

# FS-8000 Digital Indicator Sales Report

## 1. FS-8000 Figures



**\* CE MARK APPROVAL**

## 2. FS-8000 Applications

- Platform Scale
- Tank Scale.
- Truck Scale with Computer.
- Strain/Compression Tester.

### **3.FS-8000 Features**

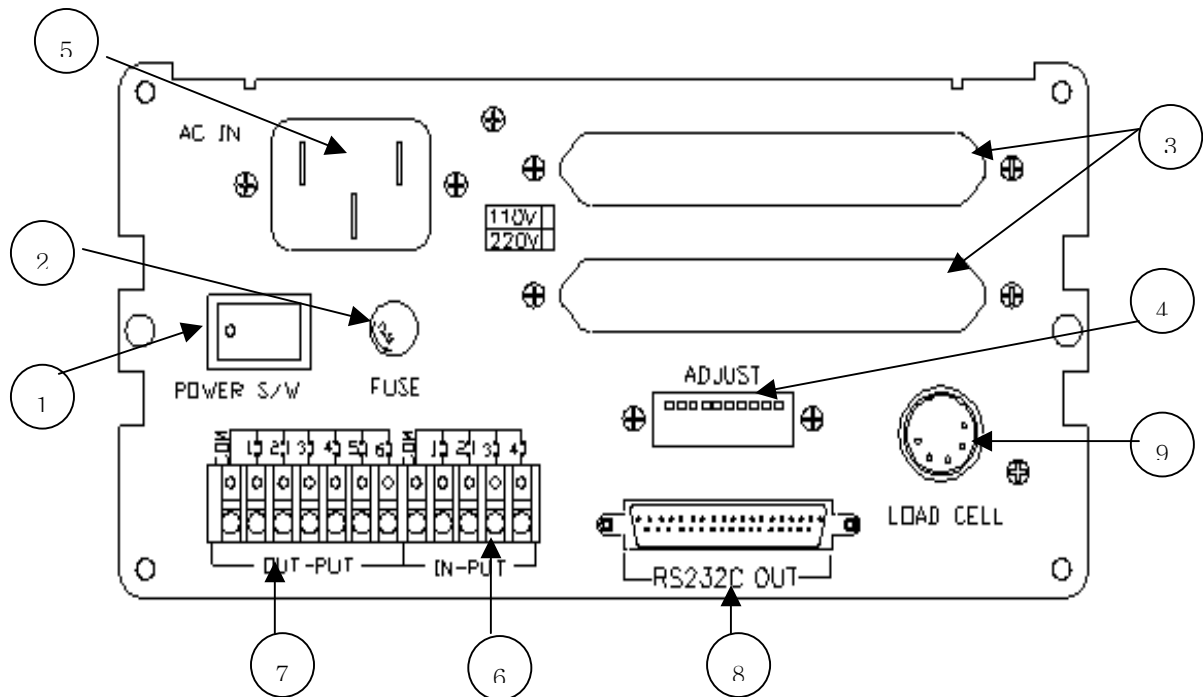
#### **(1) Hardware System Strong Points**

- A Compact Appearance by DIN regulations ( DIN 192 x 96 Panel Insertion )
- **Shielded by Aluminium Case for the immunity Against All Forms of Radio Frequency Interference and the susceptibility**
- It can drive up to 8pcs of Loadcell(350  $\Omega$  Standard) and Can Connect with Even 6Wire Type of Loadcell.
- Easy to set up, Change, Confirm Several Values by the KEYPAD Key.
- The External Field Switch can be directly connected to 5PIN Terminal Located at the rear panel for the remote control of some KEY PAD Functions.
- **The permit or prohibition function of Calibration(ADJUST NO 10 Switch)**
- It Can display a various information by F1,F2,F3 key for the end-user.
- 50V RS-232C Interface was Built In basically

#### **(2) Software System Strong Points**

- Improved a convenience and precision of operating by Message Function.
- **Peak HOLD Function and Sample-HOLD Function By KEYPAD Easily**
- It Can make several key function use or disuse.(SETUP F10 Reference)
- **Back up of Weight even electrospark case (SETUP F02 Reference)**
- **Watch-Dog timer guards for self-diagnostics.**
- **Set up to Max. 1/20,000 display resolution**
- Function available to change the unit value such as **kg, ton, lb ,g**
- Available to change the function of the external input terminal (SETUP F16 Reference)
- Various option Functions for customer`s satisfaction such as **RS-422/485, Current Loop, Analog out(0~10V/4~20Ma), BCD DATA Input/Output and so on.**
- **RS-232C Serial Interface & Printer was installed basically**  
**Available to print by either Serial Interface or Centronics Parallel Interface**

#### 4. FS-8000 Real Side Functions.

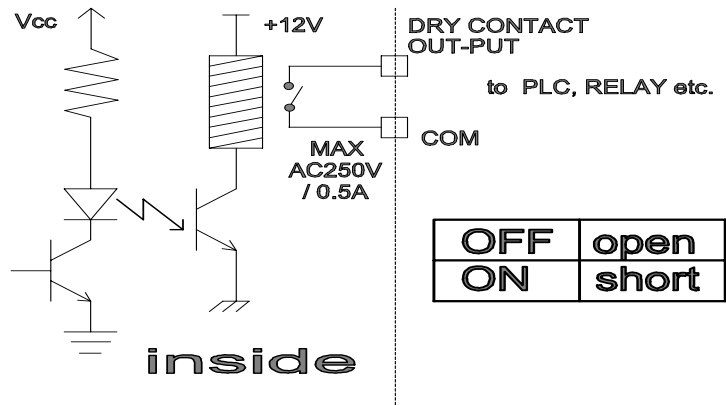


- (1) POWER ON/OFF switch  
: It had better use get about 10minute warming time for a precise weighing
- (2) FUSE (AC250V, 0.3A)
- (3) DATA OUT : Serial I/F,RS422, RS485, BCD Out, Analog Out (0-10V or 4-20mA),  
Print out(Optional)
- (4) ADJUST : Dip switch for zero adjustment & span calibration  
(1-6 : zero adjustment, 7-8 : span calibration, 10 : Lock set)
- (5) AC IN : AC110/220V Dual Power input plug  
: AC IN was set with 220V first
- (6) INPUT : Input port from external (See SETUP F-15)
- (7) OUTPUT : Output port for external control ( A contacting point with non-voltage)  
See SETUP F-16
- (8) RS232C/Current Loop (25P D-type Female) : Standard installed
- (9) LOAD-CELL Connector(N-16)

① EX+    ② EX-    ③ SIG+    ④ SIG-    ⑤ SHIELD

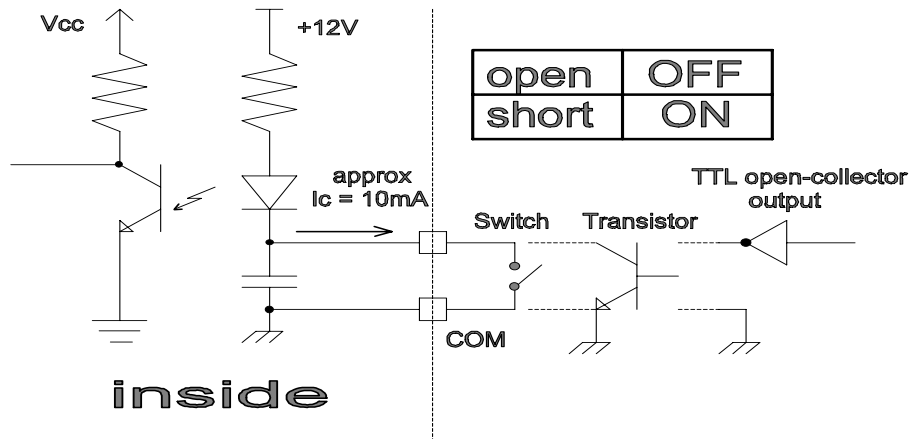
## 5. OUT-PUT MODE electric Diagram on the Real Side

- COM and OUTPUT Terminal was connected by Non-Voltage contact.
- Each OUTPUT Terminal Function can be set by F16.
- ♣ Pls don't use OUTPUT MODE Signal to drive a Motor or others.
- ♣ Pls use OUTPUT MODE signal for a signal only.
- ♣ Max.Contacted Capacity : AC250V/0.5A



## 6. IN-PUT MODE electric Diagram on the Real Side

- This In-Put Mode can be used to control from the external control mode
- Each INPUT Terminal Function can be set by F15
- INPUT can be done by the connection between COM and EACH INPUT Terminal
- INPUT Terminal was being supplied with 12V inside and Pls don't use the POWER from outside.
- Current was Appr.10mA ..
- Minium INPUT TIME must be over 50m/sec



## 7. FS-8000 FUNCTION LIST

F-NO	FUNCTION	CONTENTS
<b>F-00 GROUP-SETTING A BASIC WEIGHIG</b>		
<b>F 00</b>	S & C MODE Convert	SETUP & CALIBRATION
<b>F 01</b>	weight unit choice	kg, ton, lb
<b>F 02</b>	weight BACK-UP	NORMAL, BACK-UP
<b>F 03</b>	Set ZERO tracking Range	0, 0.5, 1, 2
<b>F 04</b>	Set Safty Motion Band	0.5, 1, 2, 4, 8
<b>F 05</b>	Set AUTO ZERO Range	0-99 (Auto Zero Range)
<b>F 06</b>	Digital Filter	0-9 (anomalous decrease)
<b>F 07</b>	Set ZERO Range	Max.weight 2, 10, 50, 90%
<b>F 08</b>	Set Delay time of Safty judgement	0-99 (1count = 0.1sec)
<b>F 09</b>	Available ZERO Range setting	1000-20000, No limit
<b>F-10 GROUP-SETTING A BASIC DEVICE</b>		
<b>F 10</b>	Selecting a Key Lock	Prohibition & Permit for KEY
<b>F 11</b>	ZERO,TARE,OPERATE MODE	Satty,Unsafty
<b>F 12</b>	TARE weight INPUT MODE	Set Numeral,Actual,Auto TARE
<b>F 13</b>	EMPTY Signal MODE	Output Choice when it is ZERO or Empty
<b>F 14</b>	SET EMPTY Range Set	Set Empty Range Weight
<b>F 15</b>	SET EMPTY Standard Set	Display weight,basic ZERO,TARE ZERO
<b>F 16</b>	External INPUT MODE	Input terminal function
<b>F 18</b>	DELETE Totalization information	Delete in Manul/Auto for totalization
<b>F 19</b>	Manual,Auto Choice	Delete in Manul/Auto when Indicator is ON
<b>F-20 GROUP-SETTING CONTROL SYSTEM</b>		
<b>F 21</b>	User key definition	No definition or Set
<b>F 22</b>	User key definition	No definition or Set
<b>F 23</b>	User key definition	No definition or Set

<b>F 24</b>	Set AUTO Function	Choice for Safty,Output,Hold
<b>F 25</b>	Set HOLD Function	Hold,Max Hold,Average Hold
<b>F 26</b>	Nomination CODE Number	No change,increase,decrease in working ltime
<b>F-30 GROUP-SETTING Serial Interface Specification</b>		
<b>F 30</b>	BRUD RATE	300, 600, ..... 38.4 kbps
<b>F 31</b>	Set Parity Bit	EVEN, ODD, NO PARITY
<b>F 32</b>	Set Transmit MODE	Continue,Satty,Totalization,Command.
<b>F 33</b>	Set Format Transmit DATA	weight, weight+time, CAS tranmit format
<b>F 34</b>	Insert Transmit DATA (STX)	No, Insert
<b>F 35</b>	Control Interface wire / RS,CS	No use(RS422/485), USE
<b>F-50 GROUP-SETTING BCD Output Specification</b>		
<b>F 50</b>	Weight choice for output	Display,Gross,Net weight
<b>F 51</b>	BCD OUT Parity	Positive / Negative OUT
<b>F-60 GROUP-SETTING Analog Out Specification</b>		
<b>F 60</b>	Weight choice for output	Display,Gross,Net weight
<b>F 61</b>	Standard weight choice of Analog Out	Max,display weight,Standard weight
<b>F 62</b>	Analog Out Parity	Positive / Negative OUT
<b>F 63</b>	Standard weight Set of Analog Out	Set standard value of Max.OUT
<b>F-70 GROUP-SETTING Printer Specification</b>		
<b>F 71</b>	Set Printer system	Contine / Each
<b>F 72</b>	Set Line Feed after printer finished	1 Count = 1 Line (0~99)
<b>F 73</b>	Set Printer system of Sub-Total	Standard, Min/Max Average weight print
<b>F-90 GROUP-SETTING</b>		
<b>F 90</b>	Set Device Identification No	00 ~ 99
<b>F 95</b>	DATE Modification MODE	yy-mm-dd in Printer option only
<b>F 96</b>	TIME Modification MODE	hh-mm-ss in Printer option only
<b>F 98</b>	Check A/D Count of Basic ZERO	Check load cell if it is normal or not

## 8. FS-8000 INPUT MODE (Function 16) For Remote Control

EXTERNAL INPUT MODE					
F16-		INPUT 1	INPUT 2	INPUT 3	INPUT 4
	⓪	ZERO	TARE	N/W	G/W
	1	ZERO	TARE	PRINT	G/W
	2	ZERO	TARE	HOLD/Remove	HOLD
	3	ZERO	PRINT	SUB TOTAL	TOTAL
	4	ZERO	TARE	SUB TOTAL	TOTAL

\* Input in connecting COM terminal and Input Terminal.  
The time to input is over 0.05 sec

## 9. FS-8000 PITNER FORMAT (OPTION : 07)

- \* This printer Interface have Centronics Parallel and Serial system.
- \* SERIAL is from 1 to 999999
- \* CODE figure is 6(six) and set according each PART.
- \* SUB TOTAL can be momoried till 10figures.
- \* GRD TOTAL can be momoried till 12figures.
- \* The data can be kept in spite of stoppage of the power

PRINTER SELECTING		
F71-	⓪	PRITNT SHEET 0
	1	PRTINT SHEET 1

PRINTER PAPER QUANTITY WHEN FINISHING		
F72	0 ~ 99	1 LINE PRINT OUT PER 1COUNT(LINE FEED) * <u>FIRST SET-UP 00</u>

SUB TOTAL PRINTER MODE		
F73	0	SUB TOTAL PRINT SHEET 0
	1	SUB TOTAL PRINT SHERT 1

PRINT SHEET 0		
=====		
DATE :	1999-01-01	
TIME :	12:35:07	
CODE :	123456	
SERIAL	PART	WEIGHT
1	1	1.000 kg
2	1	1.100 kg
3	1	1.200 kg
4	1	0.900 kg
5	1	1.000 kg
=====		
<b>SUB-TOTAL</b>		
START :	1998-12-30 8:12	
END :	1999-01-01 14:26	
PART :	01	
CODE :	123456	
COUNT =	5	
WEIGHT =	5.200 kg	

PRINT SHEET 1		
=====		
DATE :	1999-01-01	
TIME :	12:35:07	
CODE :	123456	
SERIAL	PART	WEIGHT
1	1	1.000 kg
=====		
DATE :	1999-01-01	
TIME :	12:35:07	
CODE :	123456	
SERIAL	PART	WEIGHT
2	1	1.000 kg
=====		
<b>SUB-TOTAL</b>		
START :	1998-12-30 8:12	
END :	1999-01-01 14:26	
PART :	01	
CODE :	123456	

Sub-total PRINT SHEET 1	
=====	
<b>SUB-TOTAL</b>	
START :	2000-03-28 12:34
END :	2000-03-29 9:50
PART :	1
CODE :	123456
COUNT :	10
MIN :	9.998 kg
MAX :	10.002 kg
AVG :	10.000 kg

Sub-total PRINT SHEET 0	
=====	
<b>SUB-TOTAL</b>	
START :	2000-03-28 12:34
END :	2000-03-29 9:50
PART :	1
CODE :	123456
COUNT :	10
WEIGHT :	100.000 kg
=====	

☒ **25P D-Type Female Connector**

PIN NO.	Contents
1	STROBE
2	D0
3	D1
4	D2
5	D3
6	D4
7	D5
8	D6
9	D7
10	ACK
11	BUSY
12	N.C
13	N.C

PIN NO.	Contents
14	N.C
15	N.C
16	N.C
17	N.C
18	GND
19	N.C
20	N.C
21	N.C
22	N.C
23	N.C
24	N.C
25	N.C