

# COGNEX

PRODUCT GUIDE

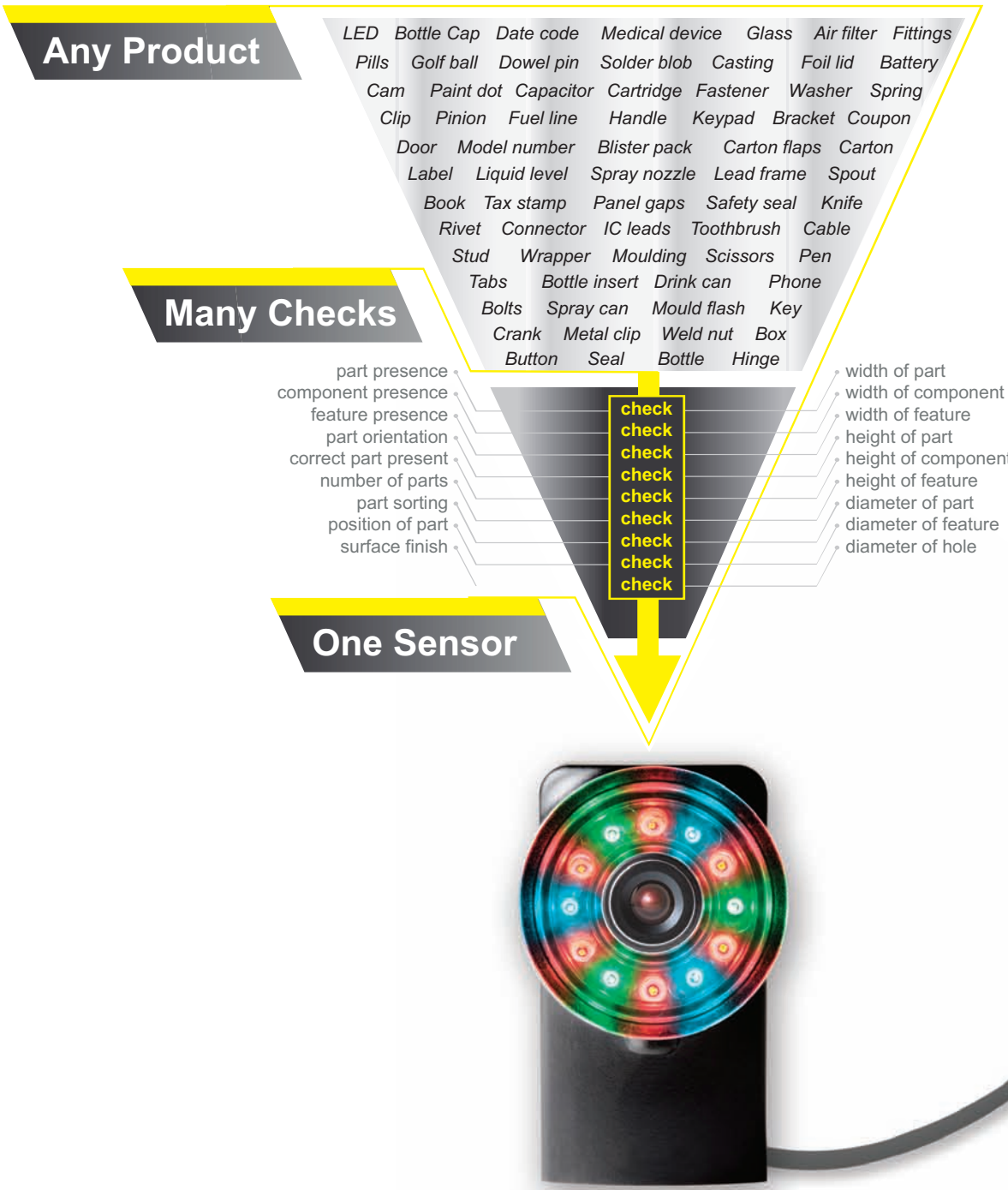
## CHECKER Vision Sensors



One Sensor does it all — Checker 3G

# One sensor does it all...

Wouldn't it be great if you could use the same sensor for all your product verification tasks? This is now possible with the new third generation Checker 3G from Cognex. With Checker 3G, you choose whether to use it as a Presence/Absence sensor or as a Measurement sensor. In either mode it can perform multiple "checks" on each product you manufacture. When designing Checker 3G, we threw away the sensor rule book, so you can throw away all those sensor catalogs.



# and it's so simple to use

All you need to set up a Checker 3G is the SensorView® teach pendant. With our unique One-Click Setup™ feature, jobs can be set up and running in a matter of minutes. A single teach pendant can be used to set up any number of Checker 3G sensors, and can also be left connected for real-time application monitoring. With integrated part detection, lighting, I/O and job change, Checker 3G is the easy and affordable way to verify the products you manufacture.

## SensorView®

Checker 3G makes it easy

- Integrated lighting freezes high speed movement
- Integrated I/O and remote job change facility
- Variable focus and wide range of working distances
- Rugged IP67 rated housing with threaded mounts
- Detects and verifies up to 6000 parts per minute
- Works with both moving or indexing production lines



## One-Click Setup™



Simply click near the center of the feature that you want to verify and the "check" is automatically placed

## Checker in Action



**Automotive Industry.** Checker 3G delivers reliable results by checking the:

- presence of weld nuts, o-rings, springs, fasteners and sealants
- orientation of parts on feeder bowls
- measurement of gaps, hole diameters, and springs



**Food and Beverage Industry.** Checker 3G helps improve quality by checking the:

- presence of laser/ink-jet codes, caps, labels and tamper seals
- verification of closed bags before sealing
- measurement of a product label, product, fill level and cap height



**Consumer Products Industry.** Checker 3G helps cut costs by checking the:

- presence of nozzles, coupons, safety seals and caps
- orientation of bottles, containers and flip caps
- measurement of component width, screw length and hole openings

No matter the industry, Checker 3G delivers reliable inspection results for manufacturers and machine builders.

# Specifications

## CHECKER VISION SENSORS

### LIGHTING

Illumination Integrated red, green, and cyan LEDs

### EXTERNAL TRIGGER INPUT

Input ON > 10VDC (> 6mA)  
 Input OFF < 2VDC (< 1.5mA)  
 Protection Opto-isolated, polarity-independent

### OUTPUTS

Output Solid state switch  
 Rating 100mA, 24VDC  
 Max voltage drop 3.5VDC @ 100mA  
 Max load 100mA  
 Protection Opto-isolated, protected from short circuit, overcurrent, and reverse polarity

### JOB CONTROL INPUTS

Jobs supported 8  
 Input ON > 10VDC (> 6mA)  
 Input OFF < 2VDC (< 1.5mA)  
 Protection Opto-isolated, polarity-independent

### EXTERNAL RETRAIN INPUT

Input ON > 10VDC (> 6mA)  
 Input OFF < 2VDC (< 1.5mA)  
 Protection Opto-isolated, polarity-independent

### TERMINATION

12-Pin M12 connector, USB Mini-B receptacle

### POWER

Voltage +24VDC (22-26VDC)  
 Current 250mA max

### MECHANICAL

Dimensions 67mm (2.64in) H x 41mm (1.61in) W  
 x 60mm (2.36in) D  
 Weight 100g (3.5oz)

### MODES OF OPERATION

Internal part trigger, external part trigger, free running

### ENVIRONMENTAL

Operating temperature 0° to 50°C (32° to 122°F)  
 Storage temperature -30° to 80°C (-22° to 176°F)  
 Operating humidity 0%-90%, non-condensing

### ENVIRONMENTAL (CONTINUED)

Operating altitude 4000m maximum  
 Shock 80Gs for 5ms on each axis  
 (per IEC 68-2-2)  
 Vibration 10Gs (10-500Hz) per IEC 68-2-6  
 Protection IP67

### CERTIFICATIONS

CE, cCSA us, FCC, RoHS

### MINIMUM PC REQUIREMENTS (Only required for setup)

Operating systems Microsoft® Windows® Vista™, XP™, or 2000™ SP4  
 RAM 128 MB RAM  
 USB USB 1.1 (2.0 recommended for best performance)  
 Screen resolution 1024 x 768 (96 DPI) or 1280 x 1024 (120 DPI) display

### CHECKER SENSORS

Model	Part Number
3G1	C3G1-21G-U00

#### Included accessories

- 5.8mm lens
- Standard USB cable
- Quick Start Guide
- Allen wrench (for focus lock)
- Checker software CD
- USB connector cover
- Mounting screws

#### Optional Accessories

C3G-CBL-001	Checker IO cable
CKR-200-BKT	Adjustable bracket
CKR-200-LENSKIT	Lens Kit
CKR-200-CBL-USB	IP67 USB cable
CKR-200-CBL-EXT	I/O extension cable (5m)

## SENSORVIEW 350 TEACH PENDANT

Models Supported	Checker 3G1
User Selectable configurations:	Presence and Measurement
User-Selectable Languages	English, German, Italian, French, Spanish, Japanese, Chinese (Simplified), Chinese (Traditional), Korean

### POWER

Operating voltage +24VDC (22-26VDC)  
 Power consumption 275mA @ +24VDC

### ENVIRONMENTAL

Operating temperature 0°C to 50°C (32°F to 122°)  
 Operating humidity 0 to 90%, non-condensing  
 Storage temperature -20°C to 80°C (-4°F to 176°F)  
 Storage humidity 0 to 90%, non-condensing  
 Shock 80G x 5ms (IEC 68-2-2)  
 Vibration 10Gs (10-500Hz) per IEC 68-2-6  
 Altitude 4000m  
 Protection IP65

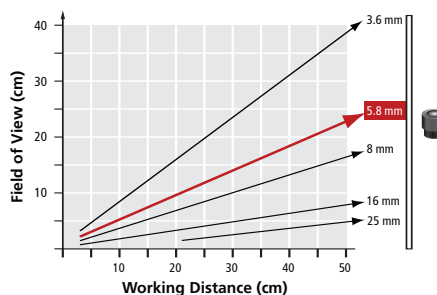
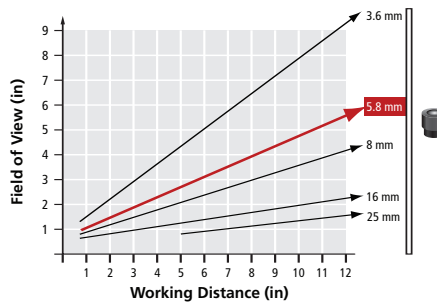
### CERTIFICATIONS

CE, cCSA us, FCC, RoHS

### MODELS

Part Number	Description
SV-350-001	SensorView 350 panel-mount Teach Pendant

For more information, please visit [www.cognex.com](http://www.cognex.com)



# COGNEX

Companies around the world rely on Cognex vision to optimize quality and drive down costs.

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