

## SERCOS Interface Modules



The SERCOS interface modules use a single, digital fiber-optic link, which eliminates as many as 18 digital wires per axis. Detailed drive-status information can be sent from drive to controller and from controller to drive.

The SERCOS interface modules can connect to these servo drives:

- 2093 Kinetix 2000 multi-axis servo drive
- 2094 Kinetix 6000 multi-axis servo drive
- 2099 Kinetix 7000 high-power servo drive
- 2098 Ultra3000 SERCOS servo drive

### Technical Specifications - 1756 SERCOS Interface Modules

Attribute	1756-M03SE	1756-M08SE	1756-M16SE	1756-M08SEG
Number of drives, max	3	8	16	8 (Extended Pack Profile compliant)
SERCOS data rate	4 Mbps 8 Mbps			
SERCOS cycle time @ 4 Mbps	0.5 ms, up to 2 drives <sup>(1)</sup> 1 ms, up to 4 drives 2 ms, up to 8 drives			
SERCOS cycle time @ 8 Mbps	0.5 ms, up to 4 drives <sup>(1)</sup> 1 ms, up to 8 drives 2 ms, up to 16 drives			
Drive control modes	Position, velocity, and torque			Position only
Current draw @ 5.1V DC	760 mA			
Current draw @ 24V DC	2.5 mA			
Power dissipation	5.0 W			
Slot width	1			
Module location	Chassis-based, any slot			
Chassis	1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17			
Power supply, standard	1756-PA72/C, 1756-PA75/B, 1756-PB72/C, 1756-PB75/B, 1756-PC75/B, 1756-PH75/B			
Power supply, redundant	1756-PA75R, 1756-PB75R, 1756-PSCA2			
Plastic fiber-optic cables	2090-SCEPxx-0 non-jacketed, chlorinated polyethylene 2090-SCVPxx-0 standard jacket, polyvinyl chloride 2090-SCNPxx-0 nylon jacket			
Glass fiber-optic cables	2090-SCVGxx-0 standard jacket, polyvinyl chloride			
Enclosure type rating	None (open-style)			

<sup>(1)</sup> Kinetix 6000 drives let you use a 0.5 ms cycle time.

### Environmental Specifications - 1756 SERCOS Interface Modules

Attribute	1756-M03SE, 1756-M08SE, 1756-M16SE, 1756-M08SEG
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)
Temperature, storage IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Nonoperating Damp Heat)	5...95% noncondensing

**Environmental Specifications - 1756 SERCOS Interface Modules**

<b>Attribute</b>	<b>1756-M03SE, 1756-M08SE, 1756-M16SE, 1756-M08SEG</b>
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	50 g
Emissions	CISPR 11: Group 1, Class A
ESD immunity IEC 61000-4-2	4 kV contact discharges 8 kV air discharges
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80... 2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz

**Certifications - 1756 SERCOS Interface Modules**

<b>Certification<sup>(1)</sup></b>	<b>1756-M03SE, 1756-M08SE, 1756-M16SE, 1756-M08SEG</b>
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584.  UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.
CE	European Union 2004/108/IEC EMC Directive, compliant with: <ul style="list-style-type: none"> <li>• EN 61326-1; Meas./Control/Lab., Industrial Requirements</li> <li>• EN 61000-6-2; Industrial Immunity</li> <li>• EN 61000-6-4; Industrial Emissions</li> </ul> EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
C-Tick	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions

<sup>(1)</sup> When marked. See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.