MX-E SERIES

DATALOGIC



GiGE VISION

The MX-E Series of Industrial Vision Processors provides the highest performance in image processing with unmatched flexibility through GigE multi-camera connectivity support.

The MX-E Series allows users to choose the level of system performance and complexity based on their application needs. Three different MX-E models are available, each featuring the latest processors and high speed PoE (Power over Ethernet) camera ports.

MX-E vision processors are equipped with NPN or PNP digital I/O and power up to 8 Gigabit PoE cameras.

The MX-E25 is an entry-level, affordable processor capable of connecting to 2 cameras. The MX-E25 offers a cost effective means to migrate from smart camera applications to an industrial vision system.

The MX-E45 is a rugged and compact industrial vision processor that features multi-core processors and up to 4 cameras. The MX-E45's long-life embedded components provide a robust and reliable vision system for critical inspection applications.

The MX-E90 extends the power and performance of the MX-E Series to applications that demand faster and higher resolution cameras. With its quad-core processor it can dedicate a full processing core to up to 4 cameras. With the capability to connect up to 8 cameras, it allows users to extend their capability and yet reduce the total cost of ownership due to less hardware.

Powered by IMPACT, the MX-E Series is the ideal solution for the deployment of industrial vision systems with multiple independent inspection points.

HIGHLIGHTS

- Rugged, industrial, high-powered vision processors
- State-of-the-art processors and the highest-quality, industry leading hardware components
- Three models for different performance levels
- Compatible with a wide range of cameras from VGA up to very high resolution
  - Grayscale and Color, Area Scan and Line Scan cameras
- Ethernet (GigE Vision) connectivity and multi-camera support
- Up to eight Power over Ethernet (PoE) camera ports – PoE compliant cameras need no power cables and support up to 100 meter cable lengths
- Universal dongle for easier SW license management
- Complete IMPACT software suite included for ultimate programming flexibility – addresses any inspection and user interface needs
- Long-term product availability

BENEFITS

- The ultimate processors guarantee extraordinary computing power and maximize multi-camera inspection speed
- The highest quality hardware components in a rugged and compact processor chassis guarantee robustness and long- life service even in the harshest industrial environments
- Multi-camera capability - allows data collection and analysis from multiple points and reduces integration costs
- Three different models allow the user to select the correct level of performance based on the application needs
- Simplifies cabling by eliminating the need for camera power cables
- Universal dongles enable IMPACT software license and add-on license functionalities on all the vision processor models. Users can move licenses from one vision processor to another.
- Multiple configuration options deliver **unmatched application flexibility**

TECHNICAL DATA

	MX-E25	MX-E45	MX-E90
CPU	Intel Celeron 1.7 GHz – dual core	Intel Celeron 2.4 GHz – dual core	Intel Core i7-3.8 GHz Quad Core + HT
System Memory	8 GB DDR4 RAM		32 GB DDR4 RAM
Storage	128 GB SATA SSD (MLC)		
Graphics	Intel® HD Graphics 510 (1920x1200 resolution) - DisplayPort, DVI		Intel® HD Graphics 630 (1920 x 1200 resolution) - VGA, DVI
Camera Imager Limit	5Mpix or lower	None	
Network Interface	2x LAN ports - 10/100/1000 Mbps Base-T		
Serial Communications	1x RS-232 serial port		2x RS-232 serial port
Keyboard/Mouse	4x USB 3.0 ports		8x USB 3.0 ports
Comm Connectivity	Supports EtherNet/IP, Profinet, Modbus TCP and OPC		
I/O	16 in -16 out, PNP card or NPN card, 200µs response time		16 in -16 out - single I/O card configurable PNP/NPN, 100µs response time
Operating System	Windows 10 IoT Enterprise		
Supply Voltage	24 VDC +/- 25%		
Nominal Current Draw	5.5 A @ 24 VDC		
Dimensions	270 (H) x 130 (W) x 255 (D) mm - 10.6 (H) x 5.1 (W) x 10 (D) in		145 (H) x 192 (W) x 230 (D) mm - 5.7 (H) x 7.56 (W) x 9.05 (D) in
Weight	2.05 Kg		4.45 Kg
Housing	Galvanized plate - plastic		Metal
Operating Temperature	0 to 50 °C / 32 to 122 °F		
Operating Humidity	5 to 95% (non-condensing)		
Mechanical Protection	IP20		
Fanless	Yes	No	
Certification (Safety Compliance)	CE/FCC, c-UL-us, KCC		

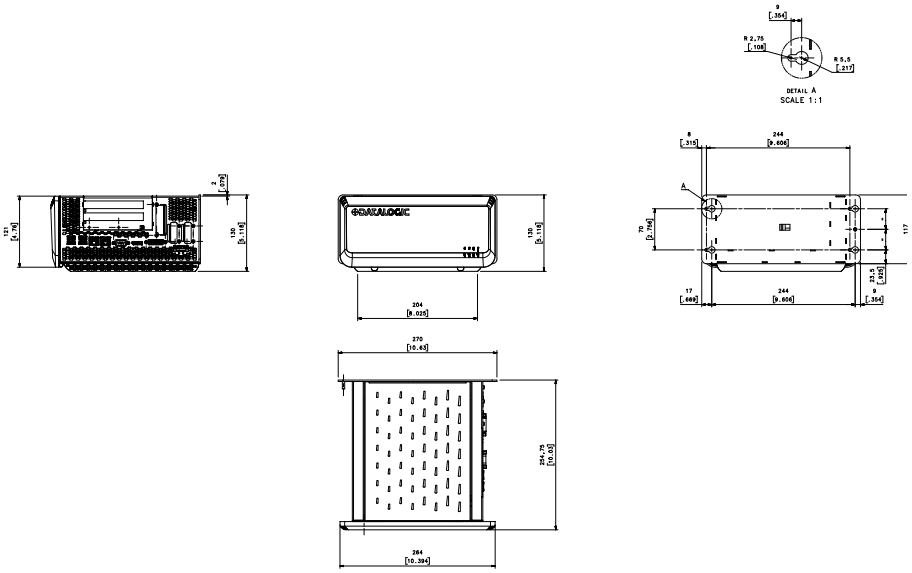
PART NUMBER KEY

MODEL	PROCESSING POWER	NUMBER OF PORTS	I/O TYPE	OPERATING SYSTEM
MX-E	XX	X	X	X
	25 = Celeron - 1.7 GHz dual Core **45** = Celeron - 2.4 GHz dual Core **90** = i7 - 3.8 GHz Quad Core + HT	**2** = 2x - 1000 Mbps Base-T, PoE camera ports **4** = 4x - 1000 Mbps Base-T, PoE camera ports **8** = 8x - 1000 Mbps Base-T, PoE camera ports	**P** = 16 IN - 16 OUT PNP **N** = 16 IN - 16 OUT NPN **B** = 16 IN - 16 OUT PNP/NPN	**2** = WIN10
Examples	MX-E25-2-P-2 = MX-E25 with 2 camera ports, PNP I/O, WIN10 OS MX-E90-4-B-2 = MX-E90 with 4 camera ports, configurable PNP/NPN I/O, WIN10 OS **NOTE: For all possible combinations, see the MX-E Series Part Number list.**			

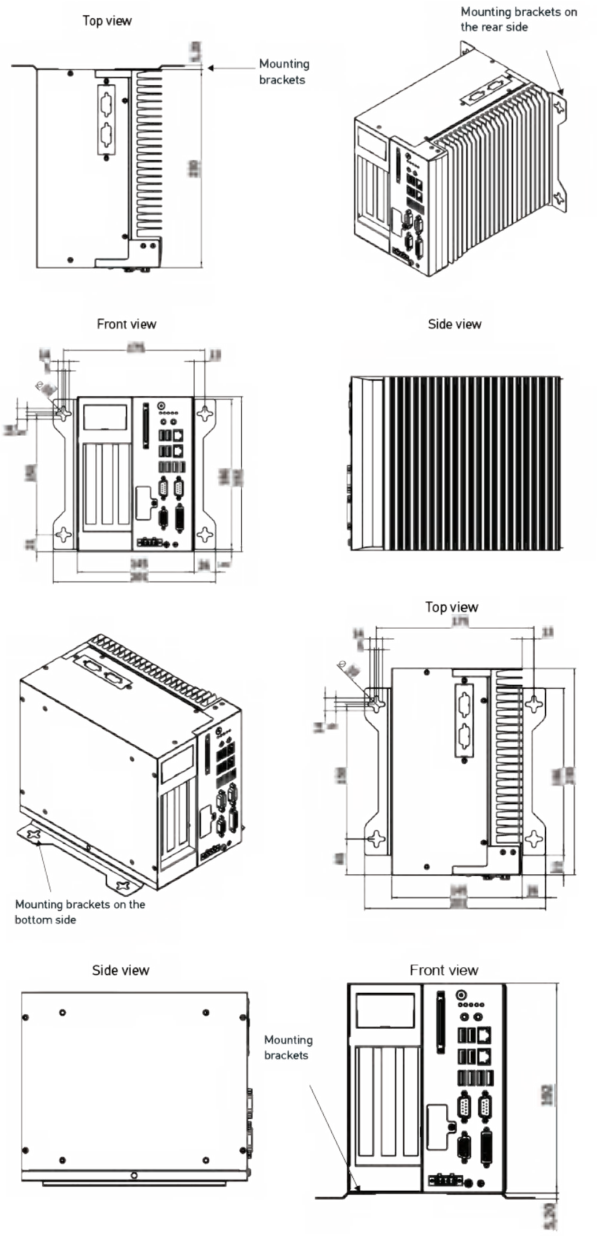
MECHANICAL DRAWINGS

All dimensions in mm

MX-E25 and MX-E45



MX-E90



MX-E SERIES

AREA SCAN CAMERAS



The MX-E Series supports a series of grayscale and color cameras utilizing the GigE Vision standard. Thanks to their small housing, the cameras allow for easy installation in locations where space is constrained.

The cameras are the ideal solution for fast embedded vision system integration and ensures an outstanding price/performance ratio. High resolution and frame rate guarantee superior image acquisition for tackling most complex machine vision applications.

HIGHLIGHTS

- VGA to 5MP resolution, in both grayscale and color
- CMOS image sensors for high speed performance
- Power over Ethernet (PoE) guarantees minimum wiring and easy installation
- Compact housing (as small as 29 x 29 x 60 mm) enables mounting in space-constrained locations
- High Frame rates to keep up with high speed inspections
- Trigger and strobe I/O provide outstanding integration flexibility

BENEFITS

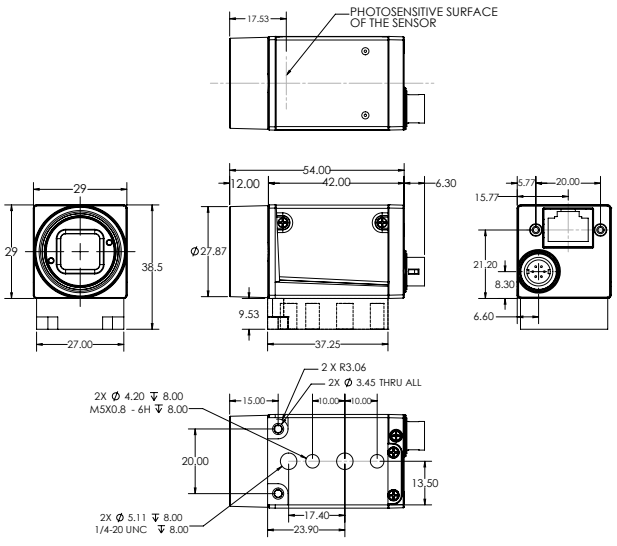
- Reduced size for minimum space requirements
- GigE vision camera interface
- High frame rate for superior image acquisition
- and processing
- State-of-art grayscale and color image sensors
- C-mount lens support
- IP30 rated housing
- CE, FCC, KCC and RoHS compliant

TECHNICAL DATA

GRAYSCALE MODEL	COLOR MODEL	RESOLUTION	IMAGER	SHUTTER	FRAME RATE (FPS)	PoE
E101	E101C	640 x 480	1/4" CMOS	Global	376	•
E151	E151C	1280 x 1024	1/2" CMOS	Global	88	•
E181	E181C	1920 x 1200	2/3" CMOS	Global	50	•
M197	M197C	2592 x 1944	1/2.5" CMOS	Rolling	14	•
E198	E198C	2448 x 2048	2/3" CMOS	Global	23	•

MECHANICAL DRAWINGS

All dimensions in mm



MX-E SERIES

LINE SCAN CAMERAS



The MX-E Series supports a series of grayscale line scan cameras utilizing the GigE Vision standard. These cameras are for applications that need high resolution and the object is very long or an endless web of material.

The cameras are the ideal solution for printing machines to inspect printed images such as a continuous web or the printing around a cirucular object.

HIGHLIGHTS

- Use with the MX-E45 and MX-E90 Industrial Vision Processors
- 2K to 8K resolution in grayscale
- High quality images sensors for speed performance
- Compact housing enables mounting in space-constrained locations
- High line rate ensures images capture at rates for high speed applications

BENEFITS

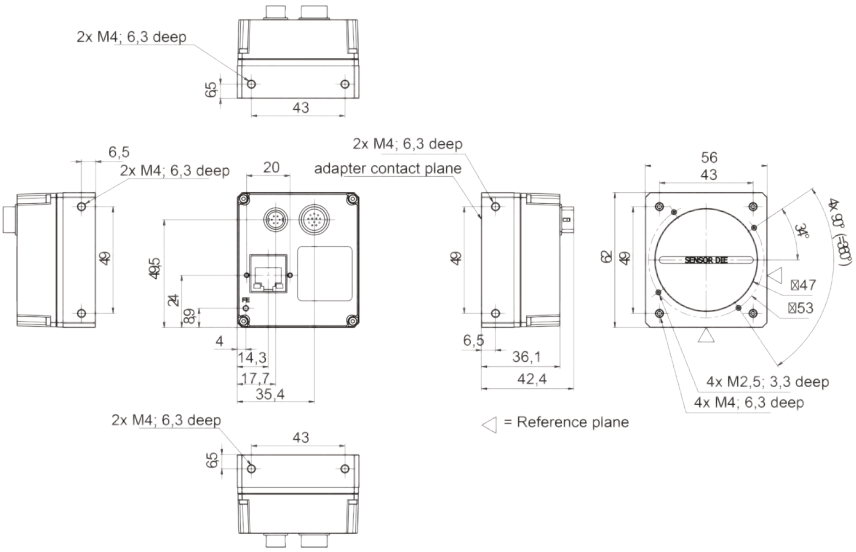
- Reduced size for minimum space requirements
- GigE vision camera interface
- Great for high-speed or high-resolution applications
- Different lens mount options to support applications needs
- IP30 rated housing
- CE, FCC and RoHS compliant

TECHNICAL DATA

LINE SCAN						
MODEL	RESOLUTION	MAX. LINE RATE	PIXEL SIZE	C-MOUNT	F-MOUNT	M42-MOUNT
M565	2048	51 KHz	7 µm x 7 µm	•	•	•
M570	4096	26 KHz	7 µm x 7 µm		•	•
M575	6144	17 KHz	7 µm x 7 µm		•	•
M580	8192	12 KHz	3.5 µm x 3.5 µm		•	•

MECHANICAL DRAWINGS

All dimensions in mm



MX-E SERIES

DESCRIPTION	PART NUMBER
Vision Processors	
MX-E25-2-P-2, Vision Processor, 2 ports, PNP, WIN10	959912107
MX-E25-2-N-2, Vision Processor, 2 ports, NPN, WIN10	959912108
MX-E45-2-P-2, Vision Processor, 2 ports, PNP, WIN10	959914115
MX-E45-2-N-2, Vision Processor, 2 ports, NPN, WIN10	959914116
MX-E45-4-P-2, Vision Processor, 4 ports, PNP, WIN10	959914117
MX-E45-4-N-2, Vision Processor, 4 ports, NPN, WIN10	959914118
MX-E90-2-B-2, Vision Processor, 2 ports, PNP/NPN, WIN10	959918118
MX-E90-4-B-2, Vision Processor, 4 ports, PNP/NPN, WIN10	959918112
MX-E90-8-B-2, Vision Processor, 8 ports, PNP/NPN, WIN10	959918113
Dongles	
DONGLE, IMPACT	93ACC0185
DONGLE, IMPACT, Enhanced	93ACC0236
DONGLE, IMPACT, PST	93ACC0187
DONGLE, IMPACT, Enhanced, PST	93ACC0237
Licenses, MX-E Series Processors	
LICENSE, ENHANCED, Processor	95A907109
LICENSE, PATTERN SORTING TOOL, Processor	95A906545
GigE Area Scan Cameras	
Camera, E101, Gig-E, 659 x 480, 300 FPS, Grayscale, 1/4" CMOS	959933022
Camera, E101C, Gig-E, 659 x 480, 300 FPS, Color, 1/4" CMOS	959933023
Camera, E151, Gig-E, 1280 x 1024, 75 FPS, Grayscale, 1/2" CMOS	959933024
Camera, E151C, Gig-E, 1280 x 1024, 75 FPS, Color, 1/2" CMOS	959933025
Camera, E181, Gig-E, 1920 x 1200, 48 FPS, Grayscale, 2/3" CMOS	959933026
Camera, E181C, Gig-E, 1920 x 1200, 48 FPS, Color, 2/3" CMOS	959933027
Camera, M197, Gig-E, 2592 x 1944, 14 FPS, Grayscale, 1/2.5" CMOS	959931010
Camera, M197C, Gig-E, 2592x1944, 14 FPS, Color, 1/2.5" CMOS	959931011
Camera, E198, Gig-E, 2448 x 2048, 20 FPS, Grayscale, 2/3" CMOS	959933044
Camera, E198C, Gig-E, 2448 x 2048, 20 FPS, Color, 2/3" CMOS	959933045
GigE Line Scan Cameras	
Camera, M565, Gig-E, 2048 Linescan, 51KHz, Grayscale	959931002
Camera, M570, Gig-E, 4096 Linescan, 26KHz, Grayscale	959931003
Camera, M575, Gig-E, 6144 Linescan, 17KHz, Grayscale	959933020
Camera, M580, Gig-E, 8192 Linescan, 12KHz, Grayscale	959933021

ACCESSORIES

DESCRIPTION	PART NUMBER
I/O Cables, MX Series Processors	
Cable, I/O, MX Series, Processor to Terminal Block, .75 Meter	606-0675-.75
Cable, I/O, MX Series, Processor to Terminal Block, 3 Meter	606-0675-3
Cable, I/O, MX Series, Processor to Terminal Block, 4.5 Meter	606-0675-4.5
Cable, I/O, MX Series, Processor to Terminal Block, 7.5 Meter	606-0675-7.5
I/O Boards, MX Series Processors	
I/O Board, MX-Series Processors, Female DB37, DIN Rail Mountable, no isolation	248-0110
Power and I/O Cables to Terminal Block, M and E Series Cameras	
Cable, Camera I/O, M1xx, E1xx, M5xx, 6 pin, 3 Meter, Camera to Terminal Block	606-0674-03
Cable, Camera I/O, M1xx, E1xx, M5xx, 6 pin, 5 Meter, Camera to Terminal Block	606-0674-05
Cable, Camera I/O, M1xx, E1xx, M5xx, 6 pin, 10 Meter, Camera to Terminal Block	606-0674-10
Cable, M5xx, 12 pin, 3 Meter, Camera to Terminal Block	606-0673-03
Cable, M5xx, 12 pin, 5 Meter, Camera to Terminal Block	606-0673-05
Cable, M5xx, 12 pin, 10 Meter, Camera to Terminal Block	606-0673-10
Power and I/O Cables Unterminated, M and E Series Cameras	
M1xx, E1xx Cameras I/O Cable, 6 pin, 3 Meter, Unterminated	606-0672-03
M1xx, E1xx Cameras I/O Cable, 6 pin, 5 Meter, Unterminated	606-0672-05
M1xx, E1xx Cameras I/O Cable, 6 pin, 10 Meter, Unterminated	606-0672-10
Cable, I/O, M5xx, 12 pin, 3 Meter, Camera to Unterminated	606-0671-03
Cable, I/O, M5xx, 12 pin, 5 Meter, Camera to Unterminated	606-0671-05
Cable, I/O, M5xx, 12 pin, 10 Meter, Camera to Unterminated	606-0671-10
I/O Boards, M and E Series Cameras	
I/O Board, M1xx, E1xx Cameras, w / isolation	661-0399
I/O Board, M5xx Camera, w / isolation	661-0401
Brackets, M and E Series Cameras	
Camera Mount, M1xx, E1xx Cameras	95A903029
Ethernet Cables, M and E Series Cameras	
Cable, Gig-E, CAT6, STP with thumb screws, 3 Meter	606-0677-M1-03
Cable, Gig-E, CAT6, STP with thumb screws, 5 Meter	606-0677-M1-05
Cable, Gig-E, CAT6, STP with thumb screws, 10 Meter	606-0677-M1-10

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