



R51 PRESENTATION

KELI GROUP
Dec, 2012

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Positioning

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Features

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Models



Positioning



■ Definitions

A stylized white letter 'R' on a red rectangular background.

- 'R' is first letter of Rabbit
- implied meaning: agile, quick
- Which meets the image of Industrial weighing control indicator
- High quality.

A stylized white number '5' on a red rectangular background.

- 1、3、5、7、9 on behalf of different production lines from lowest to highest
- 5 is for middle class, best cost performance
- 5 serials is the main product of Industrial weighing control indicator.

A stylized white number '1' on a red rectangular background.

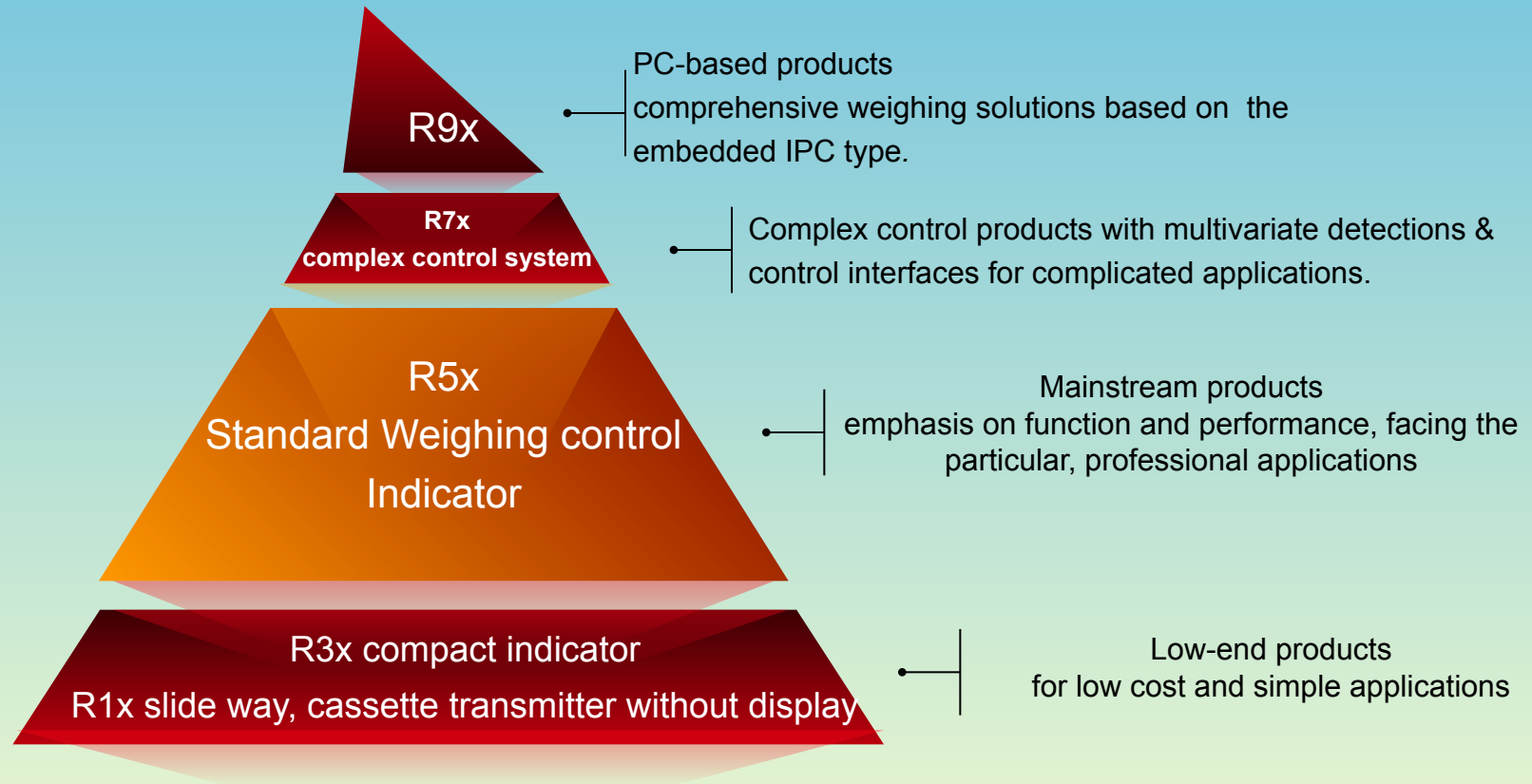
- 1 is one branch of 5 serials, mainly for applications of quantitative control

'R51': one letter and two numbers compose a type of product

Positioning



■ Pyramid of future product lines



Positioning

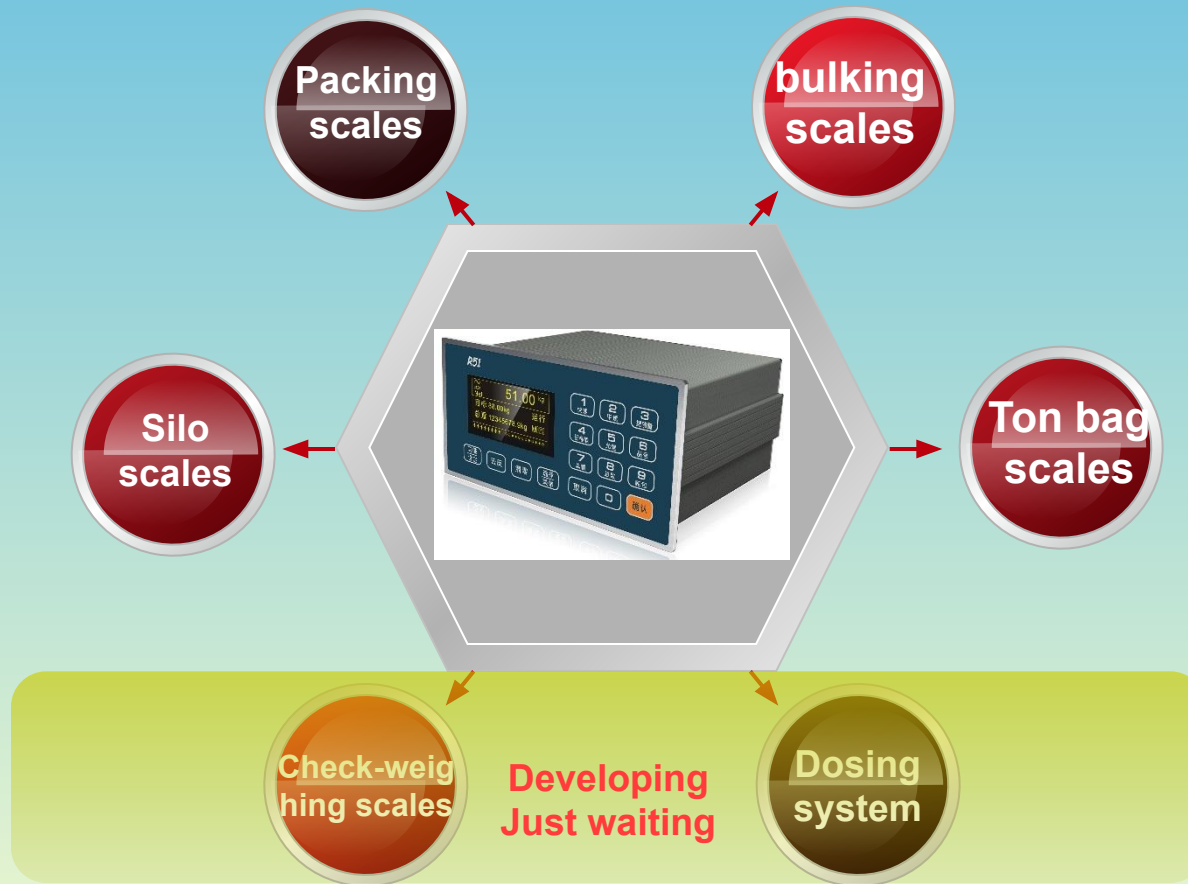


- R51 Shape

- 1st model listed : R51.10
- Dedicated to quantitative control application



Positioning



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[illegible]

A graphic of four interlocking puzzle pieces in yellow, green, blue, and orange, arranged in a 2x2 square. The pieces are 3D and have a slight shadow. The text 'ental' and 'bility' are visible on the left side of the slide.

Good environmental compatibility



Features



■ HMI (Human Machine Interface)

- 2.7" dot-matrix OLED display: 128X64
- Spontaneous light, good perspective
- Display more information
- Easy operation
- Agile switching during Multi-pages
- 0~9 number keys
- Shortcut entries
- Commonly used parameters & key parameters processed in different menus
- Multiple password protection, prevent wrong operations.



Clearly

Safe & Rapid



Features

■ Environmental compatibility

Design & production acc. to the international standard

IEC61000-4-2
Electrostatic discharge
tests

IEC61000-4-4
Pulse test

IEC61000-4-5
Surge test



100~240VAC, 50/60Hz

Working temp: -10~40°C
Limited temp: -20~50°C

RFI: 80~2000MHz, 10V/m, difference less than 1d,
Which can meet the indicator requirements of Europe

Features



■ Communication connections

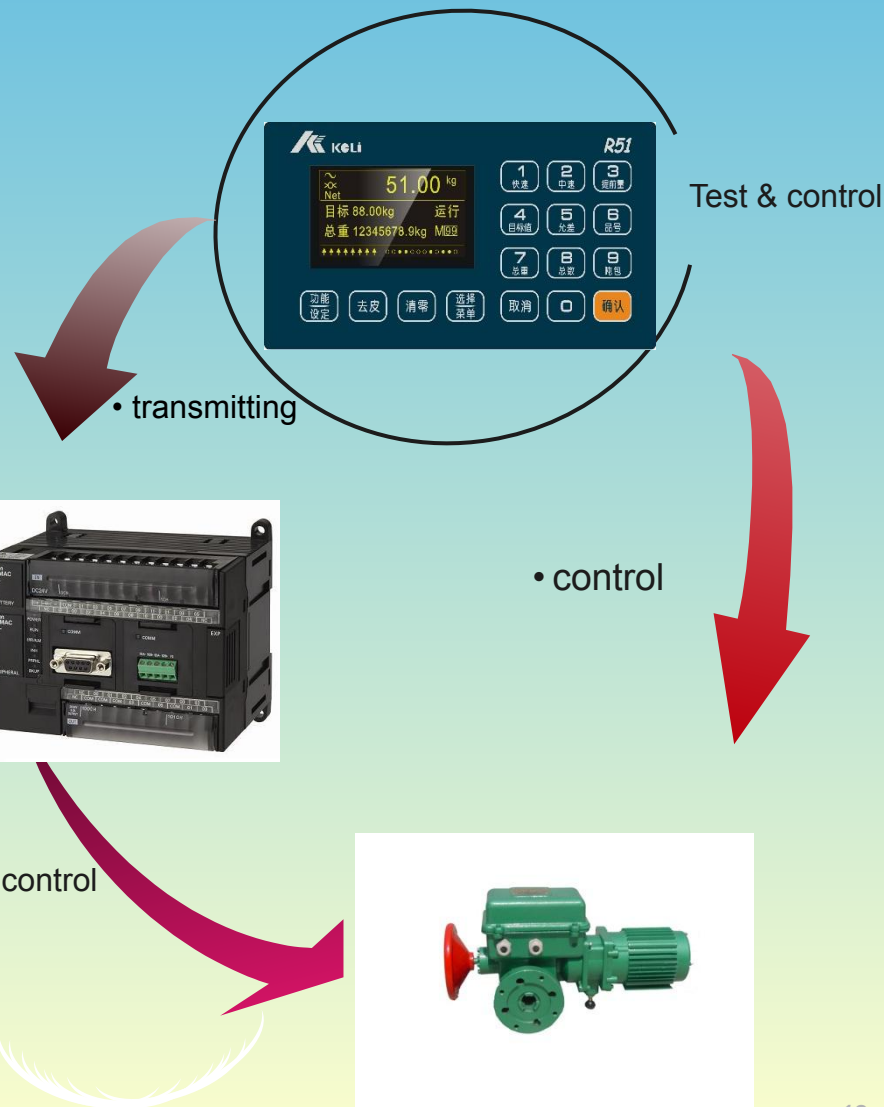
- Standard with independent RS232 interface
- Standard with independent RS485 interface
- Other connections
 - serial printer (Micro-printer, Line printer)
 - PC (Command or Continuous protocol)
 - PLC、DCS (MODBUS RTU)
- Optional interfaces (developing)
 - Simulation one-way communication :4~20mA interface
 - Digital two-way communication: Profibus DP

Features



■ Integration work mode

- 4 control processes inside
 - Packing scale with bucket
 - Packing scale without bucket (also for normal silo scales)
 - Bulk scales
 - Simple quantitative control process
- Can work without PLC
 - Information loop short, higher control accuracy
 - Middleware less, higher reliability
 - save costs



Reliability= 95% * 95% * 95% * = ?

85.7%!! !

The image shows the KOLLE R51 scale's LCD display and control buttons. The display shows a weight of 51.00 kg, a target of 88.00 kg, and a total weight of 12345678.9 kg. Below the display are buttons for '去皮/去皮' (Tare), '去皮' (Tare), '清零' (Zero), '选择菜单' (Menu), '取消' (Cancel), and '确认' (Confirm).

KOHL

51.00g

88.00g

总重 12345678.9kg

目标 88.00kg

运行

1 2 3

4 5 6

7 8 9

0

去皮

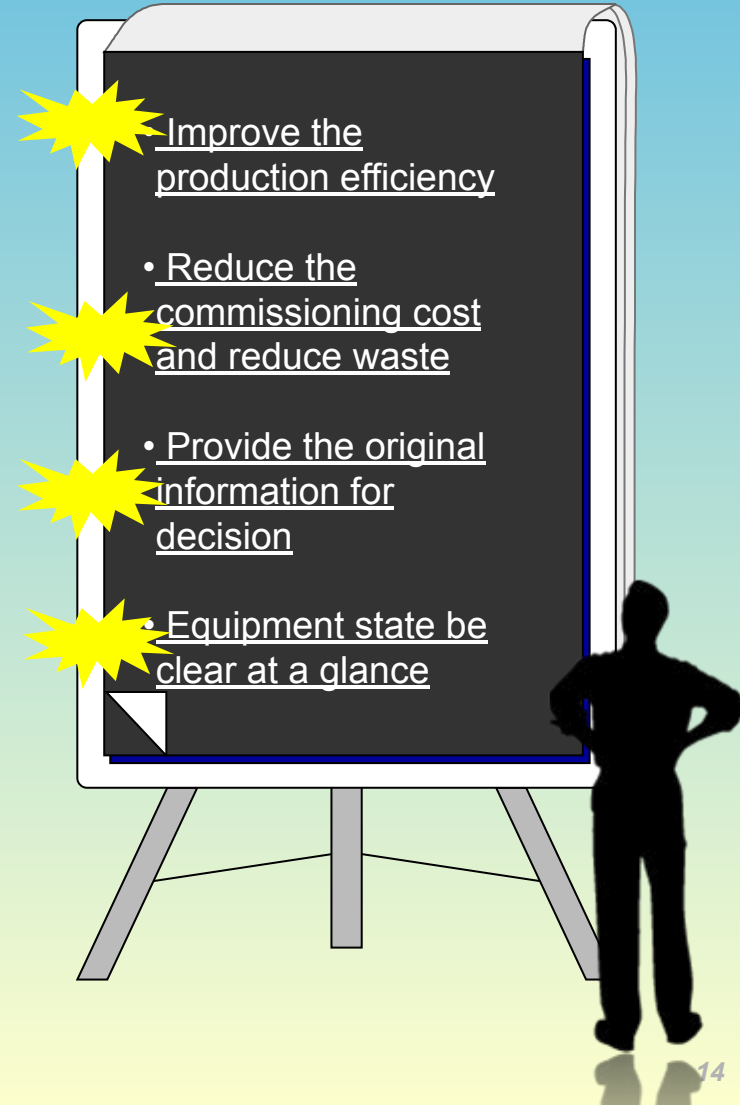
单位

模式

确认

■ Application features

- Automatic fall correction technology
 - Automatic tracking and adjust fall value to control the real value in the range of the target value.
- Preset point self-learning function
 - Can automatic alignment preset point value, no need for repeated tests at site.
- Automatic feed supplement function
- Automatic accumulation and error analysis
- Real-time display IO state
- Real-time clock
- One key backup and recovery
 - Make backup when delivery
 - One key recovery when troubleshooting



The image shows the digital display and control panel of a KOLLE R51 scale. The display shows a current weight of 51.00 kg, a target weight of 88.00 kg, and a total weight of 12345678.9 kg. The control panel includes buttons for '去皮' (Tare), '清零' (Zero), '单位切换' (Unit Switch), '取消' (Cancel), and '确认' (Confirm), along with a numeric keypad (1-9, 0, decimal, and on/off).



Functions



- Start the equipment for working
 - Connections correctly
 - Entry setting interface: select the capacity and calibrate the scale
 - Entry manual interface: select the parameters of working mode
 - Entry function interface: edit preset point parameters
 - Commissioning and operation equipment



select the
capacity and
calibrate the
scale

Setting
working
mode

Edit
parameters

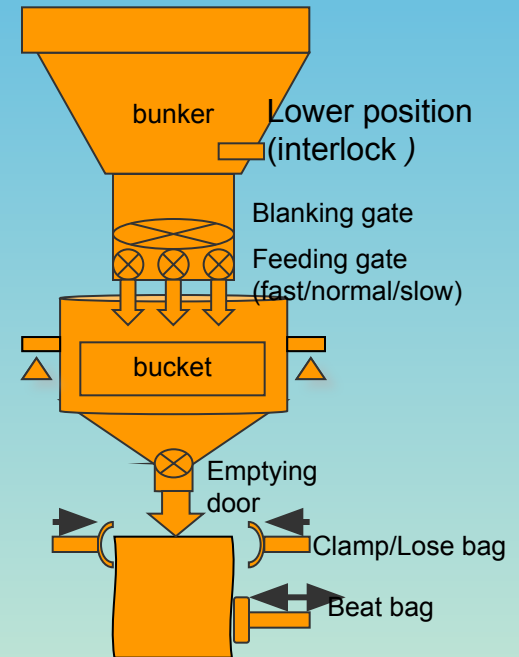
Commissioning
& operation



Functions ----- Packing scale with bucket



- Main working process
 - Operation automatic mode
 - Check the bucket ready, Zero the bucket
 - Open the blanking gate and wait its open to the right position
 - Open the feeding gate to start the feeding
 - Close the feeding gate when the feed up to the target value
 - Stability and out-of-tolerance inspection
 - Check the clamp bag in place
 - Accumulation printing & emptying
 - Close the emptying door after empty, then loose the bag



Features

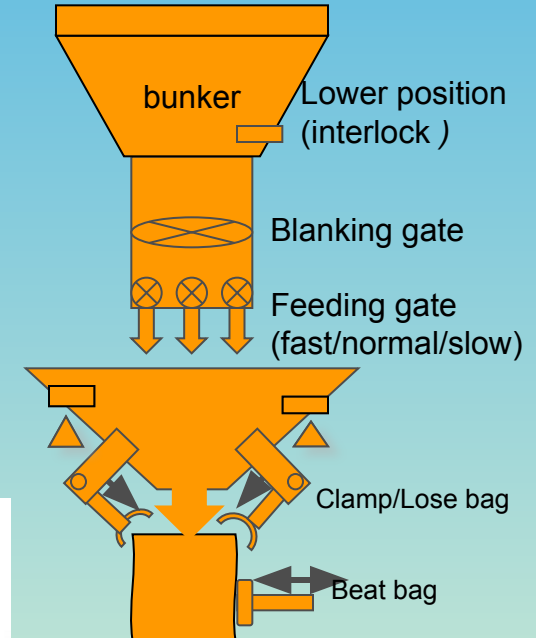
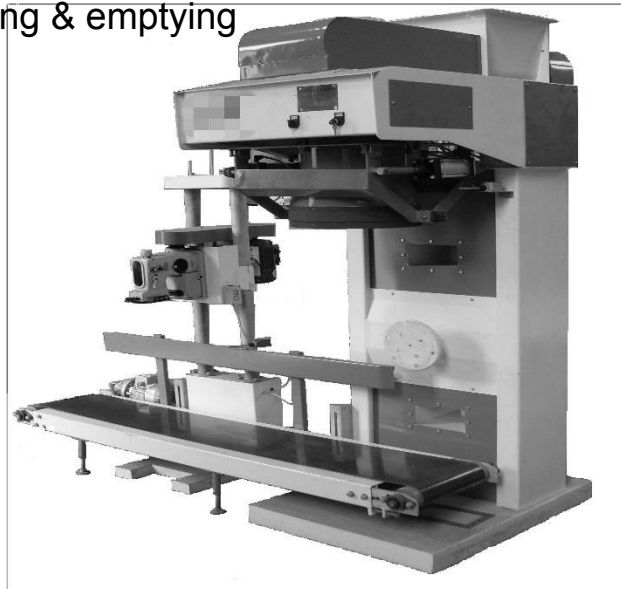
- High accuracy
- Quickly
- Clamp bag action & feeding parallel
- Work flow relatively fixed

Functions ---- Packing scale without bucket



■ Main working process

- Operation automatic mode
- Operators sacking, then tare after checking clamp bag
- Open the blanking gate and wait its open to the right position
- Open the feeding gate to start the feeding
- Close the feeding gate & blanking gate when the feed up to the target value
- Stability and out-of-tolerance inspection
- Check the clamp bag in place
- Accumulation printing & emptying



■ Features

- High accuracy
- Quickly
- Must sacking firstly
- Net weight packing
- Normal for powder
- Mostly with beat bag structure

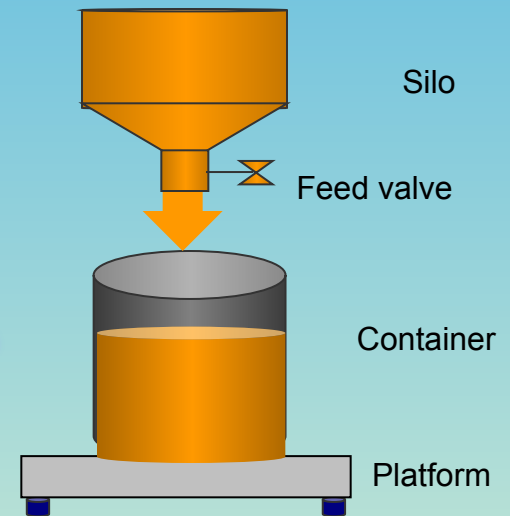
Functions ---- Silo scale



■ Main working process

- Operation automatic mode
- Placing container
- Open the feeding gate to start the feeding
- Close the feeding gate when the feed up to the target value
- Stability and out-of-tolerance inspection
- Accumulation printing & emptying
- Operators shift out container

用无斗秤模式实现灌装秤



■ Features

- The main process is similar to packing scale without hopper
- With dual loading inspection
- The equipment can be simple or complicated
- additional requirements
 - Food & Drink: Hygiene requirements
 - Chemical industry: explosion protection requirements



Functions ----- Bulk scale / Flow scale



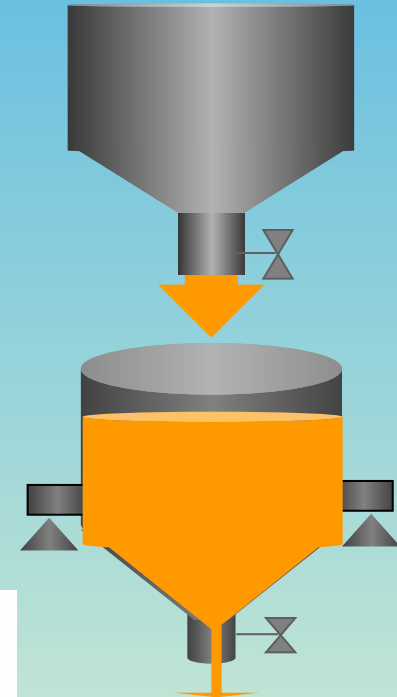
■ Main working process

- Operation automatic mode
- Confirm scale hopper closed and scale zero
- Open the feeding gate to start the feeding
- Close the feeding gate when the feed up to the target value
- Stability and out-of-tolerance inspection
- Accumulation printing & emptying
- Open the emptying gate to empty the materials.



■ Features

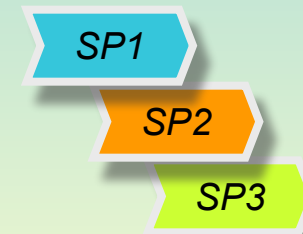
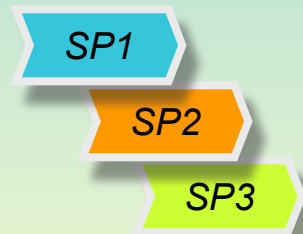
- Used for the transfer of materials in Port, wharf, warehouse
- Receiving/dispatching mode
- Attention accumulative total value
- Some equipments have periodic cleaning process



Functions ---- PLC Control Mode



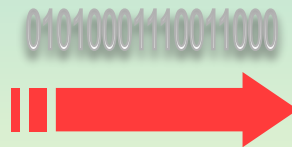
- Through the simple preset point
 - Only output feed preset point to PLC
 - Output end signal
 - With zero checking
 - Control object minimization
 - Suitable for special occasions of correlation process.



Functions ---- PLC Control Mode



- **Through the serial port to connect PLC**
 - two kinds of communication protocols can be used
 - RS232
 - MODBUS RTU--RS485
 - Preset point control realized by PLC
 - Data analysis and statistics realized by PLC
 - Indicator is only responsible for data transmission
 - Suitable for the situations which associated flow rule without regular pattern and always changing



Functions ---- Communications



- MODBUS RTU
 - Many node bus with low cost
 - Max 32pcs R51 in one MODBUS network
 - Get the support of almost suppliers of PLC、SCADA、DCS
 - Through the MODBUS field bus gateway can hang into various open field bus
- Connect scoreboard or auxiliary display
 - Many Continuous output Protocols
- Connected to the printer
 - normal stylus printer
 - 2 print languages: Chinese/English
 - 2 print formats: line, narrow row



Field bus



RS485



MODBUS
RTU/Fieldbus
gateway

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Model series



Applications



- Applicable processes
 - Packaging, filling
 - Ingredients, bulk and packaging ...
- Applications and industries
 - Chemical (petrochemical, refining)
 - Glue coating
 - Plastic & Rubber
 - Construction Materials
 - Port Logistics
 - Chemical Fiber Fabric
 - Food and feed
 - Food & Beverage
 -
 - OEM



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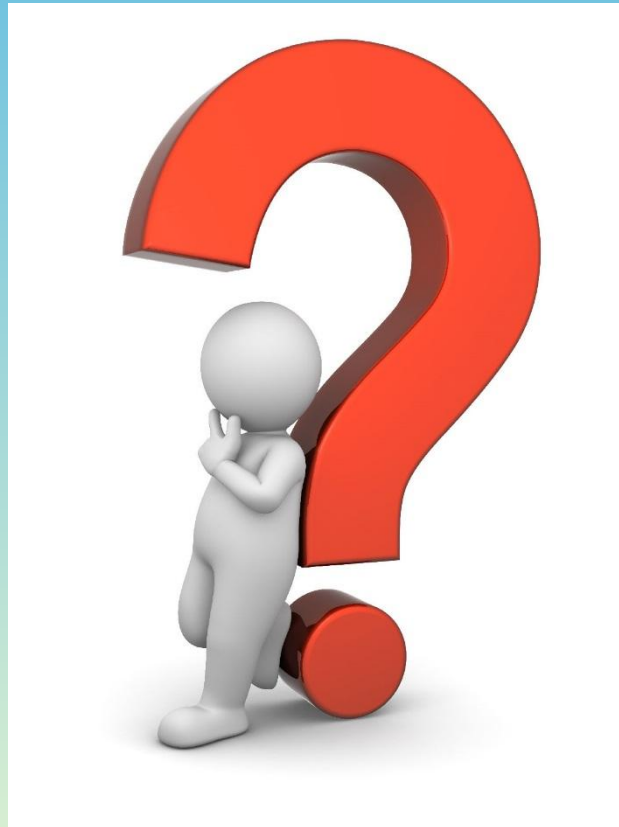
Applications

5

Model series

[illegible]

Q&A





THANK YOU !

KELI CHINA