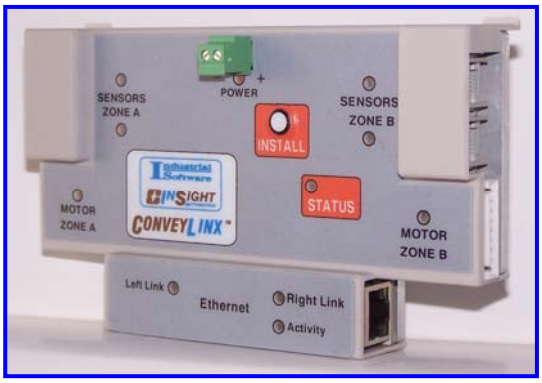
ConveyLinx ERSC

EtherNet Roller Speed Control Module

Conveyor Control System

Features



Communications – Ethernet TCP-IP or Ethernet IP
Baud rates supported – 10 MB 100MB
Interface Capacity – up to 4 sensors/ 2 brushless motors, 2digital outputs and includes these features:

- ***Built in 3 way Ethernet switch***
- ***Direct driving of two (2) 3 phase brushless DC Rollers***
- ***Control standard & high torque PulseRoller, Itoh, or Interroll motors***
- ***Speed control of each zone***
- ***Accumulate, transfer, singulate, train, gap train modes of operation***
- ***Simple single point pushbutton install procedure***
- ***Motor error detection (overload, overheat, motor not present)***
- ***Jam detection photo sensor marginal gain diagnostic***
- ***Linear transfer, 2 to 1 merge functions included***
- ***Default self install configuration for singulation / ZP accumulation up to 100 modules (200 zones)***

Introduction

The Ethernet Roller Speed Control (ERSC) provides integrated control solution for conveyor and motor control applications using Ethernet TCP-IP or Ethernet IP communication technology. The module can be configured to act as linear conveyor or merge.

The benefits of such a conveyor system include:
•Reduced installation costs
•Reduced energy consumption
•High level of system modularity
•Simple system maintenance, diagnostic and repair
•Plug and Play installation
•Increased roller life
•E-stop functionality
The core of this system is the Etherent Roller Speed Control, which is designed using the Ethernet TCP-IP Protocol to provide maximum system functionality. Smart functions are build into the Module that provides control of various operational modes of conveyor.

Specification

Inputs
Number of inputs:
4 inputs - Sensor
4 inputs - Sensor alarm
Nominal Input Voltage: 11~ 35V DC
Input Current - from 6 up to 30mA (IEC 61131-2 standard)
Logic 1- from 11 up to 35V DC (IEC 61131-2 standard)
Logic 0- from 0 up to 5V DC (IEC 61131-2 standard)
Outputs
Number of outputs:
2 outputs for direct drive of brushless DC motors
2 outputs for logical devices

General Specifications

Power requirements:
Nominal: +24VDC/ 100mA (excluding motor power and current draw from photoelectric)
Voltage Range: 18V to 30VDC
Maximum peak motor drive current: 10A
Programmable average current protection
Operating temperature: -20OC ~ +80OC
Storage temperature: -40OC ~ +85OC
Humidity: 5 ~ 95% RH, non-condensing
Vibration: 2G, at 10 to 500 Hz
Isolated voltage:
DC/DC converter from power supply – 1000VDC
Ethernet network – 1000VDC
Photo-coupler from Input/ Output – 5.3kVrms
Mounting: Flat with adhesives, rivets, screws, etc.
Electromagnetic compatibility: IEC 801, Level3
Dimension: 136 mm x 90 mm x 30 mm
Mounting requirements – vertical face forward
Heat dissipation clearance required – 35 mm top and bottom

ERSC – Terminals assignment