Compact

Controllers to Control Stepping Motors and I/O Ports

RC-204A, RC-207A

I/O MASTER

Description

I/O Master RC-204A and RC-207A utilize serial communication (RS-232C) to control step motor drivers and I/O ports. Also, because a pulse counter is built in, trapezoidal acceleration is available by combining with RORZE's drivers with built-in oscillator.

Features

- In case of controlling no motor, all I/O ports can be used as general I/O ports.
- Stall detection by attaching a stall sensor and a stall slit to a device. (Note: Stall sensor devices may not be rotary in shape.)
- Up to 20 controllers such as RC-204A, RC-207A and RC-234 can be daisy-chained together in a MasterNet system from one PC and multi-axis stand-alone control is available at a low price. (See the example 2 in the system configuration.)
- RC-207A: EEPROM for easy downloading and saving the user's program
- RC-204A: Backup using battery (3.6V)

Specifications

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Supply voltage	18 to 40VDC (including ripple)
Supply current	Less than 30mA (at 24VDC)
Clock response	100kpps max. 80kpps (at stall detection)
Data memory position RC-204A	0 to 16,777,215 pulses
RC-207A	0 to 16,777,215 pulses or -8,388,608 to +8,388,607
Number of Profiles	1,130
Accel.,/decel. method	Trapezoidal
Input ports Output ports	20 (Including I/O ports to 16 control motors)
Stall detection method	STALL sensor
Control signal line	Current loop method of RS232C (use Link Master RC-002)
Baud rate: RC-204A	9600 bps
RC-207A	9600, 1200, 300 bps
Back up method	RC-204A: battery RC-207A: EEPROM
User Program (RC-207A)	1,792 bytes (approx. 300 commands)
Recommended drivers	Drivers with built-in oscillator (RD-100 and 300 series)
Control motors	2 of each, controlled alternately
Outside dimensions	27.5(H)×105(W)×56(D)mm
Weight	approx. 250g

Input/Output ports

Input port
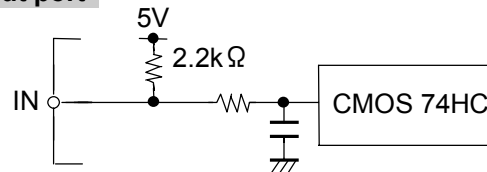
Low Level : Less than 1.5V
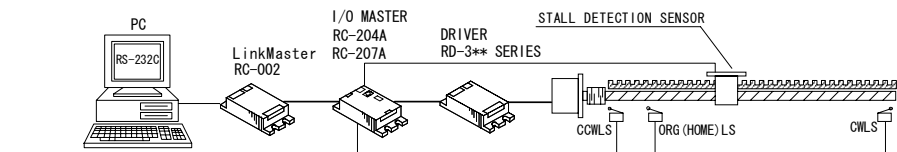High Level: More than 3.5V

Output port
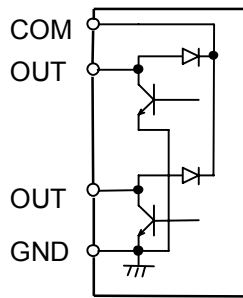
Open Collector (Darlington·Transistor)
Voltage: Less than 50V
Current: Less than 200mA (per one contact)
Less than 800mA in total of 8 contacts
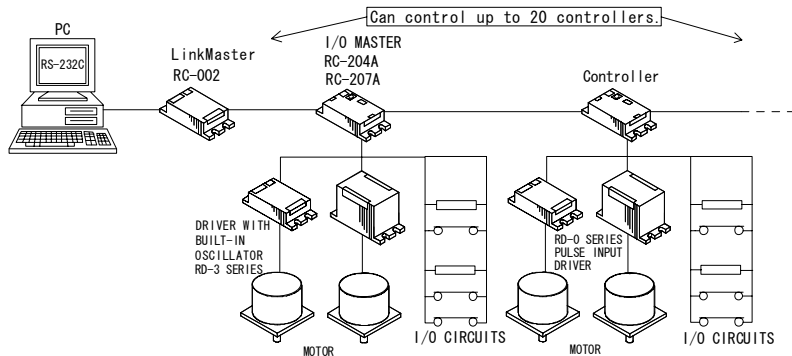Vce(sat): Less than 1.1V (Ic : 200mA)

System configurations

Example 1

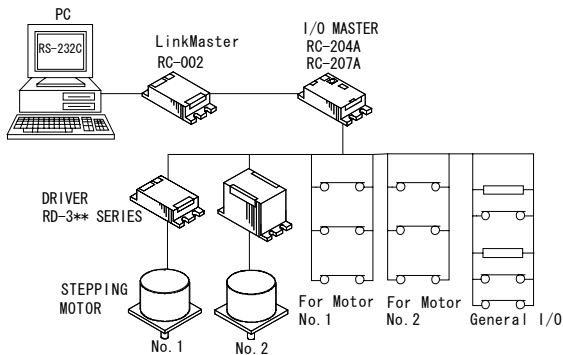Stall detection is possible, in case of using two motors.

Stall detection of stepping motors is available by connecting stall detection sensor to RC-204A, 207A

Example 2

Controllers that can connect at this configuration: RC-204A, RC-207A, RC-234, RC-003
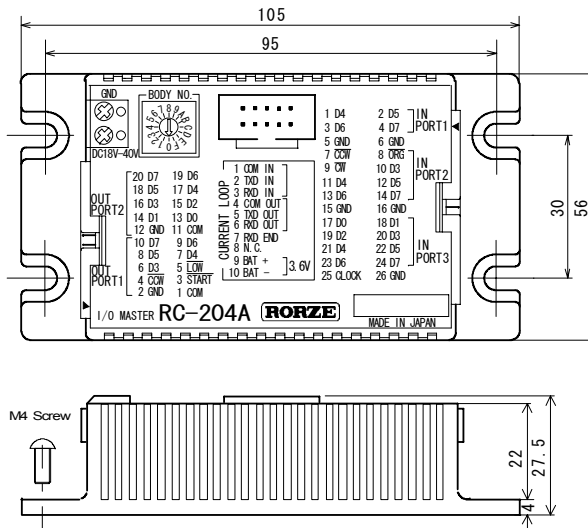
Example 3

Relation between No. of motor and general I/O ports.

No. of motor to control	0	1	2
General input ports	20	16	13
General output ports	16	13	10

Dimensions

(mm)