Value Each Gram A professional weighing products manufacturer and supplier

WEIGHT TRANSMITTER Y140

User Manual

v.201811

HiWEIGH Weighing system & solution
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Value Each Gram

HiWEIGH
Weighing system & solution

1、Installation and Dimensions

DIN35 guide rail installation

87×52×60（mm）

2. Indicators

Prompts	Indication
～	On for motion; off for static
G/N	On for net value; off for gross value
PK	Peak value
AO	On for with analog; off for without analog
TX	Data Transmit
RX	Data received

3. Functions of the Buttons

Button	During Weighing	During Configuration
ZERO	Zeroed	Return
TARE	Tared / Cleared	Add / Subtract
SELECT	-	Add / Next
ENTER	-	Settings confirmed

4. Power Supply Connection

Marks on Main Panel	Definitions
24 V	24V positive external power supply
GND	24V negative external power supply
CGND	External ground; needs reliable ground

5. Load Cell Connection

Marks on Main Panel	Definitions
+EXC	Positive excitation power supply (DC5V)
+SIG	Positive signal
SHD	Shield ground
-SIG	Negative signal
-EXC	Negative excitation power supply

6. RS485 interface

Marks on	Definitions

8. MODBUS-RTU protocol

Y140 supports MODBUS-RTU master-slave communication protocol. The following is the address mapping table of Y140 in MODBUS-RTU:

Address	Definition and Remarks (read-only)
40001	Current weight (-32767 ～ +32767)
40002	Bit0 = 1, net weight; Bit0 = 0, gross weight; Bit1 = 1, motion; Bit1 = 0, static; Bit2 = 1, overloaded; Bit2 = 0, not overloaded;
40003	Current weight (floating number)
40004	
40005	Current weight (long)
40006	

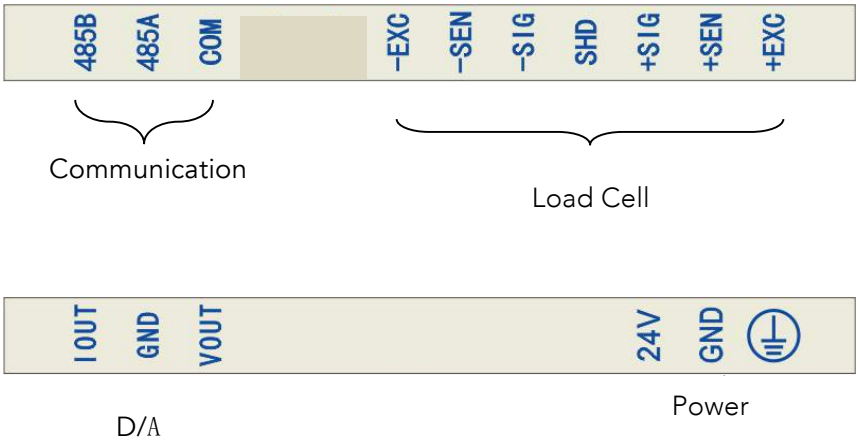
Address	Definition and Remarks (read and write)	
40007	Maximum capacity Cap (1～60000)	
40008	The current decimal places 0: non 1:one 2: two 3: three 4: four	
40009	Current division (1, 2, 5, 10, 20, 50)	
40010	Filter (1-9) . The higher, the more stable the weighing is.	
40011	Motion detection range (1-5), 1d-5d	
40012	Zeroing when powered on (0-3) 0: Won't zero when powered on 1：Capacity×2%。 2：Capacity×10%。 2：Capacity×20%。	
40013	Pushbutton Zero range (0-3) 0: No zeroing 1：Capacity×2% 。 2：Capacity×10%。 3：Capacity×20%。	
40014	Automatic zero maintenance range (0-5), 0d-5d	
40015	Overload display settings (0-3) 0：-9d～CAP+9d 1：(-10%～110%)CAP 2 ： (-20% ～ 120%)CAP 3 ： (-100% ～ 200%)CAP。	
40016	Calibration reading	Calibration writing
	1: Zero point calibrated 2: Load point calibrated 3. Calibration written value too low	Assume that the weight written is WT with no decimal place. WT=0 is the calibration zero point. Unload the

Main Panel	
485A	RS485 Communication A
485B	RS485 Communication B
COM	Communication ground

7. Analog Interface

Marks on Main Panel	Definitions
IOUT	Analog current output
GND	Analog ground
VOUT	Analog voltage output

	4. Calibration written value too large 5. Loading counterweight too small	materials on the scale, making sure the scale is empty. Cap×1% ≦ WT ≦ Cap is the calibration load point. WT is the weight of loading counterweight. Read 40016 for whether calibration is successful.
40017 (Write only)	Bit0 write 1: Zeroed; Bit1 write 1: tare; Bit2 write 1: Clear;	



9. Parameters Settings

Long press "ENTER" to enter Parameters Settings.

FI Scale Parameters Settings

F1.1 Span (6)
optional range: 1～99999

F1.2 Decimal place (3)
optional range: 0～4

F1.3 Division (1)
optional range: 1/2/5/10/20/50

F1.4 Calibration zero point
Remove the materials on the scale when "E_CAL" is displayed.
Press "ENTER" to calibrate the zero point when the scale is empty.

F1.5 Load point calibration
Put the counterweight on the scale when "LOAD" is displayed.
Press "ENTER" to enter the Counterweight Weight interface.
Input the weight of the counterweight and press "ENTER" to calibrate the load point.
"Err1" means the counterweight is too light or the load cell is connected wrong.

F1.6 Filter Parameters Settings (5)
Optional range: 1～9
The higher the value is, the more stable the display is.

F1.7 Motion detection Settings (3)
Optional range: 0~5
(0d~5d)

F1.8 Pushbutton Zero Settings (2)
0: No zeroing
1：2%CAP
2：10%CAP
3：20%CAP

F1.9 Overload Display Settings (1)
0：-9d～CAP+9d
1：-10%CAP～110%CAP
2：-20%CAP～120%CAP
3：-110%CAP～110%CAP

F1.10 Power up zero Settings (0)
0: Won't zero when turned on

F2 Communication Parameters Settings

F2.1 Communication Format Settings (1)
0: Continuous Output
1：MODBUS-RTU

F2.2 Baud Rate Settings (9600)
Optional range: 1200/2400/4800/9600/19200

F2.3 Node Address Settings (1)
Optional range: 1～99

F3 Analog Parameters Settings

F3.1 Analog Output Format (1)
0：0～+5V
1：0～+10V
2：-5V～+5V
3：-10V～+10V
4：4mA～20mA
5：0mA～20mA
6：0mA～24mA

F3.2 Analog Zero Point Calibration (0)
Set the multimeter according to F3.1: Adjust the reading on the menu while observing the multimeter until the reading is right.

F3.2 Analog Full Span Calibration (59680)
Same as F3.2.

F4 Maintenance and Service

F4.1 Restore factory settings
Change "0" to "1" and press "ENTER" to restore factory settings.
This will not effect the calibration data.

F4.12 Display examination
Display 【 00000 】～【 99999 】 successively.
Press any key to quit the examination.

10. Continuous Output protocol

1	2	3	4	5	6	7	8	9	10	11	12
①	②	③								④	

① : G. gross weight; N: net weight
② : S: Static M: Motion

1：2%CAP 2：10%CAP 3：20%CAP F1.11 Zero track Settings (3) Optional range: 0～5, (0d~5d) Set it to 0 to switch off the Zero track.	③： 8 digits weight value (negative number with negative sign and positive without sign) ④ : 0x0a, 0x0d, Enter Z00000\r\n Zero point calibration, 00000 fixed weight value 0: SXXXXX\r\n Load point calibration, XXXXX weight value without sign. Z\r\n tare T\r\n tare C\r\n clear

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