T-SMART ACTUATOR SOLUTION
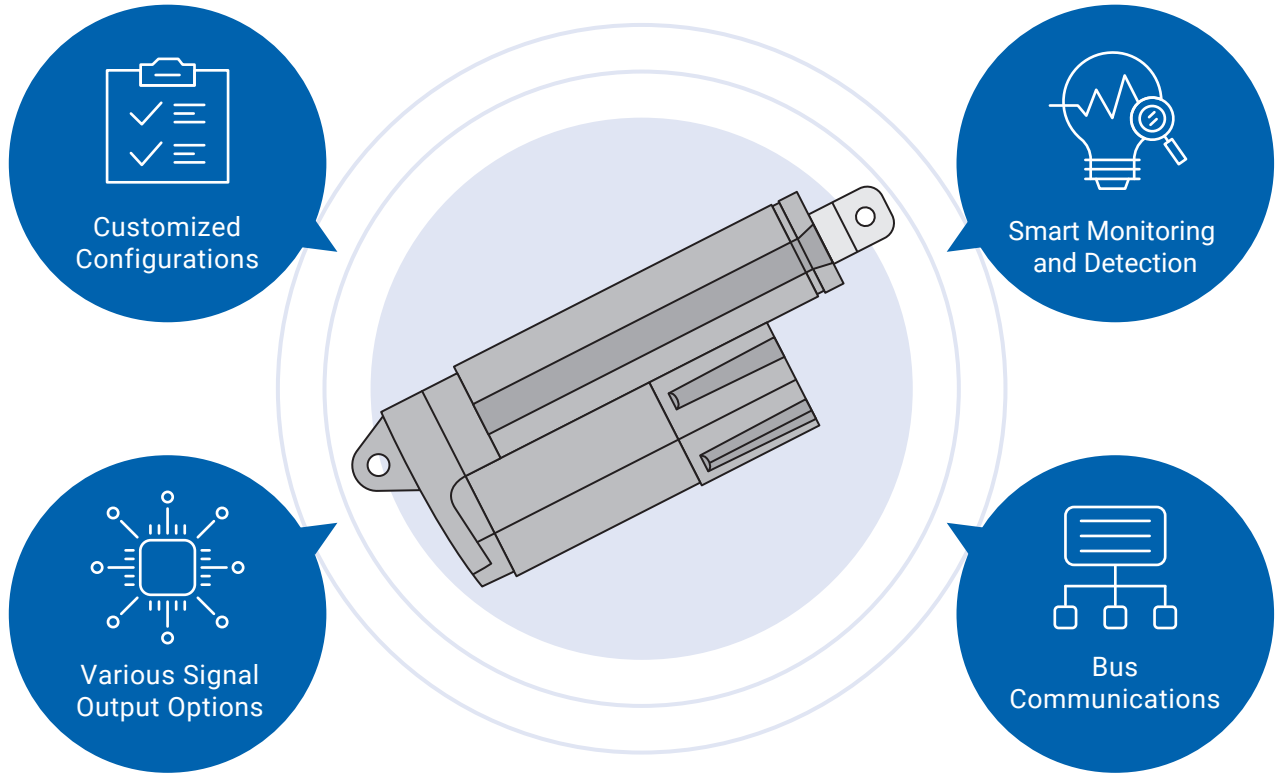
Intelligent System for Industrial Applications.

What is T-Smart

A T-Smart actuator is an actuator incorporating an integrated MCU-based PCB. This allows enhanced control functionalities internally without an external control box and relays, making it very easy to install.

Customized Configurations

Smart Monitoring and Detection

Various Signal Output Options

Bus Communications

Why You Need the T-Smart Solution

Simple Installation
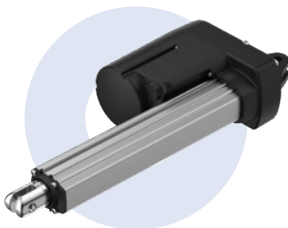
Increased Machine Efficiency

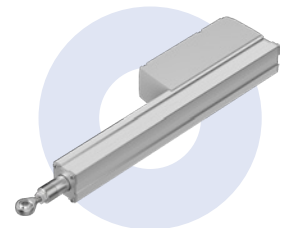Time Savings

Low Maintenance

T-Smart Linear Actuator Series

MA2

MA4

VN1

What Can T-Smart Do

Various Signal Output Options

· End of stroke signal
· Hall
· Hall-POT
· PWM

Bus Communications

· CAN Bus
· LIN Bus
· Modbus

Smart Monitoring and Detection

Monitoring
· Speed
· Current
· Voltage
· Position
· Operation cycle

Detections
· Over-current protection
· Voltage protection
· High-temperature protection
· Low-temperature start-up compensation
· Electronic clutch

Error
· HALL error
· EOS error

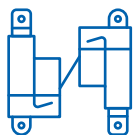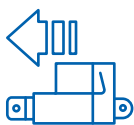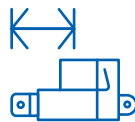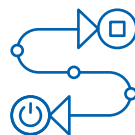## Customized Configurations

Speed
The actuator is preconfigured to 100 percent speed. An H-bridge motor drive circuit can adjust this to fulfill the PWM speed control. The recommended value is between 60-100 percent speed, as lower values could reduce actuator performance.

Synchronization Movement
With the T-Smart solution, you can easily set up to 8 actuators in synchronous movement. Without worrying about different loads and complicated cabling, the actuators stay precisely aligned when moving.

Deceleration before End of Stroke
A T-Smart actuator can set a distance to begin decelerating before the end of the stroke (0~20mm). The deceleration ensures that the actuator reaches zero velocity at the point of contact with the end of the stroke, preventing any impact loading at the end of the stroke.
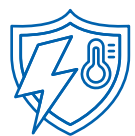
Virtual Stroke Limit
A virtual stroke limit can be set in the middle of the stroke, in extending or retracting direction, once the virtual stroke limit has been set up, the actuator will stop and won't surpass the designated position.

Soft Start and Stop
With soft start and soft stop, the actuator slowly accelerates to full speed or slows down from full speed. This helps to provide smooth operation of the application.

Current Limit
Apart from using the default current limit value for overcurrent protection, the current limit value can also be down-adjusted to let overcurrent protection occur in lighter applications. And it could set up different values for extending and retracting direction.

For any questions about our T-Smart actuator solutions, please feel free to contact your local TiMOTION office.

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