

# SCU6x



SCU6x: Redefining Performance and Simplicity

## Key Features

- **Next-generation processing** – 3x faster than SCU5 with 10x more memory
- **Advanced touchscreen** – color capacitive touchscreen for intuitive operation
- **Dual-port industrial Ethernet** – EtherNet/IP, PROFINET, EtherCAT, Modbus/TCP
- **Integrated stepper driver** – up to 7A per coil for direct actuator control
- **Dual rail power** – 24V logic + 24-48V driver for enhanced safety and flexibility
- **Rich I/O** – 4 digital inputs (NPN/PNP/Dry Contact), 3 digital outputs
- **16x faster image capture** – 16x higher image resolution vs previous generation

## Benefits

- **Stop losing production** to slow sensor response at high line speeds
- **Eliminate controller bottlenecks** – 3x faster processing keeps up with demanding applications
- **End integration hassles** – dual-port Ethernet with multiple protocol support
- **Remove separate driver costs** – integrated 7A stepper driver eliminates external components
- **Prevent safety incidents** – dual rail power isolates logic from motor power
- **Stop compromising on precision** – 16x higher image resolution for critical applications

## Specifications

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<b>Processing Speed</b>	3x faster than SCU5	<b>Processor Memory</b>	10x more than SCU5
<b>Program Storage</b>	4x more than SCU5	<b>Image Resolution</b>	16x higher than SCU5
<b>Processor</b>	32-bit	<b>Sensor Inputs</b>	2 independent channels
<b>Logic Power</b>	24 VDC, up to 3A	<b>Driver Power</b>	24-48 VDC, up to 7A/coil
<b>Industrial Ethernet</b>	2 ports – EtherNet/IP, PROFINET, EtherCAT, Modbus/TCP		
<b>Digital Inputs</b>	4x (NPN/PNP/Dry Contact)	<b>Digital Outputs</b>	3x (NPN/PNP)
<b>Actuator Output</b>	1 bi-polar stepper motor, up to 7A per coil		
<b>Operator Interface</b>	Color capacitive touchscreen	<b>Housing</b>	Powder coated aluminum
<b>Dimensions</b>	189.5 x 175.5 x 119.93 mm (7.44 x 6.89 x 4.72 in)		
<b>Operating Temp</b>	-10°C to 65°C (14°F to 150°F)	<b>Protection Class</b>	IP54

## Applications

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- High-speed web guiding applications
- Precision coating and laminating lines
- Battery electrode manufacturing
- Integration with Industry 4.0/IIoT systems
- Multi-sensor processing for complex converting lines

## Compatibility

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### SUPPORTED LINE SPEEDS

500-1000 fpm

### SUPPORTED MATERIAL TYPES

Opaque Material, Mesh/Screen

### SUPPORTED WEB WIDTHS

Narrow (<12"), Narrow (<12")

## Available Configurations

Part Number	Configuration
4-300041	SCU6x DIO
4-300101	SCU6x MD
4-300141	SCU6x MDIO
4-300201	SCU6x MxD
4-300241	SCU6x MxDIO
4-301001	SCU6x C(E)D
4-301041	SCU6x C(E)DIO
4-301101	SCU6x MC(E)D
4-301141	SCU6x MC(E)DIO
4-301201	SCU6x MxC(E)D
4-301241	SCU6x MxC(E)DIO
4-302001	SCU6x C(P)D
4-302041	SCU6x C(P)DIO
4-302101	SCU6x MC(P)D
4-302141	SCU6x MC(P)DIO
4-302201	SCU6x MxC(P)D
4-302241	SCU6x MxC(P)DIO
4-303001	SCU6x C(M)D
4-303041	SCU6x C(M)DIO
4-303101	SCU6x MC(M)D
4-303141	SCU6x MC(M)DIO
4-303201	SCU6x MxC(M)D
4-303241	SCU6x MxC(M)DIO
4-304001	SCU6x C(EC)D
4-304041	SCU6x C(EC)DIO
4-304101	SCU6x MC(EC)D

Part Number	Configuration
4-304141	SCU6x MC(EC)DIO
4-304201	SCU6x MxC(EC)D
4-304241	SCU6x MxC(EC)DIO

## Supporting Documentation

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### Manuals (2)

- [SCU6x Industrial Ethernet Register Map for v4.1+](#)
- [SCU6x: Sensor and Web Guide Controller User Manual](#)

### 2D Drawings (3)

- [SCU6x: 2D Drawing \(pdf\)](#)
- [SCU6x: 2D Drawing Front View \(dxf\)](#)
- [SCU6x: 2D Drawing SCUx Connectors \(dxf\)](#)

### 3D Models (1)

- [SCU6x](#)

### Wiring Diagrams (7)

- [SCU6x MD Wiring Diagram with Retrofit/Upgrade Actuator](#)
- [SCU6x MD Wiring Diagram with Web Guide](#)
- [SCU6x MxD Wiring Diagram with Unwind/Rewind \(Small Load\)](#)
- [SCU6x MxD Wiring Diagram with Unwind/Rewind Actuator](#)
- [SCU6x MxD Wiring Diagram with Unwind/Rewind Actuator with Regen Clamp](#)
- [SCU6x MxD Wiring Diagram with Unwind/Rewind Actuator without Regen Clamp](#)
- [SCU6x Wiring with ODC Sensors](#)

### Support Files (3)

- [EtherNet/IP EDS File for Roll-2-Roll® Communication Module](#)
- [EtherNet/IP EDS File for SCU6x firmware Version 4.1+ using Hilscher Module](#)
- [Rockwell/AB Add-on Instructions for SCU6x C\(E\)D/MC\(E\)D controller v4.1+](#)



Scan for datasheets, 3D models & full documentation

<https://r2r.tech/products/controller/scu6x>

### Ready to Get Started?

Contact our experts to discuss how this product fits your application.

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