

Specifications



The SCC-3 Hi Performance 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.

The high performance portion of the name indicates that this control may be used not only with the standard version 100 watt motor but will provide maximum performance from our 125 watt, 160 watt and 200 watt versions with their respective higher speeds. It may also be used with an optional Shunt Regulator that allows the control to function in regenerative braking mode without creating excess voltages on the power supply line.

This product will be most useful in more demanding ap-

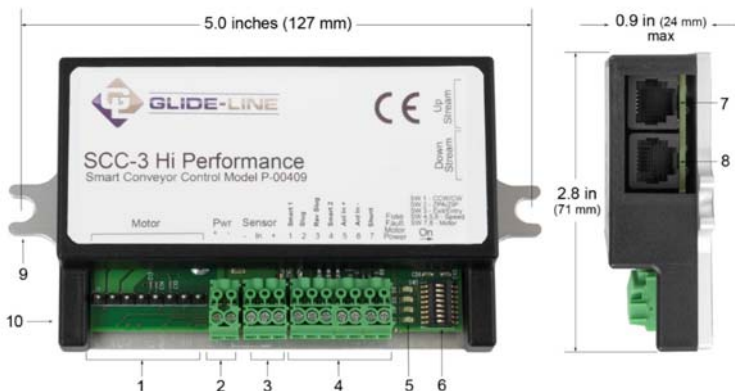
P-00409 *SCC-3 Hi Performance* *Control Module*

plications like heavier loads or incline or decline conveyors or where higher speeds are required. It can also be used with 5:1, 7.5:1, 10:1 or 20:1 PowerCube™ assemblies that provide a very compact motor/reducer package for pallet handling or industrial applications.

Once the set-up is complete, no further adjustments should be necessary. Depending on the setup, the conveyor will operate in the most conservative (ZPA) zero-pressure accumulation mode, in a higher throughput small gap (ZIP) zero-pressure accumulation mode or may be dynamically changed to slug forward or slug reverse operating modes when accumulation is not required.

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

1. Motor Connection Header
2. +24V DC Power Input Connector (plug included)
3. PNP Presence Sensor Connector (plug included)
4. User Input-Output Connector (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)



Specifications

Electrical Specifications

Input Voltage	<u>Minimum</u> 22.0 VDC	<u>Nominal</u> 24.0 VDC	<u>Maximum</u> 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
160W24 Motor Series	0.10 Amps	6.5 Amps	8.2 Amps
200W24 Motor Series	0.10 Amps	7.0 Amps	8.8 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)	122°F (50°C)
Storage	-40° (-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)
160W24 Motor Series	93 RPM (9.7 rad/s)	450 RPM (47.1 rad/s)
200W24 Motor Series	112 RPM (11.7 rad/s)	560 RPM (58.6 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 2.5A Output
Over Voltage on Input	Over 28 VDC	Applies Dynamic Braking Immediately
Under Voltage on Input	Under 20 VDC	
Braking Method		
Dynamic Braking	Default Mode Brings Motor to a Halt Quickly	
Regenerative Braking (For Overhauling Loads)	Used Only if an External Shunt Regulator is Attached	
Zero-Motion Hold	Restricts Parcels on the Conveyor from Coasting	



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