

# Elmo The GOLD SOLO Twitter Ultra Hi Current, Ultra Efficient **Ultra Small**



**GOLD Twitter Ready to Use** 

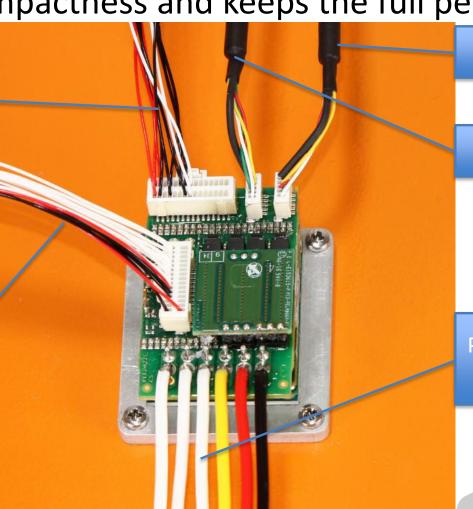
## **SOLO** Ready To Use

#### **Smart & Simple**

The smart miniature interface that keeps the Twitter compactness and keeps the full performance.

IOs, STO, Analog in USB, RS232

Feedbacks,
Ports A&B&C



Ethercat In

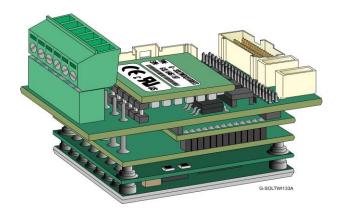
**Ethercat Out** 

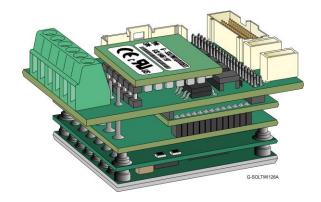
Power Connections
Up to 80A



### SOLO TWItter Ready To Use

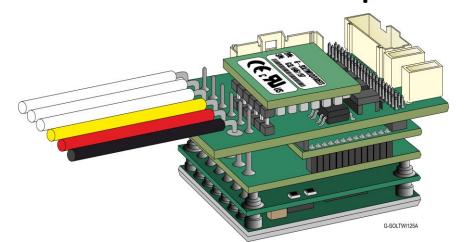
The Gold Solo Twitter which is provided in 3 optional forms





**Screw type Power Connector for ≤ 10A Output Current** 

Wired Power Connection for >10A Output Current (Up to 80A)

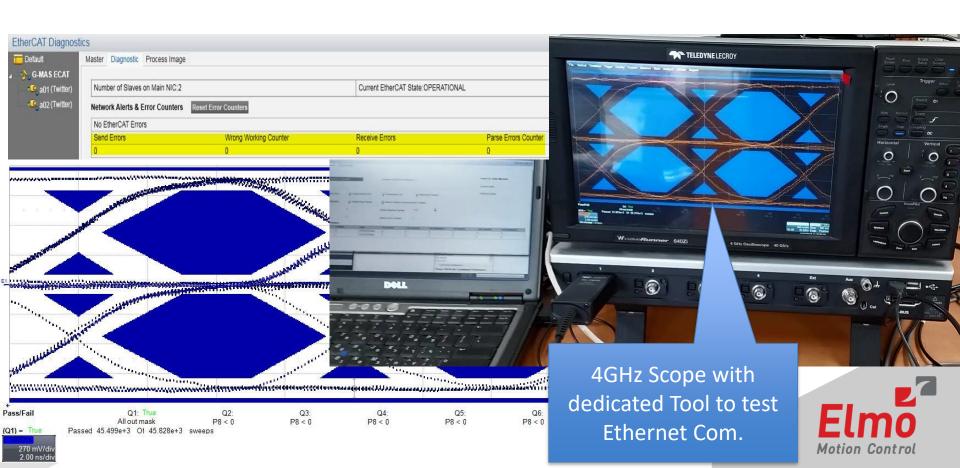




### **Ethercat Cabling?**

The miniature ETHERCAT connectors and the cables were intensively tested also with special dedicated equipment.

The results were and are very good. This miniature ETHERCAT connection was proved to be very reliable with ZERO errors



### **Power Connections**

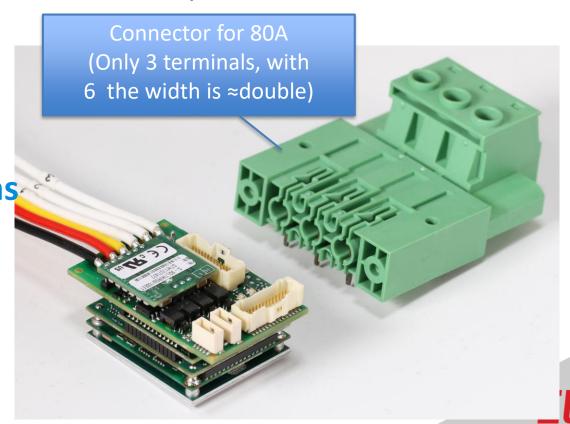
Why "Wired Power Connection"?

Why not a traditional power connector?

The Philosophy of the GTWI is NANO, using the "traditional" connectors will "Kill" the compactness of the whole

implementation.

Creativity in the power connections is essential

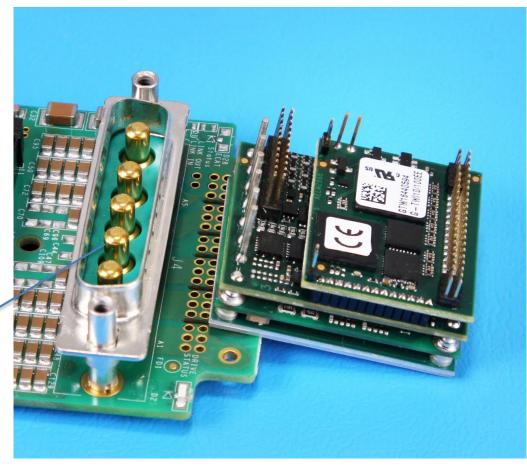


### **Power Connections**

#### Why "Wired Power Connection"?

•

Connector for 50A (Only 5 terminals)

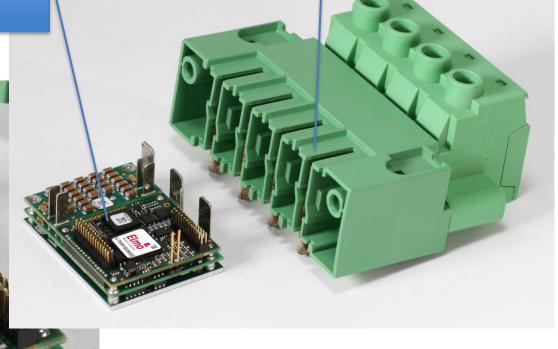




### **Power Connections**

With the "Coming Soon" it is even "funnier"

160A (Amplitude) Super NANO Servo Drive NANO<sup>2</sup> ? Connector for 120A RMS 170A Amplitude





# SOLO TWItter Ready To Use

#### **Power Wiring?**

□ The Wired Power Connection for higher than 10A and up to 55A RMS (≈ 80A) consists of six 14-AWG high quality Teflon wires rated to operate up to 200°C.

The Gold Solo Twitter wire connection conforms with UL61800-5-1 for operation up to 105°C (on the wires).

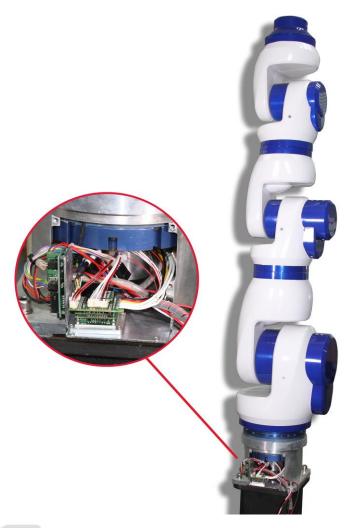
This was verified Under extensive load conditions, at a current rate of 55A RMS, the wires temperature gradient is ≈50 °C above ambient.



### Mount It Anywhere

The Ideal Servo solution for any robot.

Actually Mountable "Anywhere, Any Space, Any Environment.."



- Require servo drives that are most power, yet must be very, very small.
- Best in Class servo control
- Very rugged to withstand the very rapid accelerations and the unexpected mechanical shocks
- Utmost efficiency as heat dissipation means inside are very limited

Must be very light to minimize (actually elliminate) disturbances on the mechanical plant

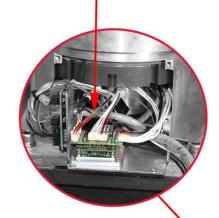
The GOLD Twitter covers all 7 axis power/ torque requirements, from 10A and up to 50A/100V drives



Elmo Inside, All 7 Axis on the Elbows







It takes twice
zooming in order to
notice the
NANO Twitter ©©



### High Level Integration

#### Simple, Straight Forward, Ultra High Density

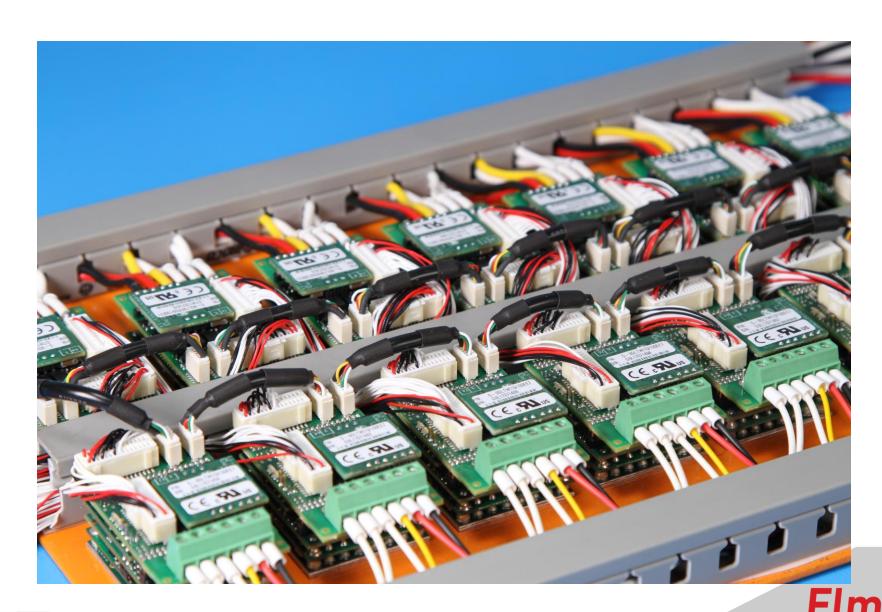
Feedbacks, **Ethercat** Ports A&B&C

- Saves critical the resources of engineering and the costs of designing a dedicated custom PCB
- Shortens significantly the time to implement properly the NANO servo drives (3-6 months)
- Eliminates the risks of designing and manufacturing risks of a high frequency, high current, high voltage PCBs
  - Most compact design allow easy multi- axis integrations

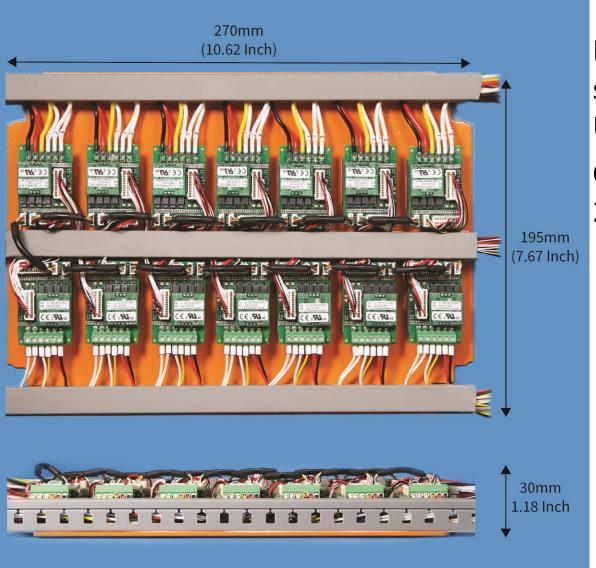
IOs, STO, Analog in USB, RS232



# "Multi, Multi" axis integration



### Highest Density Multi-Axis Integration



Example of 14 X G-TWI servo axis in a Simple, Ultra small "package"
Of only
270mmX195mmX30mm



# High Level Simple Integration





### **Standards Compliance**





#### CERTIFICATE

No. Z10 13 08 84596 001

Holder of Certificate: Elmo Motion Control Ltd.

60 Amal St. P.O. Box 3078 49516 Petach-Tikva

ISRAEL

Factory(ies): 84596

**Certification Mark:** 



Product: Safety Related Programmable Electronic System

Model(s): **Drive System GOLD LINE** 

Parameters: Safety Function: STO (EN 61800-5-2)

PL e, CAT 3 (EN ISO 13849)

SIL 3 (EN 61508)

Further approvals can be found in the report below.

The report below and the user documentation in the currently valid revision are mandatory part of this certificate. The product complies with the following listed safety requirements only if the specifications documented in the currently valid revision of this

report are met.

Tested EN 61508-1:2010 (SIL 3) EN 61508-2:2010 (SIL 3) according to:

EN 61508-3:2010 (SIL 3)

EN 61800-5-2:2007

EN ISO 13849-1:2008 (Cat 3, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.:

Date. 2013-08-12

( Peter Weiss )



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TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany

TÜV®

**EMC....** 

Gold WHISTLE			
Model Name	Model Part Number	Version	50000
Gold Whistle	G-WHI	V03	
Gold DC Whistle	G-DCWHI	V03	
Gold Solo Whistle	G-SOLWHI	V03	
Gold Hornet	G-HOR	V03	
Gold Solo Hornet	G-SOLHOR	V03	
Gold DC Hornet	G-DCHOR	V03	
Gold Duo	G-DUO	V03	
Gold Duo AMBA	G-DUO-AMBA	V03	
Gold Uno AMBA	G-UNO-AMBA	V03	
Gold Twitter			
Model Name	Model Part Number	Version	
Gold Twitter	G-TWI	V03	
Gold Bee	G-BEE	V03	
Gold Solo Twitter	G-SOLTWI	V03	

**Being STO Certified the SOLO TWITTER compliances with** all the relevant STDs, such as **SAFETY Environmental** 



ZERTIFIKAT +

