

## Single-Channel Servo Controller (SCON-S)



- 24-bit Resolution
- Eight (8) Analog Inputs
- One (1) servo proportional control output with  $\pm 10$  V signal output or  $\pm 100$  mA current output
- 1,000 Hz simultaneous sampling
- 1 MHz oversampling
- Digital gain control
- TCP/IP Communication
- LabView compatible
- Front keypad and screen for local control
- Power: 110-240 VAC / 50-60 Hz / 2 Amps

### DESCRIPTION

The SCON-S is a compact and powerful microprocessor based digital servo controller, function generator, data acquisition and digital I/O unit. This SCON-S can accommodate load cells, pressure transducers, strain gages, DC deformation sensors or other analog input signals as feedback to a servo control output. Each channel features digital gain control, 24-bit resolution, and anti-alias filter.

SCON-S accommodates up to 8 sensors (4 inputs with 10 VDC or 5 VDC excitation and 4 pre-amplified inputs  $\pm 10$  VDC) and 1 control output (servo and proportional valve, servo motor etc.) The signal conditioning electronics are fully digital with settings directly manipulated by the software. The output can be controlled manually on a keypad or remotely via an app on a desktop or a mobile device. GCTS offers an extensive library of test control apps along with the universal control app.

Compact package size: 10.2 inch (Width) x 8.2 inch (Depth) x 8.2 inch (Height) / 26 cm (W) x 21 cm (D) x 21 cm (H).

## List of Available Applications

Unconfined Compressive Strength of Cohesive Soil (ASTM D2166)  
Unconfined Compressive Strength of Compacted Soil-Lime Mixture (ASTM D5102)  
Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soil (ASTM D2850)  
Consolidated Drained Triaxial Compression Test for Soils (ASTM D7181)  
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (ASTM D4767)  
Triaxial Compression Creep Strength of Chemically Grouted Soils (ASTM D5202)  
One-Dimensional Consolidation Properties of Soils Using Incremental Loading (ASTM D2435 and AASHTO T216)  
One-Dimensional Swell or Collapse of Soils (ASTM D4546)  
Flexural Strength of Soil-Cement Using Simple Beam with Third-Point Loading (ASTM D1635)  
Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D4318)  
Consolidated Undrained Direct Simple Shear Testing of Fine Grain Soils (ASTM D6528)  
Splitting Tensile Strength of Cylindrical Concrete Specimens (ASTM C496)  
Flexural Strength of Concrete Using Simple Beam with Third-Point Loading (ASTM C78)  
Flexural Strength of Concrete Using Simple Beam with Center-Point Loading (ASTM C293)  
Standard Test Method for Flexural Toughness of Fiber Reinforced Concrete - Round Panel (ASTM C1550)  
Creep of Concrete in Compression (ASTM C512)  
Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression (ASTM C469)  
Determination of Energy Absorption Capacity of Fiber Reinforced Slab Specimen (EN 14488-5)  
Test Method for Metallic Fiber Concrete – Measuring the Flexural Tensile Strength (LOP) (EN 14651)  
Direct Shear Strength Tests of Rock Specimens Under Constant Normal Force (ASTM D5607)  
Splitting Tensile Strength of Intact Rock Core Specimens (ASTM D3967)  
Direct Tensile Strength of Intact Rock Core Specimens (ASTM D2936)  
Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress (ASTM D7012)  
Point Load Strength Index of Rock and Application to Rock Strength Classifications (ASTM D5731)  
Creep of Rock Core Under Constant Stress and Temperature (ASTM D7070)  
Marshall Stability and Flow of Asphalt Mixtures (ASTM D6927, D5581 and AASHTO T245)  
California Bearing Ratio (CBR) of Laboratory-Compacted Soils (ASTM D1883 and AASHTO T193)  
Indirect Tensile Strength of Bituminous Mixtures (ASTM D6931 and AASHTO T322)

\* Custom applications can be designed upon request. Contact GCTS for more details.