IX-1000

Sensor Amplifier Main unit

*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model		IX-1000
Main unit / expansion unit		Main unit
Display	Min. display unit	10 µm*1
	Display range	±999.99 to ±999 mm (with 4 selectable steps)*1
Tools	Scan mode	Height, Height difference, Max./Min., Height difference calculation, Thickness calculation, Height detection, Monochromatic detection, Position adjustment (Max. number of settings) Detection: 16 tools, Position adjustment: 1 tool*2
	Line mode	Height (Ave./Max./Min.) , Height difference (Ave./Max./Min.) , Height difference calculation, Thickness calculation, Position adjustment, Tilt correction (Max. number of settings) Detection: 16 tools, Position adjustment: 1 tool, Alignment adjustment: 1 tool*2
Other functions	Common	ZERO/offset, Operating threshold adjustment, 2-point calibration, Measurement direction, Position correction NG measurement, Zero/offset recording,Capture mode (HDR) Sensor date/time Information addition, N.O./N.C. switching, I/O monitor, Automatic brightness adjustment, Lighting (ON/OFF) , Total judgment conditions,NPN/PNP switching, Simultaneous main unit/expansion unit input, Light interference prevention, Security
	Scan mode	Measurement range, Measurement position (small/standard/large) , Measurement mode, Measurement noise elimination, Imaging mode (high gain) , Tilt correction (fixed or real-time correction) , Glare removal, Trigger input (internal/external) , Trigger interval, Trigger delay, Trigger error, Monochrome histogram, Fixed reference area, Mask outline, Rotation range
	Line mode	Average count, Laser position adjustment, Timing input, Head tilt correction (fixed only), Ambient light removal for measurement, HOLD function, Alarm setting, Measurement method (Ave./Max./Min.)
Input	Input	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)
	Number of inputs	8 (IN1 to IN8)
	Function	IN1: External trigger up/down timing, IN2 to IN8: Enable by assigning optional functions Assignable functions: Program switching, Laser emission stop, Zero/offset (batch) , Reset (error only) , Reset (judgment value only) Reset (judgment value and error)
Output	Output	Open collector output; NPN/PNP switchable, N.O./N.C. switchable For open collector NPN output: Maximum rating of 26.4 V, 50 mA (20 mA when linked to an expansion unit) , residual voltage of 1.5 V or less For open collector PNP output: Maximum rating of 26.4 V, 50 mA (20 mA when linked to an expansion unit) , residual voltage of 2 V or less
	Number of inputs	10 (OUT1 to OUT10)
	Function	Enable by assigning the optional functions

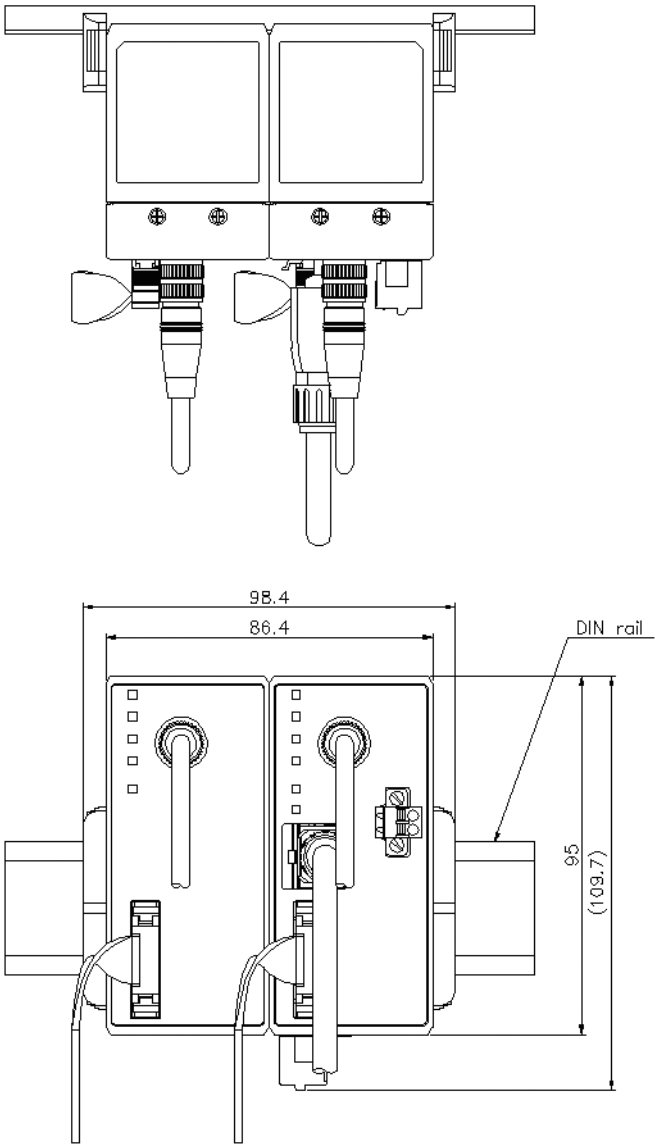
			Assignable functions: Total judgment result (All OK, Any OK/NG) , run, busy, error, position adjustment result, tilt correction result, Monochromatic detection/Height detection tool result (OK/NG) , Height/height difference/Max./Min./calculation tool result (OK/NG/HIGH/LO) , Alarm
Analog voltage output			±5 V, 1 to 5 V, 0 to 5 V, Output impedance: 100 Ω*3
Analog current output			4 to 20 mA, max. load resistance: 350 Ω*3
Number of programs			32
Statistical information			Scan mode: Measured value / Degree of similarity (Max., Min., Ave.), Processing time (Latest, Max., Min., Ave.), Count (Number of OKs / Number of NGs / Number of triggers) Line mode: Measured value / Degree of similarity (Max., Min., Ave.), Count (Number of OKs / Number of NGs / Number of triggers)*1*4
Detection record	Number of storage	Scan mode	80 images (FTP/SFTP Client function: Enable) 100 images (FTP/SFTP Client function: Disable) *5
		Line mode	400 images (FTP/SFTP Client function: Enable) 500 images (FTP/SFTP Client function: Disable) *5
Detection history	Save conditions		NG only/All is selectable*5
FTP/SFTP data transfer (FTP/SFTP client function)	Transfer Destination		FTP/SFTP server
	Transfer format		bmp/jpeg/txt is selectable
	Transfer Condition		4 conditions All / Total status result (OK/NG) / Result for each tool (OK/(NG and ALM)) is selectable
Ethernet	Standard		100BASE-TX/10BASE-T*6
	Connector		RJ45 8-pin connector*6
Interface compatibility			CC-Link / DeviceNet® / EtherNet/IP™ / EtherCAT® / RS-232C / BCD / PROFINET / PROFIBUS / TCP/IP output*7
Number of connectible units			Main units: 1, Expansion units: 1, Communication units (DL) : 1
Ratings	Power voltage		24 VDC ±10 % (including ripple)
	Current consumption		Max. 1.9 A or less (With main unit only: 0.8 A or less, With unit expansion: 1.9 A or less) (Excluding output load)*8
Environmental resistance	Ambient temperature		0 to +50°C 32 to 122°F (No freezing)
	Relative humidity		35 to 85 % RH (No condensation)
Material			Main unit case: PC/Power connector: PA, POM/Analog output connector: PA, POM/I/O connector: PA/ Head connector: Zinc + Ni plating, PA/Ethernet connector: Copper alloy + Ni plating/ Rear heat sink: Aluminum/Main unit rear DIN rail fixing tab: POM/Nameplate: PC
Weight			Approx. 210 g

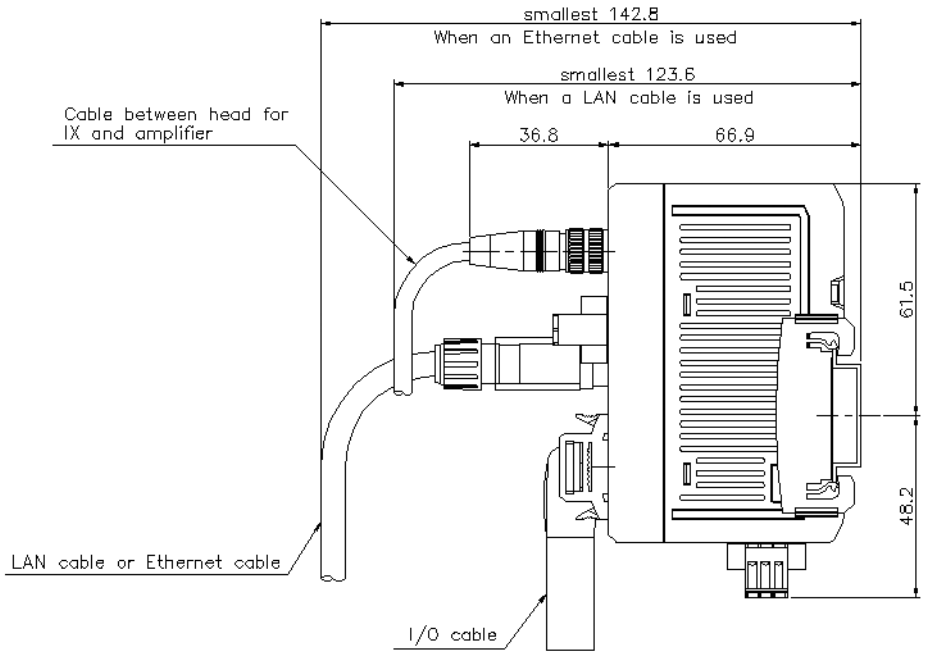
*1 For displaying on an IX Series control panel or PC software.
*2 Configurable for each program.
*3 Select ±5 V, 1 to 5 V, 0 to 5 V, or 4 to 20 mA for use.
*4 When sample hold (edge), peak/bottom/P-P hold (level/edge) is set.
*5 Saves to the inner memory of sensor amplifier. The detection history saved in the sensor amplifier can be copied to PC as a backup by using the PC software or the USB mounted on the control panel for IX series.
*6 For connection to an IX Series control panel or PC software. The RJ45 connector on the main unit is used for connecting to the expansion unit.
*7 When a DL Series device is used. Contact KEYENCE for information on other interfaces.
*8 Includes a DL Series communication unit.

Dimensions

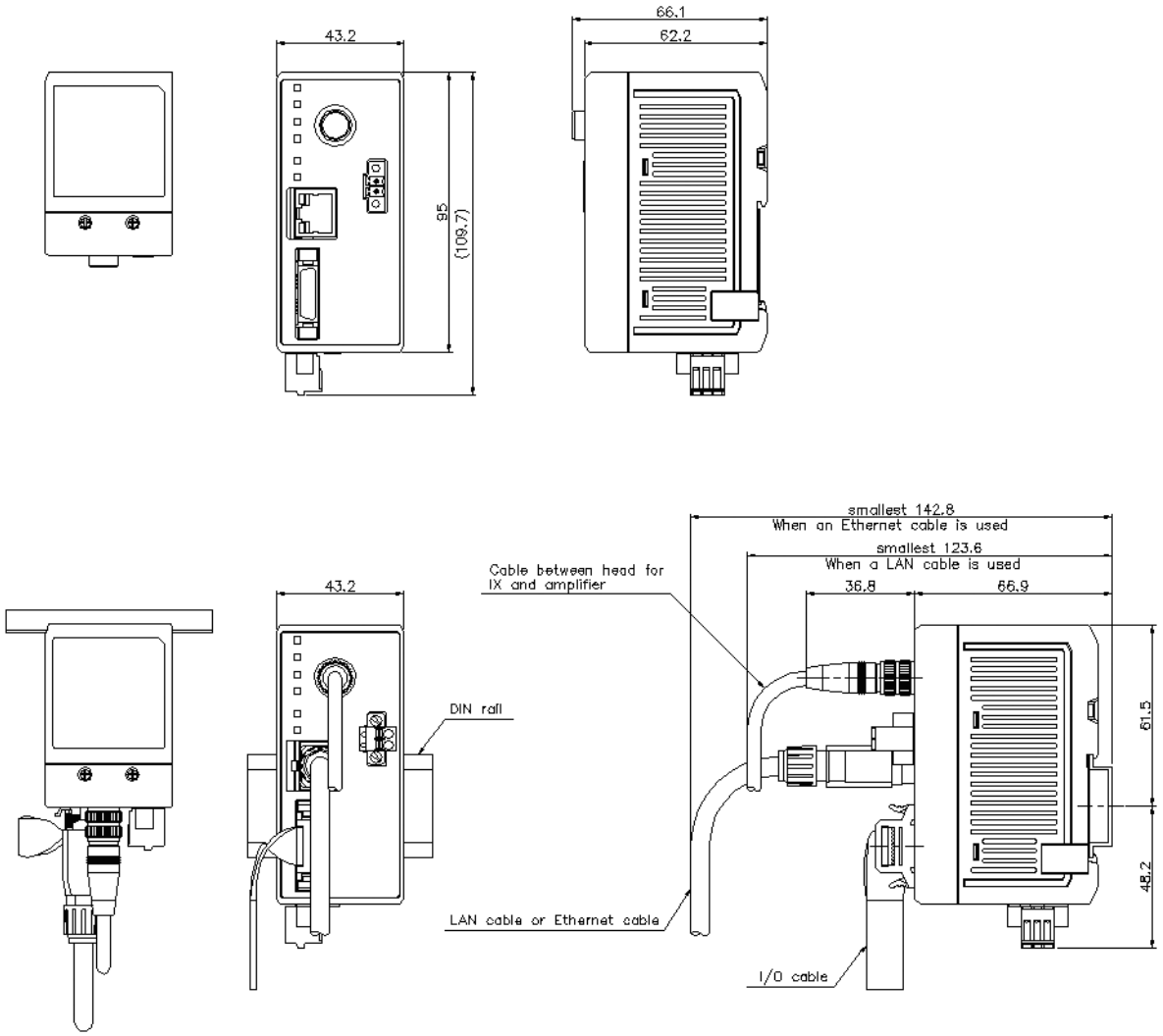
* Download CAD file or product manual for larger image/text and more detail.

IX-1000_1050_ENDUNIT




smallest 142.8
When an Ethernet cable is used
smallest 123.6
When a LAN cable is used
Cable between head for IX and amplifier
36.8
66.9
61.5
48.2
LAN cable or Ethernet cable
I/O cable

IX-1000


43.2
95
(109.7)
66.1
62.2
43.2
DIN rail
Cable between head for IX and amplifier
smallest 142.8
When an Ethernet cable is used
smallest 123.6
When a LAN cable is used
36.8
66.9
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LAN cable or Ethernet cable
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