

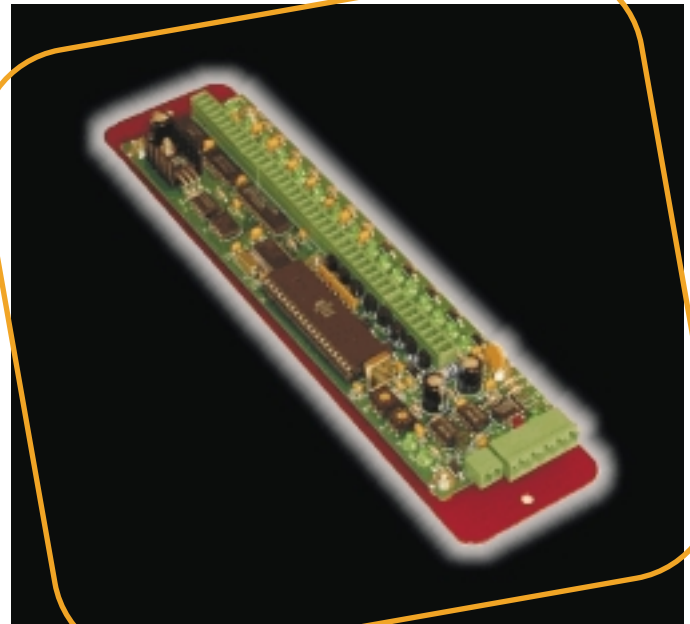
OmniAccum

Accumulation Controller for Brushless Motorized Roller Conveyor

Product Description

Industry trends are showing an increase in brushless motorized roller conveyor systems and applications. The system factors driving these trends are 24Vdc low voltage for increased safety, reduced audible noise, reduced energy consumption, system modularity, and simplified maintenance.

However, what controls solution should be used on these type of systems containing numerous components? A traditional PLC would create cumbersome installation, and would not yield a modular system design. Similarly, a field mountable programmable I/O device utilizing a device level network could be used to control accumulation conveyor, but this will increase the cost of the system and is not necessary for simple accumulation control. The ideal control solution is a cost effective control device which utilizes a device level network and is designed specifically for brushless motorized roller accumulation conveyor. The answer is the **OmniAccum**.



Benefits

Cost effective solution for straight accumulation sections of MDR conveyor

Status LEDs for inputs and outputs allow visual verification and troubleshooting

Open collector outputs with maximum switching current of 0.5amps at 24 Vdc

*Communication via **DeviceNet** protocol, supports Polling - I/O Slave Messaging Connections.*

Standalone device, no PC-host required

Preprogrammed for zero pressure accumulation conveyor operation

Controllers can be configured through bundled software application

Small size allows controllers to mounted in most conveyor channels

Rotary switches for MAC ID

Individual power source for each input promotes efficient photoelectric sensor wiring

Omni Automation, Inc. designed the OmniAccum specifically for brushless motorized roller accumulation conveyor control. The OmniAccum is equipped with 8 sourcing signal inputs and 8 open collector outputs. The inputs are provided with individual power sources which promote efficient photoelectric sensor wiring and maintenance. The outputs have a maximum switching current of 0.5 amps and are protected from back EMF. The physical design of the device enables it to be mounted in most conveyor channels.

The OmniAccum is preprogrammed with a configurable accumulation program. The configuration software is bundled with the OmniAccum device and allows many parameters to be adjusted. The software enables timers to be adjusted for each zone giving flexibility in zone and product sizes for individual systems.

The OmniAccum communicates via the open DeviceNet protocol. The devices use peer-to-peer messaging to pass product from one device to another. This feature allows the OmniAccum to be a standalone device and it is not necessary to have a host PC on the network. The OmniAccum supports DeviceNet polled messaging connections between itself and a DeviceNet master device. The master device can poll the I/O status, for use in off-the-shelf HMI software.

In areas of a system where more intelligence is required, the OmniCon and OmniCon-LP models is a ladder logic programmable device designed for diverts, merges, and other unique applications.

Specifications

Product Type	<i>Digital I/O field device</i>
Type	<i>Accumulation controller for brushless motorized roller conveyor</i>
Network	<i>DeviceNet</i>
Voltage Range	<i>Module : 12-30 Vdc; Network 12-30 Vdc</i>
Current Consumption	<i>Module: 210 mA Max @ 24Volts, excluding motor and photo-eye current; Network: 40 mA max.</i>
Operating Temperature Range	<i>-30 °C to 70 °C [-22 °F to 158 °F]</i>
Storage Temperature Range	<i>-55 °C to 85 °C [-67 °F to 185 °F]</i>
Humidity	<i>95% RH, non-condensing</i>
Standards	<i>Pending</i>
Shock	<i>10 g</i>
Vibration	<i>2 G, 10 to 500 Hz</i>
Dimensions	<i>1" x 2 3/16" x 9 1/4"</i>
Housing Material	<i>Steel Mounting Plate</i>
Weight	<i>0.5 lbs..</i>
Mounting	<i>#10-32 hex head machine screws</i>
Function	<i>Low voltage accumulation control for motorized roller conveyor</i>
Inputs	<i>8 normally open, SOURCING sensors required; 12 - 24 Vdc</i>
Input Signal Current	<i>0.1 mA nominal</i>
Sensor Input Power	<i>Powered from module, sharing common power. Module Input current limited to 1.25A</i>
Outputs	<i>8 independent control outputs (common ground)</i>
Output Type	<i>NPN open collector outputs</i>
Output Voltage Drop	<i>0.06 Vdc @ 100 mA, 0.35Vdc @ 500 mA</i>
Max. Output Current	<i>500 mA maximum</i>
Output Leakage Current	<i>10 µA maximum</i>
Wire Size (Recommended)	<i>20 to 24 AWG stranded or solid</i>
I/O Connectors	<i>Screw terminals with quick disconnect</i>

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