WINCOR
NIXDORF

BR /Fusion

BEETLE /FUSION BCR & Presence Sensor

Operating Manual

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Edition Jun 2010

Contents

Manufacturer's Certification

The device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive".

Therefore, you will find the CE mark on the device or packaging.

Tested Safety

The device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility" and 73/23/ECC "Low Voltage Directive".

In addition, the device has received the UL symbol and cUL symbol.

This product is intended to be Listed Accessory. Supplied by a UL Listed product, POS Terminal model BEETLE series.

FCC-Class A Declaration

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not in-stalled and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Le présent appareil numérique ne génère pas de bruits radioélectriques dépassant les limites applicable aux appareils numériques de la "Class A" prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

BSMI (EMC for Taiwan)

The device complies with the requirements of the BSMI (Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs) directive CNS14348 with regard to "Electromagnetic compatibility" with the limits for a Class B product.

Introduction

This operating manual provides you with the information you require to install the barcode reader & presence sensor module onto the Beetle /Fusion system as well as the instruction to operate the module.

Symbols used in this guide

-   Text following this mark represents an item in a list.

" "   Text in quotation marks contains references to other chapters or sections in this document.

●   Paragraphs following this symbol are actions to be performed in the specific order.

⚠ !   Text following this symbol has to be given special attention in order to avoid damage or injury.

🅸   This symbol identifies paragraphs which contain general notes to facilitate use of the device and help avoid operating errors.

Important safety precautions

⚠ Please read the following notes carefully before doing any work on the device.

Installation notes

- When installing the device and/or doing any work on it, make sure that it is disconnected from the power.

General safety precautions

This device complies with the relevant safety regulations for information processing equipment.

- Note the warning and information labels on the device.

- The device is equipped with a safety-tested power cable, which must be connected only to a grounded outlet.

- Always hold the plug when removing the power cable. Never pull the cable itself.

- Have damaged power cables replaced immediately.

- If the display element is damaged and the liquid crystal solution leaks out onto your hands or clothing, please wash your hands or clothing immediately under running water for at least 15 minutes, using soap or alcohol. If the liquid comes into contact with your eyes, consult a medical doctor immediately.

- Make sure that there is always free access to sockets used or to the electrical circuit-breakers of the house installation.

- In case of an emergency (e.g. damaged cabinets, control or power cables, liquids or foreign objects in the device), switch off the device immediately and inform the customer service responsible for you.

- During the thunderstorm, data transmission lines must not be connected or disconnected.

- Only use accessories and extension components that have been approved by us. Nonobservance can result in damage to the system or violations of regulations concerning safety, radio interference and ergonomical requirements.

- To clean the device only use cleaning agents approved by Wincor Nixdorf International GmbH.

Repairs

⚠ Repair work may only be carried out by authorized personnel.

Unauthorized opening of the device or repair work carried out improperly could result in considerable danger to the user.

In case of noncompliance, Wincor Nixdorf International GmbH excludes all liability.

Operation

The module comprises a high performance 1D laser barcode reader and a presence sensor as an integrated unit designed to be used with a BEETLE /Fusion.
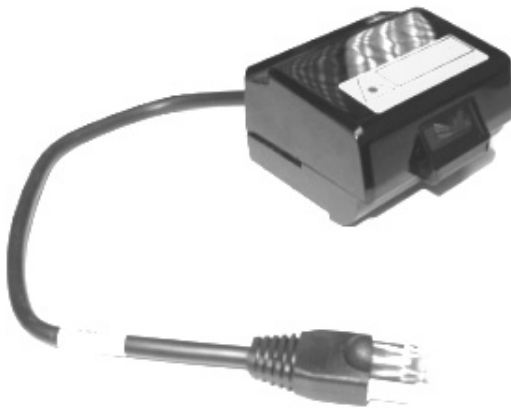
The laser of the 1D barcode reader is directed downward and can be activated by proximity sensor when any object is place within its range. At the closest point, it has the ability to scan up to 44mm wide at an angle of 44°.

The presence sensor operates on the principle of detection of optical reflection using non-visible infra-red signals. It can detect and measure the distance of the object in front of it up to maximum distance of 1.5m.
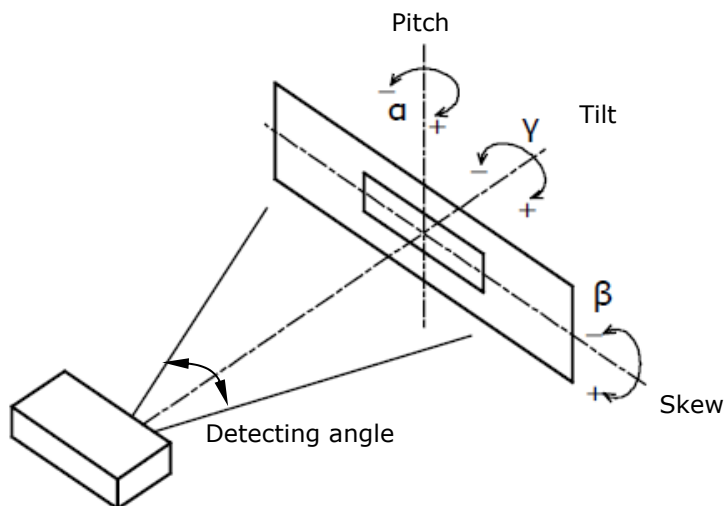
The module operates under the control the software application running on the BEETLE /Fusion.

Object
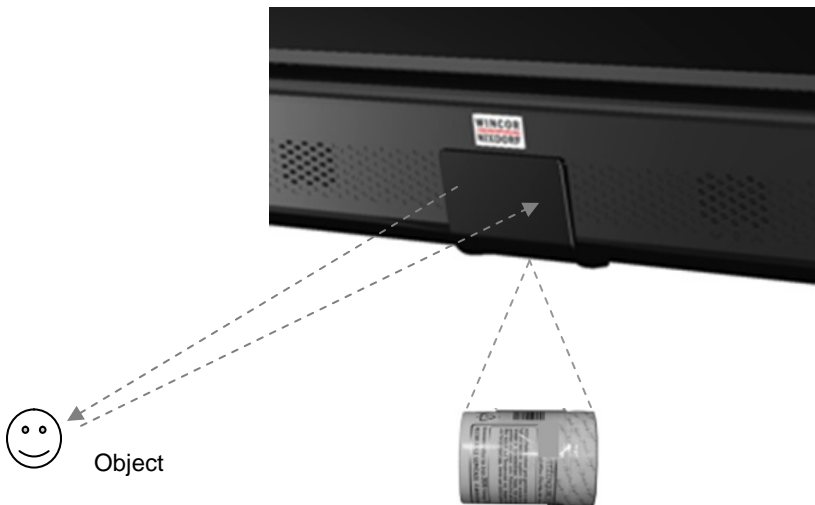
The range of the distance to read a barcode is dependence on the resolution of the barcode to be scanned. Please refer to the following chart for a quick reference.

Filter: standard mode

resolution

0.127	60~120
0.15	50~150
0.25	50~260
0.5	50~420
1.0	70~650

(Unit :mm)
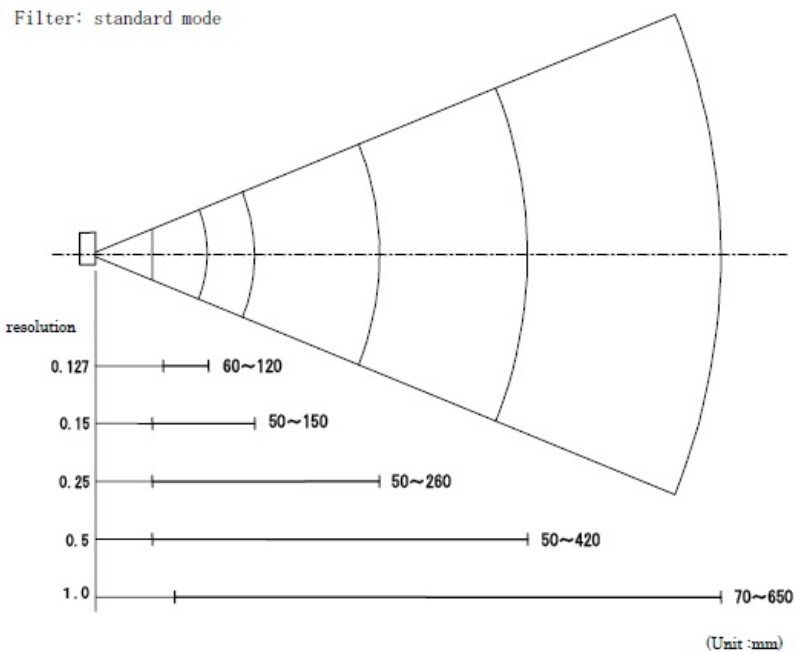
The diagram below explains some of the terms used in the specification.

Specifications

General	
Model Name	BR /Fusion

Electrical	
Voltage	5V ±5%
Current	400mA (maximum)

Interface	
Type	RS232
Baud rate	9600 bps
Data bit	8
Parity	Odd
Connector	RJ45 (proprietary)

Environmental	
Operating	+5 to +40°C,
Transport	-25 to +60°C,
Storage	+5 to 40°C,

Certifications	
Laser Safety Class	EN 60825, Class 2
EMC	CE
Product Safety	CB, UL, GS-TUV

Barcode scanner

Light source	650nm laser diode
Scan rate	100 scan/sec
PCS value	0.45 (minimum)
Detecting angle	44° (minimum)
Reading pitch angle (α)	$+35^{o}$ to -35°
Reading skew angle (β)	$+50^{o}$ to $+8^{o}$, -8° to -50°
Reading tilt angle (γ)	$+20^{o}$ to -20°
Symbology supported	JAN/UPC/EAN/Add-on, NW-7 / Codabar incl. ABC, CX, Chinese post matrix 2of5, Code 11, Code 39, Code 39 Full ASCII, Code 93, Code 128, IATA, Industrial 2of5, Interleaved 2of5, Italian Pharmaceutical, ISBN, ISMN, ISSN, Korean Postal Authority code, Matrix 2of5, MSI/Plessey, UK/Plessey, RSS-14 (incl. CC-A/B), RSS Limited (incl. CC-A/B), RSS expanded (incl. CC-A/B), S-Code, Telepen, Tri-Optic, UCC/EAN-128 (incl. CCA/B/C)

Presence Sensor

Method	Infra-red optical reflection
Detection range	20 to 150cm
Sensor Output	Activation by programmed detection distance or distance reading.