PRODUCT BROCHURE

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
- **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** – industrial 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	1 port – 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 Family

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/sensor-controller/scu6x

Ready to Get Started?

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