

AX5103 | Digital Compact Servo Drives 1-channel

The AX5000 single-channel servo drives offer optimal function, flexibility and cost-effectiveness. The components required for operation, such as power supply unit, EMC filter and DC link capacitors, are already integrated. The control loop, which has a cascaded structure, supports fast and highly dynamic positioning tasks. EtherCAT as a high-performance system communication enables ideal interfacing with PC-based control technology.

The AX5000 drives are available in different current intensities from 1.5 A to 170 A.

The AX-Bridge quick connection system enables simple and fast connection of several AX5000 devices to form a multi-axis system. The plug-in supply and connection modules connect power supply, DC link and 24 V DC control voltage. Different types and sizes of motor such as synchronous, linear, torque, asynchronous and voice coil motors can be connected to the AX5000 without additional measures. The multi-feedback interface supports all common standards. The model of sensorless operation of synchronous and asynchronous motors can also be parameterized.

The optional AX58xx enables the typical drive-integrated safety functions and the fulfillment of the requirements of EN ISO 13849-1:2015 (Cat. 4, PL e), EN 61508:2010 (SIL 3) and EN 62061:2005 + A1:2013/A2:2015 (SIL CL3).

The AX5000 has been specifically developed for EtherCAT, as the latter's advantages are optimally exploited in the drive technology. This includes in particular the short cycle time – even in networks with many devices – as well as the synchronicity and simultaneity.

The **TwinCAT 3 Drive Manager 2** serves as commissioning tool. Thanks to the structured design and the wide range of functions, commissioning of the axis is simple and intuitive.

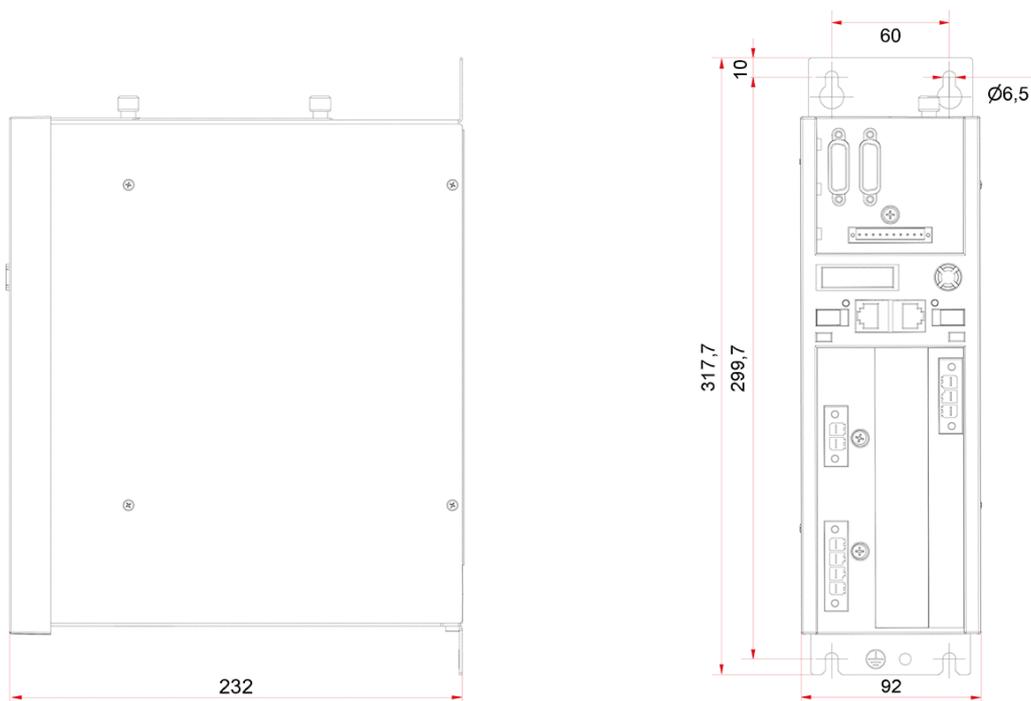
Product status: regular delivery



Product information

Technical data	AX5103
Function	servo drive
Channels	1
Rated supply voltage	3 x 100...480 V AC $\pm 10\%$
DC link voltage	max. 875 V DC
Rated output current (channel)	3 A
Peak output current (channel)	7.5 A
Feedback	SinCos 1 Vpp , resolver , EnDat 2.1 , Hiperface , BiSS B , OCT
System bus	EtherCAT
Drive profile	SERCOS™ profile for servo drives according to IEC 61800-7-204 (SoE)
Ambient temperature (operation)	0...+50 °C (see documentation)
Approvals/markings	CE, cULus, EAC

Housing data	AX51xx AX52xx
Protection rating	IP20



Dimensions **AX5103**

Height without connectors 317.7 mm

Depth without connectors 232 mm

Width 92 mm

Ordering information

AX5103-0000-0x0x

AX5103-0000-0200

Digital Compact Servo Drive, 1-axis module, 100...480 V AC, rated output current 3 A, EtherCAT interface, OCT, hardware version 2.0, firmware version 2.06 ⁽¹⁾

AX5103-0000-0202

Digital Compact Servo Drive, 1-axis module, 100...480 V AC, rated output current 3 A, EtherCAT interface, OCT, hardware version 2.0, firmware version ≥ 2.10 ⁽¹⁾

⁽¹⁾ compatible with AX5805, AX57xx, AX5021 and AX5801-0200