

## IntelliTrax™ with Dynamic Polarization

The X-Rite IntelliTrax series is the sheetfed printing industry's fastest and smartest line of auto scanning systems for press-side color control. With two core models and numerous optional enhancements, this series provides everything needed to maximize productivity and profitability during makeready and production printing.

### IntelliTrax Features:

- IntelliTrax uses a spectrophotometer system to measure and analyze color.
- Spectral data provides the most complete and accurate description of each color
- IntelliTrax is the ideal control system for both process and special color print jobs.
- Equipped with a hand-held spectrophotometer to give operators the option of spot checking ink color at critical locations.

Combining the capabilities of the spectrophotometer and densitometer in a single automated measuring head, the IntelliTrax measures ink density as well as spectral reflectance for color control. Density has proven to be the best measurement parameter for process control in printing. There is a direct correlation between ink film thickness and density which provides for a way to regulate the inking controls on the press. On the other hand, density may not provide enough information to accurately and consistently control special or logo colors. The addition of spectral measurement capabilities in the system provides specific appearance information to identify and control the most demanding special colors as well as provides critical color data required to generate ICC press profiles for color management.



## Dynamic Polarization

The combination of densitometry and spectrophotometry in a single measurement system does create challenges in those operations that require accurate color information while using standard density measurements for process control. In particular, it is a standard practice in many regions of the world to employ densitometers equipped with polarization filters in the measurement path to obtain density information which minimizes the measured difference between wet and dry ink films. However, accurate evaluation of color by spectrophotometry cannot be achieved through the use of polarized measurements. Therefore, the challenge is to provide both polarized density measurements and color measurements without polarization in a single system.

The latest option offered on IntelliTrax overcomes this obstacle. This new option, Dynamic Polarization (DP), allows for the measurement of polarized density while still providing non-polarized color data within the same instrument.

Through an X-Rite patented design, these measurements can be obtained simultaneously in a single pass of the scanning head.

### Summary

- Combination of spectrophotometry and densitometry offers the most comprehensive control tools for the printing process
- Polarized Density minimizes the measured difference between wet and dry ink
- Simultaneous reading of polarized density and un-polarized color within the same measurement head
- Achieve accurate evaluation of color with non-polarized spectrophotometer measurements

## IntelliTrax Dynamic Polarized Instrument Specifications

Measurement Geometry  
Reflection 45°/0° per ANSI PH2.17

Light Source  
Gas pressure @ 2850°K

Spectral Sensor  
DRS Technology (31 pt)

Spectral Range  
400 - 700 nm

Reflectance Range  
0 - 150% R

Density Range  
0 - 3.0 D

Repeatability on White  
0.2 delta E max.; ±0.01D max.

Density Reproducibility  
±0.02D @ 1.5D

Color Measurement  
Non-Polarized Spectral Response

Density Measurement  
Polarized and Non-Polarized Status T  
and Status E

Patch Width (along scan path)  
~3.5mm

Patch Height  
~3.5mm

Paper Thickness  
0.030in. (0.762mm) max

Scanning Rate  
Measures a typical bar in 15 seconds  
(5mm bar on a 40" sheet)  
Measures a native patch size bar in 20 seconds  
(3.5mm bar on a 40" sheet)

Scanning Width Available  
1,016mm (40 in.) standard, 28in. (711mm),  
40in. (1016mm), 65in. (1651mm)

Color Bar Location  
Entire Color Bar within 1.5in. (38mm) of edge  
including 1mm white surround

Color Bar Quantity  
1 row

Paper Hold Down  
Vacuum activated with measurement command

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ISO 9001  
Certified

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