



Controllers for Stepping Motors

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|--------------|--------------------------------------|---------|----------|-----|-------------------------------|----|----------|--------|-------------------------------|-----|-------------|-------------------------------|------------------------------|-------------------------------|-----|--|-------|--------------|----|------------------------|---------|------------------|---------|-----|-------------|
| Introduction | Motor & Driver Packages | | | | | | | | | | Controllers | | Low-Speed Synchronous Motors | Before Using a Stepping Motor | | | | | | | | | | | |
| AS | Closed Loop <i>Q57ZP</i> AC Input | AS PLUS | DC Input | ASC | 5-Phase Microstep AC Input | RK | DC Input | CRK II | 5-Phase Full/Half DC Input | CSK | PMC | 2-Phase Full/Half AC Input | UMK | DC Input | CSK | 2-Phase Stepping Motors without Encoder | PK/PV | with Encoder | PK | Driver with Indexer | UI2120G | EMP401 EMP402 | SG8030J | SMK | Accessories |

Additional Information

| | |
|---------------------|-----|
| Technical Reference | F-1 |
| General Information | G-1 |

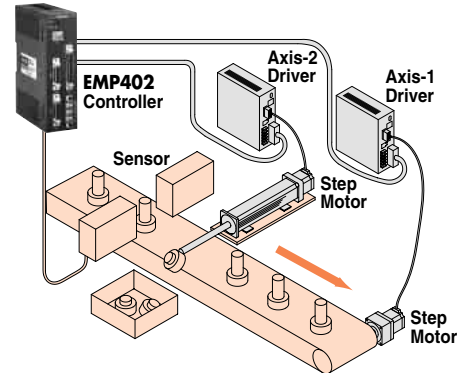
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|---------------|-------|
| EMP400 Series | C-254 |
| SG8030J | C-266 |

Controllers for Stepping Motors

EMP400 Series

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- Coordinated 2-axis moves via linear interpolation operation
- Step pulse rate up to 200 kHz
- General I/O: 8 inputs and 6 outputs
- Optional **OP300** operator interface unit available
- Ability to change velocity "on the fly"
- Also available as a single axis controller



SG8030J

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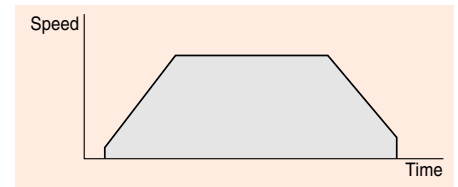
- Compact and simple controller
- Sequence control of four positioning operations
- Selective control of four positions
- Select operating modes using a programmable controller
- Step pulse rate up to 200 kHz



DIN Rail-Mount Model
SG8030J-D

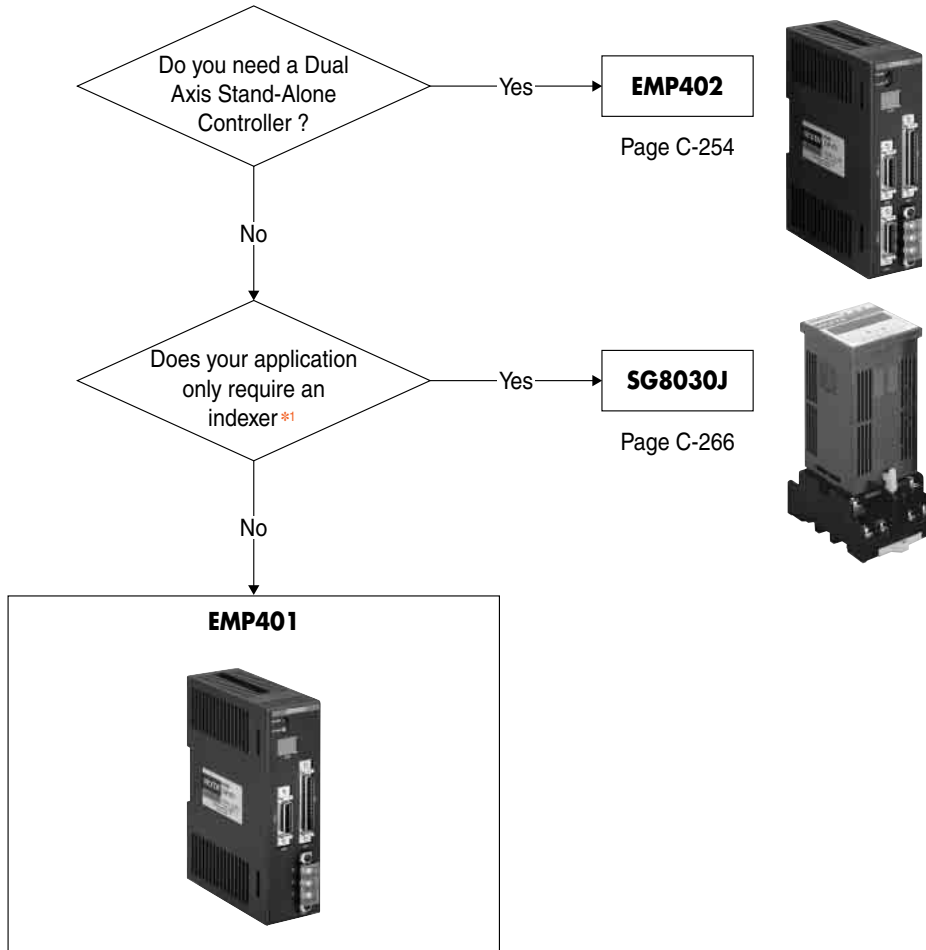


Panel-Mount Model
SG8030J-U



Controller Selection Guide

Based on the needs of your application, determine the controller which best fits your needs.



*1 An Indexer is a device that provides step and direction output pulses, but does not have general (programmable) inputs or outputs.

Controller Comparison

| | Dual Axis Motion Control | Serial Communication Port (RS232C) | Sequences | Startup Program * | Homing Function | Maximum Pulse Frequency | Inputs | Outputs |
|----------------|--------------------------|------------------------------------|--------------------------------|-------------------|-----------------|-------------------------|--------------------------|--------------------------|
| EMP402 | YES | YES | 33 (1000 commands max.) | YES | YES | 200 kHz | 8 General + 22 Dedicated | 6 General + 10 Dedicated |
| EMP401 | NO | YES | 33 (1000 commands max.) | YES | YES | 200 kHz | 8 General + 15 Dedicated | 6 General + 7 Dedicated |
| SG8030J | NO | NO | 1 Sequence or 4 Data Positions | NO | YES | 200 kHz | 6 Dedicated | 3 Dedicated |

* A startup program executes when the controller is powered on. The **SG8030J** uses a START input to execute a sequence.