

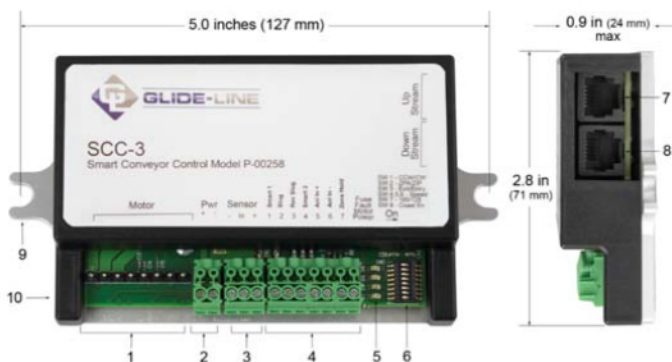
# Specifications



The SCC-3 Control is a third generation Smart Conveyor Control that combines a Brushless DC motor control and intelligent conveyor zone control into one compact, cost-effective package. It is easy to install and can be configured for use in several different operating modes.

This new third Generation controller is more robust over its predecessor and may be used with either our 100 Watt or 125 Watt motors.

This product is most useful in typical level, unit handling roller conveyor applications. It can also be used with 5:1, 7.5:1, 10:1 or 20:1 gearbox assemblies that provide a very compact motor/reducer package for light to medium duty pallet handling or industrial applications.



## P-00258 SCC-3 Smart Conveyor Control Module

Depending on the setup, the conveyor can operate in the most conservative (ZPA) zero pressure accumulation mode or in small gap (ZIP) mode for maximum throughput. Slug forward and slug reverse operating modes can be applied when accumulation is not required. New features include Dynamic Speed Adjustment (analog input / no potentiometer) and Search and Rescue which finds parcels that otherwise might become lost.

A complete installation manual is available to qualified conveyor original equipment manufacturers (OEMs) that will guide you through the installation, set-up, and the use of the indicator LEDs to troubleshoot any set-up errors.

1. Motor Connection Header
2. +24V DC Power Input Header (plug included)
3. PNP Presence Sensor Connection Header (plug included)
4. User Input-Output Connection Header (plug included)
5. Diagnostic LEDs
6. Configuration Switches
7. RJ-25 Connection to upstream control (plug & cable not included)
8. RJ-25 Connection to downstream control (plug & cable not included)
9. Mounting Plate/Heat Sink
10. Cover



# Specifications

## Electrical Specifications

|                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|
| Input Voltage              | <u>Minimum</u><br>22.0 VDC | <u>Nominal</u><br>24.0 VDC | <u>Maximum</u><br>28.0 VDC |
| Input Current              | <u>Standby</u>             | <u>Rated</u>               | <u>Peak</u>                |
| 100W24 Motor Series        | 0.10 Amps                  | 4.0 Amps                   | 5.0 Amps                   |
| 125W24 Motor Series        | 0.10 Amps                  | 5.0 Amps                   | 6.3 Amps                   |
| PNP Inputs                 | <u>Minimum</u>             |                            | <u>Maximum</u>             |
| Voltage                    | 18.0 VDC                   |                            | 28.0 VDC                   |
| Load                       |                            |                            | 3.0 mA                     |
| PNP Output                 | <u>Minimum</u>             |                            | <u>Maximum</u>             |
| Voltage                    | Input -2 VDC               |                            | Input VDC                  |
| Current                    |                            |                            | 500 mA                     |
| Inductive Loads Acceptable |                            |                            |                            |

## Environmental Specifications

|                           |                |                |
|---------------------------|----------------|----------------|
| Temperature Limits        | <u>Minimum</u> | <u>Maximum</u> |
| Operating                 | -4° F (-20°C)  | 104°F (40°C)   |
| Storage                   | -40° F (-40°C) | 158°F (70°C)   |
| Humidity (non-condensing) | 20%            | 90%            |

## Control Functions

|                     |                    |                      |
|---------------------|--------------------|----------------------|
| Speed Control       |                    |                      |
| 100W24 Motor Series | 56 RPM (5.9 rad/s) | 280 RPM (29.3 rad/s) |
| 125W24 Motor Series | 70 RPM (7.3 rad/s) | 350 RPM (36.7 rad/s) |

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Speed Control Method                |                                     |
| Default (Preset)                    | 8 Speeds - Switch Selectable        |
| Override (Dynamic Speed Adjustment) | 1-9 VDC Analog Input (Differential) |

|   |     |
|---|-----|
| Conveyor Operating Modes                              |     |
| Conventional Zero-Pressure Accumulation (ZPA)         | Yes |
| Small Gap ZIP Mode (For Higher Throughput)            | Yes |
| Entry Zone "Handshake" (PNP Input and Output Signals) | Yes |
| Exit Zone "Handshake" (PNP Input and Output Signals)  | Yes |
| Slug Operation – Forward                              | Yes |
| Slug Operation – Reverse                              | Yes |

|                        |   |   |
|------------------------|---|---|
| Protection             | <u>Condition</u>                                | <u>Response</u>                                     |
| Over Speed             | 20% Over Maximum                                | Apply Dynamic Braking                               |
| Stalled Motor          | Under 30 RPM                                    | Reduce Current to 2A Output                         |
| Over Voltage on Input  | Over 28 VDC                                     | Applies Dynamic Braking Immediately                 |
| Under Voltage on Input | Under 20 VDC                                    | Applies Dynamic Braking - After 1 Sec. Motor Coasts |
| Braking Method         |   |   |
| Dynamic Braking        | Default Mode Brings Motor to a Halt Quickly     |   |
| Zero-Motion Hold       | Restricts Parcels on the Conveyor from Coasting |   |

