

## WF-C Main Specifications

Item	Description
<b>Model name</b>	WF-C
<b>Available Feeder</b>	Loss-in-weight Feeder, Belt Weighing Feeder, Constant Feed Weigher, Conveyor Belt Scale
<b>Weight input</b>	Supported load cells: Digital load cell Maximum Connections: 4
<b>Control outputs</b>	1 channel dedicated communication (for a screw and an agitator)
<b>Input signals</b>	Speed pulse input: DCS/12V, photocoupler insulation Analog input *1: 1ch 1 to 5 V DC or 4 to 20 mA DC (internal resistance is 250Ω), resolution is 1/10000 * Optional unit expansion up to additional 4ch with 2 slot *2 8ch Status Contact input *1: External voltage input is 24 V DC, photocoupler insulation * Optional unit expansion up to additional 8ch with 2 slot *2
<b>Output signals</b>	Analog output *1: 1ch 1 to 5 V DC or 4 to 20 mA DC (the maximum load is 500 Ω), resolution is 1/10000 * Optional unit expansion up to additional 4ch with 2 slot *2 8ch Status Contact output *1: Sink outputs, 24 V DC, Max 100 mA, photocoupler insulation * Optional unit expansion up to additional 8ch with 2 slot *2
<b>Interface</b>	USB I/F: 1ch USB interface for reading or writing of various settings, and for logging data output Serial port: 1ch RS-232C or RS-422 or RS-485 Ethernet I/F: 2ch 10BASE-T or 100BASE-TX
<b>Control mode</b>	Manual, automatic, interlocking, WF-DT connection
<b>Measurement control</b>	PI control (100 msec to 10 sec)
<b>Operation sequence</b>	Continuous feed operation, Batch operation(discharge)
<b>Anomaly detection</b>	Interlock, Motor error, DLC error, Ain error, etc
<b>Warning detection</b>	Flow limit H, Flow limit L, Deviation error, Various COM error, etc
<b>Other Features</b>	Auto tuning, Virtual sequence, Self sampling, Preventive maintenance, Initialization GUIDANCE
<b>Option</b>	Control equipment: WF-DT *3, WF-OT Expansion equipment: KJ-1000E, WF-IM Expansion board: WF-OP-IO, WF-OP-PH, WF-OP-AD
<b>Use conditions</b>	Temperature = -5 to +50°C, Humidity ≤ 85%RH (no condensation)
<b>Storage conditions</b>	Temperature = -20 to +70°C, Humidity ≤ 85%RH (no condensation)
<b>Electrical power supply (Power supply capacity)</b>	24 V DC ± 10% (36W)
<b>Dimensions</b>	230 (W) × 103 (H) × 103 (D) mm
<b>Weight</b>	Approx. 1.1kg

\*1:Each input/output signal can be assigned from the table of various applications.

\*2:Additional 4ch photocoupler contact outputs are available with WF-OP-PH option.

And additional 4ch relay contact outputs are available with WF-OP-IH option. 2 option boards can be embedded, and the combination of those is optional. (up to 8 total channels maximum)

\*3:The detailed model name is WF-DT-V2.

## WF-OT Main Specifications

Item	Description
<b>Model name</b>	WF-OT
<b>Display</b>	Display method: TFT color, with LED backlight Display area: 4.3in 55 x 95 mm Resolution: 480 x 272 dots Display language: Japanese, English, Chinese (simplified characters, traditional Chinese characters), Korean
<b>Operation part (Membrane keyboard)</b>	Numeric keys: 1~9, Decimal point Running keys: RUN, STOP Others: Running mode, Shortcut keys such as error, warning
<b>Connection</b>	Communication method: to WF-C series: Ethernet connection * to KF-C series: RS-485 * * No more than 100 m Electrical power supply: 12 to 24 V DC ± 10% (Supplied from WF-C, WF-CM or AVR)
<b>Dimensions</b>	100(W) × 214 (H) × 46.5 (24.5) (D) mm
<b>Control panel cutout</b>	92 × 185mm (in case of mounting on a panel)
<b>Use conditions</b>	Temperature = -5 to +50°C, Humidity ≤ 85%RH (no condensation)
<b>Storage conditions</b>	Temperature = -20 to +70°C, Humidity ≤ 85%RH (no condensation)
<b>Protection level</b>	IP65
<b>Weight</b>	Approx. 0.6kg

# KUBOTA Corporation

Precision Equipment Dept.

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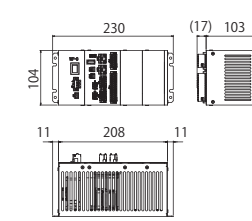
## WF-DT Main Specifications

Item	Description
<b>Model name</b>	WF-DT *1
<b>Connectable Controller</b>	WF-C, KF-C3000 *2
<b>Available Feeder</b>	Loss-in-weight Feeder, Belt Weighing Feeder
<b>Monitor screen (Resolution)</b>	12.1in (1024×768) TFT Color LCD with touch panel
<b>Major functions</b>	Setting: Setting combination (999 kind), Mixing ratio setting, Setting of individual flow rate Running: Start/Stop(Line), Start/Stop(Individual), Local/Remote, Production process stop, Low-low stop Graph display: Flow-PV rate, MV, deviation, Weight value(Load rate) Alarm record: * Record of alarm events (Memory capacity 1000events) * Graphic display for Flow-PV, output control, deviation, and weight value(load rate) after Alarm Display language: Japanese, English, Chinese (simplified characters, traditional Chinese characters), Korean Memory Items: Flow-SV, Flow-PV, Integrate, output control, deviation, Torque, Weight value(Load rate) to internal memory These data can be output via USB device in CSV file format Security: Available 4 levels of restriction (BASIC, EXPERT, ADMINISTRATOR, MAKER) Remote connection: Available via Ethernet Parts management: Available
<b>CPU</b>	ARM CPU
<b>Memory</b>	1GB
<b>Storage area</b>	4GB(program area) +16GB (data recording area)
<b>Operating system</b>	Y o c t o L i n u x
<b>Dimensions</b>	325 (W) × 254 (H) × 55 (D) mm
<b>Control panel cutout</b>	311 × 240mm
<b>Protection level</b>	IP65 (Front panel only)
<b>Electrical power supply</b>	DC24V ± 10%
<b>Use conditions</b>	Temperature = -5 to +50°C, Humidity ≤ 85%RH (no condensation)
<b>Storage conditions</b>	Temperature = -20 to +60°C, Humidity ≤ 85%RH (no condensation)
<b>Weight</b>	Approx.3kg
<b>Interface</b>	Ethernet I/F: For WF-C × 1ch, for Socket communication or Modbus-TCP × 1ch USB I/F: 2ch Serial Ports: For KF-C RS-485 × 1ch (insulation), for IFU RS-232C × 1ch (insulation), for host communication RS-232C / RS-485 / RS-422 × 1ch (insulation)
<b>Option</b>	Analog input/output: Total flow-SV input, Total flow-PV output, DC1~5V / 4~20mA

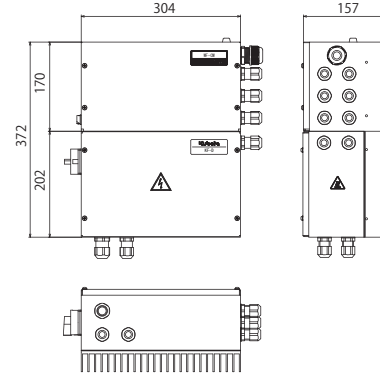
\*1:The detailed model name is WF-DT-V2.

\*2:KF-C3000 is limited to Ver 2.01 and later.

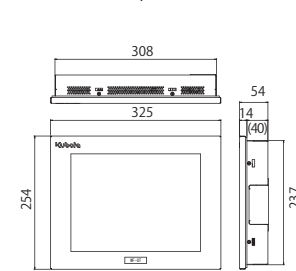
WF-C Feeder controller  
(for separate control panel)



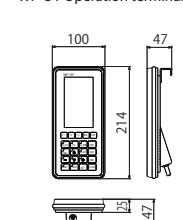
WF-CM Feeder mounted panel  
(including WF-C controller)



WF-DT Centralized operation control terminal



WF-OT Operation terminal



## KUBOTA Next-generation Feeder control system

# WF series

WF-C Feeder controller (for separate control panel)

WF-CM Feeder mounted panel (including WF-C controller)

WF-DT Centralized operation control terminal

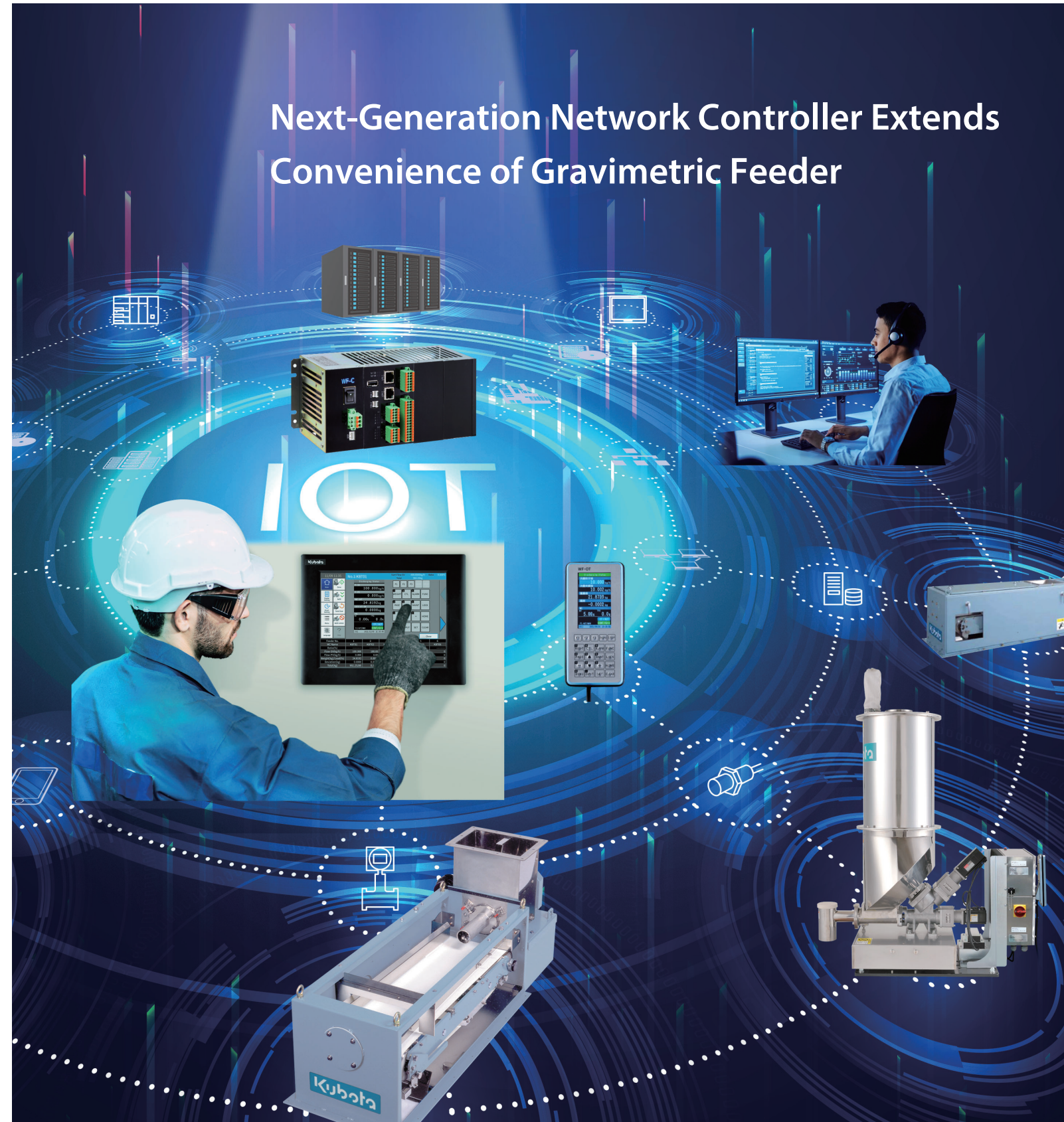
WF-OT Operation terminal



ISO-14001 CERTIFIED  
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ISO-9001 CERTIFIED  
KUBOTA PRECISION EQUIPMENT BUSINESS UNIT

## Next-Generation Network Controller Extends Convenience of Gravimetric Feeder





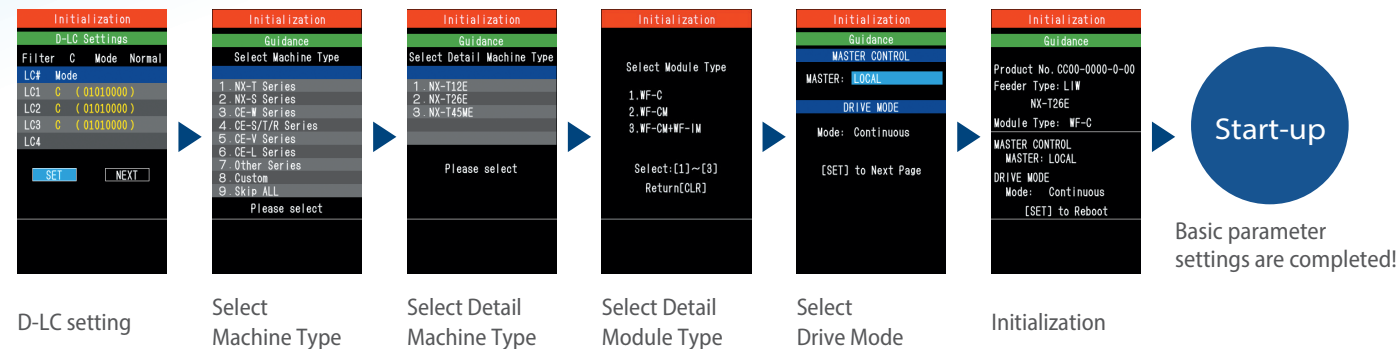
# Achieving IoT in Compound-Production process with Ethernet Connectivity

In addition to high and stable feeding accuracy, new functions such as running log recording and equipment monitoring bring reassurance

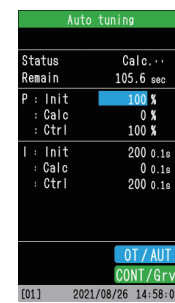
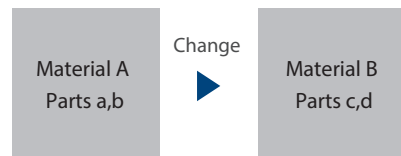
## Designed for providing easy support from initial installation to start-up feeders Usability

① Easy setting according to the interactive guidance for smooth startup.

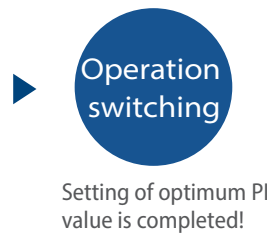
(Example flows)



② The controller recommends the best PI value for each material. Quickly switch operation when changing raw materials or feeder parts.



Setup change will be much shorter by using the auto-tuning function!

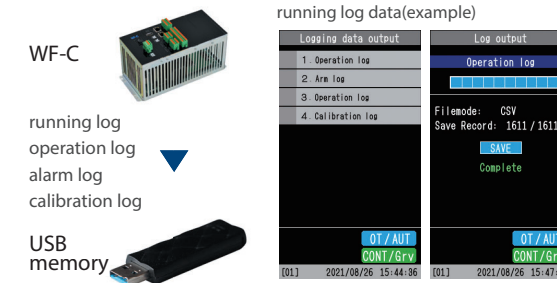


③ Ethernet connection makes wiring work easy between Kubota's and user's devices

The feeder can be started without troublesome setting and adjustment work. Reduce operator's stress and improve Productivity.

## Guarantee of accurate operation and record keeping in daily production

① Since the running log is recorded in the USB memory, it is easy to identify the point to change even in case of the event of a failure.



Records 18,000 data per data interval (selectable between 1 and 60 seconds). Helps identify the problem lot and determine the cause.

## Quality Control

② The correct part configuration can be confirmed for each ingredient recipe to prevent defects caused by human errors in part selection.

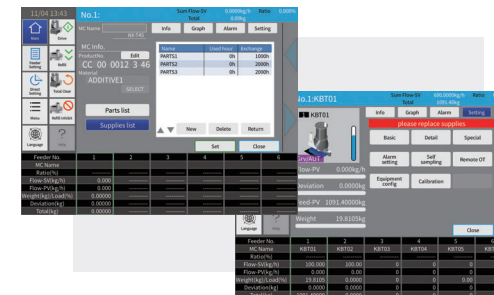


By registering in advance, you can check the correct part configuration when Setup change (raw material change, etc.).

It prevents defective products from occurring and prevents defective lot from leaking out of the factory even in the event of a defect. Reducing the unnecessary cost of responding to defects and maintain the reliability of product quality.

## Preventive maintenance of feeders and Free from an anxiety Maintenance in case of trouble

① Monitor the degradation of parts that wear out over time. By notifying the replacement time of those parts, unexpected and sudden failure can be prevented.



② Provides remote diagnostic services via Ethernet in the unexpected event of a failure. A skilled technician from the Feeder Contact Center will be available. (An additional contract is required.)

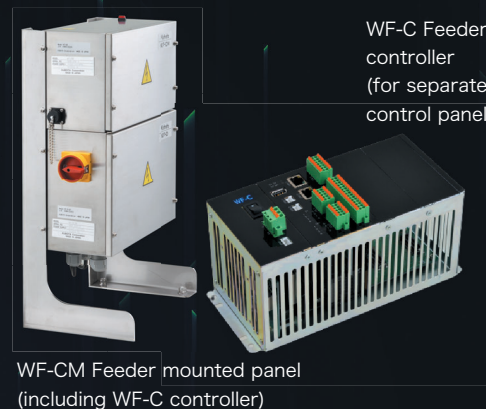


Useful to minimize downtime by preventing sudden production line shutdown. Achieve total cost reduction throughout the feeder lifecycle.

## Brand-new user interface to make operation easier

**WF-OT Operation terminal**  
Improved information list with larger display

- Switchable Multilingual (Japanese, English, Chinese (Simplified/Traditional), Korean)
- Ethernet connection increases the amount of displayed information and speeds up communication



**WF-DT Centralized operation control terminal**  
Graphical 12.1 inch wide touchscreen

