

**OPTICON**

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# OPR3001, 3004, 3101

Beyond Rugged. *It's Comfortable.*



Ideal tool for:

- ✓ Factory Automation
- ✓ Access Control
- ✓ Logistics
- ✓ Retail



Scan



Communicate

# OPTICON

## RELIABILITY AND DURABILITY

The rugged models are ergonomic yet lightweight handheld scanners that scan at far or high distances, delivering reliability and durability in harsh, dirty or extreme conditions. The rubber guarded design of this scanner with convenient pistol grip is not only rugged, it is also easy to handle. The clear large and bright indicator LED along with an adjustable tone provides a unmistakable confirmation signal to the operator, especially when operating in low-light or noisy environments.

## EASY BARCODE SCANNING

The scanners are high performance devices able to scan intensive applications. The pistol design enables the operator to work fast and snap the barcode in a quick aim.

### + FAST LASER SCAN ENGINE (STANDARD)

The typical reading distance is an average of 10 to 60 cm.



OPR3004



OPR3001 - OPR3101

### + LONG RANGE (OPTIONAL)

The optional long range scan engine reads distances from 60 cm to 2.8 meter.

## CABLED

The plug and play ability allows the user to quickly connect and operate the scanner. The cable interfaced scanner works ideal on fixed locations where the scanner is used as a direct input tool for the enterprise application.



## BLUETOOTH

The OPR3101 uses the widely available and reliable Bluetooth communication protocol which allows the scanned data to be instantly transmitted to any Bluetooth capable device. This enables interaction with the business process in a circle of 10 meters from the Bluetooth hosting device. Several docking locations can be created with dedicated communication and charging stations.



# OPR3001, 3004, 3101

Beyond Rugged. It's comfortable.

## ✓ Factory Automation



### Applications

- Verification
- Error prevention
- Storage confirmation
- Serial number registration
- Tracing of task performance
- Counting finished products
- Cost centre analysis

Assure quality of the assembly line and interact on the production progress real-time. The rubber guarded design of this scanner with convenient pistol grip is not only rugged, it is also easy to handle. The clear large and bright indicator LED on the top of the scan head also provides an unmistakable confirmation signal to the operator. The Bluetooth interface allows mobility in a range of 10 meters. Quick registration of a barcode on products, boxes or activity cards can be performed on the move and eases monitoring of the assembly process.

## ✓ Access Control



### Applications

- Entrance control
- Check-out
- Visitor counting
- Peak time registering
- Lead-tracking
- Visitor data storage
- Real-time tracking

Ticket reading is a commonly used authentication method to get entrance in facilities and events. Scanning the barcode confirms the receipt of payment or the validity of subscription. Tickets can be ordered off-location by Internet and can be scanned at location by gate-keepers. The on-board Bluetooth provides real-time connectivity to nearby stations that are linked to central server data. Electronic ticketing reduces labor expense and the stored data also provides traceable input for visitor management reports.

## ✓ Logistics



### Applications

- Shipping confirmation
- Internal distribution
- Inventory checking
- Delivery tracking
- Order picking
- Load verification

This convenient barcode scanning tool is ideal to capture the barcode of incoming goods, cross-docking moves, outgoing shipments and related paperworks. Keeping real-time connection to the corporate network upgrades the accuracy of barcode scanning with immediate visibility in the inventory status. With the scanned data the back-office administration can trace the unique codes throughout the logistics environment.

## ✓ Retail



### Applications

- Scanning on-counter
- Price checking
- Shop floor scanning
- Loyalty cards
- Shelf scanning

Fast snapping of the barcode in a quick aim and transmitting the data live to the central P.O.S. server. This scanning device comes to its utmost benefit in stores with indoor and outdoor zones and harsh conditions, like do-it-yourself centers and garden store outlets. Of course any other Point of Sale can benefit from this rugged scanner. The Bluetooth interface also enhances the option to connect a Bluetooth belt printer to provide shelf-labels on request.

### + 2M DROP

The scanners withstand multiple drops up to 2 meters (6.5 feet) onto concrete and features a trigger guard to prevent accidental scans.

### + IP 54

The rugged models are sealed up to IP 54 standards holding up well in environments where water and dust resistance is required.

## + Basic Product Specifications

### Operating indicators

- Visual:  
OPR3001, OPR3004: 1 large LED (red/green/orange)  
OPR3101: 1 large LED (red/green/blue)
- Non-visual: Buzzer

### Operating keys

- Entry options:  
1 scan key

### Communication

- RS232: OPR3001, OPR3004: DB9 PTF connector with external power supply
- Keyboard Wedge: OPR3001, OPR3004: MiniDIN6 F/M connector
- USB: OPR3001, OPR3004: Ver. 1.1, HID/VCP, USB-A connector
- Bluetooth: OPR3101: Ver. 1.2, SPP, output power class 2, range up to 10 m, 1 to 1 connection, master/slave mode, authentication and encryption

### Power

- **Cabled** OPR3001, OPR3004:  
Voltage requirement: 5V ± 10% (Keyboard Wedge and USB), 6V ± 10% (RS232)
- Current consumption: Max. 130mA (RS232), max. 125mA (Keyboard Wedge and USB)
- **Wireless** OPR3101:  
Current consumption: 165mA (typical use), max. 220mA
- Rechargeable battery: Lithium-Ion 3.7V 1620mAh
- Operating time: Ca. 25 hours (1 scan / 5 sec)

### Barcode scanner Optics

- Light source: 650 nm visible laser diode
- Scan method: Bi-directional scanning
- Trigger mode: Manual, auto-trigger
- Curvature: R>15 mm (EAN8), R>20 mm (EAN13)
- Min. PCS value: 0.45
- **Standard** OPR3001, OPR3101:  
Scan rate: 100 scans/sec
- Reading pitch angle: -35 to 0°, 0 to +35°
- Reading skew angle: -50 to -8°, +8 to +50
- Reading tilt angle: -20° to 0°, 0 to +20°
- Min. resolution at PCS 0.9: 0.127 mm / 5 mil
- Depth of field: At PCS 0.9, Code 39  
OPR3001: 10 - 590 mm / 0.39 - 23.23 in  
OPR3101: 20 - 720 mm / 0.79 - 28.35 in

### Long range OPR3004:

- Scan rate: 40 scans/sec
- Reading pitch angle: -20 to 0°, 0 to +20°
- Reading skew angle: -50 to -10°, +10 to +50°
- Reading tilt angle: -5° to 0°, 0 to +5°
- OPR3004: Depth of field: At PCS 0.9, Code 39  
420 - 2800 mm / 16.54 - 110.24 in

### Supported Symbologies

- Barcode (1D): All models: JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 11, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN, Matrix 2of5, MSI/Plessey, Telepen  
Extra OPR3001, OPR3101: ISMN-ISSN,S-Code,Tri-Optic, UK/Plessey
- Postal code: Chinese Post, Korean Postal Authority code
- 2D code: All models: MicroPDF417, PDF417  
Extra OPR3001, OPR3101: Composite codes

### Durability

- Temperature in operation: -10 to 60 °C / 14 to 140 °F
- Temperature in storage:  
OPR3001, OPR3004: -30 to 70 °C / -22 to 158 °F  
OPR3101: -20 to 60 °C / -4 to 140 °F
- Humidity in operation:  
OPR3001: 5 - 90% (non-condensing)  
OPR3004, OPR3101: 5 - 95% (non-condensing)
- Humidity in storage:  
OPR3001: 5 - 90% (non-condensing)  
OPR3004, OPR3101: 5 - 95% (non-condensing)
- Ambient light immunity: Fluorescent 4,000 lx max, Direct sun 80,000 lx max, Incandescent 4,000 lx max
- Drop test: 2 m / 6.5 ft drop onto concrete surface
- Vibration test: 10 - 100 Hz with 2G for 30 min
- Protection rate: IP 54

### Physical

- Dimensions (w x h x d):  
OPR3001, OPR3004: 68 x 155 x 150 mm / 2.68 x 6.10 x 5.91 in  
OPR3101: 68 x 165 x 155 mm / 2.68 x 6.50 x 6.10 in
- Weight body:  
OPR3001: Ca. 230 g / 8.1 oz (excl. cable)  
OPR3004: Ca. 210 g / 7.4 oz (excl. cable)  
OPR3101: Ca. 290 g / 10.2 oz (incl. battery)
- Case: ABS  
Extra OPR3004: Black  
Extra OPR3001, OPR3101: Black or White

### Regulatory & Safety

- Product compliance:  
All models: CE, FCC, VCCI, RoHS, JIS-C-6802 Class 2, IEC 60825-1 Class 2, FDA CDRH Class II  
Extra OPR3101: EN300 328, EN301 489

### Enclosed items

- **Cabled** OPR3004:  
Power supply 100-240V/0.5A, 50/60 Hz, 6V/2A (for RS232)
- **Wireless** OPR3101:  
Rechargeable battery Lithium-Ion 3.7V 1620mAh

### Sold separately

- **Cabled** OPR3001, OPR3004:  
Stand
- **Cabled** OPR3001:  
Power supply 100-240V/0.5A, 50/60 Hz, 6V/2A (for RS232)
- **Wireless** OPR3101:  
CHG3101 Cradle: Charging  
CRD3101 Cradle: Bluetooth communication, charging

### Models

	OPR 3001	OPR 3004	OPR 3101
<b>Communication</b>			
• Cabled			
• RS232*	●	●	
• Keyboard Wedge*	●	●	
• USB*	●	●	
• Wireless			
• Bluetooth			●
<b>Scanner</b>			
• Barcode	●		●
• Long range		●	
<b>Color</b>			
• Black*	●	●	●
• White*	●		●

### \*Ordering options

- Cabled interface versions:  
RS232, Keyboard Wedge, USB
- Color versions:  
OPR3001, OPR3101: Black, White