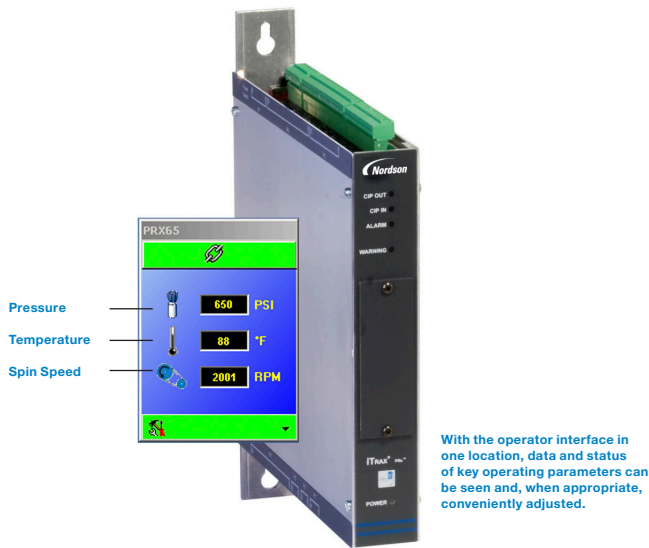# iTrax® Pressure Control (PRx II) Module

Programmable recipe capability for automatic spray pressure adjustment, plus monitoring of spin speed, lacquer temperature and can-in-pocket for can coating operations

Pressure
Temperature
Spin Speed

With the operator interface in one location, data and status of key operating parameters can be seen and, when appropriate, conveniently adjusted.

Features and Benefits

- Enables single-location ("one button") control and input of selected can "recipes"
    - Each recipe includes operating parameters for a particular can size or coating weight requirement
- Recipe parameters include timer, spray pressure and spin speed settings
- Simple operator interface displays messages, task requirements and settings
- Also monitors lacquer temperature, spin speed and vacuum chuck
- Additional can-in-pocket sensing for redundant / back-up proximity sensors

Today's can makers need flexibility and repeatability in the manufacturing process to be able to quickly and accurately change can sizes or can types for different products. For the inside spray process, changeover often requires manual adjustment of spray pressure at each spray machine. But manual adjustments are less controllable and reliable and subject to more variation than an automatic process.

The iTrax Pressure Control (PRx II) module provides the capability to automatically adjust and control spray pressure at each gun. This enables single-location ("one button") control and input of selected "can recipes". Each recipe consists of all the necessary operating parameters for a particular can size or coating weight requirement.

Once the desired recipe is selected and activated on the PC Touch Screen Control, spray pressure and timer settings are automatically adjusted at each spray gun. A PC Operator Interface also displays messages, task requirements and settings needed for other parameters that must be adjusted when changing recipes. This includes any nozzle and gun position changes and conveyance adjustments needed for a different type of can or container. The operator can document this information in the system, to coincide with desired practices and requirements of each particular plant or line.

The PRx module with Electronic Pressure Regulator (shown) provides capability to change all timer and pressure settings automatically by selecting the desired recipe for the specific production requirement.

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iTrax® Pressure Control (PRx II) Module

In addition, the PRx module provides the capability to monitor several other key functions in the spray coating process, including:

- Lacquer Temperature at Spray Gun
- Spin Speed (Belt Speed)
- Vacuum Chuck
- Additional Can-In-Pocket Sensing for using redundant / back-up proximity sensors

Integration of these functions within the iTrax system means the operator interface is in one location. As a result, data and status of key operating parameters can be seen and, when appropriate, conveniently adjusted without the need to walk or move to multiple viewing points. Since data is automatically monitored, an operator is alerted immediately should any unexpected changes in performance occur.

The PRx module is fully compatible and integrated into the iTrax PC operator interface. The iTrax OPC Server and OPC Local Client software are required to configure operation of the PRx module. Once configured, however, the PRx module remains fully functional even if the PC running the OPC Server and OPC Local Client is shut down.

For automatic pressure control, each spray gun requires one PRx module, one Spray Monitor (SM) module and one Electronic Pressure Regulator.

Specifications

Power Requirements	24 Vdc +4/-2 @ 350 mA 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) **Length:** 1.5 in (38 mm) **Width:** 8.2 in (208 mm) **Weight:** 1.85 lbs (0.84 kg)
Environmental Operating Conditions	Max. Ambient Temperature: 104 °F (40 °C)

Pressure Control Channel

Communication	Proprietary RS485
Requirements	iTrax Electronic Pressure Regulator iTrax Spray Monitor (SM)

Expanded Can-In-Pocket (CIP) Feature

CIP Output	Sinking signal directly compatible with Spray Monitor CIP
CIP Input	Jumper configurable for sinking or sourcing proximity switches*
Vacuum Input	Requires dry contact or sinking signal from vacuum switch

Other Features

Gun Position Input	Jumper configurable for sinking or sourcing proximity switches*
Spin Speed RPM Input	Sourcing proximity switch required*
Run/Stop Input	Sourcing proximity switch or dry contact is required. This signal is used to detect that the spray machine is running*.
Temperature Monitor	4-20 mA corresponding to 0-100°C (32-212°F) range Temperature Warning and Alarm indication Requires pressure transducer with integral temperature sensor
Spinner Motor Speed Monitor	Displays spinner speed 0-3000 RPM range Sourcing proximity switch required* Speed Warning and Alarm indication
Alarm Output	An output is available that can drive a 24 Vdc resistive load @ 200 mA. It is software configurable to signal an alarm for hi/lo temperature and/or high/low RPM.
Optional Communications Module	Requires optional kit - ProfiBus DP Slave or Ethernet/IP adapter. Customer is responsible for configuring host PLC.

* Note: Requires customer supplied sensor

Performance by design

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