SAET
build up your ideas

Change your mind around the future

ERGON

MOBILE CONTROLLER BY SAET

Standardization, to be programmable
and customization within just one device

All the advantages of being standard
All the advantages of being programmable
All the advantages of being SAET

ERGON is the result of a longstanding research of SAET R&D department to market a brand new concept controller.

Ergon grants three amazing levels of flexibility, since it is an open and dynamic Controller that can be programmed and configured by the end-user without additional external support.
Furthermore ERGON includes the SAET DNA : aside a cutting edge hardware design, connections and strenght, its design can be tailored according to customer's needs.
Moreover as standard SKU, it grants short leadtimes and outstanding quality/price ratio when compared to products alike.

Open

Dynamic

Programmable

Customizable

With ERGON by SAET future is really right now.

Born to comply with changes, quickly and easily.

Needs to manage machines and devices can change over the time. Several existing controllers can't be modified or adapted, causing strong restrictions on use or forcing product replacement with additional costs.

ERGON is different: it was designed to combine functionality, reliability and power with the highest level of user customization. This is the advantage of being "made in SAET".

Its features make it suitable to many applications, ranging from industrial vehicles and automotive markets to applications requiring powerful and easy to handle devices.

Hardware:
Efficiency redefined.

Every detail of ERGON was designed to deliver a state–of-the-art controller, which makes possible every application and fulfils every need:

- **Versatility:** 32 inputs to manage a huge number of connections, to allow parameters handling and high degree of flexibility in data and variables management
- **Power:** 8 outputs up to 5 ampère, designed for hydraulic valves wherever high power supply is required
- **Proportional power:** 4 PWM (Pulse Width Modulation) outputs to provide step by step power
- **Diagnostic:** diagnostic over all the outputs, both PWM and ON/OFF

Software:

The easiest to use and to customize.
And in toughest situations, SAET helps.

SIMPLICITY

Easiness in customization starts from the software. Due to this, we chose Logiclab as IEC61131-3 development environment, the most worldwide recognized programming language for industrial controllers

5 LANGUAGES

IEC 61131-3 defines 5 languages, all included within ERGON, for different purposes in order to fulfill every need.

CUSTOMIZABLE

In addition ERGON has the exclusive advantage of being SAET: for special needs or complex applications, SAET can write down the main routines that user can amend with light customizations or updates.

Hardware Architecture:

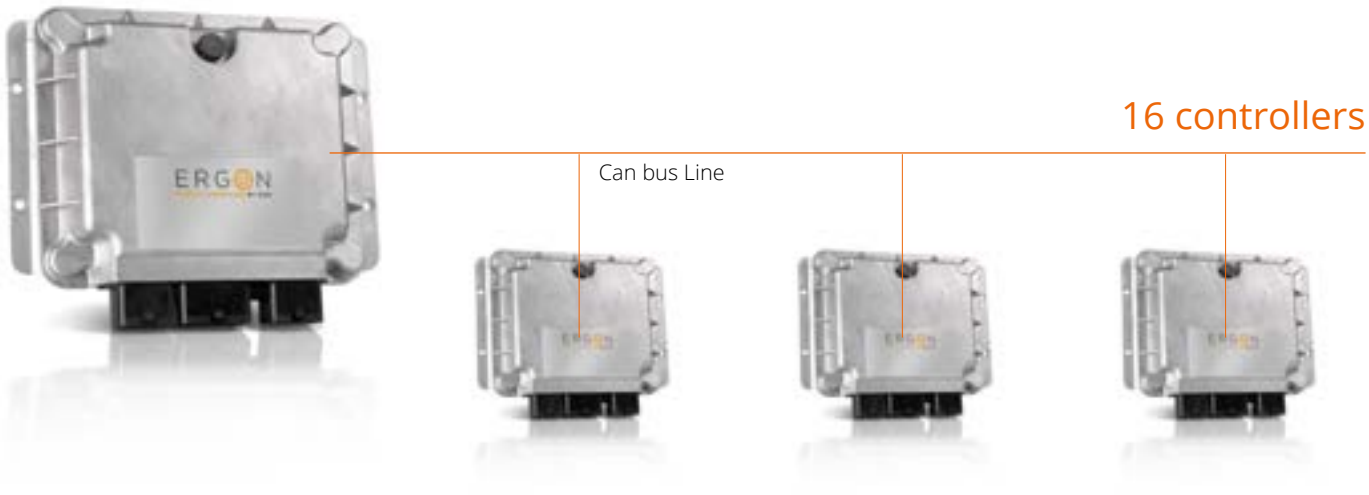
Never-ending modularity and cost effectiveness.

+ MODULARITY

The same ERGON controller can work both as master and slave within an impressive network with 16 devices maximum, in order to handle properly each requirement.

- COSTS

- ERGON allows effective stock management and warehousing costs because the same controller runs different functions
- Its 32 bit industrial processor provides a huge computing power. It will be marketed and serviced at least until 2030



Designed to work

even in the harshest environment.

- Aluminum sealed ERGON case has high grade IP67 protection level to grant total protection from every kind of dust and water if immersed in
- The housing includes an anti-condensing valve and internal temperature control
- Molex connector has 112 pins splitted over three receptacles with 32, 48 and 32 pins each
- Tailored brackets allow installation on uneven and irregular surfaces as well

Technical Features

HARDWARE
23 NPN digital inputs
2 Analog 0-10V configurable Inputs
4 NPN, PNP Configuble digital inputs
4 Inputs: Analog (0-10V, 4-20mA) or digital (HS-LS) to be configured through software
7 Digital 250mA max outputs
8 Power Outputs (5A max) with current feedback, programmable threshold and CC/OC detection
4 Power output (3A max) with PWM feature, current feedback, programmable threshold and CC/OC detection
Power supply voltage control monitoring
Microprocessor with embedded watchdog

SOFTWARE
LogicLab compliant to IEC 61131-3 standard, with 5 languages:
- Instruction List
- Structured Text
- Ladder Diagram
- Function Block Diagram
- Sequential Function Chart
CanOpen communication
Free PC programming Tool download

SYSTEM ARCHITECTURE
Industrial Processor RX63N 100MHz
1Mbit E2Prom Memory
CanBus Fault-tolerant Line up to 16 devices addressing
Master/Slave Architecture
6-32 V supply range; each device con provide power to additional two others
6 standalone power lines
Working temperature -20°C / +85°C

CASE
Aluminum housing with brackets
- Protection level IP67
- Anti condensing valve
- Molex 112pin Connector
---- three receptacles with 32, 48, 32 pins
---- 20 insertions guaranteed
---- Working internal temperature control

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Technical partners

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SAET was established in 1990 as hardware and software electronic system design company. Merging of long-standing experiences within automotive and industrial automation markets, skilled workforce, caused a quick move of company main activities toward the development of custom systems with microcontroller and microprocessor.

Thirty years of continuous growth sustained by Customers trust granted to SAET experience and know-how in developing highly complex projects with top technological content.

Elasticity, dynamics, reliability and short leadtimes in developing brand new projects, are our main marks, they allow us to analyze, provide and put in place cost-performance cutting-edge technologies and to be preferred partner of market leader companies in several areas, industrial, medical and the severe automotive.

S.A.E.T. Srl
Via Busca 61, 12024 Costigliole Saluzzo (CN)
Tel.:+39.0171.943959 • Fax:+39.0171.944831 • www.saetsrl.com • info@saetsrl.com