

DU500 SERIES ON-OFF SERVO UNIT DU600 SERIES MANUAL UNIT



DU500 Vertical Type

DU500 series convert current output signal from the controller to on-off servo signal to drive the actuator such as control motor.

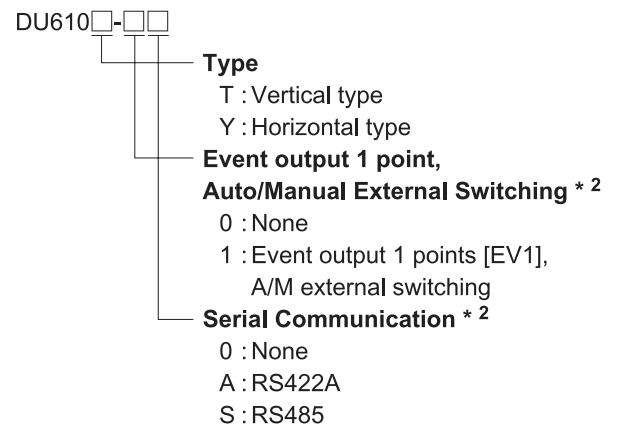
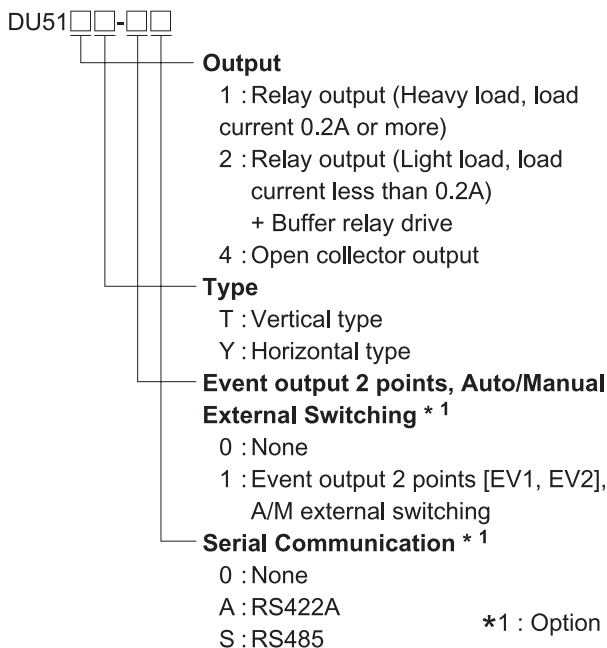


DU600 Horizontal Type

DU600 series receive 4 to 20mA DC current output signal from the controller and output that signal isolated (AUTO) or manually output the arbitrary value (MAN).



MODEL



- Open loop method standard equipped.
(Control by full opened time ⇔ full closed time instead of feedback input).
- Manual output value settable at auto/manual switching.
Manual output value is selectable from either output value at switching or preset manual. A/M switching can be also done by exterior signal (option).

Best for motor drive actuator control!

On-Off Servo Unit DU500



FEATURES

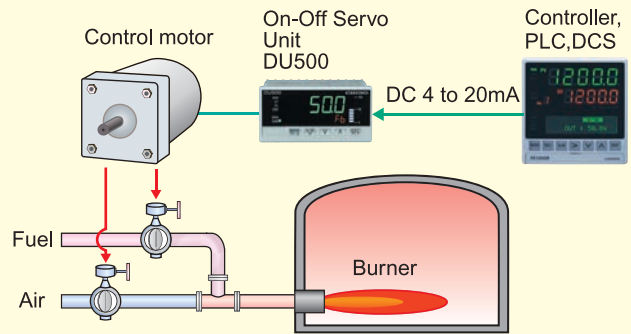
Auto / Manual switchable.
Remote operation by communication interface (option).

USAGE

Combustion furnace control by control motor.
Air conditioning duct damper control.

DU500 APPLICATION EXAMPLES

Feedback control of combustion



Manual control freely in your hands!

Manual unit DU600



FEATURES

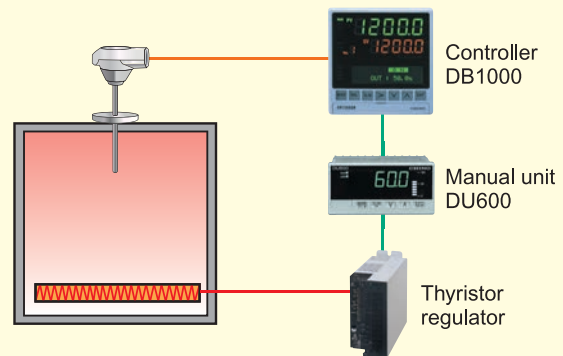
Easy adjustment of 4 to 20mADC control signal.
Auto/Manual switching without operating main controller.

USAGE

Fasten the processing temp. time
Conserve the energy at the rest time by temporary limiting the output.
Manual operate to adjust the furnace internal temp. due to the processing volume.

DU600 APPLICATION EXAMPLES

Correspond to urgent project



SPECIFICATIONS

Measuring input

- No. of input point: 1 point
- Input signal: 4 to 20mA DC
- Measuring accuracy: $\pm 0.2\%$ of FS ± 1 digit
- Sampling rate: Approx. 100ms
- Input resistance: Approx. 35 Ω

General specifications

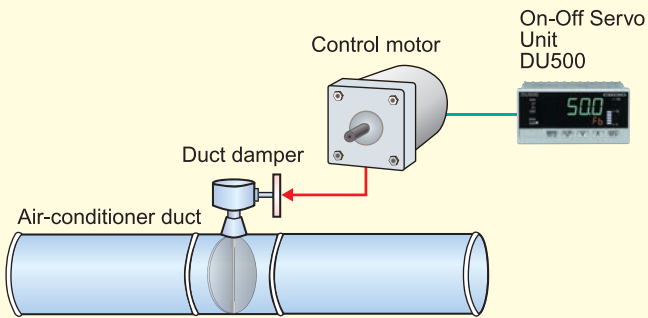
- Rated power voltage: 100 to 240VAC, 50/60Hz
- Max. power consumption: 7VA (100VAC), 10VA (240VAC)
- Mounting: Panel mounting
- Weight: Approx. 160g (DU500), 140g (DU600)
- Terminal screw: M3.0
- CE marking: EMC directive
— EN61326-1 Class A
Low voltage directive
---EN61010-1, EN61010-2-030
RoHS directive

Display / Setting specifications

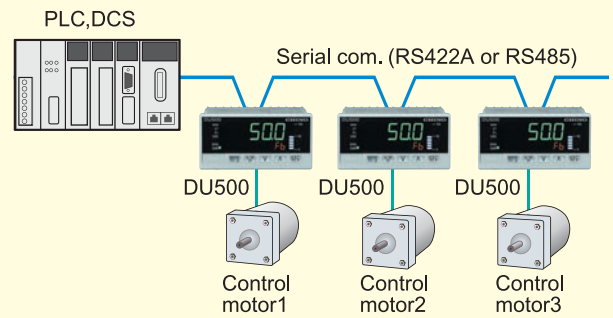
- Display: Segment type LCD (LED backlight)
- Display content: Upper display, 5 digits 11 segments (green)^{*1}
--- Input value, Output value, Feedback value
Lower display, 5 digits 11 segments (green)
--- Setting value
- Bar graph^{*1}: 10 segments (resolution 10%SEG) (white)
--- Input value, Output value, Feedback value

*1: DU600 displays output value only.

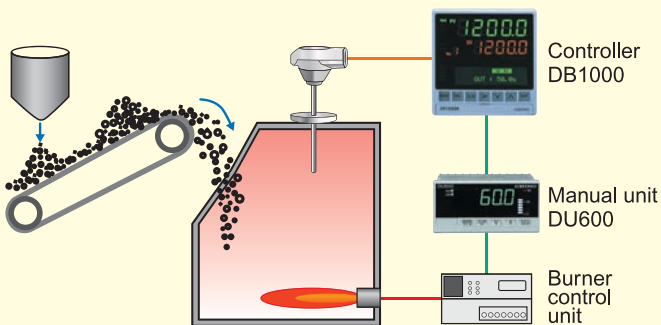
Open loop control of air-condition



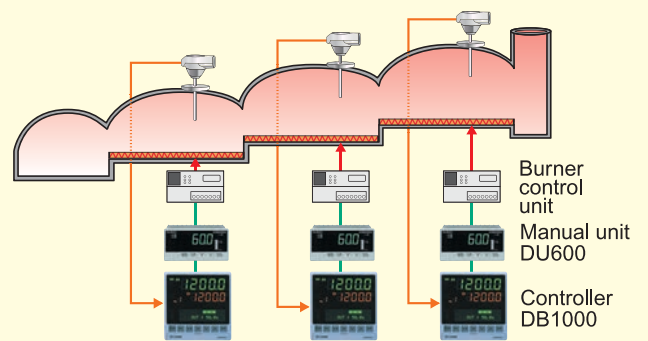
Multiple control motor operation



Control process volume fluctuation



Craftsmanship control for pottery



DU500 OUTPUT / FEEDBACK INPUT SPECIFICATIONS

Model	DU511	DU512	DU514
Output	Relay output (heavy load) *2	Relay output (light load) *2	Open collector output *2
Contact type	N.O. 2 points	N.O. 2 points	Transistor open collector
Contact capacity	Resistance load 240VAC 3.0A 30VDC 3.0A Inductive load 240VAC 1.0A 30VDC 1.0A Min. load 5VDC 100mA or more	Resistance load 240VAC 1.0A 30VDC 1.0A Inductive load 240VAC 0.5A 30VDC 0.5A Min. load 5VDC 1mA or more	24VDC (allowable current 50mA or less)
Applicable load	Motor load current is 0.2mA or more	Motor load current is less than 0.2A, or buffer relay	Connect to buffer relay (DC relay) or PLC and drive the actuator

*2: When connecting to the load, use standard attached protective element (heavy load: CX-CR2/ light load: CX-CR1/ open collector: CX-CR3).

Feedback input

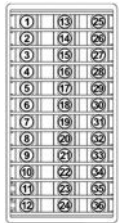
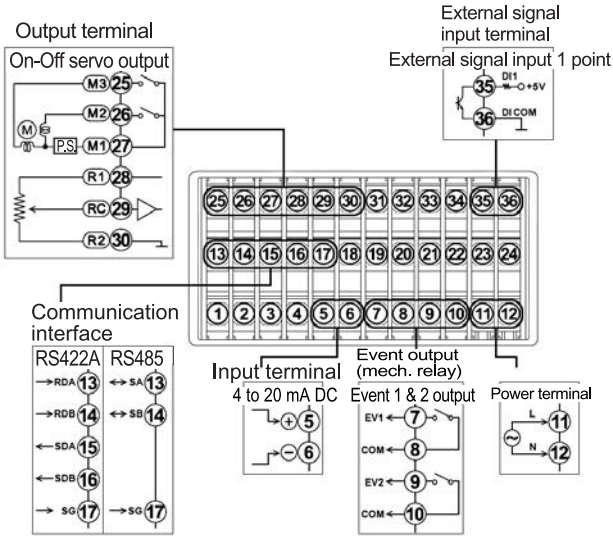
Allowable resistance rate:
100 to 2,000Ω
Deadband:
1.0 to 20.0%

DU600 OUTPUT SPECIFICATIONS

Output type: 4 to 20mADC
Allowable load resistance:
600Ω
Output accuracy: ±0.3%
Input/ Output insulation:
Insulated between input and output

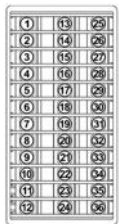
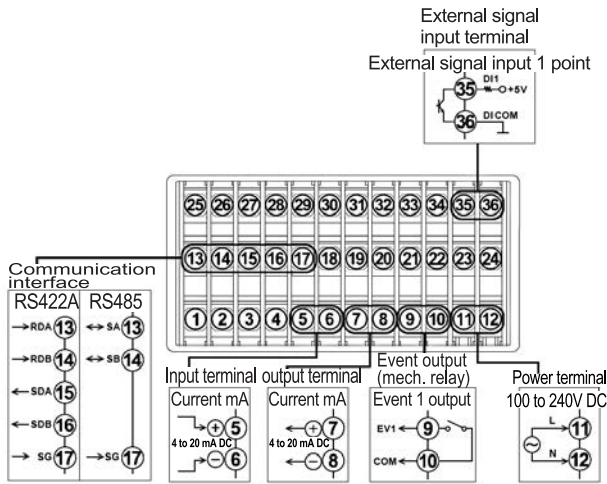
TERMINAL ARRANGEMENT

DU500



Vertical type: Terminal no. and function are same.

DU600



Vertical type: Terminal no. and function are same.

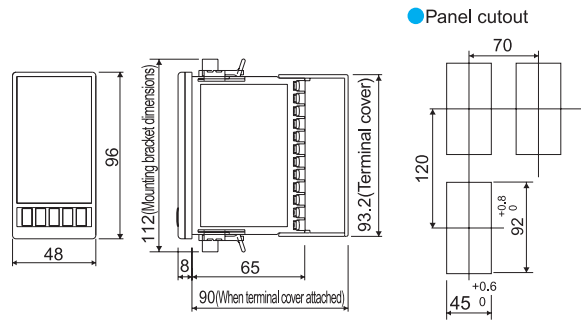
OPTIONS

Status output	Type DU500 manual output condition, FB (feedback) abnormal detection, 2points DU600 manual output condition, 1point Output type: Mechanical relay, Normally open Contact capacity: 240VAC/30VDC 3A (resistance load) 5VDC 10mA (min. load)
Exterior signal input	Type: Auto/Manual switching Input type: Digital input or open collector Exterior contact capacity: 5VDC 2mA
Communication interface	Communication type: RS422A, RS485 Protocol: MODBUS (RTU/ASCII) Communication speed: 4800/9600/19200/38400bps Communication function: Upper communication / digital transmission Transmission type*3: Feedback value, input value, output value

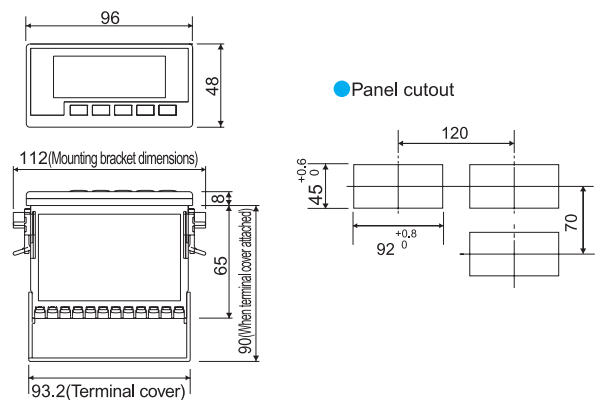
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EXTERNAL DIMENSIONS

Vertical Type



Horizontal type



Unit: mm

Specifications subject to change without notice. Printed in Japan (I) 2017. 1

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