



IT4600g and IT4820/2020 2D Code Hand-held Scanner

Hand-held Line

IT4600g 2D Code Hand-held Scanner



IT4600g – Identification of 2D codes with new Adaptus™ Imaging Technology

With the IT4600g and IT4820 devices SICK supports the future market of 2D code identification.

These devices identify reliably two-dimensional (2D) symbologies (e.g. Data Matrix) and even all popular linear bar codes or stacked bar codes (e.g. Code 128 or PDF 417). In addition this unit is also able of automatically capturing OCR fonts, signatures and standard text.

A new innovative, minimised matrix camera technology combined with extremely improved decode algorithms facilitates high performance code and font identification.

This video technology is also building the basis for omnidirectional scanning for any code symbology. The device supports a horizontal motion tolerance of up to 50 cm/s.

The devices have no moving parts, the housing is mounted with steel screws and is protected against impact by rubber bumpers. These measures result in a high degree of robustness and stability.

The universally designed data transmission interface enables any connection of the IT4600g to the most common PCs or terminals. With the IT4820 there is also a cordless Bluetooth™ version available.

Its ergonomic design, robustness, fast and reliable identification of 1D/2D codes make the IT4600g the ideal choice for daily applications in offices, warehouses, logistics and for light industrial environment.

Your benefits:

- Fast and reliable identification of poor quality matrix codes
- Identification of all popular bar codes
- OCR font identification
- High motion tolerance
- Omnidirectional scanning
- Connection to various interfaces
- Easy-to-use due to configuration via bar codes
- Setup software for easy and clear programming

The IT4600g at a glance:

- Reading distance up to 330 mm
- Horizontal motion tolerance of up to 50 cm/s
- Flash memory for software update
- Robust, compact housing
- Ergonomic design
- 5 years warranty



IT4820/2020 2D Code Hand-held Scanner



IT4820

IT4820/2020 – Cordless identification of 2D codes with Bluetooth™

The most outstanding feature of the IT4820 hand-held scanner is the cordless data transmission via Bluetooth™. After successfully reading a bar code the decoded data is transmitted over a cordless connection to the paired IT2020 base station.

The integrated matrix camera makes it possible to read all common 1D/2D codes omnidirectionally, meaning independantly from code orientation.

The automatic RF connection allows transmissions of up to 10 m. Beyond this operating range the scanner automatically makes use of a so-called batch function. By using this function it is possible to buffer up to 500 12-digit bar codes within the scanner. After re-entering the operating range, the stored data is transmitted to the base unit, following the FIFO-method. Through this the roaming radius of the operator increases dramatically. Additionally safety conditions are improved because accidents as a result of cables becoming entangled in equipment and machinery can be eliminated.

The base station IT2020 optionally supports up to seven cordless hand-held scanners IT4820 simultaneously – each can be programmed to solve various application tasks. An universally designed data transmission interface allows the base station to be connected to most common PCs or terminals. The decoded information is then transmitted to a terminal or host over keyboard wedge/emulation, RS 232, USB or wand emulation for further processing.

Using Bluetooth™ technology the IT4820 allows direct communication with other Bluetooth™ devices. A separate charging station ensures the scanners can be recharged when not in use.

For RF communication between the cordless hand-held scanner IT4820 and the base station IT2020 a very robust data transmission based on adaptive frequency hopping at the 2.4 GHz/ISM band is used. Interference between WLAN, other Bluetooth™ or 433/908 MHz systems can be excluded.

The power supply of the cordless hand-held scanner IT4820 is based on a lithium-ion battery pack, which allows a long operating time without memory effects. The base station IT2020 works simultaneously as charging station.

The innovative combination of Bluetooth™ RF technology, ergonomic design, robustness, fast and reliable identification of 1D/2D codes makes the IT4820 the ideal choice for daily applications in offices, warehouses, logistics and for light industrial environments.

Your benefits:

- Increased mobility of the operator
- Omnidirectional identification of 1D/2D codes
- License-free RF system delivers fast and reliable communication
- Lithium-ion battery pack without memory effect
- Optionally up to seven scanners communicate with one base station
- Integrated algorithms for OCR-identification
- Communication, charging and stand functionality in one base

The IT4820/2020 at a glance:

- Cordless identification of all common 1D/2D codes
- 10 m RF operating radius
- Buffering of bar codes beyond operating range
- 2.4 GHz radio frequency with frequency hopping acc. to Bluetooth™ V1.2
- 3 years warranty

Technical Data

Type	IT4600g	IT4820	IT2020
Product	2D code hand-held scanner		Base and charging station
Light source	Illumination LED: Visible red light ($\lambda = 630 \text{ nm}$); Aiming LED: Visible green light ($\lambda = 530 \text{ nm}$)		
Ambient light compatibility	Max. 100,000 lux		
Versions	IT46xx / IT48xx SR: Standard Range Imager IT46xx / IT48xx SF: Smart Focus Imager IT46xx HD: High Density Imager		
Reading distance (depending of code resolution)	50 to 224 mm (SF version) 50 to 330 mm (SR version) 50 ... 170 mm (HD version)		
Reading width	110 x 70 mm ² at 228 mm reading distance		
Min. resolution	0.20 mm / 0.19 mm / 0.13 mm (SR / SF / HD) with Linear bar code 0.38 mm / 0.25 mm / 0.17 mm (SR / SF / HD) with Data Matrix code		
Code types	<ul style="list-style-type: none"> - Matrix Codes: Maxicode, Data Matrix, QR-Code, Atztec - OCR Fonts: OCR-A, OCR-B - Stacked bar codes: PDF 417, Micro PDF, Code 49 - Linear bar codes: all popular symbologies, Postnet 		
Horizontal motion tolerance	Up to 50 cm/s		
Batch function		500 codes (UPC) with 12 digits	
Optical indicators	LED for Good-read	LED for Good-read, low battery and RF communication status	LED for data transmission, system and battery power status
Acoustical indicators	Beeper for Good-read	Beeper for Good-read and RF communication status	Beeper for system status and RF communication status
RF and data interface	IT4600 and IT2020: Keyboard wedge for PCs and terminals, USB, RS 232 (TTL-Level), wand emulation, optional (IT4600 only) Laser-Out (HHLC) and RS 232 TRUE Only IT4820 and IT2020: Bluetooth™ V1.2, Class 2; 10 m RF operating radius; batch function to expand operating radius		
Operating voltage	4.5 to 14 V DC	3.6 V DC (Li-ion battery pack)	4.5 to 12 V DC
Current consumption	At 5 V DC: 375 mA (standby 46 mA)		At 9 V DC: 750 mA (max. charging)
Enclosure rating	IP 41		
EMC Test	EN 55022 Class B; EN 55024:1998; EN 61000-3-2; EN 61000-3-3	EN 55022 Class B; EN 301 489-1, 17; EN 300 328-1, 2	
Mechanical shock	50 drops from 1.8 m to concrete		50 drops from 1.2 m to concrete
Vibration	Withstands 5 g peak from 22 up to 300 Hz		
MTBF	> 80,000 h (Ground-Benign acc. to MIL-HDBK-217F)		
Weight	Approx. 185 g (without cable)	260 g (incl. battery pack)	205 g (without cable)
Dimensions	157 mm x 135 mm x 81 mm		79 mm x 142 mm x 109 mm
Temperature (operating/storage)	0 to +50 °C / -40 to +60 °C	0 to +50 °C / -20 to +35 °C	
Rel. humidity	0 to 95 %, non-condensing		
Exchangeable battery (Lithium-ion)		1,600 mAh capacity Max. 20,000 scans Max. 4 h charging time	

Ordering Information (tethered hand-held scanner)

Order No.	Type	Description
6028680 ¹⁾	IT4600GSR031CE	2D code hand-held scanner, RS 232 TRUE
6028636 ¹⁾	IT4600GSF031CE	2D code hand-held scanner, RS 232 TRUE
6028681 ¹⁾	IT4600GSR051CE	2D code hand-held scanner, RS 232 TTL, wand emulation, keyboard wedge, USB
6028637 ¹⁾	IT4600GSF051CE	2D code hand-held scanner, RS 232 TTL, wand emulation, keyboard wedge, USB
6036667 ¹⁾	IT4600GHD051CE	2D code hand-held scanner, RS 232 TTL, wand emulation, keyboard wedge, USB

Ordering Information (cordless hand-held scanner)

Order No.	Type	Description
6034038 ²⁾	IT4820SROC1CB-0GB0EKIT	Kit consisting of IT4820SR, IT2020-5BE, power supply unit and EU power line, user documentation
6034040 ²⁾	IT4820SFOC1CB-0GB0EKIT	Kit consisting of IT4820SF, IT2020-5BE, power supply unit and EU power line, user documentation
6029317		Lithium-ion battery pack (spare part)
6029319 ¹⁾	IT2020-CB	Charging station without Bluetooth™ and communication interface
6033887		Battery charging sleeve for external charging of Lithium-ion battery
6036657	HOLSTERE	Belt holster for storage of one IT3820, IT4820, or IT4820i cordless imager and one spare lithium-ion battery

¹⁾ For setting-up operation an interface cable and if necessary a power supply unit are additionally required.

²⁾ For setting-up operation a communication cable is additionally required.