

Reading Barcodes and 2-D codes

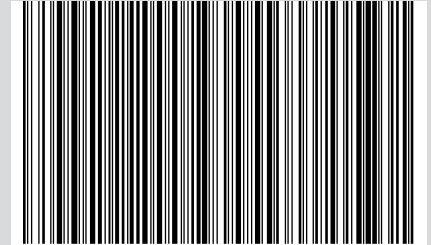
The VIPAC identification system identifies the following barcodes:

- 2/5 interleaved
- Code 39, Code 93, Code 128
- EAN/UPC with add-on
- Codabar, Postnet, Planet
- 3/5, Four State

As well as currently used 2-D codes:

- DataMatrix ECC200
- PDF 417
- Maxicode

Provides quick reliable read rates on conveyor speeds up to 4.5m/s (885fpm).



The VIPAC software identifies all barcodes and 2-D codes currently in use.

The intelligent barcode and 2-D code reading software, exclusively developed by VITRONIC guarantees reliable and high read rates – even under unfavorable conditions. VIPAC is different from traditional barcode reading systems in particular by its ability to process grayscale image values on two-dimensional codes. Furthermore, identification and reading through plastic film is possible.

VIPAC camera-based identification system

The automated processing of object- and client-related information serves to optimize the logistic processes. Optimization is achieved with the fully automated VIPAC identification system. VIPAC has a modular structure consisting of one or several camera units and decode computer(s). Dimensioning is also available with cameras or standalone.

VIPAC identifies the most accurate reading rates from handwritten and machine-generated characters, as well as 1-D and 2-D codes from all sides of the object, regardless of the objects orientation.

Relevant data is even transmitted from damaged barcodes with less than optimal contrast.

VIPAC has superior contrast range, barcodes can be decoded at contrast factors (PCS) down to 0.3.

All code types that are currently used can be automatically recognized, differentiated and read. Thereby the number of the barcodes and their types is irrelevant. The evaluation customer specific prioritization, can be done in the VIPAC system or by using an overriding external data-processing system.

Advantages of the camera-based code reading:

- Identifies at speeds of up to 4.5m/s (885fpm)
- Line frequency is achieved up to 30,000 Hz, even millimeter size barcodes (see on the back side) can be identified
- Increased read rates and data quality save operational costs
- Partially destroyed, damaged, and low quality codes are identified
- Codes with low print quality can also be identified
- Codes behind film can also be decoded
- In contrast to the barcode scanners, VIPAC can identify codes from the bottom of objects regardless of orientation
- VIPAC pictures can be archived, accessed, and retrieved. This capability supports visibility of goods in receiving and shipping. Images can be utilized for additional added benefits such as customer inquiries.
- Subsequent online or offline videocoding is possible

100 per cent reading rate by connecting to videocoding

Information that cannot be read by machine or is incompletely identifiable can be redirected to videocoding work-places by means of a fast intelligent network. In a short time, a picture is available there, and the operators can enter the missing information.

Web-based monitoring software

An image archiving and analysis tool saves the pictures for follow-up and documentation and allows performing a precise analysis of the identification process.

Reading Barcodes and 2-D codes

Barcodes and 2-D codes can be identified, even if ...



... the print is printed with pale contrast



... the code is soiled



... scratches and partial damages interfere with the print



... the code is blurred



... the code is attached to material with a similar design



... the code is displaced

Examples of code specifications

	Module width	Module height
Barcode	0.25mm (10mil)	7mm
ECC 200	0.5mm	0,5mm
PDF 417	0.5mm	2mm