

AC703 IPC Motion Controller

Precision control for demanding industrial applications

CE EtherCAT®



- IPC architecture powered by high performance CPU
- Webvisu functionality
- Embedded remote commissioning and industrial IoT functions



AC703 features & functions



Comprehensive functionality

- Remote commissioning and industrial IoT capabilities
- Embedded Webvisu server
- EoE support with Inovance drives



Advanced programming capabilities

- IEC 61131-3 programming languages:
 - ST, LD, SFC, CFC
- System software contains:
 - PLCopen, CAM, CNC, and ROBOT motion control components



Cutting-edge hardware

- CPU: Celeron series
- Safe shut-down (registers are saved in non-volatile memory)



High performance

- 32 axes at 1 ms EtherCAT period
- Maximum 32 axes, 128 slave stations
- EtherCAT I/O expansion support:
 - Up to 128 EtherCAT remote I/O modules^{*1}
 - GR10, GL10 & GL20 I/O expansion modules can be supported



Flexible communications

- Multi-layer networking due to support for multiple communication protocols including:



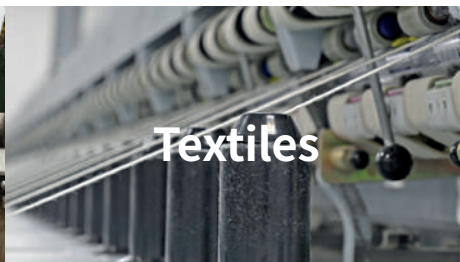
- Compatible with legacy equipment through built-in Modbus RTU master/slave protocol and 2 separate communication interfaces: RS485 and RS232

^{*1} Please note: 128 is the total number of EtherCAT slaves

^{*2} GL10-RTU-ECAT EtherCAT bus coupler required for GL10 modules.
GL20-RTU-ECAT EtherCAT bus coupler required for GL20 modules



Paper



Textiles



Printing



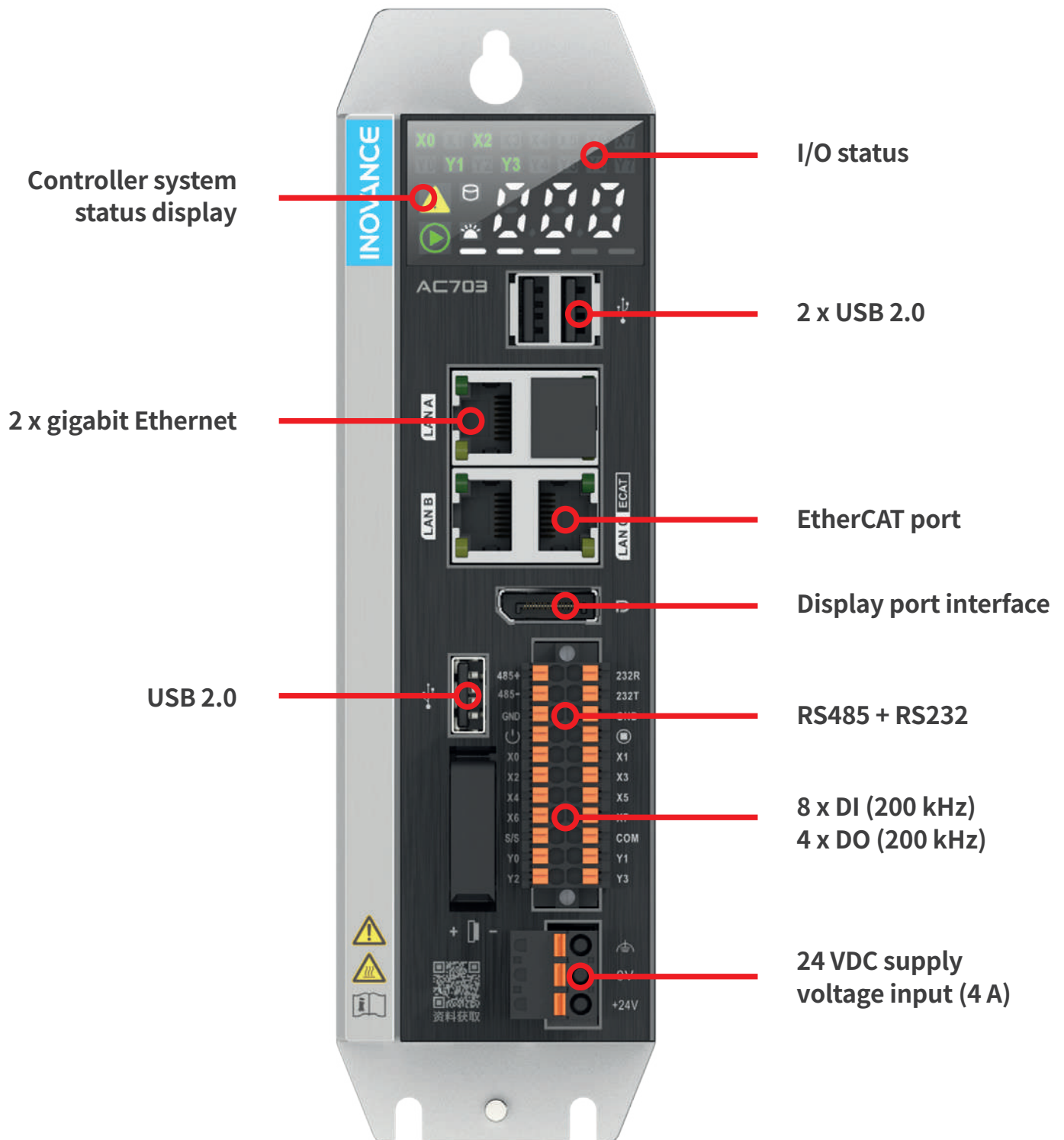
Li battery winding



Rotary cutting

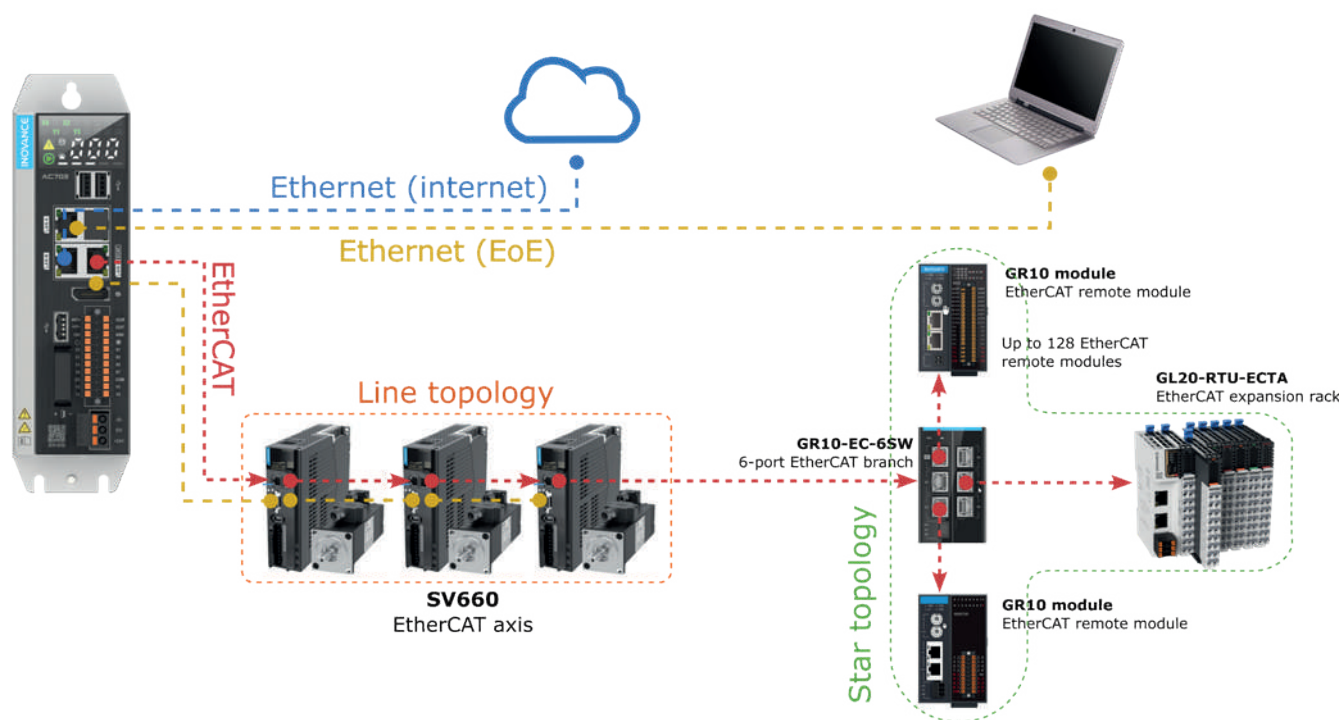


Solar cell automated welding



Please note: this image shows AC703 at actual 1:1 size

Example EtherCAT system architecture



Specifications

Hardware	
Processor	Intel J1900, 2.0 GHz
Memory	4G DDR3, 64G mSATA SSD, 64M SPI Flash
Status display	DI/DO status, fault code, SSD drive activity, running status, CPU usage
Ethernet ports	1x EtherCAT, 2x Ethernet
Serial communication	1x RS485, 1x RS232
DI/DO	8x High Speed inputs (200 kHz), 4x High Speed outputs (200 kHz)
Display port	DP
Power input	24VDC (-15%~20%)
UPS backup power	Built-in Safe Shut-Down (registers are saved in non-volatile memory)
Cooling fan	Fanless natural cooling
EMC test standards	EN/IEC 61000-6-2:2019, EN/IEC 61000-6-4:2019, EN 61131-2:2007, EN 55011:2016/A11:2020
Working / storage temperature	-5°C~55°C/-25°C~70°C
Dimensions (H x W x D)	160 x 55 x 147 (mm)
Mass	1.3 kg

Software	
OS	Linux/RT
System software	Full support for PLCopen
	Inovance InoProShop based on CODESYS®
Bus	PLCopen/SoftMotion with CODESYS Runtime, supporting all motion control functions such as PLCopen/CAM/CNC/ROBOT
	EtherCAT master
Control axis capability of EtherCAT master	32 axes at 1 ms period
	Max. 32 axes, supports 128 stations
Display port (DP)	Reserved
Ethernet protocols	Ethernet/IP (scanner and adapter), OPC UA (server), Modbus TCP (master/slave)

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