CONTROLS
MULTICONTROL AI
For EC5000 24 V, 48 V
20 W, 35 W, 50 W with analog interface

Application area
Zero-pressure accumulation conveying (ZPA) for systems with medium to high number of conveyor zones. Control of the Interroll Transfer and High Performance Divert as well as Interroll Pallet Drive (via Pallet Control).

Product description
The MultiControl is a four-zone control. This means that up to four RollerDrive EC5000 AI and four zone sensors can be connected. The use of Y-cables enables connecting four additional inputs or outputs. The connections can be configured individually.

MultiControl is multi-protocol-capable. PROFINET, EtherNet/IP and EtherCat can be used via simple switching.

With help of the MultiControl, sensors and RollerDrive are directly integrated into the field bus level. An additional sensor/actuator level and, as a result, additional communication lines or a gateway become redundant. A standard flat cable is used for power supply. They can simply be cut to the desired length and can be connected very quickly using the piercing technology of MultiControl.

The separate voltage supply allows a safe power-off of the RollerDrive while the bus communication and sensors can continue to be used.

Addressing and naming is done over PLC software, a web user interface, or with the Interroll teach-In method. With the Teach-In method, automatic addressing and configuration of all MultiControl is possible. In addition, the sequence of all MultiControls in the conveyor line can be determined. This saves time during the commissioning on site.



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Functions

- Easy handling – One control card for PROFINET, EtherNet/IP and EtherCat (simple toggling of bus protocols)
- Independent power supply for RollerDrive
- Plug & Play in case of replacements – no addressing or configuration required
- Status display with LEDs for all functions and I/Os
- Integrated logic for zero-pressure accumulation conveying incl. initialization
- Secure communication with the use of certificates: PROFINET Conformance Class B, EtherNet/IP ODVA Conformance, EtherCat Conformance
- Configuration via PLC, web browser menu and via teach-In method of:
  - Speed, direction of rotation, start and stop ramp of RollerDrive
  - Sensor properties
  - Timer
  - Error handling
  - Logic (single/train release)
- UL-listed
- Voltage limitation via brake chopper
- Variable process images for optimizing the data volumes transferred between MultiControl and PLC
- Functional ground connection for shield of communication line
- Polarity reversal protection of voltage supply
- Short circuit-proof design of voltage supply of inputs and outputs

Possible applications

Use of a PLC	Function of a PLC	Function of MultiControl
No	• None	• Implementation of ZPA logic
Yes	• Influencing the ZPA logic • Tracking of conveying goods • Error diagnostics	• Implementation of ZPA logic • Implementation of PLC specifications
Yes	• The PLC must be programmed and controls all connected RollerDrive via this program • Tracking of conveying goods and error diagnostics	• Function as input/output card • Transmits the status of all sensors, RollerDrive and, if necessary, error information to the PLC

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Technical data

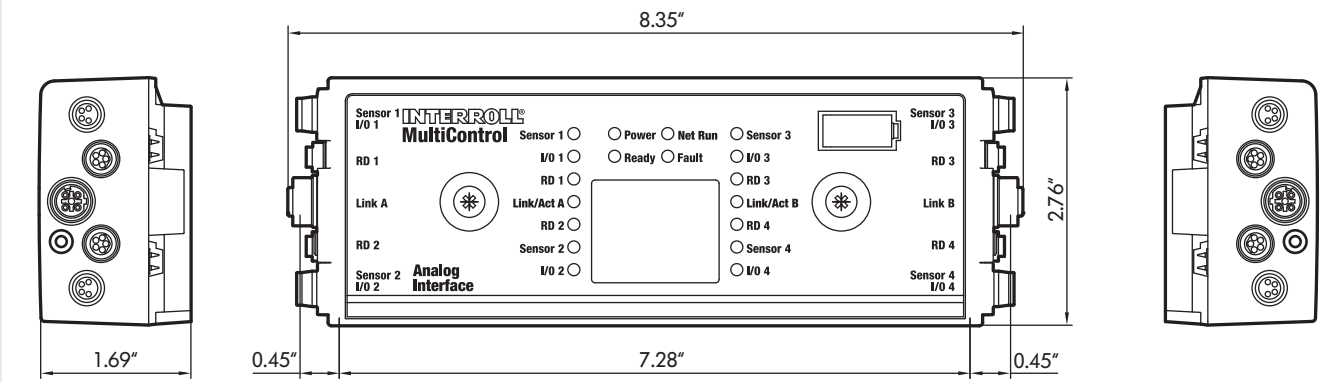
Electrical data	
Rated voltage	24 or 48 V DC
Voltage range	24 V DC: 22 to 28 V DC 48 V DC: 44 to 56 V DC (voltage supply of RollerDrive only)
Current consumption	Logic supply voltage: MultiControl: max. 0.2 A + connected sensors/actuators = max. 1.6 A + current of RollerDrive EC5000*
Fuses	– For logic – For RollerDrive – For sensors and I/Os, can be reset
Protection rate	IP54
Ambient conditions	
Ambient temperature in operation	–22 to 104 °F
Ambient temperature during transport and storage	–40 to 176 °F
Max. installation height above sea level	3280 ft**

* The power of EC5000 depends on the application, e.g., conveying good weight, conveying speed, acceleration ramp, and on the EC5000 used (refer to the corresponding chapter).

** The installation in systems at an altitude above 3280 ft is possible. However, this can lead to a reduction of the performance values.

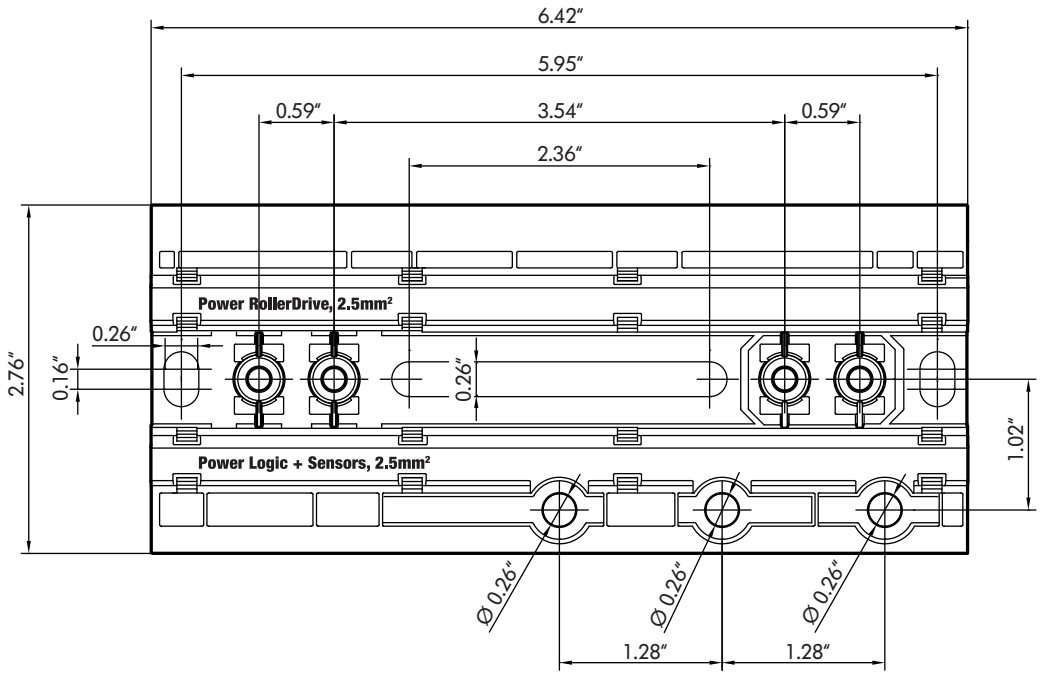
Dimensions

MultiControl



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Base plate



To be able to position the magnetic key, the distance from the top edge of MultiControl to adjacent components must be at least 0.4".

Accessories

- Flat cable for voltage supply, page 62
- Magnetic key, page 65
- MultiControl dummy plug, page 64
- RollerDrive EC5000 extension cable, page 62
- MultiControl communication cable, page 63
- MultiControl Y-cable, page 63
- Switching power supply HP5424, page 52
- Switching power supply HP5448, page 56
- Cable distribution, page 63
- Shield connection cable, page 64

Ordering information

- Article number: S-1103563
- Scope of supply: Base plate

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