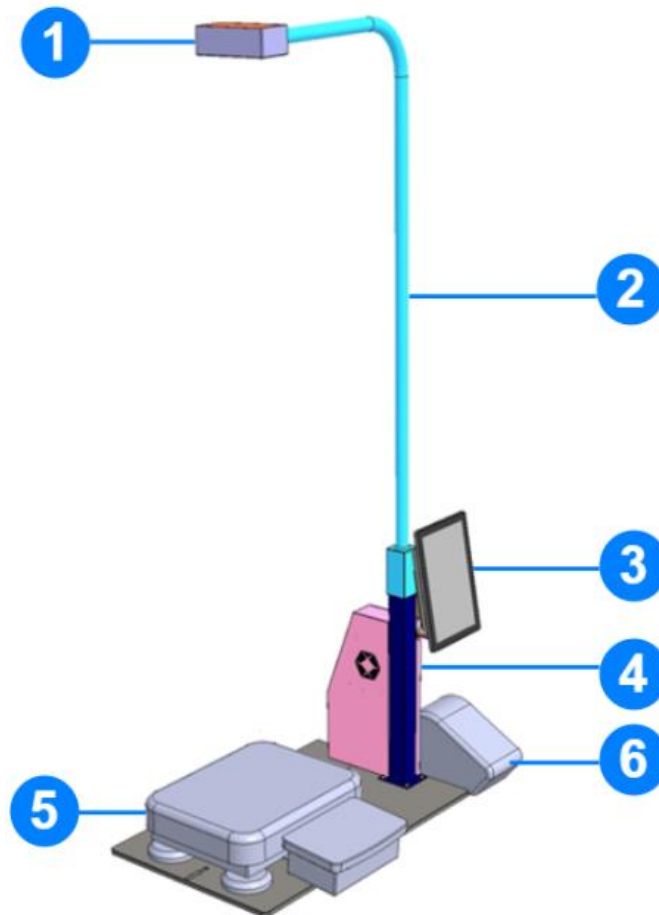
Items	Description
CPU	Intel®Pentium®CPU N4200 @1.10GHz 1.10 GHz
RAM	4GB
System Type	64-bit operating system x64-based processor
Storage	32GB
I/O Ports	USB 3.0*4 (for External USB Device connected) Ethernet*1 (for Data Transfer)
Data Output	RGB Image, Width, Length, Height, Total Dimension, Weight*1 , Print-out*1 *1: Only available when the device is connected
Operating Voltage	4.7 A @ DC 19V (via 100V~240V AC Adapter)
Operating Temperature	-10°C ~ 40°C
Screen	10.1" Touch Screen

3. Hardware Details

3.1. General Characteristics

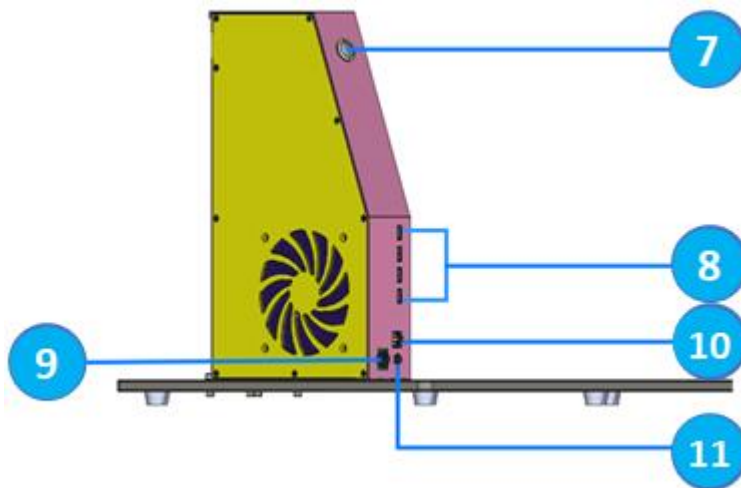
- Description

The LIPSMetric™ Static Dimensioner (ST115b) hardware consists of 3 major components: the IO box, the camera, and the touchscreen panel. Please refer to the table below for the workstation’s hardware parts:



No.	Name	Functions
1.	LIPS 3D camera	Measures the parcel’s dimensions.
2.	Camera stand	Supports the LIPS 3D camera.
3.	Touch screen panel	Accesses the graphical user interface (GUI) of the LIPSMetric™ Static Dimensioner.
4.	IO Box	Operates the LIPSMetric™ Static Dimensioner.

5.	Electric Scale (Optional)	Weighing the weight of objects.
6.	Printer (Optional)	Print a label that includes the length/ width/height/ Dim Wt./ weight(Optional) for objects.

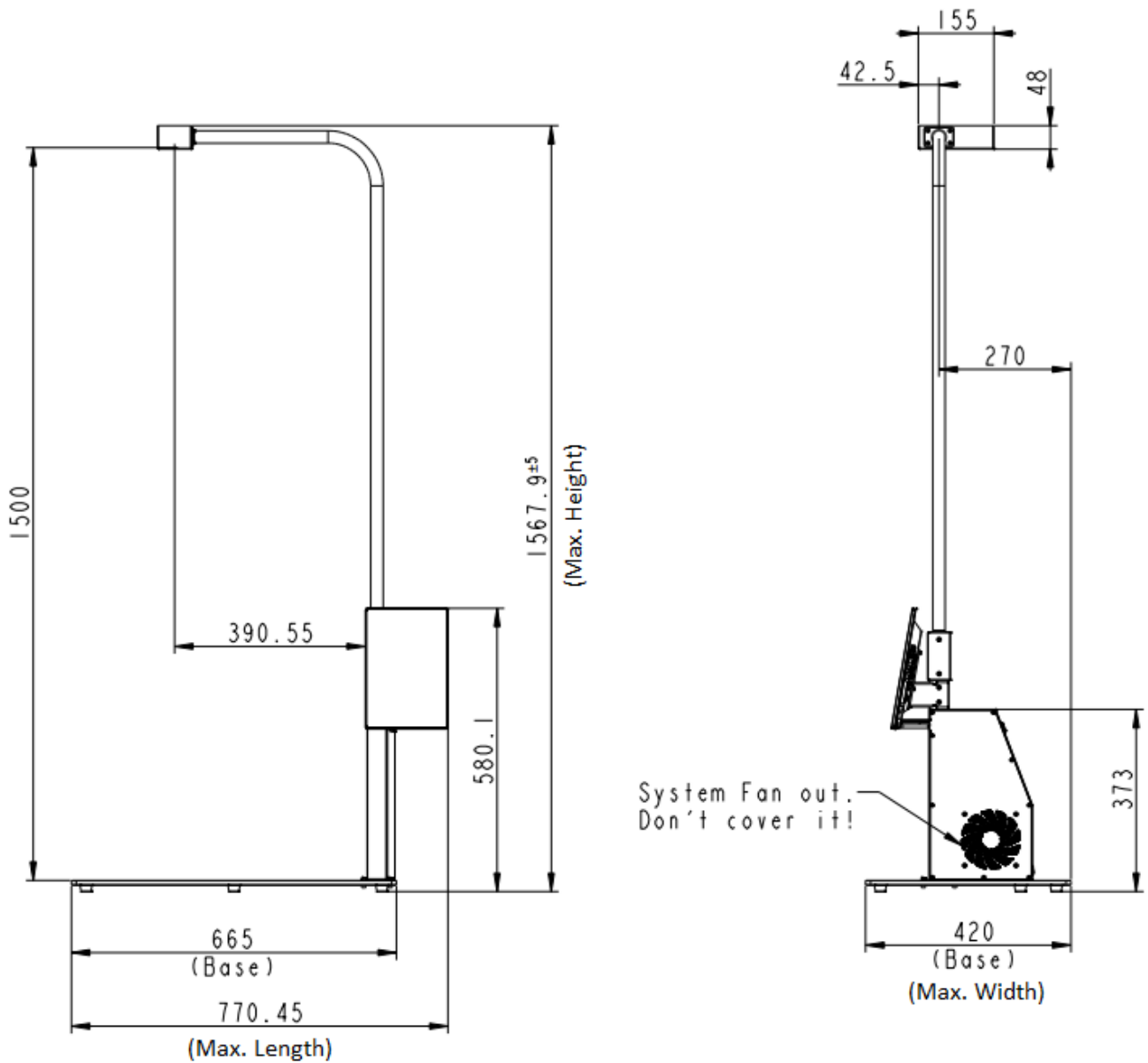


No.	Name	Functions
7.	Reset	Resets the system to its factory default.
8.	USB 3.0 ports	Supports external devices, such as a mouse or a keyboard.
9.	Ethernet	Transfers measurement data.
10.	Power input	Provide power supply for LIPSMetric™ Static Dimensioner.
11.	ON / OFF switch	Turns LIPSMetric™ Static Dimensioner ON / OFF when the power supply is connected.

3.2. Mechanical Spec

- Description

Showing the whole system's dimensions below. (Unit is mm.)



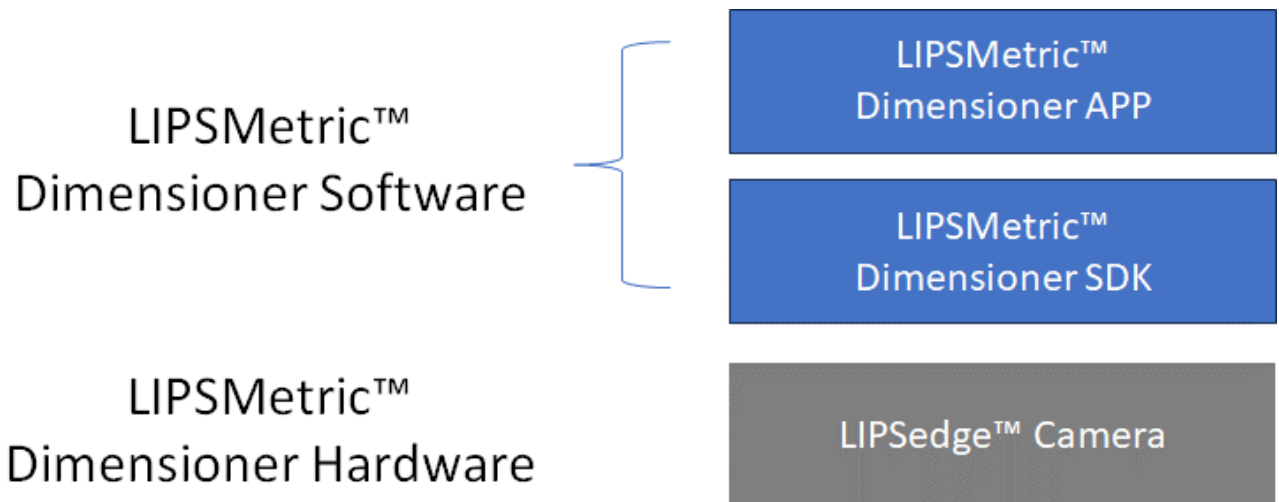
Items	Size(mm)	Tolerance(mm)	Max. Size	Min. Size
Length	769.95	0.5	770.45	769.45
Width	419.5	0.5	420	419
Height	1567.9	0.5	1568.4	1567.4

4. Software Details

4.1. General Characteristics

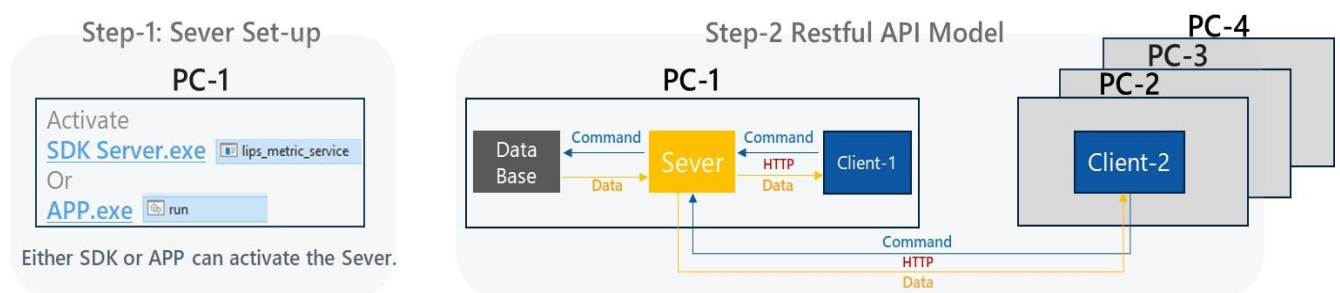
- Description

LIPSMetric™ Static Dimensioner (ST115b) Software contained LIPSMetric™ Dimensioner APP and LIPSMetric™ Dimensioner SDK.



LIPSMetric™ Static Dimensioner APP: Users can use UI to do the measurement. The detailed operation of APP that users could refer to LIPSMetric™ Dimensioner User Guide.

LIPSMetric™ Dimensioner SDK: Users can connect to the Restful API model to do the measurement. The detailed operation of API commands that users could refer to LIPSMetric™ SDK User Guide.

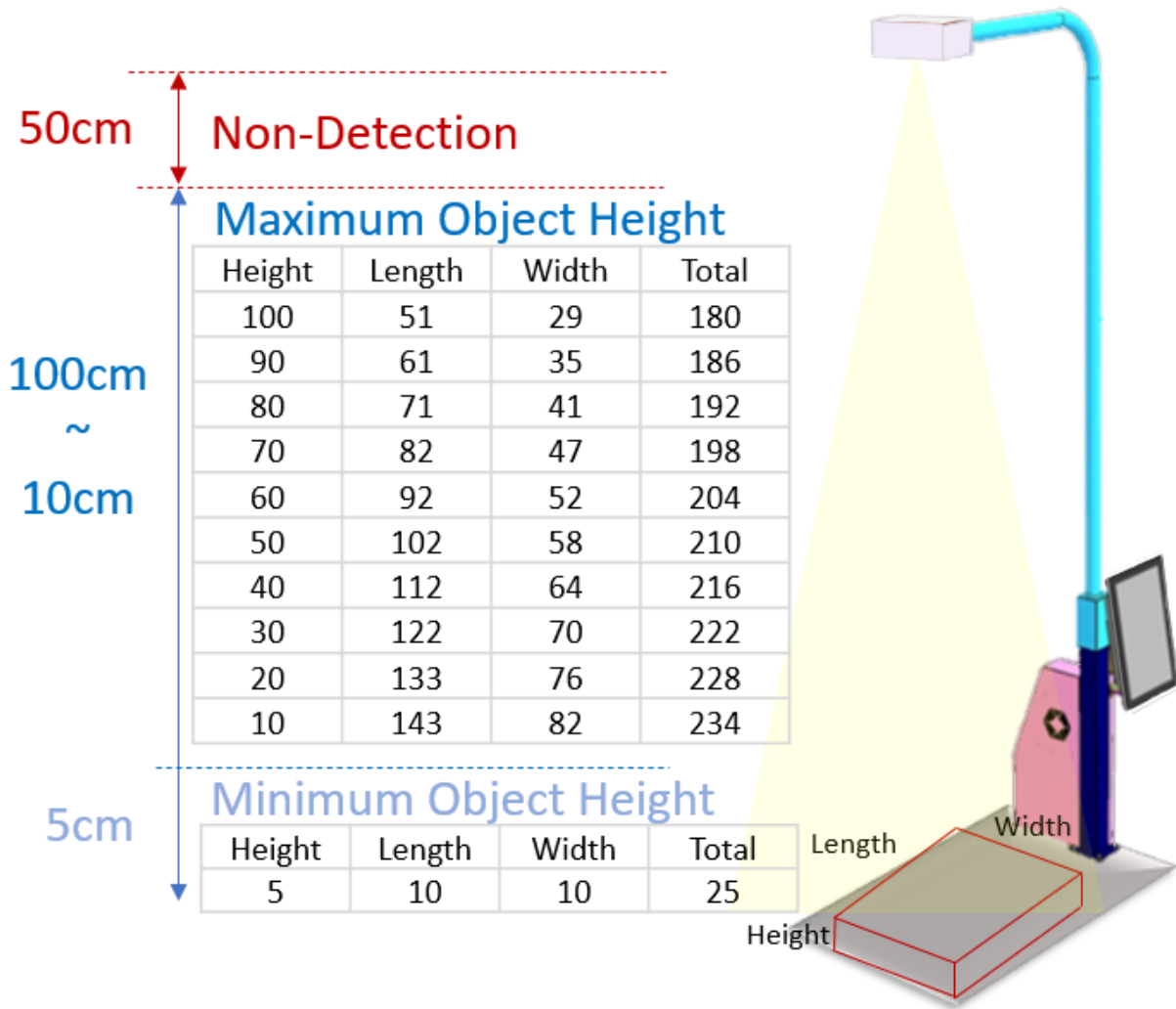


Except for PC-1, users can use different PCs to connect to the Server through the HTTP once the Server of PC-1 has been set up.

5. Measuring Spec

5.1. Measurement Spec (W/o Electric Scale)

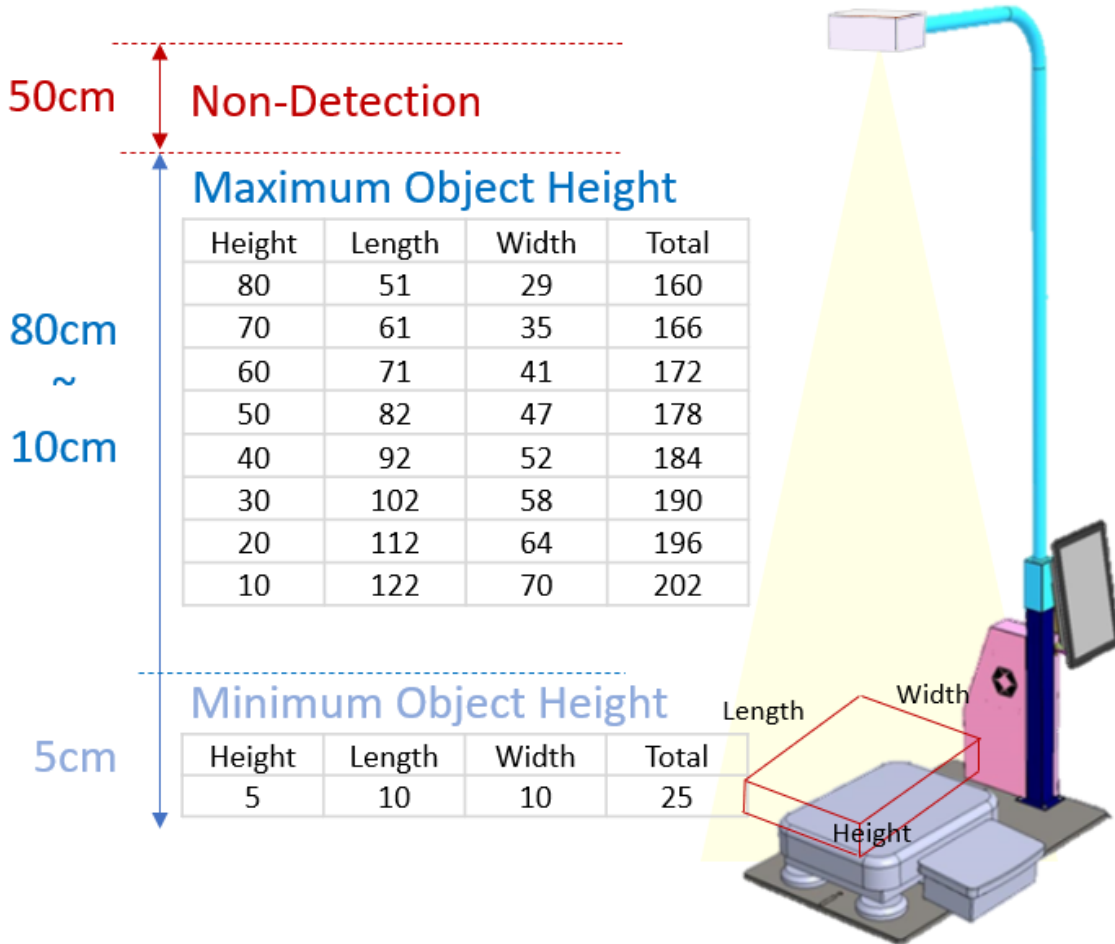
The measuring specs of the LIPSMetric™ Static Dimensioner are updated below.



LDS1 Spec (W/o Electric Scale)				
Technology	LIPSMetric™ Static			
Measurable Objects	Cubic/ Non-Cubic			
Accuracy	±1.0cm(Cubic) ±1.5cm(Non-Cubic)			
Minimum Object Dimensions (H x L x W)	5cm x 10cm x 10 cm			
Maximum Object Dimensions (H x L x W)	Height	Length	Width	Total
	100	51	29	180
	90	61	35	186
	80	71	41	192
	70	82	47	198
	60	92	52	204
	50	102	58	210
	40	112	64	216
	30	122	70	222
	20	133	76	228
10	143	82	234	

5.2. Measurement Spec (W/ Electric Scale)

The measuring specs of the LIPSMetric™ Static Dimensioner are updated below.




LDS1 Spec (W/ Electric Scale)				
Technology	LIPSMetric™ Static			
Measurable Objects	Cubic/ Non-Cubic			
Accuracy	±1.0cm(Cubic) ±1.5cm(Non-Cubic)			
Minimum Object Dimensions (H x L x W)	5cm x 10cm x 10 cm			
Maximum Object Dimensions (H x L x W)	Height	Length	Width	Total
	80	51	29	160
	70	61	35	166
	60	71	41	172
	50	82	47	178
	40	92	52	184
	30	102	58	190
	20	112	64	196
	10	122	70	202

6. Optional Facilities Specs


6.1 Label Printers

LIPS Metric™ Static Dimensioner supports printer as below.

	
Model	Brother QL-800W
Print Speed (Label)	110 labels per minute
Maximum Print Width	2.3" / 5.8 cm
Cutter Type	Automatic
Wired Connections	USB Type-A
WiFi	Support AirPrint
OS	Windows

6.2 Electric Scale

LIPS Metric™ Static Dimensioner supports electric scale as below.

	
Model	A&D FG-60KBM
Weight Capacity	60 kg
Min. Unit Weight	0.625 g
Display	7-segment LCD display
Weighing Pan Size (mm)	300 * 380
Scale Dimension (W x D x H)	380 * 464 * 118 mm
Power Supply	100V-120V AC Adapter
OS	Windows/ Linux