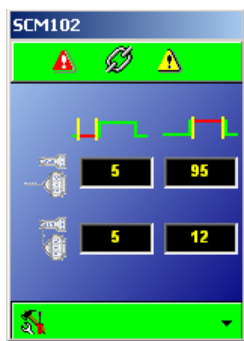


iTrax[®] Spray Controller (SC) Module



Precise, accurate controller with PC-based graphical interface and integral self-diagnostics for spray guns used in can manufacturing.



With the SC module, both delay and spray duration time can be set from 0.1ms to 3000.0ms in 0.1ms increments.



Features and Benefits

- Integrates spray timing, gun driver and CleanSpray nozzle cleaning functions into one system, simplifying installation and operation
- Provides accurate and repeatable timing control to 1 millisecond duration with +/- 0.05 millisecond accuracy
- Offers digital timing control with easy-to-use graphical sliders and push button adjustments
- Used with touch screen or mouse on PC with Windows-based software

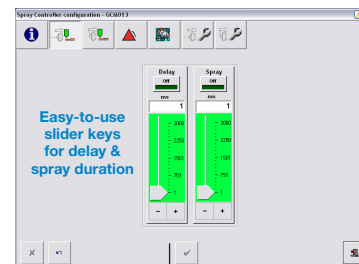
The iTrax[®] SC module provides precise, accurate timing controls and power electronics (gun drivers) for Nordson MEG[®]-II and MEG[®]-IS spray guns.

Each module is fully compatible with other functional components of the Nordson iTrax system and will control one spray gun. In fact, spray timing, gun driver, and CleanSpray[®] nozzle cleaning functions are all integrated into one system, simplifying installation and operation.

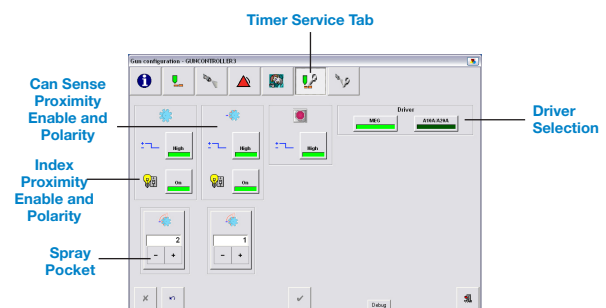
Features include digital timing control with easy-to-use graphical sliders and push button adjustments. The SC module is used with a touch screen or mouse, on a PC with Microsoft[®] Windows[®]- based software.

Complete Spray Control Design

An index signal (for spray machines) and/or in-pocket sensor signal initiate a trigger input signal to the module. Both delay and spray duration time can be set from 0.1 – 3000 milliseconds in 0.1 millisecond increments. Gun drivers are specifically configured for Nordson MEG[®] series guns to provide optimum performance. The timer/driver function operates independently of the PC operator interface. Thus, if the PC is down, the timer and driver will continue to operate and not shut down production. If power to the Spray Controller module is interrupted, a fail-safe mode shuts down the host machine. Self-diagnostics for the iTrax Spray Controller include coil short-circuit detection and LED check.



May also use "+" or "-" keys to increase or decrease delay and duration settings.



Each SC Module is individually configured to provide a wide range of flexibility for installation on a variety of spray machines.



iTrax[®] Spray Controller (SC) Module

The SC module can be setup for use on single- or dual-index spray machines. Can-in-pocket sensors may be positioned up to eight pockets before the actual spray pocket. Retrofitting to an existing sensor interface is made easy since sensor logic (high or low) can be defined in software rather than with hardware jumpers. For example, a logic high sensor signal input may be defined as when the can is or is not in the pocket.

In addition, each SC module has the capability to control the CleanSpray[®] function for a Nordson CleanSpray gun. The CleanSpray function provides a cleaning spritz of the lacquer nozzle to reduce encapsulation and nozzle blockage. The iTrax SC provides adjustable settings to optimize the CleanSpray function, including:

- Delay time (0 – 100 millisecond range) after the lacquer spray gun closes
- CleanSpray gun spray duration (1 – 300 millisecond range)
- Number of skipped lacquer sprays (every 1 – 16 lacquer sprays)
- “Watchdog” timer function: actuates CleanSpray guns every 1 – 60 seconds when the lacquer spray gun is idle
- Water tank level input: issues a warning when the water supply tank is low

Specifications

Power Requirements	24 Vdc +4/-2 @ 4 Amps plus external loads
iTrax Network Communications	CAN 2.0 with proprietary iTrax protocol Maximum Network Length: 200 ft
Physical	Height: 10.375 in (274 mm) Width: 2.0 in (51 mm) Depth: 8.2 in (208 mm) Weight: 3.0 lbs (1.36 kg)
Environmental Operating Conditions	Max. Ambient Temperature: 104 °F (40 °C)
Driver/Gun Response Time	Turn-on time: 1.2 milliseconds Turn-off time: 1.8 milliseconds

Timer

Range	Delay: 0 – 3000 milliseconds Duration: 0 – 3000 milliseconds
Accuracy	Delay: +/- 0.1 milliseconds Duration: +/- 0.1 milliseconds
Modes	Pulse Driver Output: manual, automatic (with or without shift register) Fixed Voltage Output: manual, automatic, watchdog timed (while spray gun is OFF)

Outputs

Pulse Driver (for spray gun)	Maximum Current: 4 Amps Maximum Voltage: 48 Vdc
CleanSpray gun	Maximum Current: 2 Amps Maximum Voltage: 48 Vdc
Alarm Relay Contacts	Normally Open and Normally Closed contacts 30 Vdc @ 5 Amps
Warning Relay Contacts	Normally Open and Normally Closed contacts 30 Vdc @ 5 Amps
Timer Active Output	Separate sinking and sourcing outputs

Inputs

Index (or Timing Strip Sensor)	Jumper configurable for Sinking or Sourcing proximity switches*. Software configurable hi/lo true.
Can-In-Pocket	
Spray Inhibit	
Manual Spray Gun Push Button	Requires dry contact or Sourcing signal. Software configurable hi/lo true.
Water Tank Level	
Purge	Requires dry contact or Sourcing signal. This signal is used to detect that the spray machine is running. Software configurable hi/lo true.
Run\Stop	

* Note: Requires customer supplied sensor

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