

CONTROLS

ZONECONTROL

For EC5000 24 V

20 W, 35 W, with analog interface



24V

48V

20W

35W

50W

AI

BI

Application area

Zero-pressure accumulation (ZPA) conveying for systems with medium to high number of conveyor zones. Applications with or without PLC, but without fieldbus.

Product description

The ZoneControl is a single-zone control for a RollerDrive EC5000 and a zone sensor. The ZoneControl can be used to create stand-alone, zero-pressure accumulation conveyors which require no higher-level control (PLC). Additional functions and communication to upstream and downstream conveyors can be implemented via digital inputs and outputs (I/Os).

The advantage is that the ZPA logic is contained in the ZoneControl and does not have to be programmed within a PLC. DIP switches can be used to set the RollerDrive speed and direction of rotation as well as the logic (single or train release). For all ZoneControl connected with each other, the speed can also be changed with an analog signal and a cumulative error signal can be read out.

The wiring of the voltage supply is done via switching wire and communication using commercial CAT5 patch cables (Ethernet cable). The ZoneControl is only partially suited when a tracking of conveying goods or the control of the RollerDrive with start and brake ramps is being planned or a large number of additional functions is to be used.

The ZoneControl shows its strength in the fact that it does not have to be addressed, which makes an exchange in case of a failure extremely easy, and it can easily be configured with DIP switches.



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Functions

- Logic for zero-pressure accumulation conveying incl. initialization
- Communication with upstream and downstream zones via peer-to-peer connection
- Speed setting in 8 increments via DIP switches or analog signal
- Direction of rotation setting via DIP switches or external digital signal
- Connection of a zone sensor
- Connection of a start sensor for the start of the conveyor line
- Determination of NPN or PNP switching logic
- Switching a second RollerDrive into the zone
- Additional functions: Running the conveyor empty, error signaling of all connected zones, external start or stop signal
- Voltage limitation via brake chopper

Technical data

Electrical data	
Rated voltage	24 V DC
Voltage range	19 to 26 V DC
Current consumption	ZoneControl with sensor: approx. 0.5 A + current of RollerDrive EC5000*
Fuse	Present, non-replaceable
Protection rate	IP20
Ambient conditions	
Ambient temperature in operation	32 to 104 °F
Ambient temperature during transport and storage	-40 to 176 °F
Max. installation height above sea level	3280 ft (at higher altitudes, a reduction of performance values is possible)
Cable cross-sections	
Power supply	Fine-wired, 1.5 mm ² (AWG 16)
Inputs/outputs (I/O)	Fine-wired, 0.08 to 0.5 mm ² (AWG 28 to 20)

* 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).

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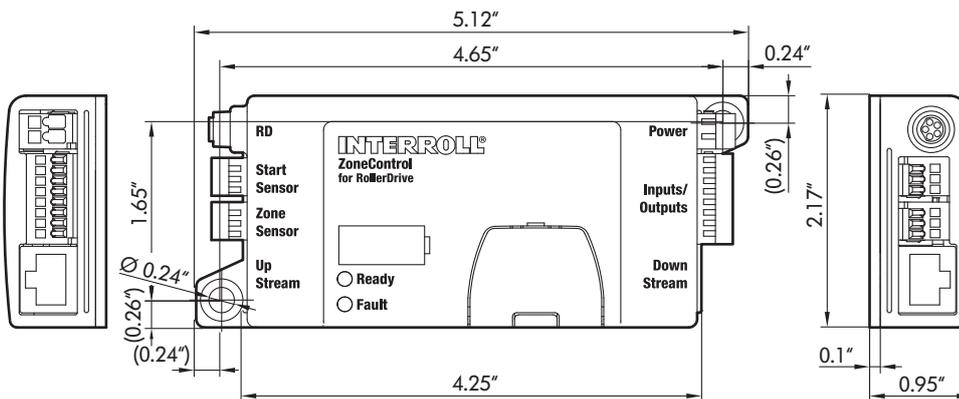
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Dimensions



Accessories

- RollerDrive EC5000 extension cable, page 62
- Switching power supply HP5424, page 52

Ordering information

- Article number: S-1101459
- Scope of supply: Plug for voltage supply, plug for inputs and outputs, one plug each for start and zone sensor, polymer tool for cabling