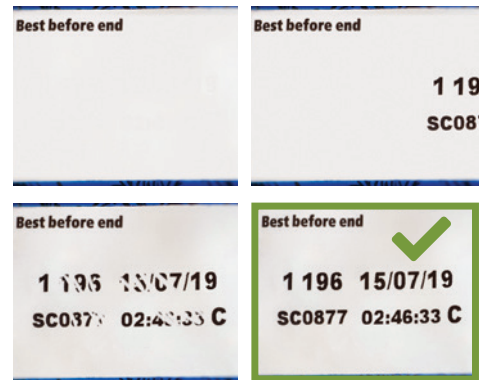


### Thermal transfer overprinting

Prevent costly product recalls and scrap by ensuring the presence, position and quality of the code on every pack. Designed for medium to high-volume thermal transfer SmartDate applications on your packaging machine, **Detect-Plus** is a stand-alone, embedded print and detect solution that ensures traceability and code quality on your products.

### Checks code quality directly on the pack

- Print**  
 Handling up to 350 packs per minute at maximum resolution, the **Detect-Plus** solution copes with the highest coding speeds.
- Check**  
**Detect-Plus** checks the presence, position and quality of the printed code directly on your pack ensuring the finished product's branding is not compromised.
- Confirm**  
**Detect-Plus** automatically detects errors in real time and ensures there are no missed codes. Its user-configurable 'line stop' functionality reduces rework and scrap.



The solution checks presence, position and quality of the code

### Simple to install on any packaging machine

- Compact and adjustable**  
 The **Detect-Plus** solution has been designed to be fitted on a majority of packaging machines and environments.
- Seamless integration**  
 The **Detect-Plus** is a 'plug and play' solution that is available for medium to high-speed intermittent and continuous packaging line applications on both existing and new SmartDate X40 and SmartDate X60 equipment.
- Flexibility to print on a variety of materials**  
 Choose from a wide variety of SmartDate X-Series ribbons to achieve high reliability and printing quality, even on the most challenging flexible packaging materials.



Compact size makes installation seamless

### Integrated, cost-effective fault system

- Cost-effective**  
**Detect-Plus** requires no external software to be integrated. The system automatically detects errors in real time and makes certain there are no missed codes. It is also compatible with ribbon save modes providing greater optimization of cost and quality.



Real-time code checking directly on the user interface

# Detect-Plus - Specifications

## Print features

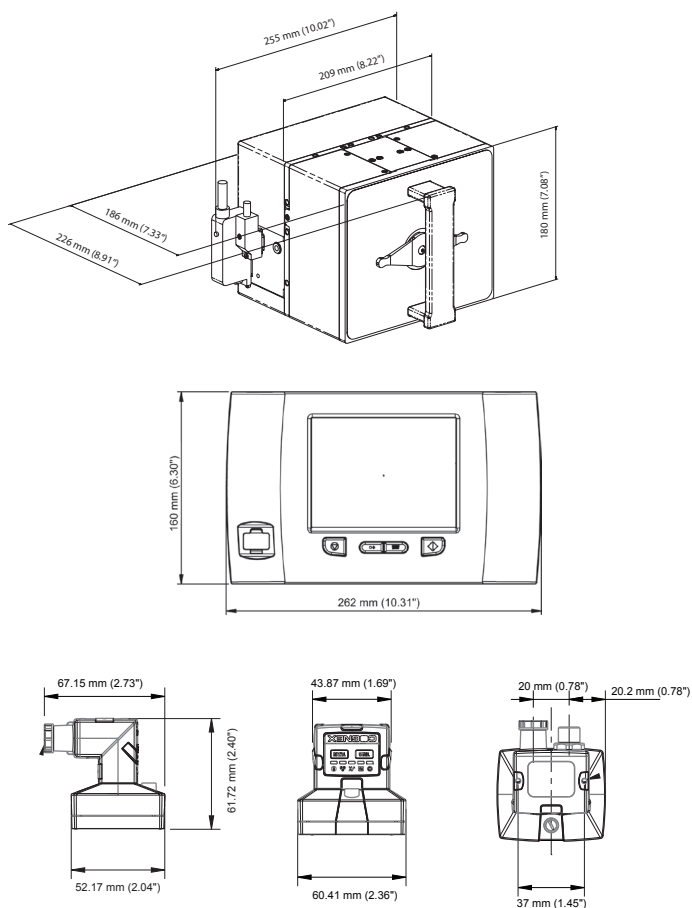
- Print-Check-Confirm speed:
  - Intermittent: up to 700 mm/s
  - Continuous: 10 to 1000 mm/s (combined)
  - Continuous: 10 to 1000 mm/s (shuttled)
- Print-check-confirm area:
  - Intermittent: 53 mm x 70 mm
  - Continuous: 53 mm x 70 mm (combined)
  - Continuous: 53 mm x 70 mm (shuttled)
- **Detect** features:
  - Dead-dot detection
  - Automatic printhead set-up
- **Detect-Plus** features:
  - Print position check
  - Print quality check
  - Print presence check
  - Ribbon save modes
  - High pack rate
  - Detects 'print on pack'

## Operations

- User interface:
  - Color user interface
  - Message selection
  - Message adjustment
  - Diagnostics
  - Fault warnings
  - Embedded **Detect-Plus** vision
  - Printhead statistics
- Hardware interface:
  - Inputs: 'print go' and configurable input
  - Outputs: fault, warning and configurable outputs
  - Monitor and alert for vision sensor faults
- Software interface:
  - USB for downloading images and settings
  - RS232, Ethernet communication
  - Communication protocols for PCs, PLC and packaging machines
- Operational ribbon saving modes:
  - Radial ribbon save
  - Digital ribbon save
  - Interlaced mode

## Camera features

- User interface:
  - Embedded on SmartDate controller
  - In-Sight Explorer EasyBuilder (set-up)
- Image mode:
  - 640 x 480 (2 x magnification)
- Lighting:
  - Diffuse white LED ring light
- Maximum acquisition speed:
  - 75 frames per second
- Pixel count: Greyscale
- Mechanical:
  - Weight: 200 g
  - Painted aluminium, IP65-rated housing
- Operating:
  - Powered from SmartDate



## Scalable options to fit your coding needs

	Detect	Detect-Plus	Mark & Read
<b>Printers</b>	X40 / X60 / X60-128	X40 / X60	X40 / X60 / X60-128
<b>Dead-dot detection</b>	•	•	•
<b>Print quality check</b>	-	•	•
<b>Print position check</b>	-	•	•
<b>Print presence check</b>	-	•	•
<b>Optical code recognition</b>	-	-	•
<b>Network</b>	-	-	•
<b>Data management</b>	-	-	•

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