



Controller for Pallet-handling Robot SRC-F10

Dedicated Pallet-handling Robot Controller, Optimized for Value and Performance



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A dedicated controller for pallet-handling robots supports the single-steering wheel motion model. Triple LiDAR + dual-camera are available for obstacle avoidance and recognition. Dual CAN redundancy and five RS485 ports ensure seamless integration. Multi-core architecture, real-time control, and hardware isolation enhance safety and stability.



Advanced Navigation Algorithm, Intelligent Rerouting

The new path-planning algorithm enables autonomous obstacle avoidance, allowing the robot to smoothly navigate around obstacles and congestion for uninterrupted operation.



Codesys Compatibility, Flexible Development

Codesys plugin compliance with IEC 61131-3 standards empowers PLC engineers to adapt rapidly. Effortlessly swap CANopen drives and expand Modbus RTU peripherals (e.g., light strips, batteries, speakers) for agile customization.



4 Navigation Options, ± 5 mm High Precision

Supports SLAM, QR code, reflector, and NFL navigation to adapt to diverse operational needs. Delivers ± 5 mm accuracy even when robots approach from different directions or operate in high-dynamic environments.



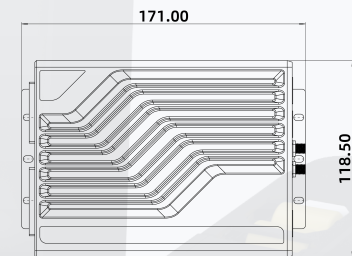
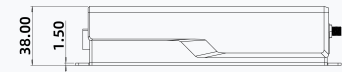
CE & UL Certification, Worry-Free Global Deployment

Certified by CE-EMC, CE-LVD, and UL, meeting international safety regulations and ensuring a worry-free global journey for your robot.

● Standard ○ Optional



| | | |
|--------------------------------|--|---|
| Product model | | SRC-F10 |
| Basic parameters | Weight | 0.75 kg (1.65 lb) |
| | L x W x H | 171 x 118.5 x 38 mm (6.73 x 4.67 x 1.50 in) |
| Digital input & output | Power DO | 2-Way (24 V / 1 A) |
| | DO | 8-Way |
| | DI | 10-Way |
| Bus interface | CAN | 2-Way |
| | RS485 | 4-Way |
| | Battery communication interfaces | 1-Way (RS485-0) |
| Internet interface | Ethernet | 2-Way Gbps+1-Way 100 Mbps |
| | Wi-Fi | Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R |
| Other interfaces | USB3.0 | 2-Way |
| | Audio input / output | 1-Way output |
| Robot-specific functions | One-button power ON / OFF | 1-Way |
| | Battery switch | 1-Way |
| | Emergency stop input | 1-Way |
| | Emergency stop output | 1-Way |
| Performance parameters | Navigation accuracy | ±5 mm, ±1° (±0.2 in, ±1°) |
| | Driving speed | ≤2 m/s (≤6.56 ft/s) |
| | Map area (single frame) | ≤400000 m ² (≤4,305,560 sq.ft) |
| Function configurations | Basic functions | ● |
| | Advanced recognition function | ○ |
| | Codesys | ○ |
| Working environment parameters | Ambient temperature and humidity range | TEMP: -30°C to 55°C / RH: 10% to 90%, no compression, no condensation (TEMP: -22°F to 131°F / RH: 10% to 90%, no compression, no condensation) |
| | Working voltage | 24 V |
| | Power consumption | <12 W (excluding DO output current) |
| | IP rating | IP20 |
| Certifications | CE | Conform to EN 61010-1:2010, CE-EMC (IEC 61326-1), CE-LVD Standards |
| | ETL | UL/CSA 61010-1:2012+R1:2018;UL/CSA61010-2-201:2018 |



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