

2-Dimensional Code Reader (Fixed Type)

V530-R160E, EP

A code reader that handles pin-stamped markings!

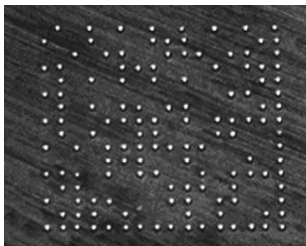


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Features

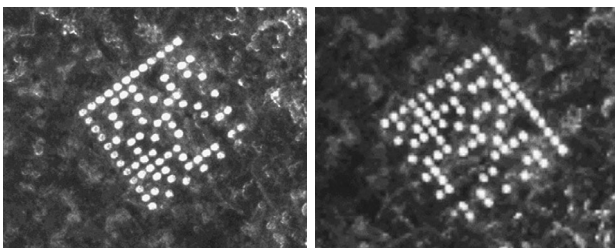
Dependably Read Pin-stamped Markings

- Markings made by pin-stamping machines can be dependably read, providing the user with a wider range of selection of marking devices.
- Stable reading is possible even if the shape of cells changes because of aging in the marking device.
(Reference: Stamping using a Vector Co. pin-stamping machine)



Dot Codes* Read at Any Angle: 360° Compatibility

- Codes can be read even with rough backgrounds on the casting surface or other locations.
- Dot codes* can be read at any angle through a 360° range.
* Dot codes are 2-dimensional codes in which dots form the cells.



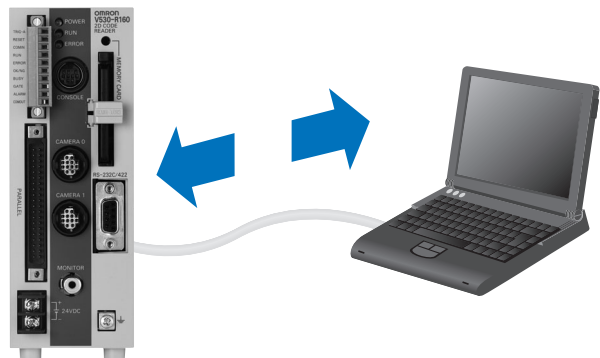
Dependably Read Markings at an Angle

With dependable reading at an angle, installation is possible even on existing facilities with space limitations.



Easy Setup

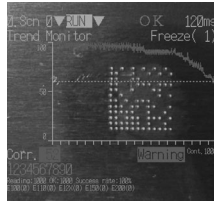
Setup is easily achieved with a Memory Card (compact flash memory) slot on the V530-R160E and V530-R160EP. Just insert a card to easily copy settings or save images. Carrying a personal computer and cables is no longer required for process switchovers.



Easy Operation and Maintenance

Trends can be monitored to achieve the following:

- Displaying changes in the status (correlation values) of codes or contrast changes on line graphs on a monitor.
- Setting alarm levels while monitoring graphs.
- Outputting external alarms if a value falls below the set value.



Trend monitoring can be used to set guidelines for replacing parts in lighting devices, marking devices, and other equipment.

Easy Analysis

Manage Data Histories
Histories of the number of OK and NG reads can be managed.



Save Images to Memory Cards
Save approx. 200 images in 64 MB and 400 images in 128 MB.

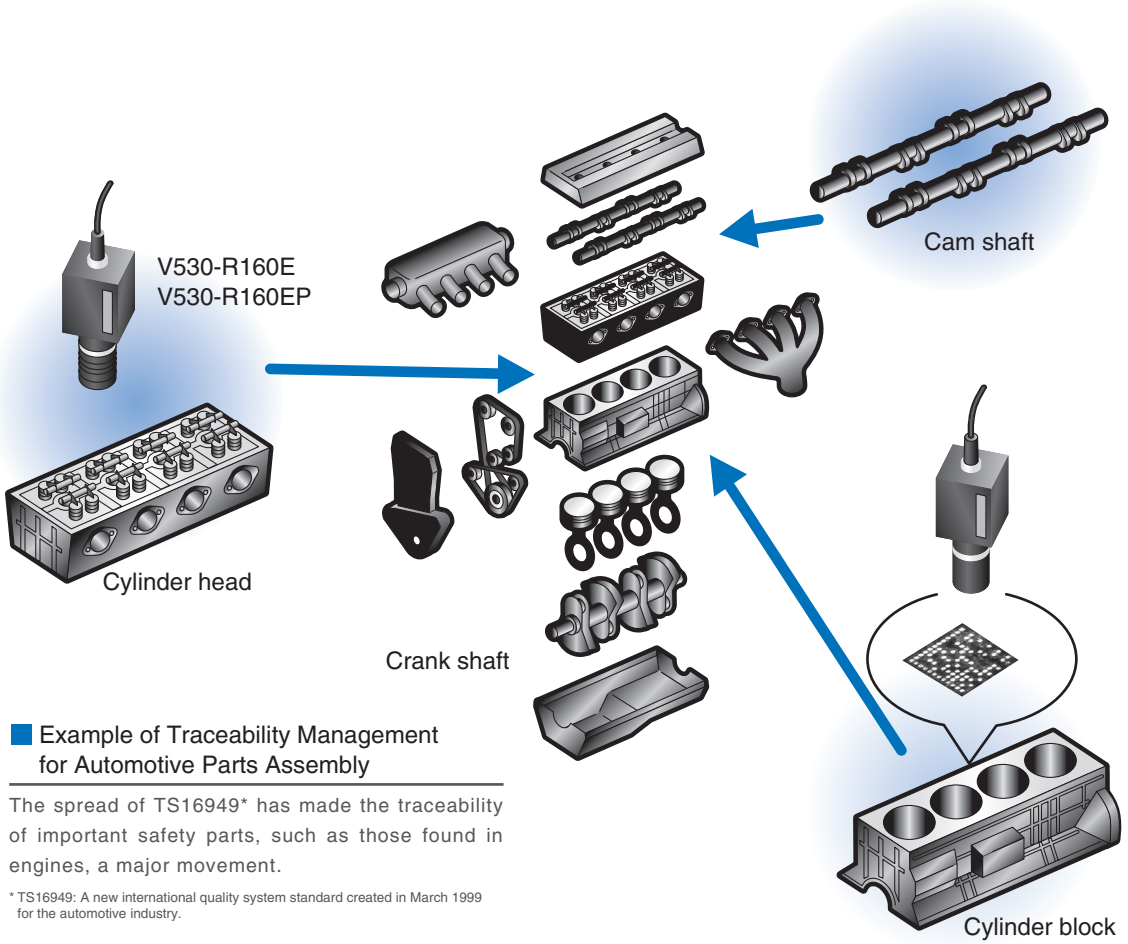
Check and Analyze Troubles
Up to 35 NG images can be saved in internal memory.



Reproduce Images
Saved NG images can be loaded to reproduce a reading.

Using time stamps on NG images with data histories enables more detailed troubleshooting.

Applications



■ Example of Traceability Management for Automotive Parts Assembly

The spread of TS16949* has made the traceability of important safety parts, such as those found in engines, a major movement.

* TS16949: A new international quality system standard created in March 1999 for the automotive industry.

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Ordering Information

List of Models

Name	Model No.	Remarks
Controller	V530-R160E, V530-R160EP	
Console	F150-KP	2-m cable
Camera	F150-S1A	
Camera Cable	F150-VS	3-m cable
Monitor Cable	F150-VM	2-m cable
Liquid Crystal Monitor	F150-M05L	
Video Monitor	F150-M09	
Parallel Cable	F160-VP	Cable with loose wires for Parallel I/O Connector (2-m cable)
Memory Card	F160-N64S(S)	Card capacity: 64 MB
RS-232C Cable	XW2Z-200S-V	For IBM PC/AT or compatible computer (2-m cable)
	XW2Z-200T	For SYSMAC PLC (2-m cable)

Specifications

V530-R160E, V530-R160EP Controller

Item	Specifications	
Model	V530-R160E	V530-R160EP
Input/Output type	NPN	PNP
Applicable codes	Data Matrix ECC200: 10 × 10 to 64 × 64, 8 × 18, 8 × 32, 12 × 26, 12 × 36, 16 × 36, 16 × 48 Data Matrix ECC000, ECC050, ECC080, ECC100, ECC140: 9 × 9 to 25 × 25 QR Code (Model 1, 2): 21 × 21 to 41 × 41 (Version 1 to 6)	
Readable direction	360°	
Number of pixels (resolution)	512 (H) × 484 (V)	
Number of connectable cameras	2 max.	
Image memory function	Maximum of 35 images stored (internal memory in Controller).	
Operation method	Selected from menu.	
Processing method	Gray	
Memory Card slot	1	
Monitor interface	1 channel (color/monochrome)	
Serial communications	RS-232C/422A, 1 channel	
Parallel I/O	5 inputs: TRIG-A, TRIG-B, TRIG-C, TRIG-D, and RESET 6 outputs: RUN, ERROR, OK/NG, BUSY, GATE, and ALARM	
Power supply voltage	20.4 to 26.4 VDC	
Current consumption	Approx. 1.6 A max.	
Ambient temperature	Operating: 0 to 50°C, storage: -25 to 65°C (with no icing or condensation)	
Ambient humidity	35% to 85% (with no condensation)	
Weight	Approx. 570 g	

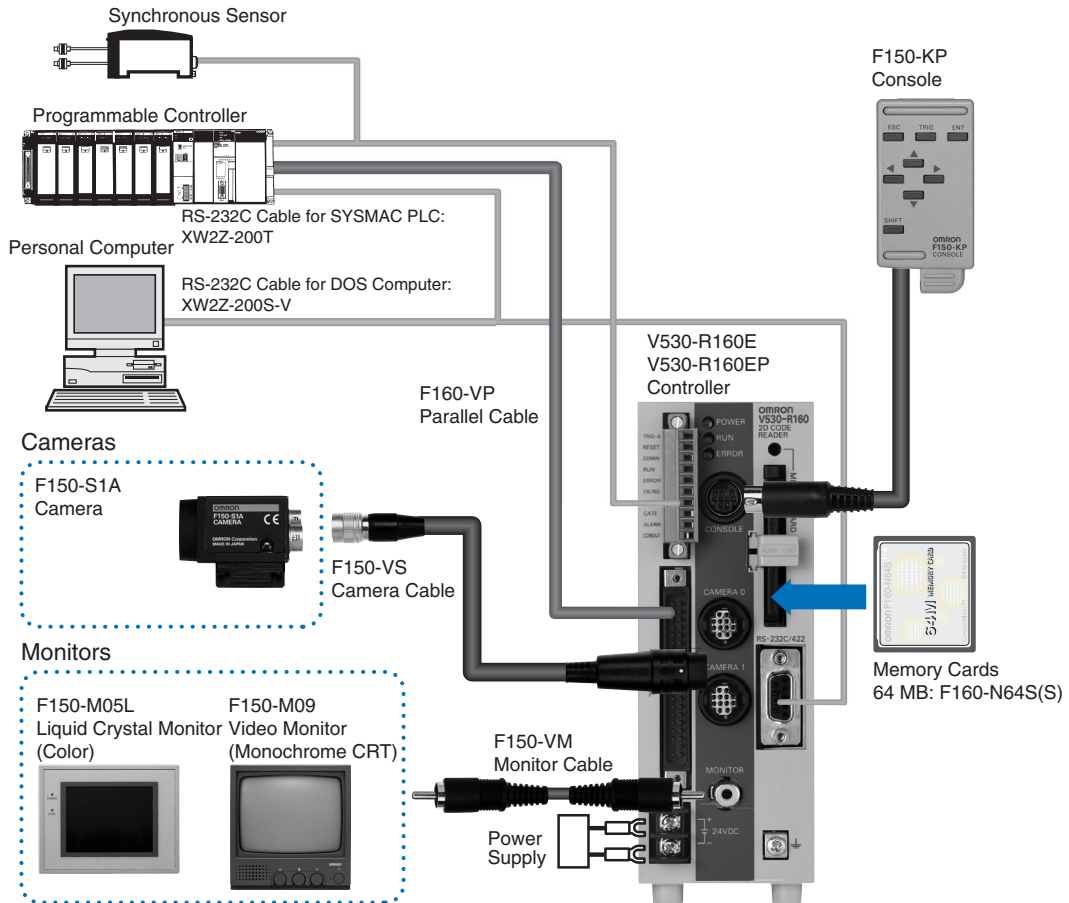
F150-S1A Camera

Item	Specifications
Picture element	1/3-inch CCD
Effective pixels	659 (H) × 494 (V)
Shutter function	Electronic frame shutter Shutter speed: 1/100, 1/500, 1/2000, or 1/10000 s (menu selectable)
Ambient temperature	Operating: 0 to 50°C, storage: -25 to 60°C (with no icing or condensation)
Ambient humidity	35% to 85% (with no condensation)
Weight	Approx. 80 g

Monitor

Item	Name Model No.	Liquid Crystal Monitor F150-M05L	Video Monitor F150-M09
Size		5.5 inches	9 inches
Type		Liquid crystal color TFT	Monochrome CRT
Resolution		320 × 240 dots	800 TV lines min. (at center)
Input signal		NTSC composite video (1.0 V/75 Ω)	
Power supply voltage		20.4 to 26.4 VDC	85 to 264 VAC
Current consumption		Approx. 700 mA	Approx. 200 mA
Ambient temperature		Operating: 0 to 50°C, storage: -25 to 65°C (with no icing or condensation)	Operating: -10 to 50°C, storage: -20 to 65°C (with no icing or condensation)
Ambient humidity		Operating/Storage: 35% to 85% (with no condensation)	Operating/Storage: 10% to 90% (with no condensation)
Weight (Monitor only)		Approx. 1 kg	Approx. 4.5 kg
Accessories		Operation manual, 4 mounting brackets	Operation manual

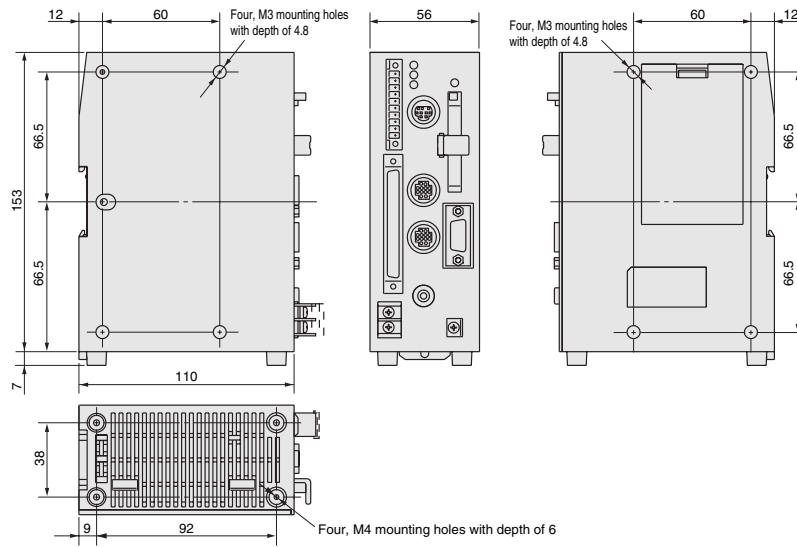
System Configuration



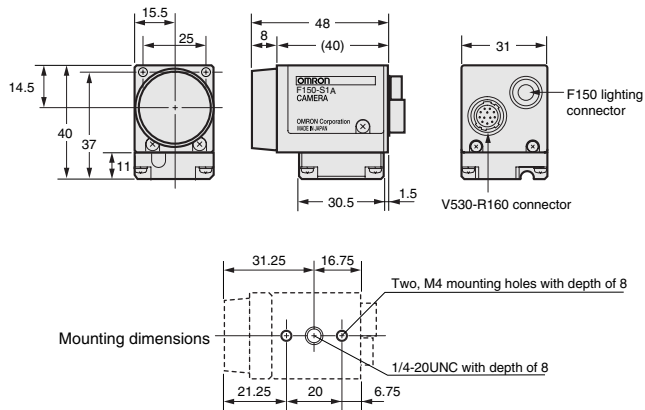
V530-R160E, EP

Dimensions

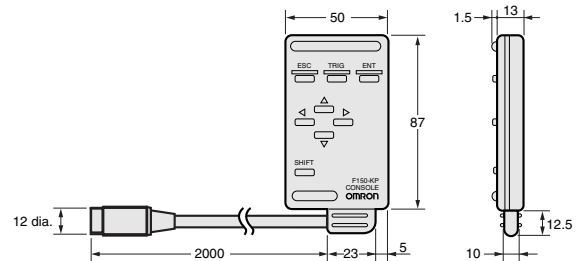
V530-R160E, V530-R160EP Controller



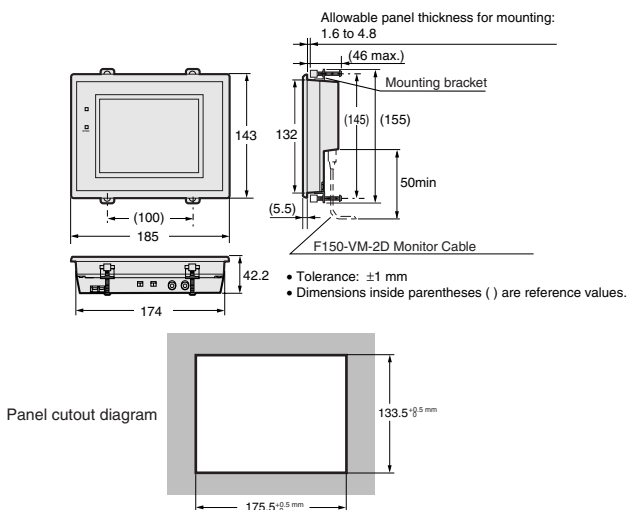
F150-S1A Camera



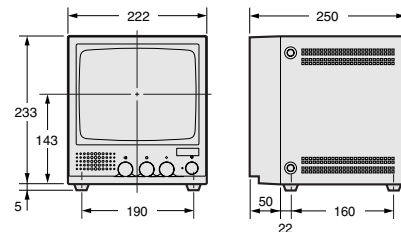
F150-KP Console



F150-M05L Liquid Crystal Monitor



F150-M09 Video Monitor



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.