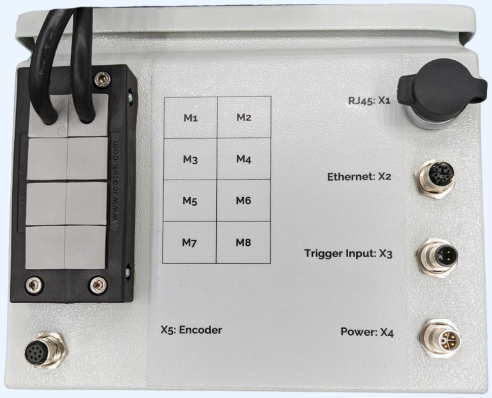
Ardent Automation

Product Data Sheet

AAG M



(Shown with Gocator cables installed)

Product	**AAG-M**: Ardent Accessory Kit - Gocator Multiple Camera Module

Description

The **AAG-M** module is an accessory for up to 8 LMI Gocator G2 series sensors that condenses the LMI system (camera cables; wiring of the LMI Master810) into a few standard M12 industrial connections, with an option to include an Ardent Automation encoder to further simplify system configuration and setup. Additionally, the pluggable connection for the encoder at the camera location reduces the possibility of wiring errors and system noise on the encoder signals for accurate triggering of the camera system.

Overview

- An easy-to-use box that contains a Master810 and connections for up to 8 Gocator G2 series sensors as well as an optional encoder for triggering
- 3 standard M12 connections that allow quick start-up and easy integration into a larger system (Power, Ethernet, and Trigger Input)
- 24/48VDC wide input
- Standard cable lengths of 2m or 5m to allow for routing through robot or machine structures
- Additional options:
  - Encoder with M12 patch cable connection
  - Power, I/O, and Ethernet home run connection cables from 2m to 10m
  - Gocator cables sold separately

Rev: 09/06/24

Technical Specifications

Mechanical	
Dimensions	11.4" (W) x 8.5" (D) x 12.6" (H)
Weight	16.5 lbs

Environmental	
Mounting	Mounting feet included

Electrical	
Power Input	24/48VDC, 240W max
Inputs	Laser Safety Input, Trigger Digital Input (PLC or Sensor), Encoder
Ethernet	M12, X-code, 1 Gbps connection
Encoder Connection	5VDC, 10W max, Differential line driver 5V signals for A/B/Z, Powered by Master810
Encoder (optional)	5-30VDC Power input, 5V Signal output Selectable resolution (1-65536 counts/rev, Quadrature output) Hollow Bore (Standard), Shafted, or Measuring Wheel style

Electrical Connections

Trigger Input: X3

Cable: AAG-CAB-MA4-MOXX
(Single Ended Cable)

PIN	No Trigger	PLC	Sensor	Color
1	**-**	-	24/48VDC	Brown
2	**-**	PLC Out -	-	White
3	**-**	-	0VDC Supply	Blue
4	**-**	PLC Out +	Sensor Output	Black

Power: X4

Cable: AAG-CAB-ML5-FOXX
(Single Ended Cable)

PIN	Connection	Color
1	24/48VDC +	Brown
2	Safety + (Connect to machine safety circuit)	White
3	0VDC	Blue
4	Safety - (Connect to machine safety circuit)	Black
5	Ground	Pink

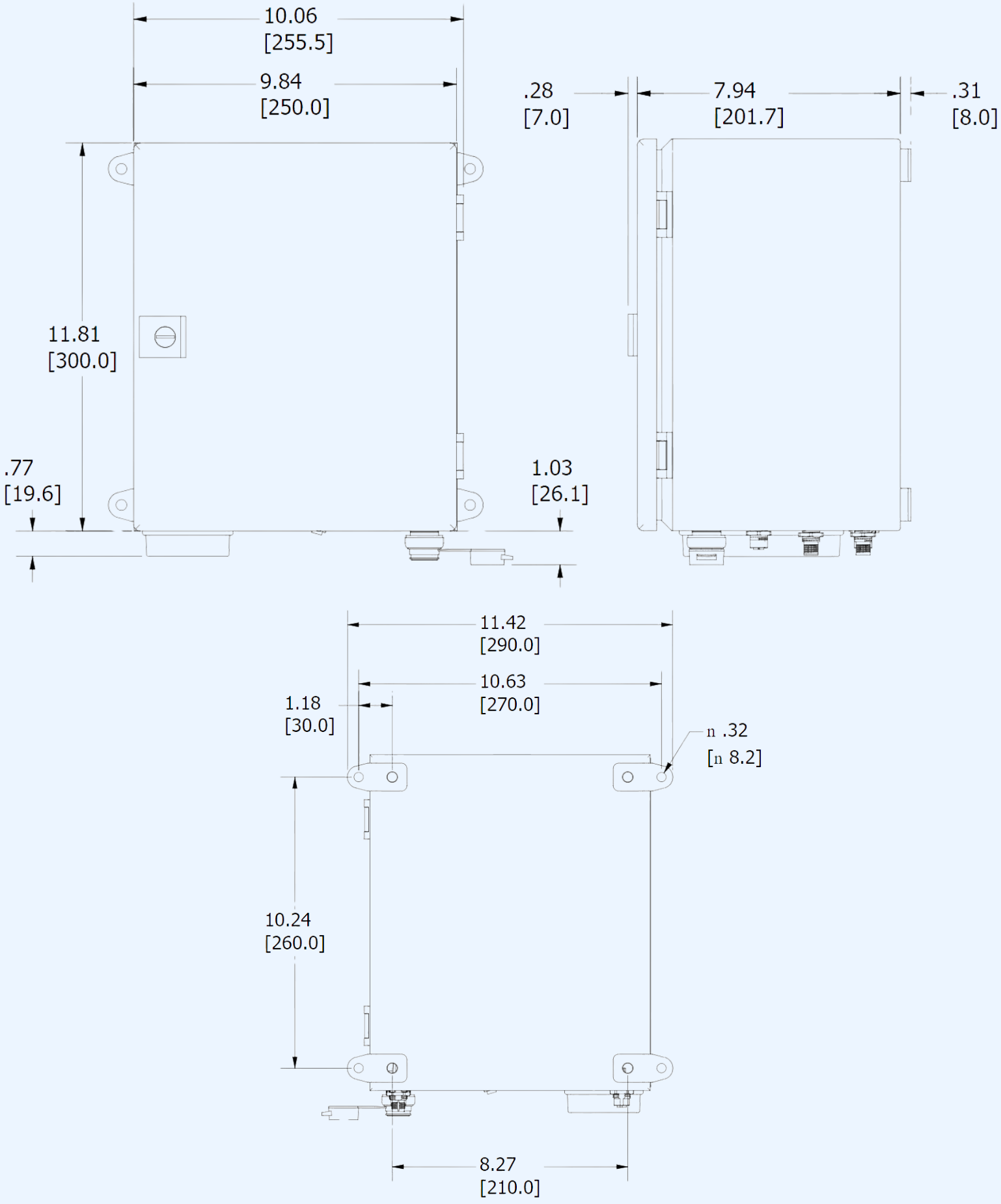
Encoder: X5

Cable: AAG-CAB-MA8-MFXX
(Patch cable for AAG-ENC Encoders)
Cable: AAG-CAB-MA8-MOXX
(Single ended cable for 3rd Party Encoders)

PIN	Connection	Color
1	A	White
2	V +	Brown
3	A ‘	Green
4	B	Yellow
5	B ‘	Gray
6	Z	Pink
7	V -	Blue
8	Z ‘	Red

For all cables - XX denotes cable length

Drawings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Connection Cable Options

Ethernet: X2		
Part Number	**Description**	**Length**
AAG-CAB-ETH-XR02	**M12, X-Code, 8 PIN** Male to RJ45 Straight, CAT6A, 10Gbps	2m
AAG-CAB-ETH-XR05		5m
AAG-CAB-ETH-XR10		10m

I/O: X3		
Part Number	**Description**	**Length**
AAG-CAB-MA4-MO02	**M12, A-Code, 4 PIN** Male to Open wires Straight, 22AWG wire	2m
AAG-CAB-MA4-MO05		5m
AAG-CAB-MA4-MO10		10m
AAG-CAB-MA4-MF10	**M12, A-Code, 4 PIN** Male to Female Extension	10m

Power: X4		
Part Number	**Description**	**Length**
AAG-CAB-ML5-FO03	**M12, L-Code, 5 PIN** Female to Open wires Straight	3m
AAG-CAB-ML5-FO05		5m
AAG-CAB-ML5-FO10		10m

Encoder: X5		
Part Number	**Description**	**Length**
AAG-CAB-MA8-MF02	**M12, A-Code, 8 PIN** Male to Female Straight, 24AWG wire (For AAG-ENC Encoders)	1.5m
AAG-CAB-MA8-MF05		5m
AAG-CAB-MA8-MF10		10m
AAG-CAB-MA8-MO02	**M12, A-Code, 8 PIN** Male to Open Wires Straight, 24AWG wire (For 3rd Party Encoders)	2m
AAG-CAB-MA8-MO05		5m
AAG-CAB-MA8-MO10		10m

Additional cable lengths are available upon request

AAG-ENC Encoder Ordering Guide

Product Series	-	Part	-	Type	Bore Size	-	Counts Per Revolution
AAG	-	ENC	-	H	02	-	4096

All Encoders have a:

- Selectable resolution from 1 to 65536 Counts Per Revolution Quadrature counts 4 to 262,144)
- 5-30VDC Nominal Input, 5VDC differential line driver output

H - Hollow Bore
S - Shafted*
W - Measuring Wheel**
(With Tension Bracket)

Notes
*Shafted only 3/8in
**Measuring Wheel only 300mm

Hollow Bore Bore Sizes:

- 04 - 6mm
- 14 - 8mm
- 10 - 10mm
- 09 - 11mm
- 12 - 12mm
- 13 - 14mm
- 15 - 15mm
- 01 - 0.25" (1/4") in
- 03 - 0.3125" (5/16") in
- **02 - 0.375" (3/8") in**
- 05 - 0.5" (1/2") in
- 11 - 0.625" (5/8") in

Selectable CPR from:
1 to 65536

Power Supplies (Sold Separately)

Max Sensor Count	24V Single Phase 120/230V Nominal Input	24V Dual Phase 230/460V Nominal Input	48V Single Phase 120/230V Nominal Input	48V Dual Phase 230/460V Nominal Input	Output Power	Certifications
3	-	AAG-PW2-060-24	-	AAG-PW2-060-48	60W	UL508, CB, CE, EMC,TUV
4	AAG-PW1-075-24	-	AAG-PW1-075-48	-	75W	UL508, CB, CE, EMC,TUV
6	AAG-PW1-120-24	AAG-PW2-120-24	AAG-PW1-120-48	AAG-PW2-120-48	120W	UL508, CB, CE, EMC,TUV
8	AAG-PW1-240-24	AAG-PW2-240-24	AAG-PW1-240-48	AAG-PW2-240-48	240W	UL508, CB, CE, EMC,TUV

Gigabit Ethernet Switches (Sold Separately)

Part Number	Voltage	Voltage Type	Ports
AAG-ESW-05D	24/48V	Dual	5
AAG-ESW-05L	24V	Low	5
AAG-ESW-08D	24/48V	Dual	8
AAG-ESW-08L	24V	Low	8
AAG-ESW-16D	24/48V	Dual	16
AAG-ESW-16L	24V	Low	16