

## Product Catalogue

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### Operating Principle

- ◆ Wheel Loader Weigher is a dynamic weighing and auto-totalizing equipment installed on wheel loader.
- ◆ When the lift-arm of wheel loader lifted to a certain height, the position sensor will trigger the weighing process, and the weighing indicator will collect the oil pressure signal from lower and upper oil chambers of arm-lifting oil cylinder. After signal processing and compensating, Single-bucket-loading-weight will be got and totalized to Totalized Loading Weight automatically. The operator can judge if the present Single-bucket-loading-weight is valid according to the alarm messages, and confirm the last bucket's loading weight according to the negative deviation value.

### System Configuration

- ◆ 1 Weighing indicator with thermal printer.
- ◆ 1 Position sensor.
- ◆ 2 Oil pressure sensors.
- ◆ 2 Plate type three-way joints.
- ◆ 1 Mounting fitting.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 72MHz & higher arithmetic speed.
- ◆ Dust-proof stainless steel shell with protection level IP65.
- ◆ 640×480 TFT display screen with English display and input.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Special Acceleration Compensation Algorithm.
- ◆ 10000 Loading Records can be saved.
- ◆ Each record can contain 50 Single-bucket-loading-weight.

### System Accuracy

- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy of Weighing Indicator: 0.02%.
- ◆ Accuracy of Single-Bucket-Weight: 0.5%~1.0%.
- ◆ Accuracy of Totalized Loading Weight: 1.0%.

### High-frequency Sampling    Anti-vibration Filter    Acceleration Compensation    High-accuracy Weighing



Printer



Oil Pressure Sensor [IP67]



Position Sensor [IP67]



Plate Type Three-way Joint





DO Pneumatic Gate Control  
AO Electric Vibrator Control  
PWM Step Motor Control

### Main Applications

- ◆ Single-weighing-hopper Ration Packing Scale.
- ◆ Single-weighing-bag Ration Packing Scale.
- ◆ Loss-in-weight Ration Packing Scale.

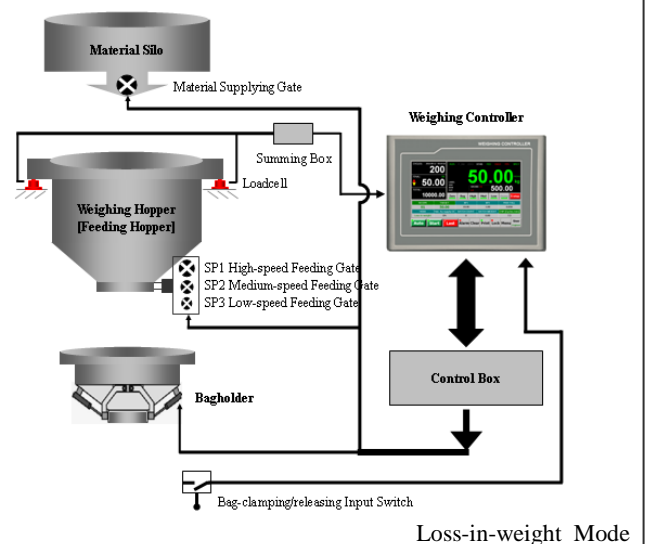
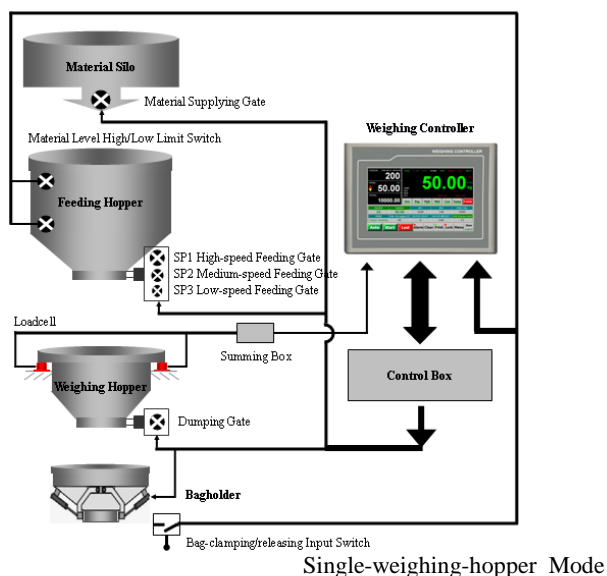
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma$ - $\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Pause for Deviation Alarm.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count & Target Batch Weight Control.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ 3-speed[high/medium/low] feeding control by DOs or AOs.
- ◆ Recipe Number: 100.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 9 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 2 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
- ◆ LAN: Optional Ethernet.
- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Packing Accuracy: 0.2%~0.5%.

### High-frequency Sampling Anti-vibration Filter High-accuracy Weighing Precise Feeding Control





DO Pneumatic Gate Control  
AO Electric Vibrator Control  
PWM Step Motor Control

### Main Applications

- ◆ Ration Packing Scale with 2-weighing-hopper&1/2-bag.
- ◆ Ration Packing Scale with 2-weighing-bag.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Pause for Deviation Alarm.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count & Target Batch Weight Control.
- ◆ 3-speed[high/medium/low] feeding control by DOs or AOs.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

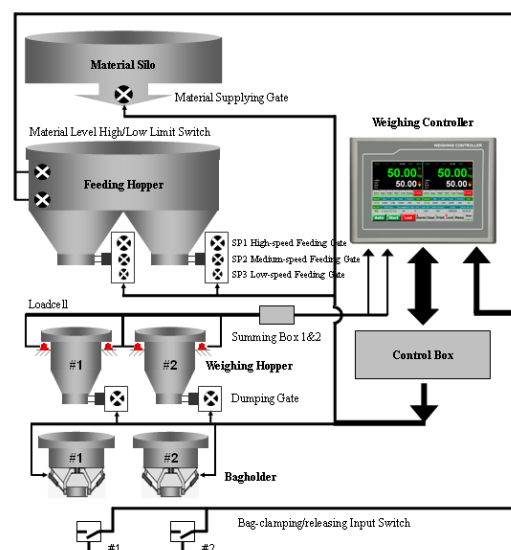
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- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 9 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 2 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
- ◆ LAN: Optional Ethernet.
- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Packing Accuracy: 0.2%~0.5%.

DO Pneumatic Door Control AO Electric vibrator control PWM Stepping Motor Control



Ration Packing Scale with 2-weighing-hopper&1-bag



Double-weighing-hopper with 2-bag Mode





DO Pneumatic Gate Control  
AO Electric Vibrator Control

### Main Applications

- ◆ Ration Packing Scale with 4-weighing-hopper&1/4-bag.
- ◆ Combination[Multi-hopper Packing] Mode.
- ◆ Combination[Single-hopper Packing] Mode.
- ◆ Respective[Single-hopper Packing] Mode.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma$ - $\Delta$ ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Pause for Deviation Alarm.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count & Target Batch Weight Control.
- ◆ 3-speed[high/medium/low] feeding control by DOs or AOs.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 7 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 4 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
- ◆ LAN: Optional Ethernet.
- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Packing Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control



Ration Packing Scale with 4-weighing-hopper&1-bag



2-scale Mode



### Main Applications

- ◆ H16[A]: Single-weighing-hopper/bag Ration Packing Scale.
- ◆ H16[D]: Loss-in-weight Ration Packing Scale.

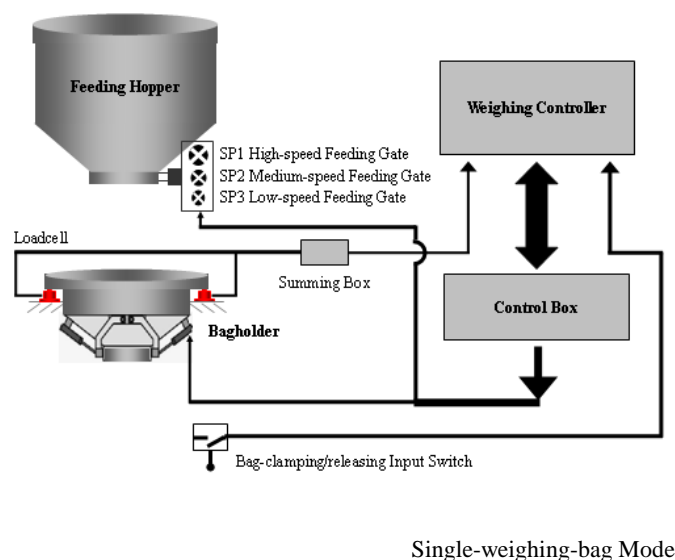
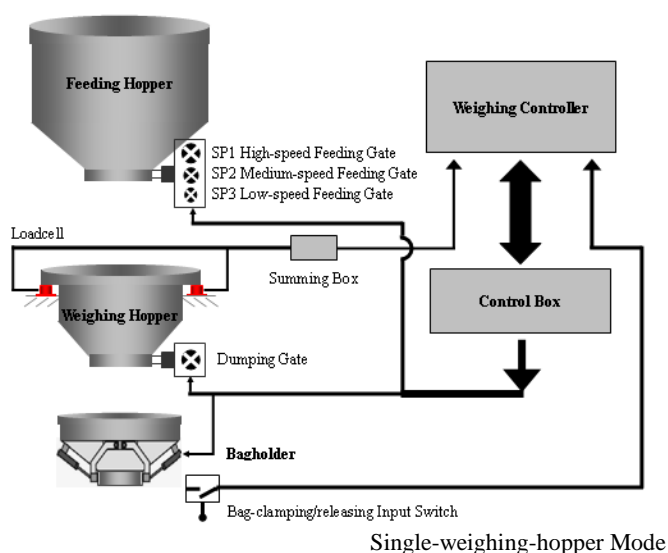
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 6+10 Green VFD digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma$ - $\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Pause for Deviation Alarm.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count & Target Batch Weight Control.
- ◆ Definable AO/COM[Communication Port].
- ◆ 3-speed[high/medium/low] feeding control by DOs or AOs.
- ◆ Recipe Number: 10.

### Technical Specifications

- ◆ Power Supply: AC85~264V, 50/60Hz, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ 7 Normally Open Switch Inputs [DI].
- ◆ 12 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 164 × 82 × 188 mm.
- ◆ Panel Cut-out Size [W×H]: 153 × 77 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Packing Accuracy: 0.2%~0.5%.

### High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control





### Main Applications

- ◆ B66[A]: Single-weighing-hopper/bag Ration Packing Scale.
- ◆ B66[D]: Loss-in-weight Ration Packing Scale.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 48MHz clock & high arithmetic speed.
- ◆ 6+8 Red LED digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Pause for Deviation Alarm.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count & Target Batch Weight Control.
- ◆ 3-speed[high/medium/low] feeding control by DOs or AO.
- ◆ Definable AO/COM[Communication Port].
- ◆ Recipe Number: 1.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 5W.
- ◆ Loadcell Excitation Voltage/Current: DC9V/120mA.
- ◆ 4 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~22.5mV.
- ◆ 6 Normally Open Switch Inputs [DI].
- ◆ 8 Normally Open Transistor Outputs [DO]: DC24V, 250mA.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: RS485.
- ◆ Connect Host IPC[Modbus] & Remote Display.
- ◆ Outline Size [W×H×D]: 110 × 62 × 150 mm.
- ◆ Panel Cut-out Size [W×H]: 94 × 47 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.03%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Packing Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control



dCX-61-GM106-B66EX [Explosion-proof/IP65/243×214×151mm]



Single-weighing-hopper Ration Packing Scale



## Fill on Drum's Top Mode

## Fill on Drum's Bottom Mode

## Step-fill from Bottom Mode

## Main Applications

- ◆ Liquid/Gas/Powder Ration Fillingweigher.
- ◆ ‘Fill on Drum’s Top’ / ‘Fill on Drum’s Bottom’ / ‘Step-fill from Bottom’ Modes.

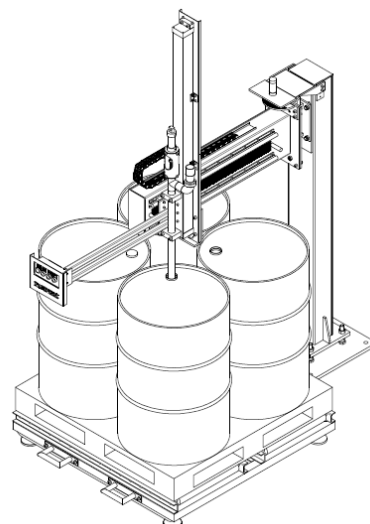
## Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma - \Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Pause for Deviation Alarm.
- ◆ Auto Re-fill for Negative Deviation Alarm.
- ◆ Target Batch Count & Target Batch Weight Control.
- ◆ Filling Gun Impacting Drum Alarm.
- ◆ 3-speed[high/medium/low] filling control by DOs or AO.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

## Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 9 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 2 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
- ◆ LAN: Optional Ethernet.
- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Filling Accuracy: 0.2%~0.5%.

**High-frequency Sampling    Anti-vibration Filter    High-accuracy Weighing    Precise Filling Control**







DO Conveyor Start&Stop Control  
Conveyor Speed Regulation:  
AO Frequency Converter Control  
PWM Step Motor Control

### Main Applications

- ◆ Auto Checkweigher.
- ◆ Rejecting Mode [Low/Normal/High].
- ◆ Weight Sorting Mode [ 3-12 Sorting Areas].

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma - \Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Static Calibration and Dynamic Compensation.
- ◆ Dynamic/Static Weight-checking Mode.
- ◆ Unchecked product identification by photo-electric switch.
- ◆ Feed-stopper Control.
- ◆ Conveyor PWM/AO Speed Regulation.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

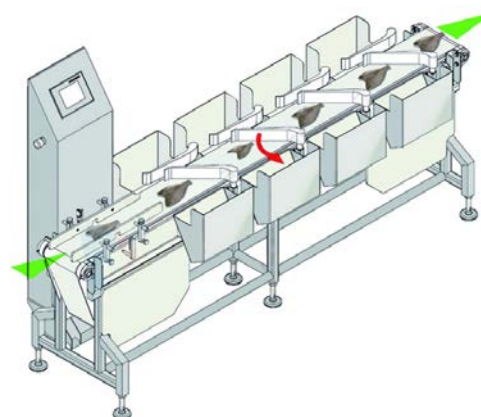
### Technical Specifications

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- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 7 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 4 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
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- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Dynamic Weight-checking Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   High-speed Weight-checking



Rejecting Mode



Weight Sorting Mode



Increment Feeding Mode  
Loss-in-weight Feeding Mode

### Main Applications

- ◆ Ration Batching Scale with 4-material.
- ◆ Loss-in-weight Batching Scale with 4-material.

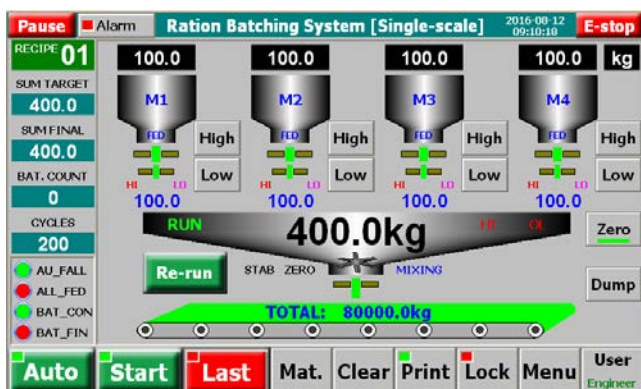
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration and Loss Calibration.
- ◆ Fall Value Auto Correction.
- ◆ Auto Re-feed for negative deviation alarm.
- ◆ Target Batch Count Control.
- ◆ Auto Pause for Gross Weight Upper Limit & Deviation Alarm.
- ◆ 'Manual Pause' Operation.
- ◆ 2-speed[high/low] feeding control by DOs or AOs.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 7 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 4 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
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- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Batching Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control



Single-scale Mode



Four-scale Mode



**Increment Ration Feeding  
Control & Loss-in-weight  
Ration Mixture-dumping**

### Main Applications

- ◆ Ration Batching Scale with 1-16 materials [Single-scale].
- ◆ Loss-in-weight Ration Mixture-dumping Control.

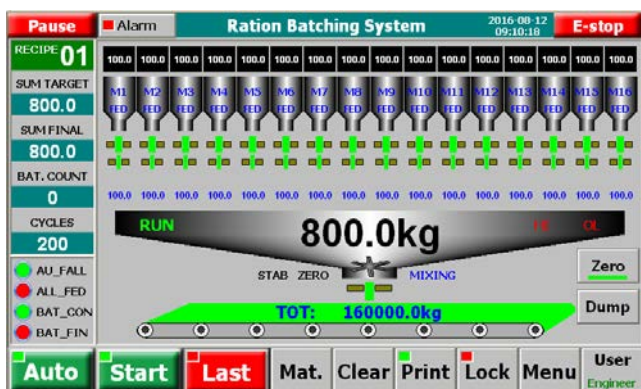
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 800Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration and Loss Calibration.
- ◆ Fall Value Auto Correction.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count Control.
- ◆ Auto Pause for Gross Weight Upper Limit & Deviation Alarm.
- ◆ 'Manual Pause' Operation.
- ◆ 2-speed[high/low] feeding control by DOs or AO.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~12.5mV.
- ◆ 9 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 2 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
- ◆ LAN: Optional Ethernet.
- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Batching Accuracy: 0.2%~0.5%.

**High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control**



16-material Batching Mode



Ration Batching Scale





### Main Applications

- ◆ H18[F]: 5-Material Ration Batching Scale.
- ◆ H18[E]: 8-Material Ration Batching Scale.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 6+10 Green VFD digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count Control.
- ◆ Auto Pause for Gross Weight Upper Limit & Deviation Alarm.
- ◆ 'Manual Pause' Operation.
- ◆ Batching Process Power-off Protection.
- ◆ 2-speed[high/low] feeding control by DOs or AOs.
- ◆ Definable AO/COM[Communication Port].
- ◆ Recipe Number: 10.

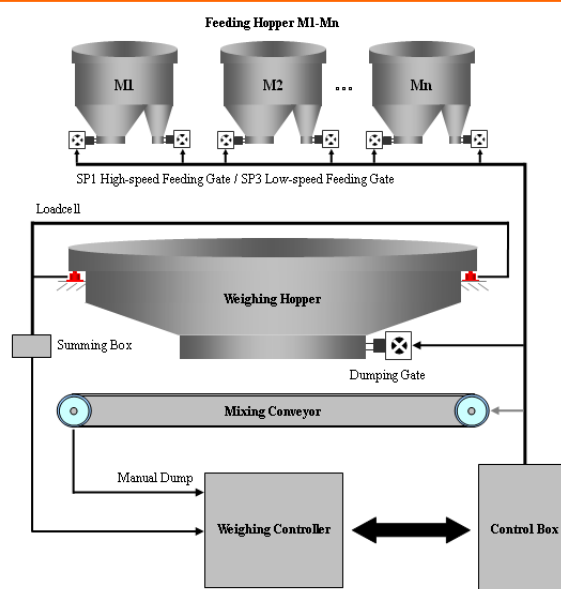
### Technical Specifications

- ◆ Power Supply: AC85~264V, 50/60Hz, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350Ω] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ 7 Normally Open Switch Inputs [DI].
- ◆ 12 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 164 × 82 × 188 mm.
- ◆ Panel Cut-out Size [W×H]: 153 × 77 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Batching Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control



Concrete Batching Scale







### Main Applications

- ◆ 4-Material Ration Batching Scale.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 48MHz clock & high arithmetic speed.
- ◆ 6+8 Red LED digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Fall Value Auto Correction.
- ◆ Auto Re-feed for Negative Deviation Alarm.
- ◆ Target Batch Count Control.
- ◆ Auto Pause for Gross Weight Upper Limit & Deviation Alarm.
- ◆ 'Manual Pause' Operation.
- ◆ Batching Process Power-off Protection.
- ◆ 2-speed[high/low] feeding control by DOs or AOs.
- ◆ Definable AO/COM[Communication Port].
- ◆ Recipe Number: 1.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 5W.
- ◆ Loadcell Excitation Voltage/Current: DC9V/120mA.
- ◆ 4 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~22.5mV.
- ◆ 6 Normally Open Switch Inputs [DI].
- ◆ 8 Normally Open Transistor Outputs [DO]: DC24V, 250mA.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: RS485.
- ◆ Connect Host IPC[Modbus] & Remote Display.
- ◆ Outline Size [W×H×D]: 110 × 62 × 150 mm.
- ◆ Panel Cut-out Size [W×H]: 94 × 47 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.03%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.
- ◆ Batching Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Feeding Control



dCX-61-GM106-B68[U]EX [Explosion-proof/IP65/243×214×151mm]



Ration Batching Scale



### Main Applications

- ◆ Weight Display, Setpoint DO Output, Manual/Auto Totalizing.
- ◆ Weight Signal AO/Digit Transmission.
- ◆ Weight Limit DO Alarm Mode.
- ◆ Weight Increment DO Output Mode.
- ◆ Weight Decrement DO Output Mode.
- ◆ Weight Section DO Output Mode.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 6+10 Green VFD digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration, Data Calibration & Segmenting Correction.
- ◆ The Weighing Record and Totalizing Report can be printed.
- ◆ Definable AO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: AC85~264V, 50/60Hz, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350Ω] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ 3 Normally Open Switch Inputs [DI].
- ◆ 5 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: Fixed RS232&RS485. Free to use one of them.
- ◆ COM2: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 164 × 82 × 188 mm.
- ◆ Panel Cut-out Size [W×H]: 153 × 77 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Real-time Alarm Output



Hopper Scale



Weight Totalizing Scale



### Main Applications

- ◆ Weight Display, Setpoint DO Output, Manual Totalizing.
- ◆ Weight Signal AO/Digit Transmission.
- ◆ Weight Limit DO Alarm Mode.
- ◆ Weight Increment DO Output Mode.
- ◆ Weight Decrement DO Output Mode.
- ◆ Weight Section DO Output Mode.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 48MHz clock & high arithmetic speed.
- ◆ 6+8 Red LED digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration & Data Calibration.
- ◆ Definable AO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 5W.
- ◆ Loadcell Excitation Voltage/Current: DC9V/120mA.
- ◆ 4 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~22.5mV.
- ◆ 6 Normally Open Switch Inputs [DI].
- ◆ 5 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: RS485.
- ◆ Connect Host IPC[Modbus] & Remote Display.
- ◆ Outline Size [W×H×D]: 110 × 62 × 150 mm.
- ◆ Panel Cut-out Size [W×H]: 94 × 47 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.03%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Real-time Alarm Output



dCX-61-GM106-B60[T]EX [Explosion-proof/IP65/243×214×151mm]



Weight Display / Signal Transmission



### Main Applications

- ◆ Material Level Scale, Hopper Scale & Platform Scale.
- ◆ Weight Limit DO Alarm Mode.
- ◆ Weight Increment DO Output Mode.
- ◆ Weight Decrement DO Output Mode.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 6 LED/VFD digital tubes for English&digit display.
- ◆ 64-segment LED for percent display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 200Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration &, Data Calibration.
- ◆ The Weighing Record can be printed.
- ◆ Definable AO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: AC220V $\pm$ 15%, 50/60Hz, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ 3 Normally Open Switch Inputs [DI].
- ◆ 4 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: Fixed RS232&RS485. Free to use one of them.
- ◆ COM2: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 160 × 84 × 188 mm.
- ◆ Panel Cut-out Size [W×H]: 151 × 76 mm.
- ◆ Operating Temperature: -25℃ ~ +45℃.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Static Weighing Accuracy: 0.2%~0.5%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Real-time Alarm Output



GM106-C11 [DC24V/170×91×184 mm]



GM106-B21/C21 [Dust-proof/AC220V/IP65/202×305×90mm]





Main Features

Applications: Weight/Force Display, Peak Value Detection & Display Holding, Auto Weight checking, Setpoint DO Output & AO/Digit Transmission.

EMC design with high anti-jamming capability, suitable for industrial environment.

32-bit ARM CPU with 48MHz clock & high arithmetic speed.

6+6 Red LED digital tubes for English character and digit display.

4-key English keypad for Menu & Shortcut mode operation.

24-bit High-precision and high-speed  $\Sigma\Delta$ /D conversion module with 1/1,000,000 internal resolution and max. sampling frequency 1600Hz.

Special anti-vibration digital filtering algorithm for ensuring the weighing stability & accuracy when there is strong vibration on the load receptor & the rapid response capability when the weight signal changes.

Max. Connection Quantity: 8 Loadcells (350 $\Omega$ ).

Zero Upon Power Up, Zero Auto-tracking, Manual/Auto Zero and Zero Calibration available.

Load Calibration, Data Calibration, Segmenting Span Correction and Segmenting Weight Calculation available.

Auto-locking, Key-locking, Key-unlocking, Digital Setting&Calibration and I/O Testing functions available.

3 Definable normally open switch inputs [DI] and 3 definable normally open transistor switch outputs [DO].

1 current signal output [AO: 0~20mA] & 1 voltage signal output [VO: 0~10V].

RS232, RS485 and optional CANBUS communication ports for connecting Host IPC/PLC and LED Remote Display.

Technical Specifications

Weight Display Range: -9,999~+99,999.

Scale Capacity: Setting Range 1~99,999.

Scale Division: Optional 1, 2, 5, 10, 20, 50, 100, 200, 500.

Display Resolution: 1/50,000.

Decimal Point Position: Optional 0, 0.0, 0.00, 0.000, 0.0000.

Display Refreshing Time: Setting Range 0.01~1.00s.

Excitation Voltage/Max. Current: DC5V/120mA [8-350 $\Omega$ loadcells].

Signal Input Range: 0~12.5mV.

Output Sensitivity of Loadcell: 1.0~2.5mV/V.

Optional Sampling Frequency: 1600Hz, 800Hz, 400Hz, 200Hz, 5Hz.

Zero Drift:  $\pm 0.1\mu\text{V}/^\circ\text{C}$  RTI (Relative to Input).

Gain Drift:  $\pm 5\text{ppm}/^\circ\text{C}$ .

Non-linearity: 0.005%FS.

Operating Voltage: DC24V $\pm 20\%$ .

Max. Power Consumption: 3W.

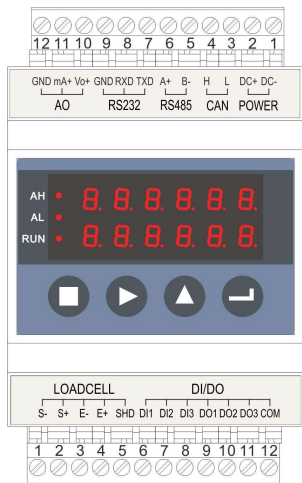
Outline Size: 71.5 $\times$ 115.6 $\times$ 57.9mm [W $\times$ H $\times$ D].

Operating Temperature: -25 $^\circ\text{C}$  to +45 $^\circ\text{C}$ .

Storage Temperature: -30 $^\circ\text{C}$  to +60 $^\circ\text{C}$ .

Relative Humidity: Max. 85%RH.

High-frequency Sampling    Anti-vibration Filter    High-accuracy Weighing    Real-time Alarm Output



Signal Terminal



Tank / Silo Weighing Applications



Combination/Respective Mode  
Positive/Negative/Double  
Direction Peak Detection  
Curve/Digit Display Interface

### Main Applications

- ◆ M10[SF]: Single Channel Force Measuring System.
- ◆ M10[FF]: 1-4 Channels Force Measuring System.
- ◆ M10[FF]: Combination/Respective Detection Modes.
- ◆ Positive/Negative/Double Direction Peak Detection Modes.
- ◆ Threshold / DI Switch Start&Stop Modes.
- ◆ Real-time Curve/Digit Display Interfaces.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] or 10.2" [1024×600] TFT touch panel.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/130,000.
- ◆ High sampling frequency 3200Hz.
- ◆ Auto Zero Tracking.
- ◆ Positive/Negative Segmenting Span Correction.
- ◆ Save detection results for query automatically.
- ◆ Save real-time curve into U-disk automatically.
- ◆ Definable DI/DO/AO/COM[Communication Port].
- ◆ Recipe Number: 100.

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/250mA.
- ◆ 16 Loadcells[350 $\Omega$ ] connectable.
- ◆ Force Signal Input Range: 0~12.5mV.
- ◆ 7 Normally Open Switch Inputs [DI].
- ◆ 18 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 4 Analog Signal Outputs [AO]: 0~10V, Max.50mA.
- ◆ COM&COM1: RS232; COM2: RS485.
- ◆ USB1: Connect mouse, software download, data backup.
- ◆ LAN: Optional Ethernet.
- ◆ Outline Size [W×H×D]
  - ◇ 7": 226.5 × 163 × 36 mm.
  - ◇ 10.2": 274 × 193 × 40 mm.
- ◆ Panel Cut-out Size [W×H]
  - ◇ 7": 215 × 152 mm.
  - ◇ 10.2": 261 × 180 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.02%.
- ◆ Force Measuring Accuracy: 0.2%~0.5%.

High-frequency Sampling    Rapid Dynamic Response    Multiple Working Modes    Real-time Curve Display



4-Channel / Respective Mode / Digit Display



4 Channels Force Measuring System



### Main Applications

- ◆ Positive&Negative Direction Real-time Force Value Display.
- ◆ Peak Value Detection / Display Holding.
- ◆ DO Alarm Output.
- ◆ Force Signal AO/Digit Transmission.
- ◆ Positive/Negative/Double Direction Modes.
- ◆ Threshold / DI Pulse / DI Switch / DI Jump Start&Stop Modes.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 48MHz clock & high arithmetic speed.
- ◆ 6+8 Red LED digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 3200Hz.
- ◆ Optional Special Anti-vibration Digital Filtering Algorithm for precise force measuring, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration, Data Calibration & Segmenting Correction.
- ◆ Definable AO/COM[Communication Port].

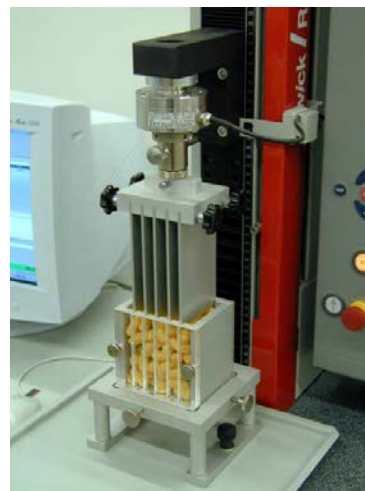
### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 5W.
- ◆ Loadcell Excitation Voltage/Current: DC9V/120mA.
- ◆ 4 Loadcells[350 $\Omega$ ] connectable.
- ◆ Force Signal Input Range: 0~22.5mV.
- ◆ 6 Normally Open Switch Inputs [DI].
- ◆ 5 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 Analog Signal Output [AO]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: RS485.
- ◆ Connect Host IPC[Modbus] & Remote Display.
- ◆ Outline Size [W×H×D]: 110 × 62 × 150 mm.
- ◆ Panel Cut-out Size [W×H]: 94 × 47 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.03%.
- ◆ Static Force Measuring Accuracy: 0.2%~0.5%.

High-frequency Sampling   Rapid Dynamic Response   Multiple Working Modes   Real-time Data Display



dCX-61-GM106-B60[F]EX [Explosion-proof/IP65/243×214×151mm]



Compression Test [Peak Value Detection]



### Main Applications

- ◆ Weight/Force Display.
- ◆ Peak Value Detection / Display Holding.
- ◆ Weight/Force Signal AO/Digit Transmission.
- ◆ Setpoint DO Output.
- ◆ Weight/Force Limit DO Alarm Mode.
- ◆ Weight/Force Increment DO Output Mode.
- ◆ Weight/Force Decrement DO Output Mode.
- ◆ Weight/Force Section DO Output Mode.

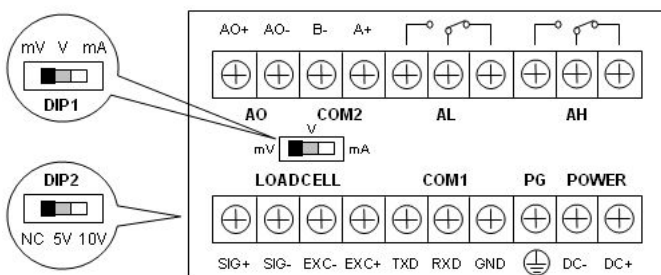
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 48MHz clock & high arithmetic speed.
- ◆ 5 Red LED digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 1280Hz.
- ◆ Optional Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration, Data Calibration & Segmenting Correction.
- ◆ Definable AO/COM[Communication Port].

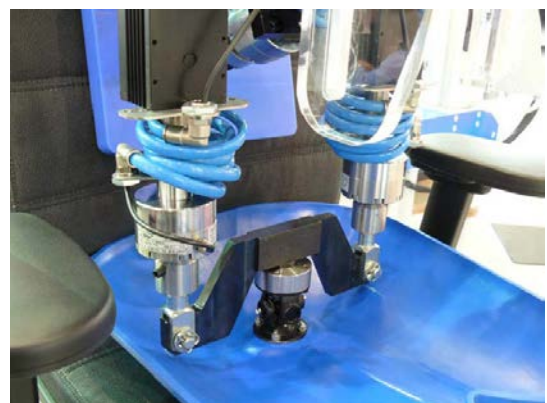
### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 5W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/120mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Transmitter Excitation Voltage/Current: DC12V/100mA.
- ◆ Optional weighing/force input signal mV, V and mA.
- ◆ 【mV】 Signal Input Range: 0~19.5mV.
- ◆ 【V】 Signal Input Range: 0~2.5V, 0~5V, 0~10V.
- ◆ 【mA】 Signal Input Range: 0~20mA.
- ◆ 2 Normally open/closed Relays [DO]: AC250V/DC24V, 1A.
- ◆ 1 Analog Signal Output [AO]: 0~20mA, 0.05%FS.
- ◆ COM1: RS232.
- ◆ COM2: RS485.
- ◆ Connect Host IPC[Modbus] & Remote Display.
- ◆ Outline Size [W×H×D]: 107 × 60 × 100 mm.
- ◆ Panel Cut-out Size [W×H]: 94 × 47 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.03%.
- ◆ Static Weighing / Force Measuring Accuracy: 0.2%~0.5%.

High-frequency Sampling   Rapid Dynamic Response   Multiple Input Signals   Real-time Data Display



Signal Terminal



Breakdown Test [Peak Value Detection]





### Main Applications

- ◆ 1-3 Channels Force Measuring System.
- ◆ 3-Channel Real-time Force Values & Resultant Force Display.
- ◆ 3-Channel Peak Values & Resultant Force Peak Value Display.
- ◆ Resultant Force/Peak Upper/Lower Limit DO Alarm.
- ◆ RS232/RS485 Digit Transmission.
- ◆ 3-D Resultant Force Algorithm [ $F^2=X^2+Y^2+Z^2$ ].
- ◆ Cumulative Sum Resultant Force Algorithm [ $F=X+Y+Z$ ].

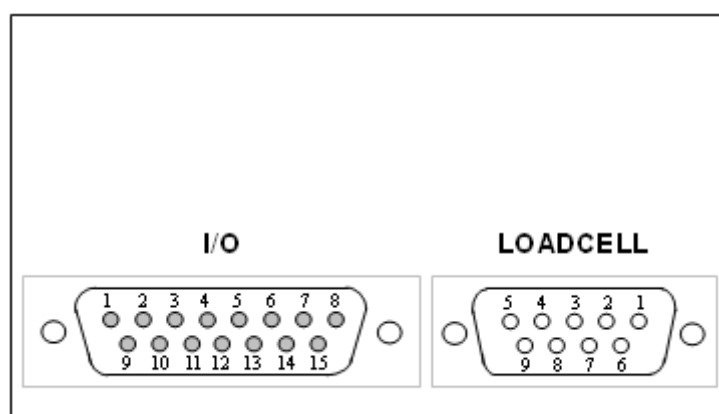
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 48MHz clock & high arithmetic speed.
- ◆ 2×16 LCD display screen for English/Digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 1280Hz.
- ◆ Optional Special Anti-vibration Digital Filtering Algorithm for precise force measuring, stable display and rapid response.
- ◆ Auto Zero Tracking.
- ◆ Load Calibration & Data Calibration.
- ◆ Definable COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 5W.
- ◆ Loadcell Excitation Voltage/Current: DC5V/120mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Force Signal Input Range:  $\pm$ 35mV.
- ◆ 4 Normally Open Switch Inputs [DI].
- ◆ 2 Transistor Switch [DO]: DC24V, 10mA.
- ◆ DO Contact can set as 'Normally Open' or 'Normally Closed'.
- ◆ COM1: Fixed RS485&RS232 [Select by DIP switch].
- ◆ Connect Host IPC[Modbus] & Remote Display.
- ◆ Outline Size [W×H×D]: 107 × 60 × 100 mm.
- ◆ Panel Cut-out Size [W×H]: 94 × 47 mm.
- ◆ Operating Temperature: -10°C $\sim$ +40°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: III.
- ◆ Verification Accuracy: 0.03%.
- ◆ Static Force Measuring Accuracy: 0.2%~0.5%.

**High-frequency Sampling   Rapid Dynamic Response   Multiple Working Modes   Real-time Data Display**



Signal Terminal



Analog Loadcell Signal Port  
Digital Loadcell Signal Port  
PID Ration Feeding Control

### Main Applications

- ◆ Belt Weigher with Weight Totalizing.
- ◆ Ration Belt Weighfeeder with Ration Flow Feeding.
- ◆ Loss-in-weight Weighfeeder with Ration Flow Feeding.

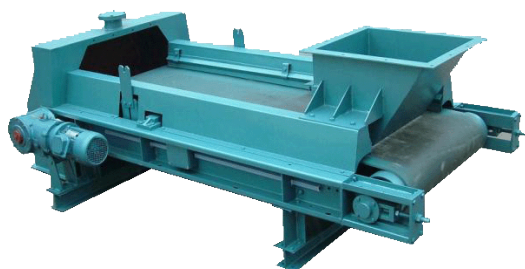
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ Cortex-A8 CPU with 600MHz Clock, 128M Flash.
- ◆ 7" [800×480] TFT touch panel.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Zero Calibration & Auto Zero Tracking.
- ◆ Span Calibration & Segmenting Correction.
- ◆ Speed Calibration & Belt Length Calibration.
- ◆ The feeder and belt weigher can be controlled by DI&DO.
- ◆ Quick and steady PID ration feeding control.
- ◆ Queryable Records per shift/day/month of a year.
- ◆ Definable DI/DOAO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ Speed Sensor Excitation Voltage/Current: DC12V/100mA.
- ◆ Speed Signal Input Range: 0.5~3000Hz.
- ◆ 9 Normally Open Switch Inputs [DI].
- ◆ 12 Normally Open Transistor Outputs [DO]: DC24V, 500mA.
- ◆ 3 'PID Control' Analog Output [AO]: 4~20mA, 0.05%FS.
- ◆ 1 'Flow Set' Analog Input [AI]: 4~20mA, 0.05%FS.
- ◆ COM1: RS232&RS485.
- ◆ COM2: Digital loadcell signal input port.
- ◆ COM3: Optional RS232/RS485/RS422/Profibus-DP/Ethernet / Wireless Module.
- ◆ COM1/COM3: Connect Host IPC, Remote Display & Printer.
- ◆ Outline Size [W×H×D]: 204 × 150 × 50 mm.
- ◆ Panel Cut-out Size [W×H]: 192 × 138 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: 0.5.
- ◆ Accuracy of Flow Control: 0.5%~1.0%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Flow Control



Belt Weighfeeder



Loss-in-weight Weighfeeder



### Main Applications

- ◆ Belt Weigher with Weight Totalizing.
- ◆ Ration Belt Weighfeeder with Ration Flow Feeding.
- ◆ Loss-in-weight Weighfeeder with Ration Flow Feeding.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 128×64 LCD display screen with 7 background colors.
- ◆ 24-bit  $\Sigma$ - $\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Zero Calibration & Auto Zero Tracking.
- ◆ Span Calibration & Segmenting Correction.
- ◆ Speed Calibration & Belt Length Calibration.
- ◆ The feeder and belt weigher can be controlled by DI&DO.
- ◆ Quick and steady PID ration feeding control.
- ◆ Queryable Records per shift/day/month of a year.
- ◆ Definable DI/DOAO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: AC220V $\pm$ 15%, 50/60Hz, Max. 15W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ Speed Sensor Excitation Voltage/Current: DC12V/100mA.
- ◆ Speed Signal Input Range: 0.5~3000Hz.
- ◆ 3 Normally Open Switch Inputs [DI].
- ◆ 4 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 'Totalized Weight' Pulse Output [PO]: DC5~24V, 100mA.
- ◆ 2 'PID Control' Analog Output [AO]: 4~20mA, 0.05%FS.
- ◆ 1 'Flow Set' Analog Input [AI]: 4~20mA, 0.05%FS.
- ◆ COM1: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ COM2: RS232.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 164 × 86 × 193 mm.
- ◆ Panel Cut-out Size [W×H]: 153 × 77 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: 0.5.
- ◆ Accuracy of Flow Control: 0.5%~1.0%.

High-frequency Sampling    Anti-vibration Filter    High-accuracy Weighing    Precise Flow Control



GM100-E01 [86×164×193mm]



GM100-E21 [Dust-proof/IP65/202×305×90mm]



### Main Applications

- ◆ Belt Weigher with Weight Totalizing.
- ◆ Ration Belt Weighfeeder with Ration Flow Feeding.
- ◆ Loss-in-weight Weighfeeder with Ration Flow Feeding.

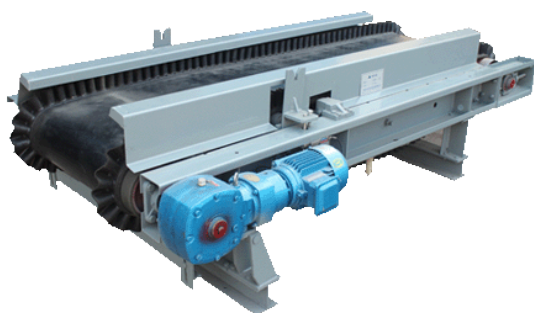
### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ DC24V power input with reverse polarity protection.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 128×64 LCD display screen with 7 background colors.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Zero Calibration & Auto Zero Tracking.
- ◆ Span Calibration & Segmenting Correction.
- ◆ Speed Calibration & Belt Length Calibration.
- ◆ The feeder and belt weigher can be controlled by DI&DO.
- ◆ Quick and steady PID ration feeding control.
- ◆ Queryable Records per shift/day/month of a year.
- ◆ Definable DI/DOAO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: DC24V $\pm$ 20%, Max. 10W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ Speed Sensor Excitation Voltage/Current: DC12V/100mA.
- ◆ Speed Signal Input Range: 0.5~3000Hz.
- ◆ 3 Normally Open Switch Inputs [DI].
- ◆ 4 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 'Totalized Weight' Pulse Output [PO]: DC5~24V, 100mA.
- ◆ 2 'PID Control' Analog Output [AO]: 4~20mA, 0.05%FS.
- ◆ 1 'Flow Set' Analog Input [AI]: 4~20mA, 0.05%FS.
- ◆ COM1: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ COM2: RS232.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 288 × 95 × 189 mm.
- ◆ Panel Cut-out Size [W×H]: 281 × 88 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: 0.5.
- ◆ Accuracy of Flow Control: 0.5%~1.0%.

High-frequency Sampling    Anti-vibration Filter    High-accuracy Weighing    Precise Flow Control



Ration Belt Weighfeeder



Loss-in-weight Weighfeeder





### Main Applications

- ◆ Belt Weigher with Weight Totalizing.
- ◆ Ration Belt Weighfeeder with Ration Flow Feeding.
- ◆ Loss-in-weight Weighfeeder with Ration Flow Feeding.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 128×64 LCD display screen with 7 background colors.
- ◆ 4+4 Red LED digital tubes for digit display.
- ◆ 24-bit  $\Sigma$ - $\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Zero Calibration & Auto Zero Tracking.
- ◆ Span Calibration & Segmenting Correction.
- ◆ Speed Calibration & Belt Length Calibration.
- ◆ The feeder and belt weigher can be controlled by DI&DO.
- ◆ Quick and steady PID ration feeding control.
- ◆ Queryable Records per shift/day/month of a year.
- ◆ Definable DI/DOAO/COM[Communication Port].

### Technical Specifications

- ◆ Power Supply: AC220V $\pm$ 15%, 50/60Hz, Max. 15W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ Speed Sensor Excitation Voltage/Current: DC12V/100mA.
- ◆ Speed Signal Input Range: 0.5~3000Hz.
- ◆ 3 Normally Open Switch Inputs [DI].
- ◆ 4 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 'Totalized Weight' Pulse Output [PO]: DC5~24V, 100mA.
- ◆ 2 'PID Control' Analog Output [AO]: 4~20mA, 0.05%FS.
- ◆ 1 'Flow Set' Analog Input [AI]: 4~20mA, 0.05%FS.
- ◆ COM1: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ COM2: RS232.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 170 × 100 × 193 mm.
- ◆ Panel Cut-out Size [W×H]: 153 × 77 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: 0.5.
- ◆ Accuracy of Flow Control: 0.5%~1.0%.

High-frequency Sampling    Anti-vibration Filter    High-accuracy Weighing    Precise Flow Control



dCX-61-GM100-A21EX [Explosion-proof/IP65/243×214×151mm]



GM100-A21 [Dust-proof/IP65/202×305×90mm]



### Main Applications

- ◆ Belt Weigher with Weight Totalizing.
- ◆ Ration Belt Weighfeeder with Ration Flow Feeding.

### Main Features

- ◆ EMC design with high anti-jam for industrial environment.
- ◆ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
- ◆ 8+4+4 Red LED digital tubes for English&digit display.
- ◆ 24-bit  $\Sigma-\Delta$  ADC with internal resolution 1/1,000,000.
- ◆ High sampling frequency 400Hz.
- ◆ Special Anti-vibration Digital Filtering Algorithm for precise weighing, stable display and rapid response.
- ◆ Zero Calibration & Auto Zero Tracking.
- ◆ Span Calibration & Segmenting Correction.
- ◆ Speed Calibration & Belt Length Calibration.
- ◆ The feeder and belt weigher can be controlled by DI&DO.
- ◆ Quick and steady PID ration feeding control.
- ◆ Queryable Records per shift/day/month of a year.
- ◆ Definable DI/DOAO/COM[Communication Port].

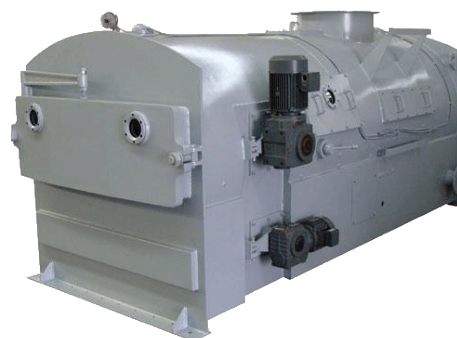
### Technical Specifications

- ◆ Power Supply: AC220V $\pm$ 15%, 50/60Hz, Max. 15W.
- ◆ Loadcell Excitation Voltage/Current: DC10V/250mA.
- ◆ 8 Loadcells[350 $\Omega$ ] connectable.
- ◆ Weighing Signal Input Range: 0~25mV.
- ◆ Speed Sensor Excitation Voltage/Current: DC12V/100mA.
- ◆ Speed Signal Input Range: 0.5~3000Hz.
- ◆ 3 Normally Open Switch Inputs [DI].
- ◆ 4 Normally Open Relay Outputs [DO]: AC250V/DC24V, 1A.
- ◆ 1 'Totalized Weight' Pulse Output [PO]: DC5~24V, 100mA.
- ◆ 2 'PID Control' Analog Output [AO]: 4~20mA, 0.05%FS.
- ◆ 1 'Flow Set' Analog Input [AI]: 4~20mA, 0.05%FS.
- ◆ COM1: Optional RS232/RS485/RS422/Profibus-DP/Ethernet.
- ◆ COM2: RS232.
- ◆ Connect Host IPC, Remote Display, Printer&Wireless Module.
- ◆ Outline Size [W×H×D]: 164 × 82 × 188 mm.
- ◆ Panel Cut-out Size [W×H]: 153 × 77 mm.
- ◆ Operating Temperature: -25°C~+45°C.
- ◆ Protection Level of Front Panel: IP65.
- ◆ Accuracy Grade: 0.5.
- ◆ Accuracy of Flow Control: 0.5%~1.0%.

High-frequency Sampling   Anti-vibration Filter   High-accuracy Weighing   Precise Flow Control



GM100-B21 [Dust-proof/IP65/202×305×90mm]



Coal Weighfeeder

## Weighing Fittings

### WSB900 Summing Box

- ◆ WSB900-W4S0: Connect 4 loadcells.
- ◆ WSB900-W2S1: Connect 2 loadcells and 1 speed sensor.
- ◆ WSB900-W4S1: Connect 4 loadcells and 1 speed sensor.
- ◆ AH-6-WSB900EX: Explosion-proof.
- ◆ Stainless Steel box, water-proof, dust-proof and rust-proof.
- ◆ Precision potentiometers for balance adjustment of loadcells.
- ◆ Service Temperature:  $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$ .
- ◆ Protection Level: IP67.



### WST900 Weight/Speed Signal Transmitter

- ◆ WST900-W4S0: Connect 4 loadcells.
- ◆ WST900-W4S1: Connect 4 loadcells and 1 speed sensor.
- ◆ AH-6-WST900EX: Explosion-proof.
- ◆ Power: AC85~265V, 50/60Hz, Max. 2.5W.
- ◆ Weight Transmission: 0~15mV to 4~20mA.
- ◆ Speed Transmission: 0/12V to 4/20mA.
- ◆ Non-linearity: 0.05%FS.
- ◆ Precision potentiometers for balance adjustment of loadcells.
- ◆ Service Temperature:  $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$ .
- ◆ Protection Level: IP67.



### Digital Transmitting Module

- ◆ Digital Transmitting for Loadcell.
- ◆ Working Voltage: DC5~24V.
- ◆ 24-bit  $\Sigma - \Delta$  ADC with internal resolution 1/100,000.
- ◆ Special Anti-vibration Digital Filtering Algorithm.
- ◆ Zero Drift:  $\pm 0.1\mu\text{V}/^{\circ}\text{C}$  RTI (Relative to Input).
- ◆ Gain Drift:  $\pm 5\text{ppm}/^{\circ}\text{C}$ .
- ◆ Non-linearity: 0.005%FS.
- ◆ Optional Digital Signal Output Port: RS485/CAN.
- ◆ Modbus protocol or user's protocol.
- ◆ Diameter:  $\Phi 25\text{mm}$ ; Thickness: 6mm.
- ◆ Service Temperature:  $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$ .
- ◆ Can be customized according to user's requirement.



### Wireless Digital Transmitting Module

- ◆ Digital Transmitting for Loadcell.
- ◆ Working Voltage: DC5~24V.
- ◆ 24-bit  $\Sigma - \Delta$  ADC with internal resolution 1/100,000.
- ◆ Special Anti-vibration Digital Filtering Algorithm.
- ◆ Zero Drift:  $\pm 0.1\mu\text{V}/^{\circ}\text{C}$  RTI (Relative to Input).
- ◆ Gain Drift:  $\pm 5\text{ppm}/^{\circ}\text{C}$ .
- ◆ Non-linearity: 0.005%FS.
- ◆ Wireless Digital Signal Output Port.
- ◆ Modbus protocol or user's protocol.
- ◆ Outline Size [W×H×D]:  $54 \times 49 \times 5.5 \text{ mm}$ .
- ◆ Service Temperature:  $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$ .
- ◆ Can be customized according to user's requirement.

