

**DENSO**  
DENSO WAVE

WEARABLE SCANNER

**SF1**  
SERIES



Hands-free for  

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quick scanning.  

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# Imagine you had a third hand to do all the scanning: **the SF1.**

How can scanning be made faster and more convenient? By closing the gap between man and machine. That is the basic idea of SF1: a miniature wearable that almost becomes a third hand.

DENSO WAVE has developed a bespoke, highly ergonomic leather cuff for the device. It encases the hand completely – and is as comfortable to wear, as it is safe. The SF1 scanner unit is embedded in a pocket on the back of the hand. The scanner is triggered wirelessly with a gentle push of a button integrated inside the thumb of the glove. You still have both your hands free for other tasks.



Original size

## **COMPLETELY WIRELESS:**

Scanner and trigger are wirelessly linked.



## **ULTRA CONNECTIVITY:**

Android™ or iOS – SF1 links to other devices without a hitch.



## **SUPER LIGHTWEIGHT:**

One of the most lightweight scanners in the industry with its tiny 80 g.



## **EXTREMELY RUGGED:**

The robust magnesium frame inside the scanner housing reliably protects the device.

# Multiply your productivity exponentially:

## The areas of use.

SF1 Wearable is the smart answer for acceleration in business – in trade and logistics, just like in manufacture and field service. Whatever the area: there is an increasing need to complete more tasks simultaneously. SF1 turns your employees into multi-taskers, which increases productivity.

Some examples from a wealth of applications.

### **MORE PROCESS EFFICIENCY**

Speeds up the capture and sorting of many products, including bulky goods.



### **SPEEDIER GOODS RECEIVING**

Improved handling during goods receiving, where many tasks must be handled simultaneously.



### **WAREHOUSE MANAGEMENT OPTIMISATION**

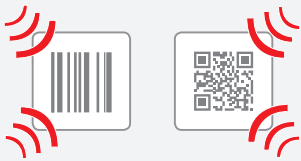
Simplifies picking with frequently repeated scans.



# Technology advantage.

## By the inventor of the QR Code.

SF1 stands for future-proof scanner technology. But that is hardly surprising. You wouldn't expect anything less from industry pioneers – and the inventor of the QR Codes® in particular.



### Reads 1D and 2D codes any angle

Omnidirectional and in realtime.



### Without errors even if the code contains errors

Damaged codes are read reliably.



### LED Illumination control

Facilitates easy readability of displayed codes.



### Exact scanning

Reads individual codes faultlessly, even if multiple codes are present within the scanning area. This accuracy prevents unnecessary repeated reads of faulty scans.



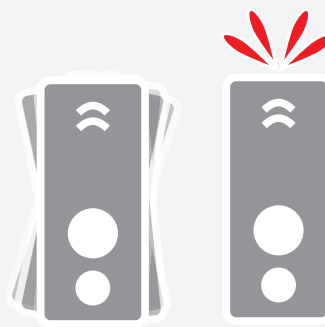
### Multi-scan capability

Can read up to three barcodes at a time to reduce work time – can also read multiple interlinked QR codes.



### Simple Bluetooth connection

Communication-capability with tablet PCs and other smart devices via barcode.



### Read confirmation

Intuitive scanning in harsh environments: An integrated vibration alarm and LED indicators confirm successful scans.

# Long live innovation!

## With DENSO WAVE quality.

SF1 has passed all DENSO WAVE quality tests with flying colours. And those are among the strictest in the industry. For rugged, long-life innovation.



### Guarantee



**24 hours**

Around the clock battery life.



Functional reliability at extreme temperatures between **-20° and +50° Celsius.**

## 1.50 Metres

**Exhaustively impact-tested**

100x at fall heights up to 1.5 m.  
3000x at fall heights up to 0.5 m.



**Waterproof**

The base component consists of water absorbent material and can be rinse-cleaned.

**IP54-certified**

against water and dust.

## FLEXIBLE DESIGN FOR FLEXIBLE CONDITIONS.

The SF1 can also be removed from the leather cuff if needed. The smart wearable then becomes a classic handheld device. You will notice that the unit is barely larger than the remote control of a beamer: compact technology for flexible use.



# SF1 SERIES

Scanner specifications			
Type	2D code mode		
	SF1-QBi-T		
Case colour	Dark grey		
Scanning mode	Mode	Area sensor	
	Readable codes	2D code	QR Code®, SQRC, Micro QR Code, DataMatrix (ECC200), PDF417, Micro PDF417, Maxicode, Aztec, GS1 Composite
		Barcode	EAN-13/8, UPC-A/E, UPC/EAN (with add-on), interleaved 2 of 5, Standard 2 of 5, Codabar (NW-7), CODE39, CODE93, CODE128, GS1-128 (EAN-128), GS1 DataBar (RSS)
	Minimum resolution	2D code	0.167 mm
		Barcode	0.125 mm
	PCS value	0.3 mm	
	Angle	+/- 50°	
Scanning confirmation	Confirmation LED's (blue, green, red), beeper, vibrator		
Communication interface	Method	Bluetooth Ver.2.1 + EDR-based class 2	
	Profile	SPP, HID, SPP (for iOS)	
Power	Source	Lithium ion battery	
	Operating time <sup>1</sup>	24 hours	
	Charging time	2.5 hours	
Environment requirements	Degree of protection	IP54	
	Drop impact resistance <sup>2</sup>	2.5 m, 1.5 m x 100 times, tumbling test: 0.5 m x 3.000 times	
	Operating temperature <sup>3</sup>	-20° to +50° C	
	Operating humidity	10 to 90%RH (no dew condensation and freezing)	
	Operating illuminance	10.000 lux max. (under daylight fluorescent light)	
Weight	Approx. 80 g		
Trigger switch	Button type or touch type		
iOS supporting models	Made for iPhone X, iPhone 8, iPhone 8 Plus, iPad Pro 12.9-inch (2nd generation), iPad Pro 10.5 inch, iPad (5th generation), and iPod touch (6th generation)		

<sup>1</sup> When one reading pass over a 5-second period. <sup>2</sup> These are test values only and not guaranteed values. <sup>3</sup> When charging, the operating temperature is 0° to 40° C.

# CONTENTS

- Scanner: SF1-QBi-T
- Operator's guide
- Wearable attachment (sold separately): AW2-001-R
- User's manual [PDF](#)

# SOFTWARE

- Keyboard interface software (QR\_kbif) [PDF](#)
- Scanner setting 2D [PDF](#)
- SQRC® setting
- BA setting [PDF](#)
- DENSO SF1 SDK for iOS [PDF](#)

# OPTIONS (sold separately)

- Charger  
Main unit charger: CH-SF11
- Bluetooth communication unit  
BA20-RU  
BA11-RKU

# COMPONENTS



Colour	Black and cyan blue
Trigger switch	Button type
Weight	Approx. 50 g

**DENSO**

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