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Smart encoders & actuators

Evolution to Industrial Ethernet

RD1A rotary actuator *from Lika Electronic implements the* ***EtherCAT*** *interface and performs the Ethernet advanced functions and transmission speed now.*

RD1A rotary actuator is the intelligent, flexible solution from Lika Electronic for automated change-over and positioning operations in a variety of industrial sectors. Thanks to its versatility and the great amount of valuable features it is definitely the smart choice for installation in mold changers, mobile stops, tool changers, filling machines, suction cups motion units, packaging applications, multi-axis systems.
Today RD1A adds the **EtherCAT interface** to the fieldbus protocols currently implemented: Profibus-DP, CANopen DS301 and Modbus RTU.
The EtherCAT interface complies with the ETG.1000 specifications and includes the CAN Application protocol over EtherCAT (CoE) and the EtherCAT State Machine. In this way the rotary actuator is able to fulfill the requirements of the modern automation for real-time communication, deterministic synchronization and high speed. It offers the full set of information and configuration parameters: target position, acceleration, deceleration, jog and operational speeds, full scaling, preset, jog functions, code sequence, position and velocity readout, diagnostic information, etc. As a further benefit it integrates an RS-232 service port for easy set-up and configuration. All its successful features remain unchanged in order to provide you the same dependability, accurate format change and minimum time waste.
The 31 W BLDC brushless motor with planetary gears (T48, T24 and T12 gear ratios) is capable of a nominal torque up to 5 Nm and a starting torque up to 12 Nm. The position measurement is provided by the 20-bit resolution multiturn absolute encoder and is achieved directly at the output of the hollow shaft thus ensuring a high positioning accuracy (±0.9°). Furthermore the encoder is "real multiturn" and does not need any battery or counter. The integrated controller with internal trajectory generator implements the overtemperature, overcurrent, undervoltage and bus communication failure functions. The power supply to the motor and the controller are separated, thus the controller and the bus communication can be still on even if the motor is off.
Among the key features the external Preset and Jog buttons to manually move and calibrate the unit; and the diagnostic LEDs meant to show visually the operating or fault status of the interface and the device.
RD12A model is also equipped with an integrated electromagnetic power off brake (permanent magnet) capable of a holding torque between 4.8 Nm and 19.2 Nm to safely protect from uncontrolled movements, especially in mobile stops and vertical mounting installations.

EtherCAT®