

## IV-150MA

Sensor, Short range, Monochrome, Automatic focus model



## SPECIFICATIONS

Model	IV-150MA	
Type	Short range	
Installed distance	50 to 150 mm	
View	Installed distance 50 mm: 12 (H) x 9 (V) mm to installed distance 150 mm: 36 (H) x 27 (V) mm	
Image sensor	Type	1/3 inch monochrome CMOS
	Pixel	752 (H) x 480 (V)
Focus adjustment	Auto <sup>*1</sup>	
Exposure time	1/20 to 1/25,000	
Lights	Illumination	Red LED
	Lighting method	Pulse lighting/DC lighting is switchable
Tools	Type	Shape Detection, Colour Area <sup>*2</sup> , Area <sup>*3</sup> , position adjustment
	Number	Detection tools: 16 tools, position adjustment tool: 1 tool <sup>*4</sup>
Switch settings (programs)	32 programmes	
Image history	Numbers	300 images <sup>*5,6</sup>
	Condition	NG only/All is selectable <sup>*6</sup>
Analysis information	OFF/Statistics/Histograms is switchable Statistics: Processing time (latest value, MAX, MIN, AVE), number of OKs, number of NGs, trigger numbers, trigger errors, judgement results list by tools Histograms: Histogram, matching degree (latest value, MAX, MIN, AVE), numbers of OKs, numbers of NGs <sup>*7</sup>	
Other functions	HDR, HighGain, Colour filters <sup>*2</sup> , Digital zoom <sup>*3</sup> , Brightness correction, Tilt correction, White balance <sup>*2</sup> , Mask outline, Mask area, Test run, ToolAutoTune, Input monitor, Output test, Security settings, Simulator <sup>*8</sup>	
Indicators	PWR/ERR, OUT, TRIG, STATUS, LINK/ACT	
Input	Type	Non-voltage input/voltage input is switchable For non-voltage input: ON voltage 2 V or lower, OFF current 0.1 mA or lower, ON current 2 mA (short circuit) For voltage input: Maximum input rating 26.4 V, ON voltage 18 V or higher, OFF current 0.2 mA or lower, ON current 2 mA (for 24 V)
	Inputs	6 inputs (IN1 to IN6)
	Function	IN1: External trigger, IN2 to IN6: Enable by assigning the optional functions Assignable functions: Program switching, Clear error, External master image registration
Output	Type	Open collector output NPN/PNP is switchable, N.O./N.C. is switchable For open collector NPN output: Maximum rating 26.4 V 50 mA, remaining voltage 1.5 V or lower For open collector PNP output: Maximum rating 26.4 V 50 mA, remaining voltage 2 V or lower
	Outputs	4 outputs (OUT1 to OUT4)
	Function	Enable by assigning the optional functions Assignable functions: Total judgement result, RUN, BUSY, Error, Position adjustment result, Judgement result of each tool, Result of the logical operation of each tool, Main unit/expansion unit logical output
Ethernet	Standard	100BASE-TX/10BASE-T <sup>*9</sup>
	Connector	M12 4pin connector <sup>*9</sup>
Network function	FTP client, EtherNet/IP <sup>TM</sup> , PROFINET	
Rating	Power voltage	24 VDC ±10 % (including ripple)
	Current consumption	0.6 A or less
Environmental resistance	Enclosure rating	IP67 <sup>*10</sup>
	Ambient temperature	0 to +50 °C (No freezing)
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm, 2 hours in each of the X, Y, and Z directions <sup>*11</sup>
	Shock resistance	500 m/s <sup>2</sup> , 3 times in each of 6 directions <sup>*11</sup>
Material	Main unit case: Aluminium die-casting, Packing: NBR, Front cover: Acrylic, Mounting adapter: POM	
Weight	Approx. 270 g	

<sup>\*1</sup> The focusing position can be automatically adjusted at the time of installation. Deactivated during the operation. Focusing position can be registered by programme.

<sup>\*2</sup> Colour type only

<sup>\*3</sup> Possible with both the colour type and monochrome type

<sup>\*4</sup> Tools can be installed by programmes.

<sup>\*5</sup> When using the FTP client function: 210 pictures

<sup>\*6</sup> Saves to the memory in the sensor. The images saved in the sensor can be backed up to the USB memory installed to the intelligent monitor (IV-M30) or to the PC by the software for IV (IV-H1).

<sup>\*7</sup> This can be displayed on the intelligent monitor (IV-M30) or by software for IV (IV-H1).

<sup>\*8</sup> Simulator can be used with the IV software (IV-H1).

<sup>\*9</sup> This is for connection with the intelligent monitor (IV-M30) or software for IV (IV-H1).

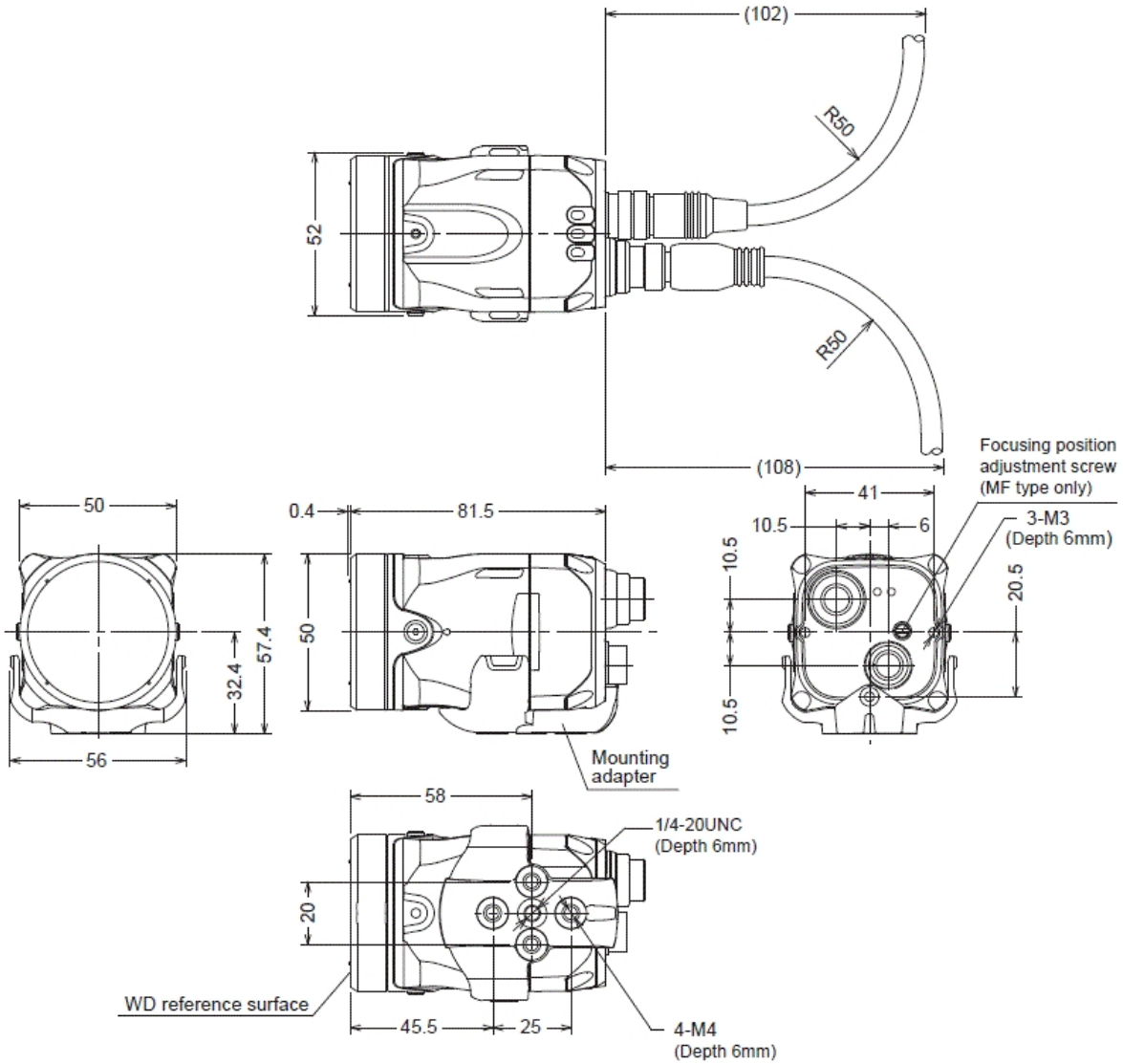
<sup>\*10</sup> Except when polarised filter attachment (OP-87436/OP-87437) is mounted

\*11 Except when IV-G dome attachment (IV-D10) is mounted

Dimensions

\* Download CAD file or product manual for larger image/text and more detail.

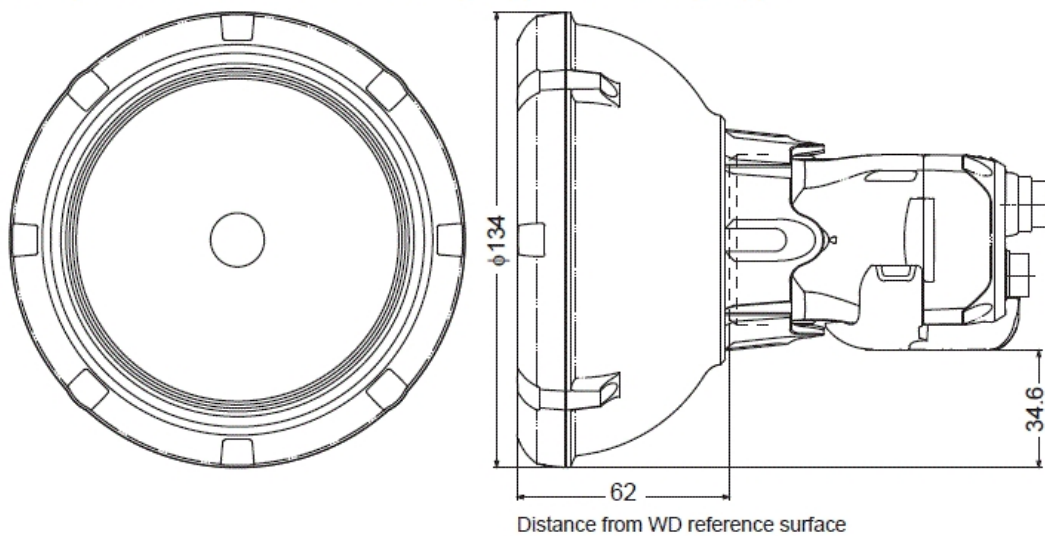
- IV-500C      • IV-150M      • IV-500M      • IV-2000M
- IV-500CA    • IV-150MA     • IV-500MA     • IV-2000MA



- **With dome attachment**

Installed distance: 0 to 50 mm from the front of the dome attachment

Compatible sensor: Standard range type/Short range type



- **With polarizing filter attachment**

