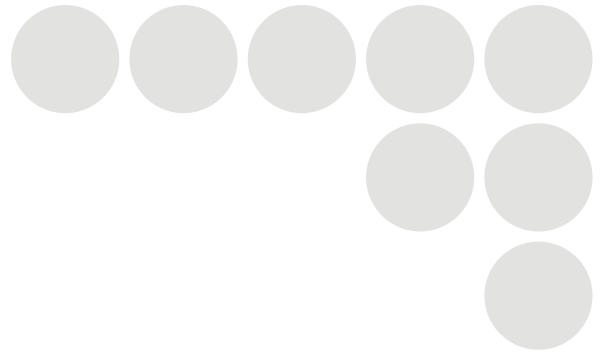


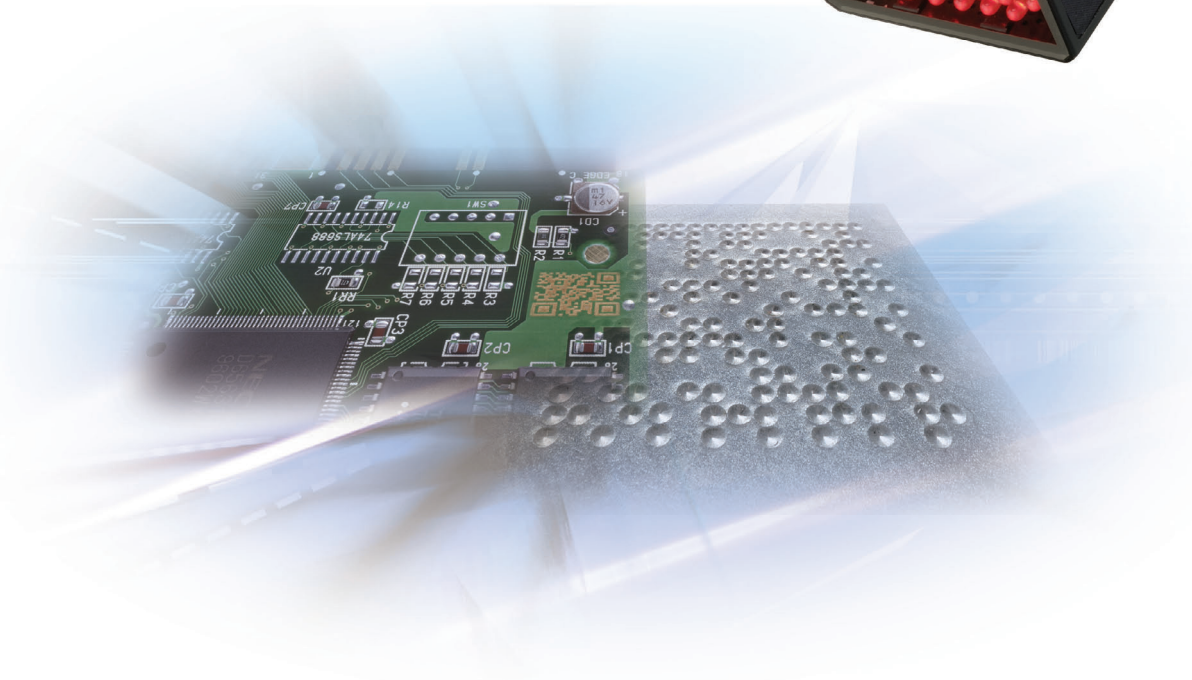


OMRON

2D Code Reader V400-F



Created to meet real-world
production site needs.



realizing

For Easier, More Accurate Quality Contr

We're thinking about using a 2D Code Reader, but...



**OMRON created
the 2D Code Reader
to meet needs like these.**



**Actual
Size**



V400-F

In the V400-F, we have listened carefully to user demands and worked hard to achieve high levels of simplicity and reliability in a code reader that virtually anybody can install, operate, and adjust.

We also pursued highly accurate reading of directly marked 2D codes, in addition to printed codes.

The V400-F is a new 2D Code Reader that makes production sites considerably "smarter" in a wide range of environments.

Simplicity and High Performance in Response to User Needs

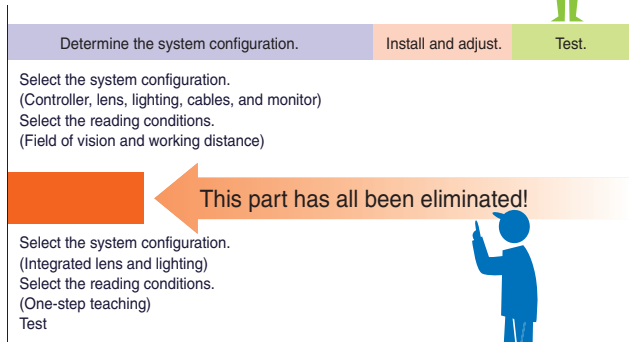
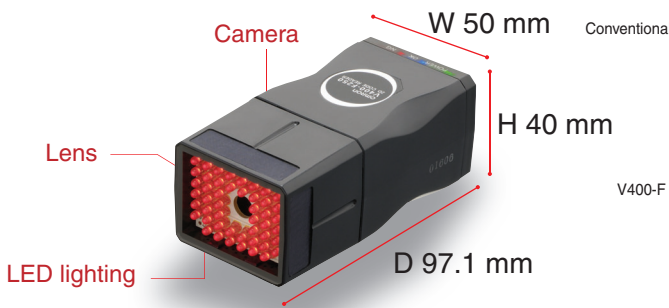
Simplified Setup...

For Faster Startups



Simpler Selection with a One-piece Design

The selection process is greatly simplified by the integrated lens and lighting design. No more worrying about having to match each workpiece to a vast number of lens and lighting combinations.



Easier Initial Adjustments

Teaching functions that anybody can use.

Easy, one-step teaching lets you set the reading parameters instantly. Naturally, adjustments are also possible using commands from external devices.

*Support Software is also available for setting the parameters from a personal computer. (Ask your OMRON representative or dealer for details.)



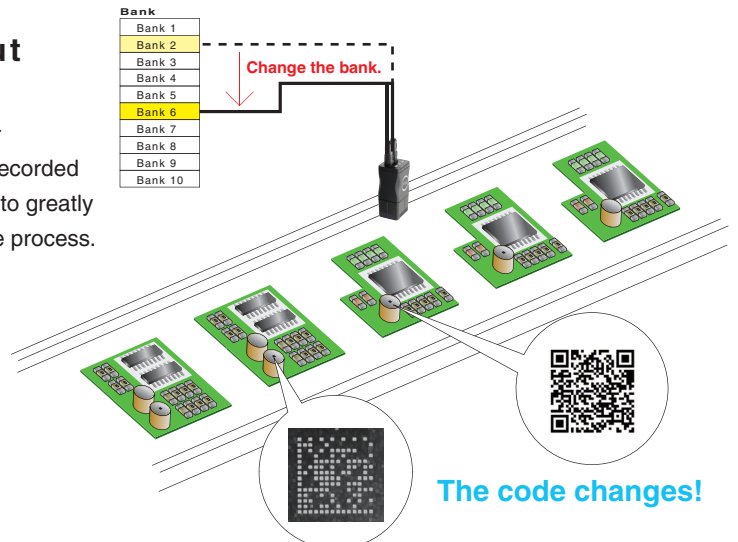
Banks...

Dramatically Reduce Process Changeover Steps



Change the Process without Stopping the Line

The Auto Bank Change function lets the operator automatically change preset reading conditions recorded in banks. Up to five banks can be set in advance to greatly reduce bothersome steps when changing the line process.



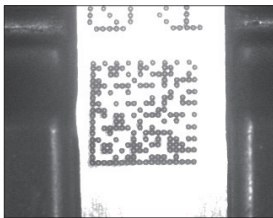
High Performance...

For Stable Reading

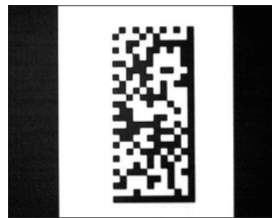


Stable, Accurate Reading for Any Workpiece

We have achieved high accuracy for directly marked codes by combining the industry's most advanced reading algorithm with lighting control that is optimized for data reading. Even directly marked 2D codes printed onto materials with varying reflectivity, such as metals, printed wiring boards, and glass, can be read with excellent accuracy.



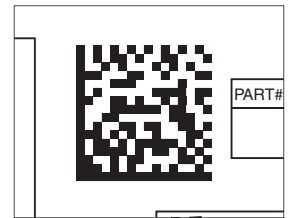
Metal (treated surface)



Glass



Printed wiring boards





Label



Three Types to Choose from for Each Application

There are three 2D Code Readers to choose from to match your application. This enables flexible response to different workpieces and production site conditions. Use the C-mount model when specific settings are necessary for the lighting or lens.

| Appearance |  |  | |
|------------------|---|---|--|
| Type | Narrow field of vision | Wide field of vision | C-mount |
| Model | V400-F250 | V400-F350 | V400-F050 |
| Field of vision | 14 × 18 mm | 31 × 42 mm | Can be varied using a C-mount lens. External 2-channel lighting. *2 |
| Working distance | 100 mm | 200 mm | |
| Cell size *1 | 0.2 to 0.3 mm | 0.4 to 0.7 mm | |
| Code size *1 | 2 to 9 mm | 4 to 21 mm | |

*1 These are intended to be reference values for use in model selection.
*2 For use only with Moritex MG-Wave Series lighting.



Sensitive Response to Workpiece Changes

The Retry and Preprocess Filtering functions allow stable reading even under harsh conditions. They eliminate the effects of printing conditions and workpiece changes, such as oil, ambient light, and varying substrate types.

Retry Function

Multiple readings can be taken while changing the exposure time and adjusting the brightness of the light.



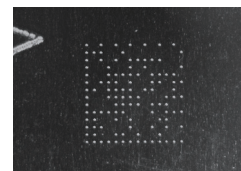
Before retry



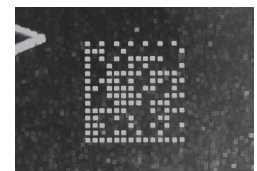
After retry

Preprocess Filtering Function

Three of the following four types of filtering can be used for images that have been taken: Smoothing, Dilation, Erosion, and Median.

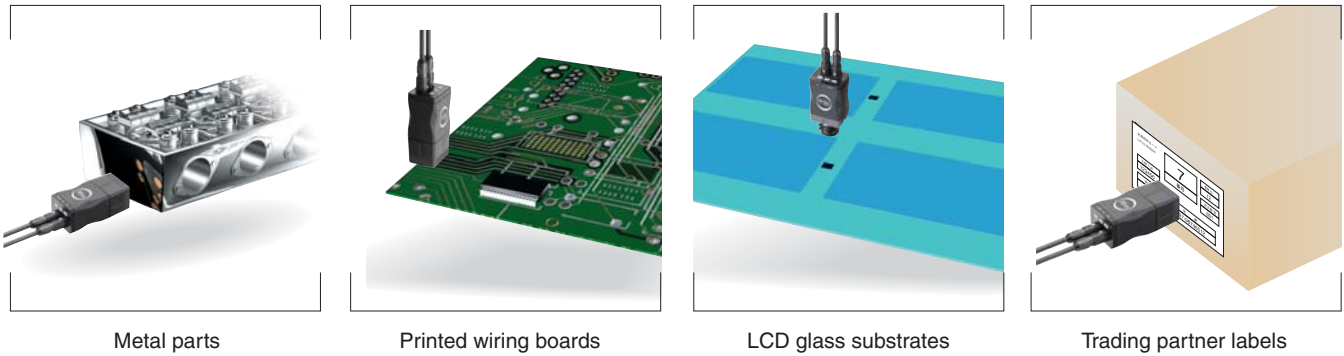


Before Dilation

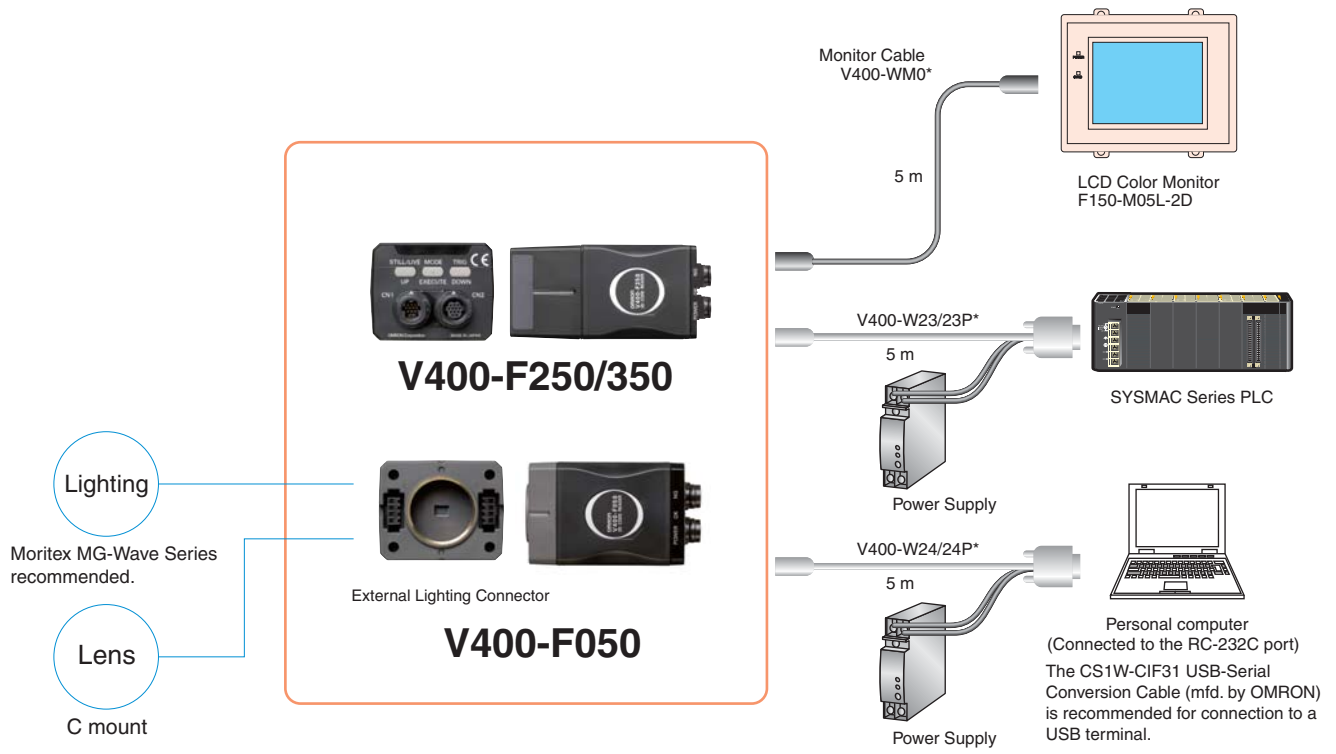


After Dilation

Applications



System Configuration



Recommended power supply: OMRON S8VS-03024
 *Use only the specified cable.

Ordering Information

2D Code Readers

| Name | Model | Field of vision |
|-----------------------|-----------|--------------------------------|
| Special Lighting Lens | V400-F250 | 14 × 18 mm |
| | V400-F350 | 31 × 42 mm |
| C-Mount | V400-F050 | Changes according to the lens. |

Accessories (Order Separately) and Cables

| Name | Model | Cable length | Remarks |
|----------------------|-----------------|--------------|--|
| Communications Cable | V400-W23 (NPN) | 5 m | For connection to SYSMAC Series PLC (includes power line) |
| | V400-W23P (PNP) | | |
| | V400-W24 (NPN) | | For connection to an IBM PC/AT or compatible (includes power line) |
| | V400-W24P (PNP) | | |
| Monitor Cable | V400-WM0 | 5 m | |

Monitor

| Name | Model |
|-------------|---------------|
| LCD Monitor | F150-M05L-2D* |

*There is no need for an external power supply when this Monitor is used.
 (Power is supplied from the V400-F.)

Specifications

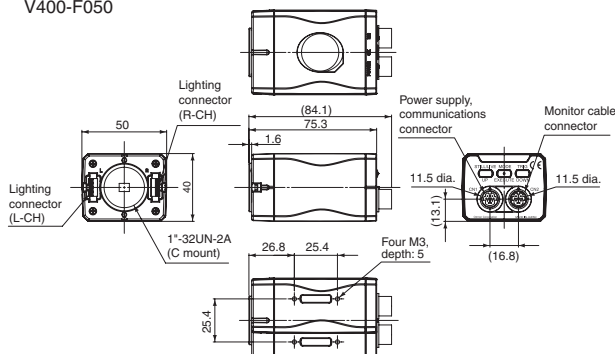
| Model | V400-F050 | V400-F250 | V400-F350 |
|-----------------------|--|--------------------|--------------------|
| Dimensions | 40 × 50 × 75.3 mm | 40 × 50 × 97.1 mm | |
| Working distance (WD) | Depends on the lens. | Approx. 100 mm | Approx. 200 mm |
| Field of vision | Depends on the lens. | Approx. 14 × 18 mm | Approx. 31 × 42 mm |
| Lighting | Up to two can be directly powered. Red LED | | |
| Applicable codes | Data Matrix, ECC200, 10 × 10 to 64 × 64, 8 × 18 to 16 × 48, QR Code (Models 1, 2), 21 × 21 to 57 × 57 (Versions 1 to 10) | | |
| Image sensor | 1/3" CCD | | |
| Effective pixels | 640 × 480 pixels | | |
| Power supply voltage | 24 VDC ±10% | | |
| Power consumption | 0.5 A max. (power consumption for monitor, not included) | | |
| Insulation resistance | 20 MΩ min. | | |
| Withstand voltage | 1,000 VAC for 1 min | | |
| Leakage current | 0.25 mA max. | | |
| Noise resistance | Power line: 2 kVp-p, Pulse width: 50 ns, Rise time: 5 ns, Consecutive burst time: 15 ms, Cycle: 300 ms | | |
| Applicable standards | CE: EN 61326:1997, +A1:1998, +A2:2001 (EMI: Class A) | | |
| Vibration resistance | 10 to 150 Hz, 0.35-mm half-amplitude (maximum acceleration: 50 m/s ²) 10 times for 8 minutes each in 3 directions | | |
| Shock resistance | 150 m/s ² 3 times each in 6 directions | | |
| Ambient humidity | Operating: 0 to 45°C, Storage: -25 to 65°C | | |
| Ambient temperature | Operating/storage: 25% to 85% (with no icing or condensation) | | |
| Ambient environment | No corrosive gasses | | |
| Degree of protection | None | IEC 60529 IP67 | |
| Weight | Approx. 130 g | Approx. 150 g | |

Dimensions

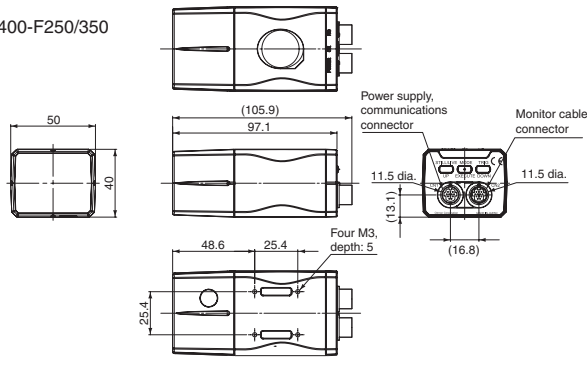
(Unit: mm)

2D Code Readers

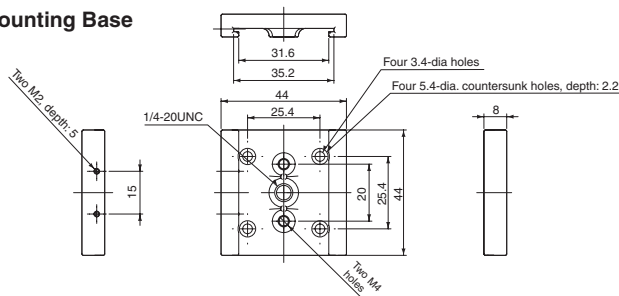
V400-F050



V400-F250/350

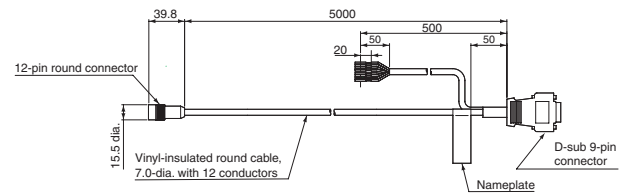


Mounting Base

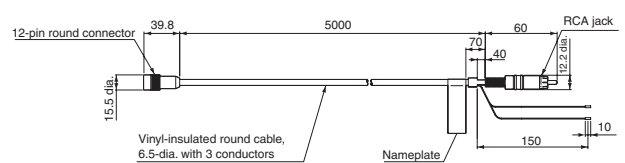


Communications Cable and Monitor Cable

V400-W23/23P/24/24P

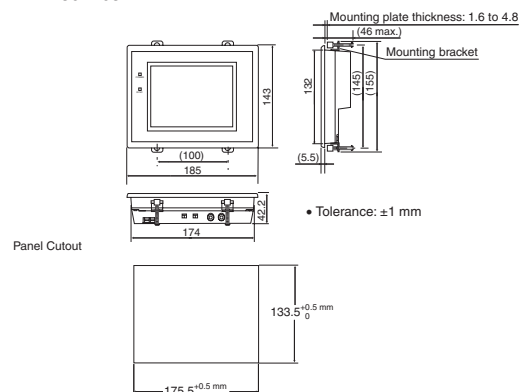


V400-WM0



LCD Monitor

F150-M05L-2D



A Handy, LCD-equipped 2D Code Reader Capable of Reading Directly Marked Codes V400-H111/211

Excellent

reading

performance

The V400-H achieves a high level of accuracy by combining the industry's most advanced reading algorithm with an optical system that is optimized for reading directly marked codes.

Read while

viewing

the LCD

Use the LCD monitor to check the codes as you read them. The information that is read is displayed on the screen, facilitating confirming operation.



- Model with Narrow Field of Vision (V400-H111):
5- to 10-mm field of vision
 - Model with Wide Field of Vision (V400-H211):
15- to 30-mm field of vision
- Applications: Reading codes on metal parts,
LCD wafers, printed wiring board substrates

Refer to the catalog for details (Cat. No. Q146).

This document provides information mainly for selecting suitable models. Please read the Z242 carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

Note: Do not use this document to operate the Unit.

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Authorized Distributor:

In the interest of product improvement,
specifications are subject to change without notice.

CSM_1_2_0309
Cat. No. Q148-E1

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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