ATTACHMENT F.

- USER’S MANUAL

CAS HFS SCALE

USER'S MANUAL

Federal Communications Commission Requirements

Warning : Changes or modifications not expressly approved by the party responsible for compliance with the FCC’S rules could void the user's authority to operate the equipment.
THIS DEVICE COMPLIES WITH PARTS 15 OF FCC RULES OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS (1)THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

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CHAPTER 1 GENERAL INTRODUCTION

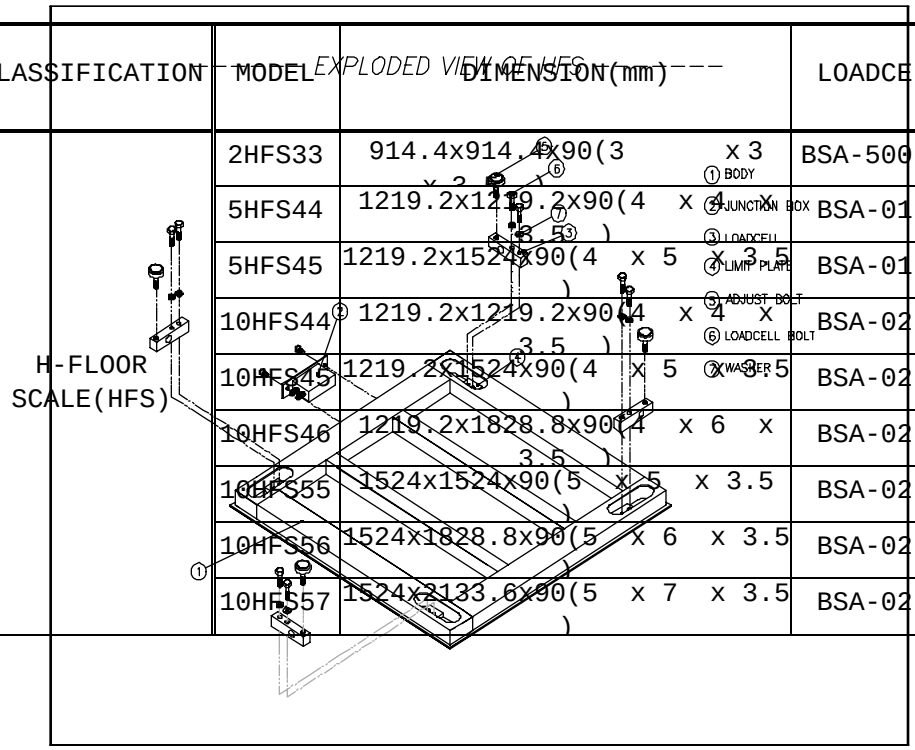
1 - 1. INTRODUCTION

This manual is the specification for the CAS HERCULES SCALE.

Main features are :

1) Four load cell(Full bridge) type.
2) Various capacity.
3) connectable to various indicator.

1 - 2. NAME OF EACH PARTS



CLASSIFICATION	MODEL	DIMENSION(mm)	LOADCELL	CAPACITY
	2HFS33	914.4x914.4x90(3 x 3 x 3.5)	BSA-500L-T	2000 lb
	5HFS44	1219.2x1219.2x90(4 x 4 x 3.5)	BSA-01-T	5000 lb
	5HFS45	1219.2x1524x90(4 x 5 x 3.5)	BSA-01-T	5000 lb
	10HFS44	1219.2x1219.2x90(4 x 4 x 3.5)	BSA-02-T	10000 lb
	10HFS45	1219.2x1524x90(4 x 5 x 3.5)	BSA-02-T	10000 lb
	10HFS46	1219.2x1828.8x90(4 x 6 x 3.5)	BSA-02-T	10000 lb
	10HFS55	1524x1524x90(5 x 5 x 3.5)	BSA-02-T	10000 lb
	10HFS56	1524x1828.8x90(5 x 6 x 3.5)	BSA-02-T	10000 lb
	10HFS57	1524x2133.6x90(5 x 7 x 3.5)	BSA-02-T	10000 lb

1 - 3. SPECIFICATION

* AMERICAN SPEC'

* GENERAL SPEC'

CLASSIFICATION	MODEL	DIMENSION(mm)	LOADCELL	CAPACITY
H-FLOOR SCALE(HFS)	1HFS0808	800x800x90	BSA-500L-T	1000 kg
	1HFS1010	1000x1000x90	BSA-500L-T	1000 kg
	1HFS1012	1000x1200x90	BSA-500L-T	1000 kg
	2HFS1212	1200x1200x90	BSA-01-T	2000 kg
	2HFS1215	1200x1500x90	BSA-01-T	2000 kg
	2HFS1515	1500x1500x90	BSA-01-T	2000 kg
	3HFS1212	1200x1200x90	BSA-02-T	3000 kg
	3HFS1515	1500x1500x90	BSA-02-T	3000 kg
	3HFS1518	1500x1800x90	BSA-02-T	3000 kg
	5HFS1515	1500x1500x90	BSA-02-T	5000kg
	5HFS1518	1500x1800x90	BSA-02-T	5000kg
	5HFS1520	1500x2000x90	BSA-02-T	5000kg

CHAPTER 2 PREPARING FOR OPERATION

2 - 1. PREPARING FOR OPERATION

1) Check the power source and match the voltage of converting switch to voltage of outlet.

2) Do not put excessive weight on this scale.

3) Keep the scale in dry place.

CHAPTER 3 INSTALLATION

3 - 1. COMPOSITION OF HFS

A. COMPOSITION

Composed of •LOAD CELLS(4EA)• for sensing load, •BODY•

which is receiving weight, and •ADJUST FOOT• to support load, and•JUNCTION BOX• sending load cell output to the indicator.

B. FUNCTION

1) LOAD CELL

Generating electric output proportional to load

2) BODY

It's the part to receive the objects which is measured

3) ADJUST FOOT

It's the part for supporting load or adjusting level.

4) JUNCTION BOX

It calculates each load cell's output and transmits it to the indicator.

5) INDICATOR

Display weight value

(CAS Model A : CI-5010 etc)

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CHAPTER 4 TESTING

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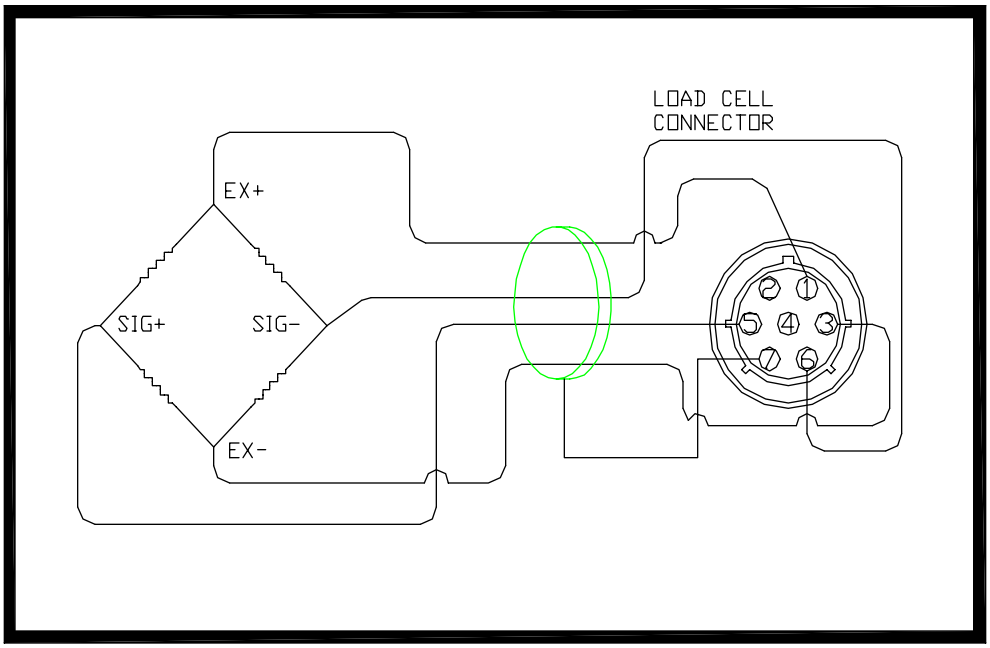
4 - 1. TOLERANCE LIMIT

< MAXIMUM PERMISSIBLE ERROR >

CAPACITY	WEIGHT	MAXIMUM PERMISSIBLE ERROR
500kg • 1ton	BELOW 1/2 WEIGHT OF CAPACITY	ONE SCALE DIVISION(1e)
	OVER 1/2 WEIGHT OF CAPACITY	1.5e

4 - 2. SENSITIVITY TEST

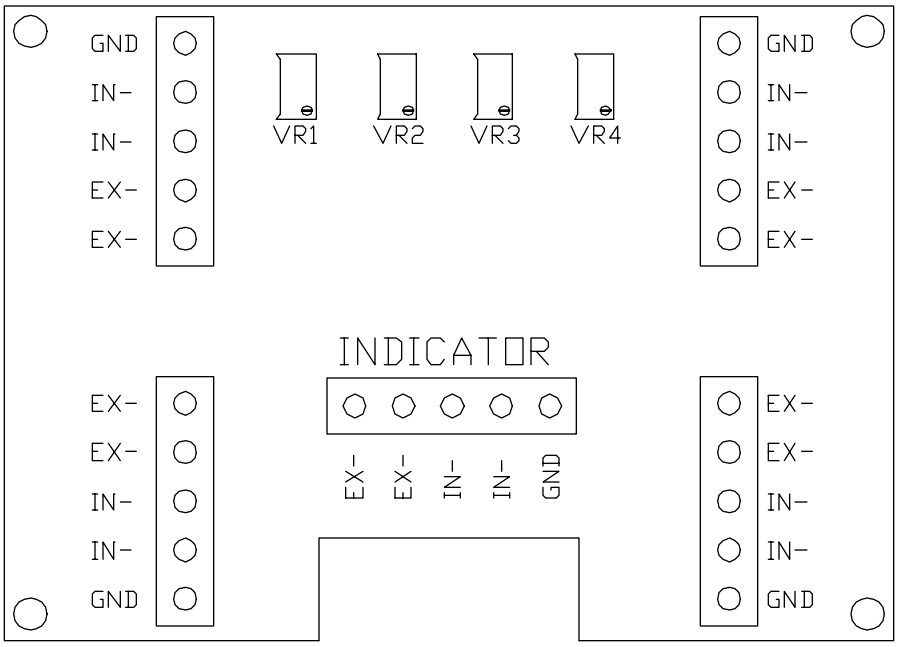


This is the test for output calibration of load cell.

a) weight : a quarter of full capacity.

b) Adjust to make deviation among four points within +/-1 digit.

4-3. LOAD CELL RESISTANCE TEST



a) whiston bridge

- EX(+) : Excitation Voltage(+)
- EX(-) : Excitation voltage(-)
- SIG(+) : Signal Voltage(+)
- SIG(-) : Signal Voltage(-)

4- 4. FOUR POINTS ADJUSTMENT OF LOAD CELL

a) No.1 load cell is connected to V.R.I of box
b) the weight deviation among four points should be within +/-1 digit by a quarter of full capacity weight
c) When the deviation among four points on the body is over +/-1 digit, adjust variable resister of junction box pertinently
(example : If 100kg load is put on the platform, L/C outputs
are as follow)
L/C : 100.1/ No.2 : 100.2/ No.3 : 99.7 /No.4 : 100.0
Increase No.3 V.R of junction box and decrease No.2 V.R and adjust by repeating