

A7-SG Automatic Control Weighing Indicator **ADTEK**

■ Features

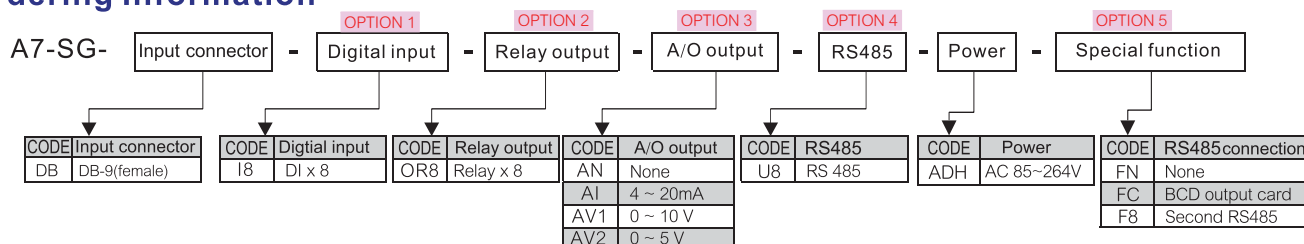
- High precision automatic/ dispatch controller is specially designed engineering control batch controlling meter, applying for automatic control for batch measuring, dispatching and mixing.
- Equipped with different batching procedures , this device can be utilized widely for the applications on various selections of batching control systems. The application for single or multiple materials is made for automatic portioning, mixing, discharging, batching, etc., as well as easy-to-use with PLC, HMI or connection with computer
- Industrial grade design for tough industrial environments
- Noise and interference protection. Efficiently block the interference of power, microwave and radio
- Dual display panel can display weight and several setting values simultaneously, making operation even easier
- The digital intelligent filtering functionality stabilizes the usage in unstable environment
- All the formula, settings, logic output, function setting and weight calibration can be fine-tuned or calibrated through buttons or RS485
- Equipped with RS-485 serial interface for remote display, computer, PLC, and HMI (Supports Modbus RTU and ASCII)
- Standard edition is equipped with 8 input control connector and 8 Relay output connector. They can be customized by user, or defined through RS-485 communication
- It can save 0~30 codes. Each code output control weight settings, includes: target weight (Final), first stage of fast feeding, mass supply, mass dispatch(SP1), second stage of middle feeding, middle supply, middle dispatch(SP2), drop weight (SP3), around zero point weight (Z.Band), high weight limit (HI) and low weight limit (LO)



■ Application

- Weighing machine
- Weighing check with Hi/OK/Lo
- Filling machine
- Mixture machine
- Force testing equipment

■ Ordering Information



■ Technical Specification

Input

Input Range	Input Impedance	Display Range	Resolution
-1mV ~ 37 mV	≥ 69KΩ	-199999~999999	0.00001

Input sensitivity: 0.12 μ V/D (minimum)
Conversion rate: Approximately 100 times/sec.(max.)
Load cell excitation Voltage : 5V_{dc} ± 5% , 120mA (Up to eight 350 Ω load cell can be connected)
Internal resolution: 24 bits
Calibration: 2 point or multi-points calibration applicable
Various calibration points can be adjust independently.

Display & Functions

Main display: 7 digits, Bright Red 7segment LED display,
Character height 0.8
Indication icons: 12 Red display 3 LED
Unit indication: 3 Red 3 LED
Display update rate: 50 times /sec.
Display capacity: -199999 to 999999
Decimal point: 0、0.0、0.00、0.000、0.0000、0.00000
Minimum division: 1、2、5、10、20、50
Memory: Calibration parameters and function settings saved in the EEPROM
Zero track time: 00.0~10.0 sec.
Zero track range: 00.0~10.0D
Motion Detect time: 00.0~10.0 sec
Motion Detect rang: 00.0~10.0 D
Unit: Programmable Kg / t / lb

Key Functions

- I/O** Power on / Standby model switching key
under the normal mode, press 3 second, it enter to standby mode, all indications will enter to normal mode.
When setting the parameter or under calibration mode, it works as Escape
- ZERO** Zero key
When setting the parameter, it moves the blinking character one space to the left
- TARE** Tare key
When setting the parameter, it moves the blinking character one space to the right
- NB/G** Net weight / Gross weight switches key
When setting the parameter, it adds "1" to the blinking number or selects the next item
- F_n** The function setting is follow by 4 (Function-4)
When setting the parameter, it works as subtract key
- F₁** The function setting is follow by 3 (Function-3)
- F₂** The function setting is follow by 2 (Function-2) (RECALL)
- ENTER** Confirmation key

Control Functions

Control relay: 8 sets Relay, FORM-A, 1A/230Vac, 2A/115Vac
 Relay action mode: Hi / OK / Lo / Zero Band / SP1/SP2/SP3 / FINAL / UART / OL / UN-LD / RING
 Relay contact form: Can be set ON or OFF

Analogue Output

Accuracy: $\leq \pm 0.1\%$ of F.S.; 16 bits DA converter
 Ripple: $\leq \pm 0.1\%$ of F.S.
 Response time: ≤ 100 ms (10~90% of output)
 Isolation: 1M Ω between input and output
 Output range: Voltage: 0~5V / 0~10V
 Current: 4~20mA
 Output capability: Voltage: 0~10V; $\geq 2000\Omega$
 Current: 4~20mA; $\leq 300\Omega$
 Functions: DA Compare source
 Weight value phase
 DA output logic
 Lower point of weight value: 0~999999
 Higher point of weight value: 0~999999
 Digital fine adjust: Amend lower point digital output: 0~65535
 Amend higher point digital output: 0~65535

RS485 Communication

Protocol: Modbus RTU mode
 Baud rate: 9600/19200/38400/57600
 Data bits: 8 bits
 Parity: None
 Stop bit: 1
 Address: 1 ~ 247
 Distance: 1200M max
 Terminate resistor: 150 Ω

Power Supply

Single-phase AC: 100V~240V
 Power consumption: approximately 15VA

Safety

Emission: EN61326-1 Class A、EN55011 Class A、EN61000-3-3
 Immunity: EN61326-1、EN61000-4-2、EN61000-4-4
 EN61000-4-5、EN61000-4-6、EN61000-4-8
 EN61000-4-11

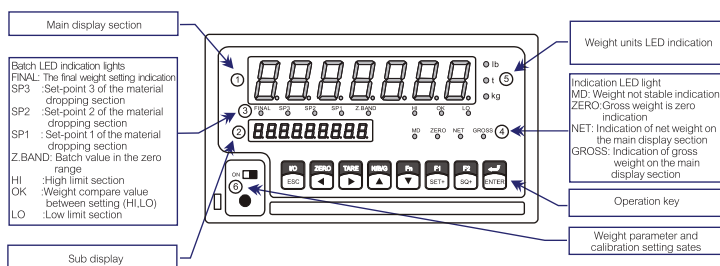
Environmental Characteristics

Operating Temp.: -10~40°C
 Humidity rating: <85 %RH, Non-condensing
 Temp. Coefficient: 50 PPM/°C
 Storage Temp.: -10~70°C

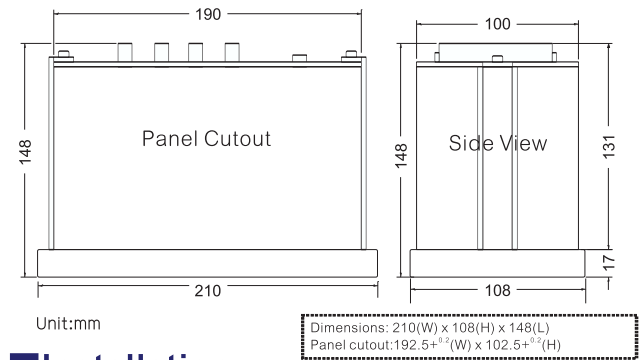
Mechanical Characteristics

Dimensions: 210mm(W) x 108mm(H) x 148mm(L)
 Panel cutout: 190mm(W) x 100mm(H)
 Material: Aluminum case ; panel: plastic
 Mounting: Panel mounting
 Wire terminal: Plastic NYLON 66 (UL 94V-0);
 10A 300Vac, M2.6, 1.3~2.0mm²(16~22AWG)
 Weight: approximately 1.7 Kg

Front Panel

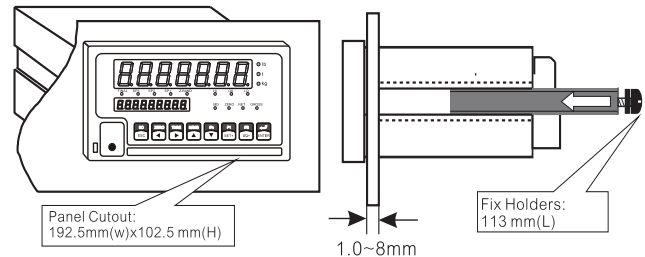


Dimension

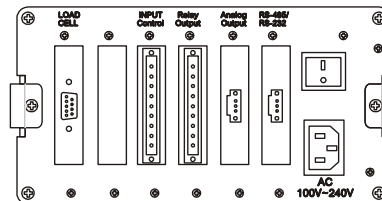


Installation

The meter should be installed in a location that does not exceed the maximum operating temperature and provides good air circulation.



Connection

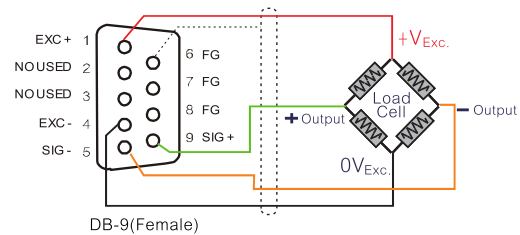


Power ☐ ON ☐ OFF

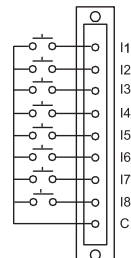
Power: AC 100~240V
 Total can be connect 6 option cards

Please check the voltage of power supplied first, and then connect to the specified terminals. It is recommended that power supplied to the meter be protected by a fuse or circuit breaker.

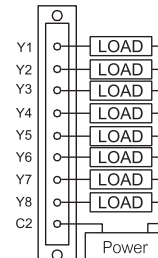
Signal input



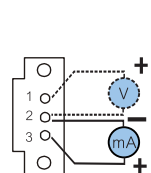
DI input



RELAY output



A/O transfer output



RS485 Connection

