

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

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

Applications

- 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

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

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.

Phone: +1 (888) 290-3215 | **Email:** experts@r2r.tech | **Web:** r2r.tech