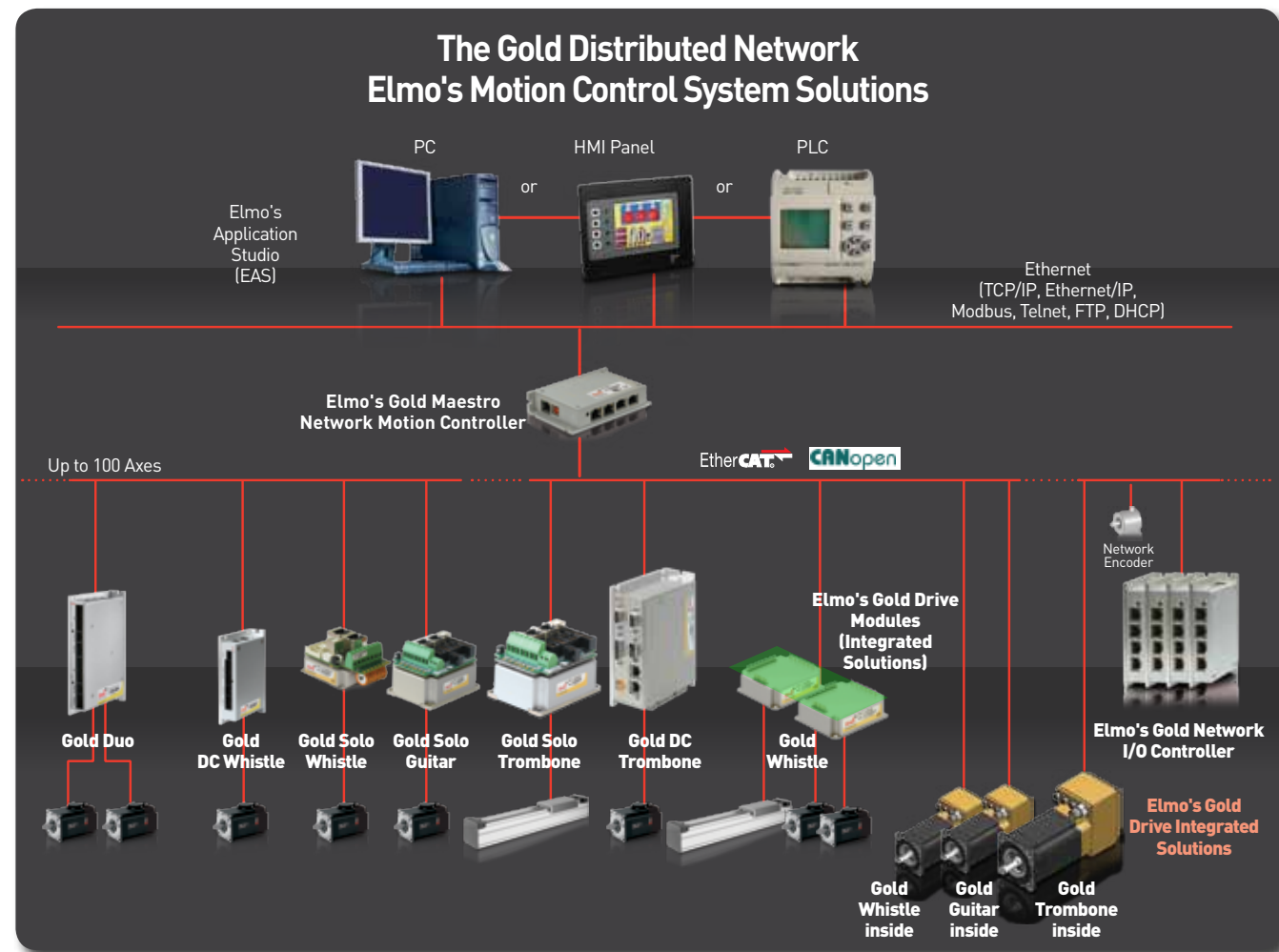


Elmo's **Gold** Line

Our Best Ever Motion Solutions



Motion Control Solutions Made
Small, Smart & Simple



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Our Best Ever Motion Control Solutions

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Elmo's Gold Line

Gold Line Motion Control System Characteristics

Answering Your Needs

One solution, any application: With Elmo's Gold Line we have the solution for your system challenges. The Gold Line components' synergy, distributed intelligence and variety of features are easily harnessed to create your system and answer your needs. The built-in operational simplicity of each component, combined with an innovative single software environment to interface with and control all units, ensure the fastest time-to-market and highest performance.

Gold Servo Drive Features

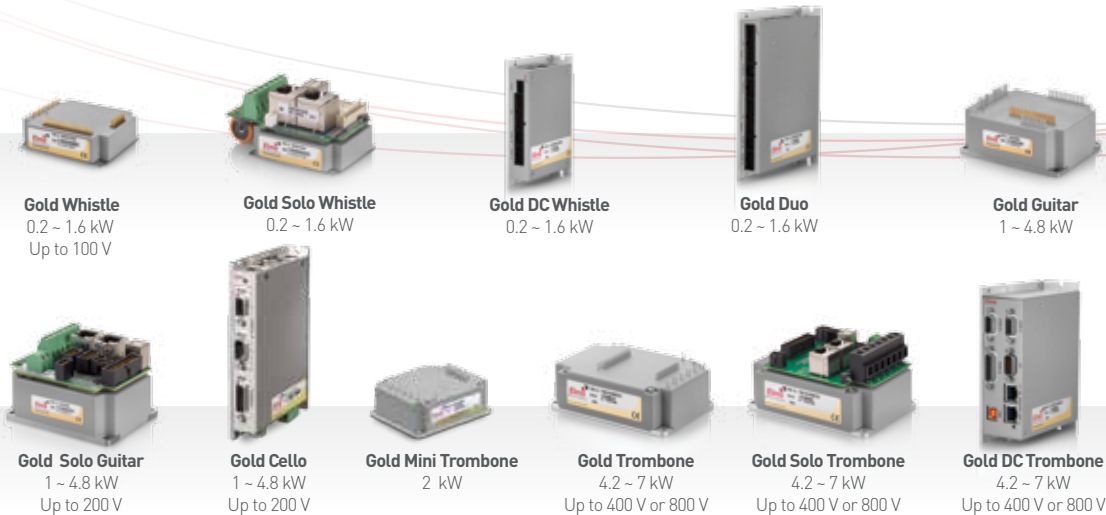
- Many enhancements to Elmo's current range of small, smart and simple servo drives.
- Better servo performance with wider and more stable bandwidth, as a result of improved processing capabilities.
- Advanced linear and non-linear control schemes for reliably handling mechanical load limitations.
- Very fast control loop sampling time: current loop as low as 40 µs, position and velocity loops as low as 80 µs.
- 1:2:2 (current/velocity/position) control topology for wider position bandwidth.
- Tuning that is more efficient and user friendly.

- Three levels of tuning scenarios for simplicity and optimal results.
- Full EtherCAT implementation: CoE, EoE, FoE, Distributed clock
- CANopen: DS-301, DS-305, DS-402 (v3.0)
- Any feedback sensor: Quad Encoders, Analog Sin/Cos Encoders, Digital Halls, Analog Halls, Resolver, Absolute Serial Encoders (EnDAT 2.2, Hiperface, BiSS/SSI, Panasonic, Tamagawa, Mitutoyo)
- 3 sensor ports: 2 sensor inputs and a third port for output (emulation) and/or input.
- Enhanced dual loop capabilities.
- New, faster programming environment: 32 KB program memory.
- More sophisticated protection to ensure long lasting reliability.
- High current, high voltage IEC 61131-2 outputs for dedicated and generic functionality.

Safety

- IEC 61800-5-2, Safe Torque Off (STO)
- UL 508c recognition
- UL 60950 compliance
- Compliant with the CE EMC Directive

Gold Line Products - Intelligent Digital Servo Drives



Feature	Gold Whistle	Gold Solo Whistle	Gold DC Whistle	Gold Duo (for each drive)	Gold Guitar	Gold Solo Guitar	Gold Cello	Gold Mini Trombone	Gold Trombone	Gold Solo Trombone	Gold DC Trombone
Supply Voltage Range (VDC)	12 ~ 95	12 ~ 95	12 ~ 95	12 ~ 95	14 ~ 195	14 ~ 195	14 ~ 195	80 ~ 400	80 ~ 400 200 ~ 800	80 ~ 400 200 ~ 800	80 ~ 400 200 ~ 800
Cont. Output Current (A)	5 ~ 20	5 ~ 20	5 ~ 20	5 ~ 20	6 ~ 45	6 ~ 45	6 ~ 45	6	8 ~ 12	8 ~ 12	8 ~ 12
Output Power Range (kW)	0.2 ~ 1.6	0.2 ~ 1.6	0.2 ~ 1.6	0.2 ~ 1.6	1 ~ 4.8	1 ~ 4.8	1 ~ 4.8	2	4.2 ~ 7	4.2 ~ 7	4.2 ~ 7
Safety Inputs (STO)	2	2	2	2	2	2	2	2	2	2	2
Digital In/Digital Out/ Analog In	6/2/1	6/2/1	6/4/1	6/4/1	6/4/1	6/4/1	6/4/1	6/4/1	6/4/1	6/4/1	6/4/1
Motor	DC Brush, Sinusoidal, Trapezoidal										
Operating Mode	Current, Velocity, Position & Advanced Position										
Commands	Analog, PWM, Pulse and Direction, Software Commands										
Feedbacks	Incremental Encoder, Resolver, Digital Halls, Analog 1V ptp (Sin/Cos), Analog Halls, Absolute Serial (BiSS/SSI/EnDAT 2.2/Panasonic/Stegmann-Hiperface), Tachometer, Potentiometer										
Communications	EtherCAT: CoE/FoE/EoE, Distributed clock, CANopen: DS-301, DS-305 and DS-402, RS-232, USB										
Programming	SimplIQ Programming										
Software	Elmo Application Studio (EAS)										
Program Memory	32 KB										

Elmo's ExtrIQ Line

for Extended Environmental Conditions



- Elmo's ExtrIQ product suite is a family of highly durable and intelligent servo drives designed to address the requirements of a wide spectrum of applications operating under extreme environmental conditions.
- By integrating Elmo's industry-leading power conversion and servo control technology containing extremely rugged capabilities, Elmo's ExtrIQ product suite offers a powerful and resilient solution.
- Designed to endure extended temperature and high humidity, high mechanical shock resistance and high vibration resistance, these products are ideal for a broad range of applications requiring durable motion control solutions.
- Elmo's ExtrIQ product suite complies with all of the leading military specifications and industry standards.

Feature	Gold Hornet	Gold Hawk	Gold Panther
Supply Voltage Range (VDC)	12 ~ 95	14 ~ 195	80 ~ 700
Cont. Output Current (A)	5 ~ 20	6 ~ 45	8 ~ 17
Output Power Range (kW)	0.2 ~ 1.6	1 ~ 4.8	4.2 ~ 7
STO Inputs	2	2	2
Digital In/Digital Out/Analog In	6/4/1	6/4/1	6/4/1
Motor	DC Brush, Sinusoidal, Trapezoidal		
Operating Mode	Current, Velocity, Position & Advanced Position		
Commands	Analog, PWM, Pulse and Direction, Software Commands		
Feedbacks	Incremental Encoder, Resolver, Digital Hall, Analog Sin/Cos, Absolute, Analog Hall, Tachometer, Potentiometer		
Communications	EtherCAT: CoE/FoE/EoE, Distributed clock, CANopen: DS-301, DS-305 and DS-402, RS-232, USB		
Programming	SimplIQ Programming		
Software	Elmo Application Studio (EAS)		
Program Memory	32 KB		

The Gold Maestro

The Ultimate Solution for Motion Control Networking

Top Level Network Motion Controller

Offering You Comprehensive Solutions

Elmo's Gold Maestro is a network-based, multi-axis machine motion controller that operates in conjunction with Elmo's classic SimplIQ servo drives, as well as the new Gold Line of intelligent servo drives (see facing page), to provide a comprehensive and efficient motion control solution for the entire system.

The Superior Network Motion Controller

The Gold Maestro is based on the most advanced, easy to use and cost effective distributed motion control architecture which enables the motion processing tasks to be shared. It contains a rich feature set that combines sophisticated motion control and advanced communications with full programming capabilities. The Gold Maestro uses standard protocols over its various communications channels (Ethernet, EtherCAT, CAN and USB), combined with IEC and C programming, and the PLCopen motion interface.

Features

- High performance, distributed multi-axis network controller
- Controls up to 100 axes with a high level of synchronization and accuracy.
- EtherCAT real-time device networking (CoE, Distributed clock).



115 x 25.7 x 75 mm
(4.53" x 1" x 2.95")

- CANopen: DS-301, DS-305, DS-401 (I/O device profile), DS-402 (drive and motion control device profile)
- Dimensions: 115 x 25.7 x 75 mm (4.53" x 1" x 2.95")
- Fast and efficient program execution with a large amount of memory:
 - Native application 'C' programming on the target
 - IEC 61131-3, PLCopen
- PLCopen motion API
- Field Bus Communication:
 - EtherCAT
 - CAN bus (Isolated)
- Large variety of host communication protocols:
 - Ethernet, TCP/IP, UDP (fast binary protocols, Modbus, Ethernet/IP, Telnet, FTP, HTTP)
 - USB 2.0
- Real-time extension for the Linux operating system.
- Templates for common applications.
- Very compact, space saving package.
- Mounting options: panel mount, board mount and embedded core (soldering)
- Cost effective.
- DC powered: 14 V to 196 V

The Gold Lion

Top Level Network Motion Controller

The Ultimate Motion Control Solution for Military Applications



51.9 x 40.6 x 18.1 mm
(2.04" x 1.6" x 0.7")