Built-in gateway function

The gateway function is built into this robot positioner. When connecting multiple robot positioners, up to four units can be made available to the field network by installing the network board in one positioner and making the dedicated daisy-chain connections. This reduces the total cost.

New functions

Direct positioning command
Positioning operation can be performed by directly specifying position data or speed data for the remote command prepared for the field network when not in gateway mode.
- Data registration or positioning can be made with one step operation.
- Data can be managed directly from the PLC.
- Current position can always be monitored.

Basic specifications

Controller model TRANSERVO series

Install position 35.2: DIN rail width, 35mm
80.7: DIN rail center position

External view

Ask us about our NEW SGXY Economy Gantry Cartesian!
The innovative Transervo vector control delivers the same point to point functions as a servo motor while using a low cost stepper motor. Providing a low cost, simple design and no vibration when stopped.

SGXY built in standard stroke length from 100mm to 860 mm in 50 mm increments, providing a custom fit to your application. Inquire about our Custom Gantry and extended stroke options to provide even more application flexibility.

The same high resolution resolver that is used in our high level robots. It provides stable position detection in harsh environments where optical encoders fail.

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4. TS-SH absolute positioner eliminates homing (origin) process.

5. The motors are easily removed and replaced, significantly reducing the time to restore production.
SGXY Arm type

1. The innovative Transervo vector control delivers the same point to point functions as a servo motor while using a low cost stepper motor. Providing a low cost, simple design and no vibration when stopped.

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High lead: Lead 20

Origin on the non-motor side is selectable.

Economical closed loop stepper motor multi-axis robot

Ordering method

SGXY Arm type

Controller

Motor Combination

X-Axis Stroke

Y-Axis Stroke

Cable Combination

Controller

I/O

Battery

N: None

A1 15 to 80cm

10 to 40cm

3L - 3m

SH:TS-SH

NP: NPN

B: With Battery

(2)SH

A2 5L - 5m

5L - 5m

PN: PNP

A3 10L - 10m

CC: CC-Link

A4 DN: DeviceNet™

EP: EtherNet/IP™

GW: No I/O board

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The motors are easily removed and replaced, significantly reducing the time to restore production.

Note 1. Positioning repeatability in one direction.

Note 2. When the X-axis stroke is longer than 600 mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the chart on page 3.

Note 1. The moving range when returning to origin and the stop position when stopping by the mechanical stopper.

Note 2. When the X-axis stroke is larger than 600 mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the chart on page 3.
## Basic specifications

<table>
<thead>
<tr>
<th>Control mode</th>
<th>TRANSERVO series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control type</td>
<td>Closed loop vector control</td>
</tr>
<tr>
<td>Protection function</td>
<td>Position detection error, temperature error, overload, overcurrent, low voltage, excessive position deviation, overcurrent, motor current error, encoder error, resolver error, motor error, motor faulty wiring, excitation power failure error, loss of motor power, emergency stop input, emergency stop contact output (1 system: HT1 is used).</td>
</tr>
<tr>
<td>Error output</td>
<td>Servo ON (SERVO), reset (RESET), start (START), interlock (/LOCK), emergency stop circuit, emergency stop input, emergency stop contact output (1 system: HT1 is used), data registration or positioning can be made to the dedicated daisy-chain connections. This reduces the total cost.</td>
</tr>
<tr>
<td>Control method</td>
<td>Closed loop vector control method</td>
</tr>
<tr>
<td>Main power supply</td>
<td>DC24V ±10%</td>
</tr>
<tr>
<td>Control power supply</td>
<td>DC24V ±10%</td>
</tr>
<tr>
<td>Dimensions</td>
<td>W30 x H162 x D123mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 0.3kg</td>
</tr>
<tr>
<td>I/O interface</td>
<td>Select a desired interface from NPN, PNP, CC-Link, DeviceNet, and EtherNet/IP.</td>
</tr>
<tr>
<td>Number of points</td>
<td>255 points</td>
</tr>
<tr>
<td>Resolution</td>
<td>Resolver with multi-turn absolute function (resolution: 20480 P/r)</td>
</tr>
<tr>
<td>Absolute backup period</td>
<td>Approx. 1 year (non-energizing state)</td>
</tr>
<tr>
<td>Absolute backup battery</td>
<td>Lithium battery</td>
</tr>
<tr>
<td>Vibration resistance</td>
<td>57 to 150Hz, 9.8m/s</td>
</tr>
<tr>
<td>Temperature and humidity</td>
<td>0 to 40℃, 35 to 85%RH (No dew condensation allowed.)</td>
</tr>
<tr>
<td>Operating ambient</td>
<td>15 to 45℃, 35 to 85%RH (No dew condensation allowed.)</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP54</td>
</tr>
<tr>
<td>Motor</td>
<td>Servo motors</td>
</tr>
</tbody>
</table>

## External view

![External view](Image)

*Specifications and appearance are subject to change without prior notice.*

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