

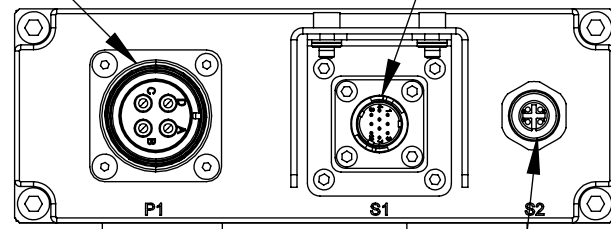
# 9121-EF64-M Master Module

# 9121-EF64-T Tool Module

REV.	DESCRIPTION	INITIATOR	DATE
02P	JAE POWER CONNECTOR REPLACED WITH EQUIVELENT AMPHENOL CONNECTOR FOR ALPHA BUILD	PSB	02/08/2023
03P	UPDATED WITH SIMPLIFIED COVER DESIGN	PSB	02/08/2023
04P	REPLACED JN2 CONNECTOR WITH SQUARE FLANGE VERSION. REPLACED TOOL MODULE CONNECTORS WITH HARTING CONNECTORS. CORRECTED CIRCUIT RATING BASED ON 120 OHM TSP CABLE.	DK	6/27/2023

Power Connector  
JAE JL10-2E18-10PE-B

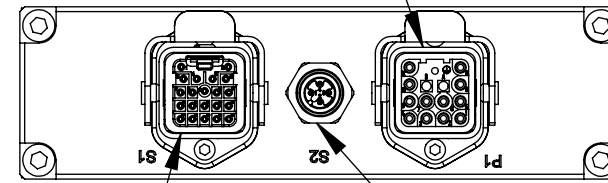
Signal Connector 1  
JAE JN2AS10ML1-R



2X 4010-0000030-01  
Replaceable  
V-Ring Seals

Signal Connector 2  
Turck FK4.4-/18.25  
(Orientation Not Guaranteed)

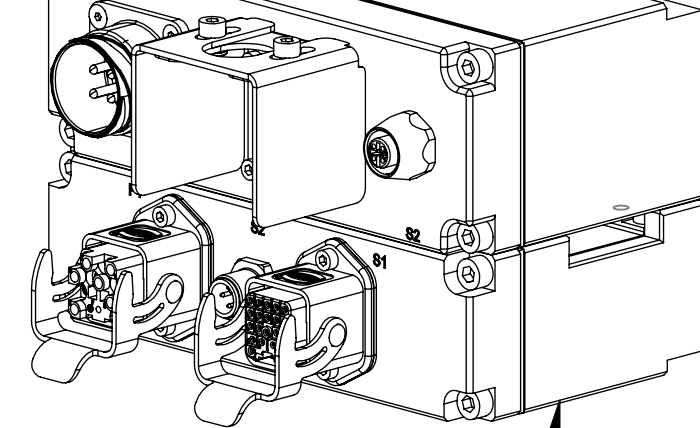
Power Connector  
Harting Housing 09200030301  
Harting Insert 09120123101



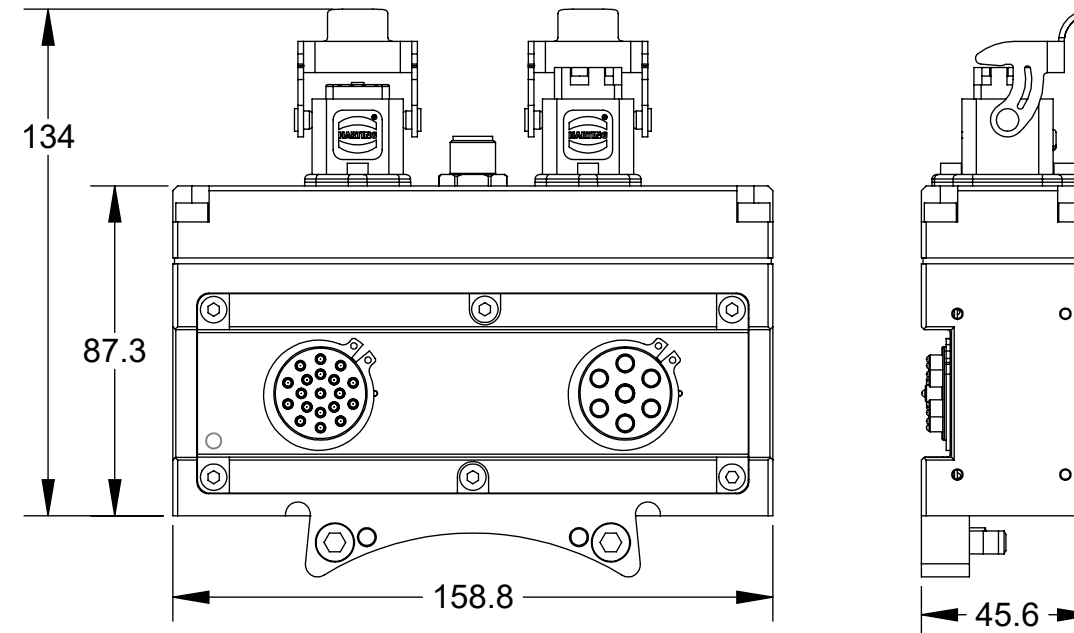
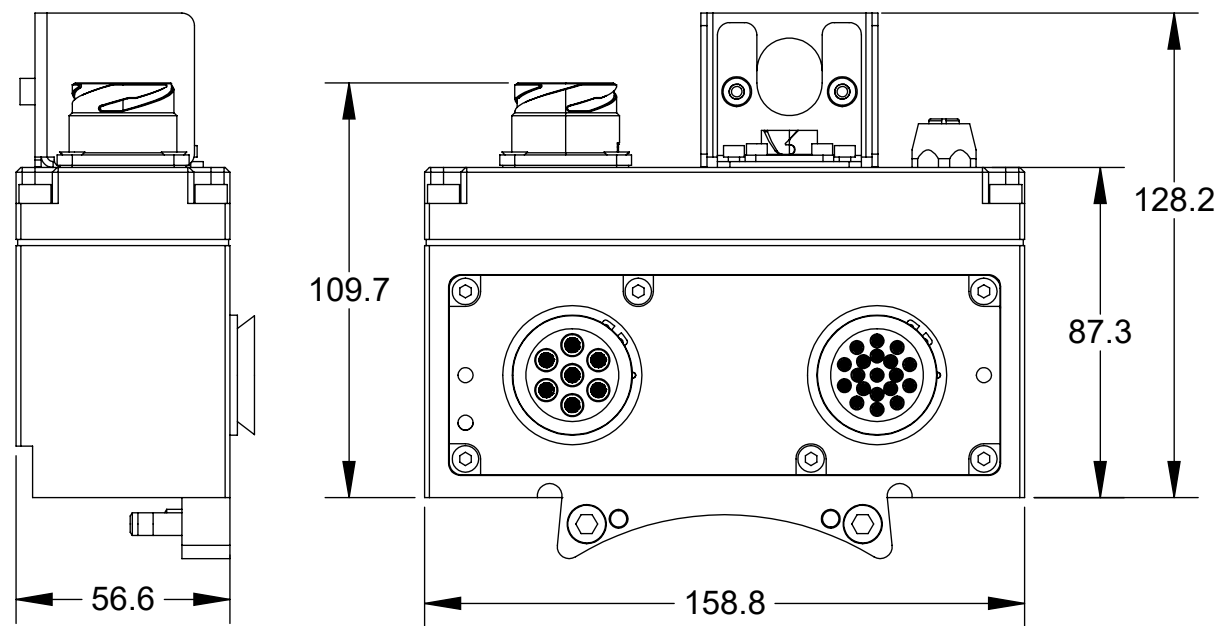
Signal Connector 1  
Harting Housing 09200030301  
Harting Insert 09120213101

Signal Connector 2  
Turck FS4.4/18.25  
(Orientation Not Guaranteed)

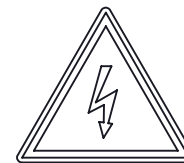
9121-EF64-M



9121-EF64-T



## " DANGER!" - Electrical Shock Hazard



**This module has a Voltage of 50V or greater, NO contact should be attempted before removing power. This especially includes separation or insertion of the mating connectors or any contact with the tool changer or its components."**

### Notes:

- Do not couple or uncouple the servo modules unless electrical power has been disconnected and discharged both upstream and downstream from the modules.
- See Sheet 2 for additional details regarding overall dimension with guards installed.
- See Sheets 3 and 4 for Customer Interface information.
- See Sheet 5 for module wiring diagram and electrical rating.

NOTES: UNLESS OTHERWISE SPECIFIED.

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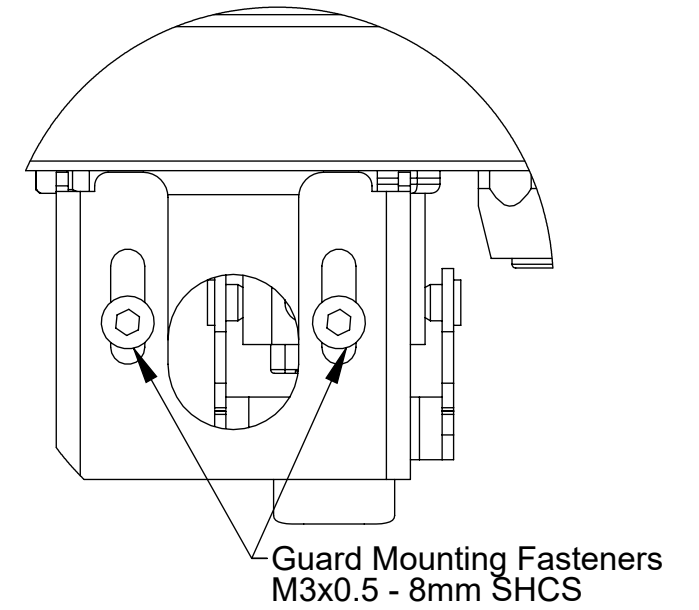
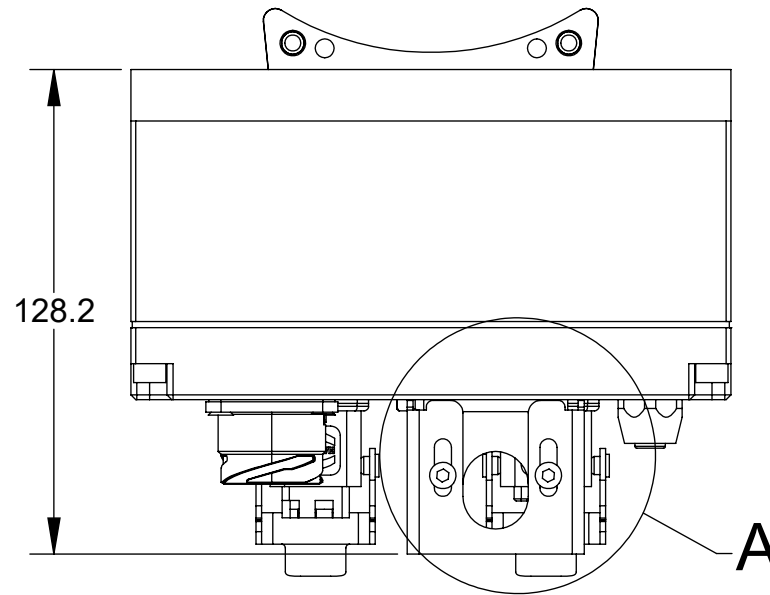
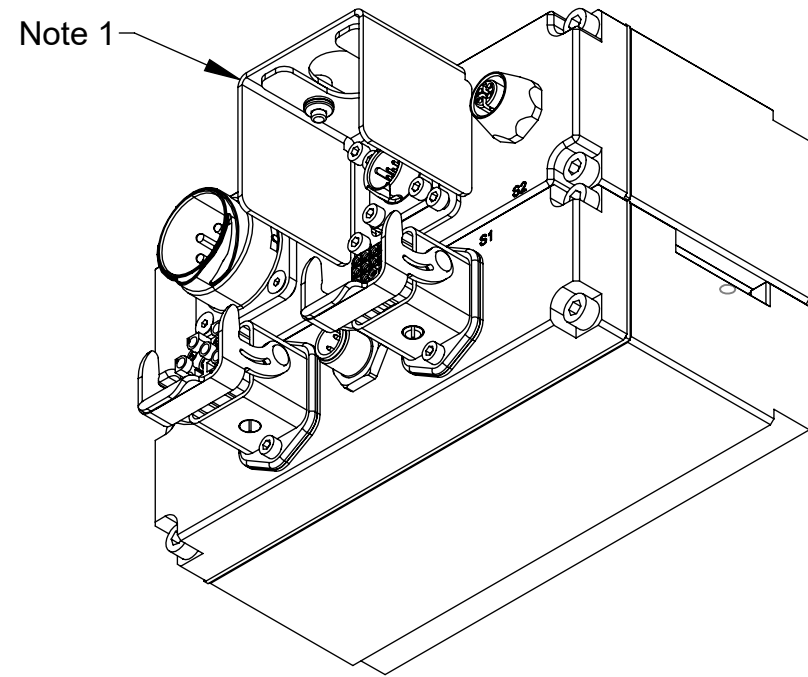


3rd ANGLE PROJECTION

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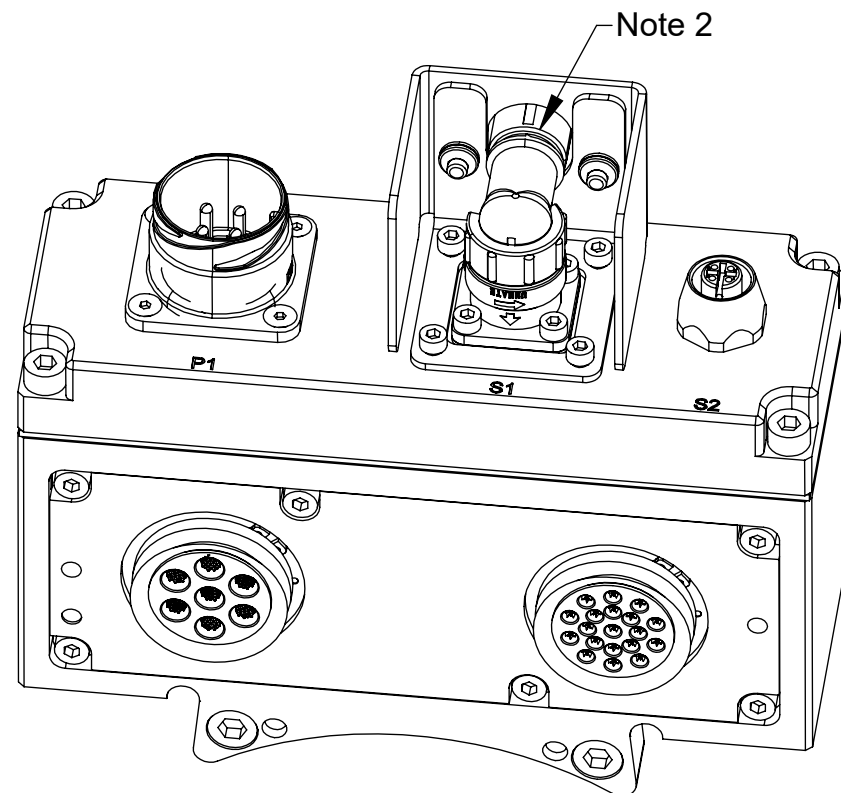
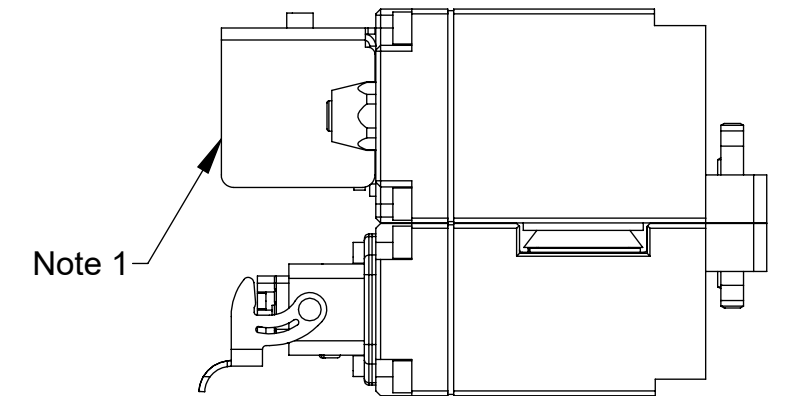
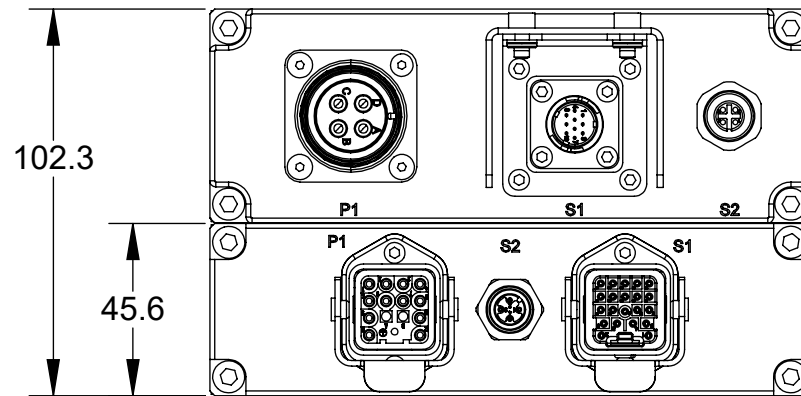
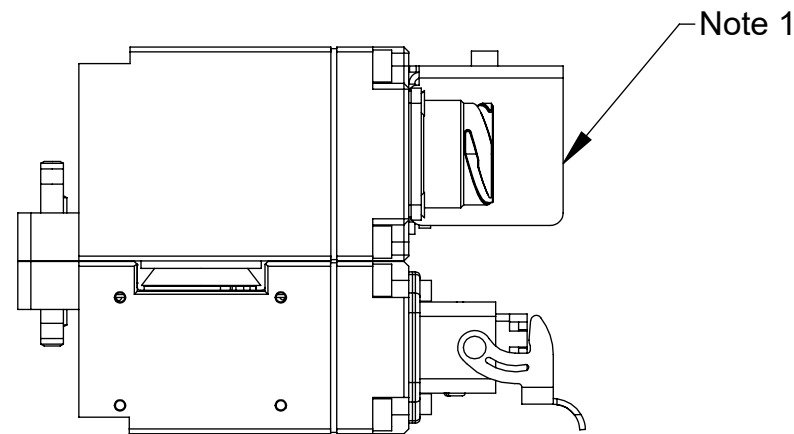
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DRAWN BY: S. Blackwelder, 01/17/2023		TITLE	
CHECKED BY: M. Newell, 02/04/2023		EF64 Servo Module Customer Drawing	
PROJECT # 221004-1	SHEET 1 OF 5	SCALE 1:2	SIZE B
		DRAWING NUMBER 9630-20-EF64	REVISION 04P



DETAIL A  
SCALE 1:1

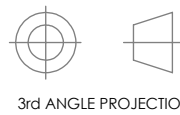
Guard Mounting Fasteners  
M3x0.5 - 8mm SHCS



- Notes:
1. Protective, Anti-Tamper Encoder Connector Guard, Bracket Assembly
  2. JN2FS10SL1-R Angle Plug shown for reference.

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TITLE  
EF64 Servo Module Customer Drawing

PROJECT # 221004-1 SHEET 2 OF 5

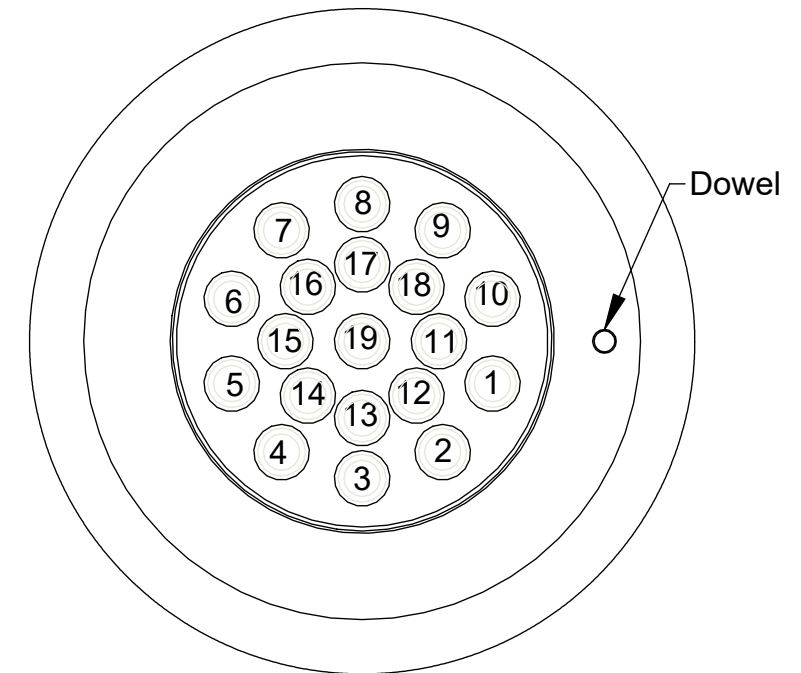
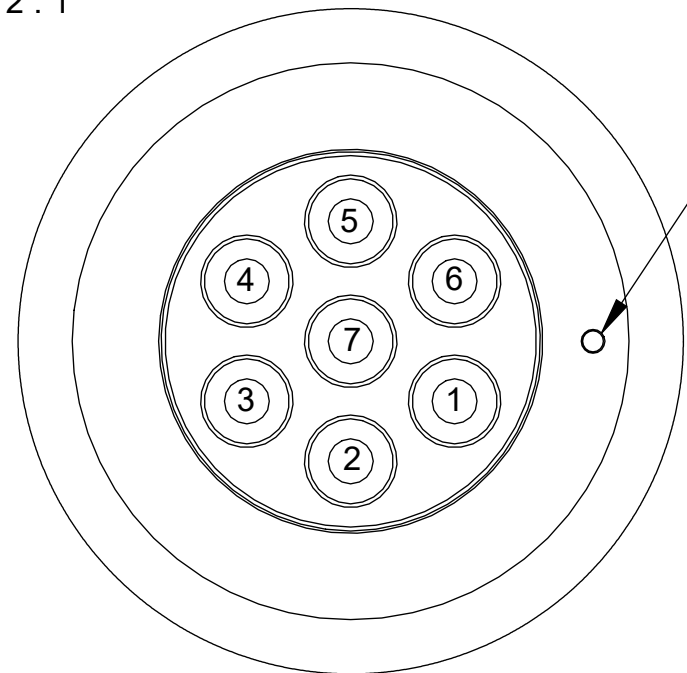
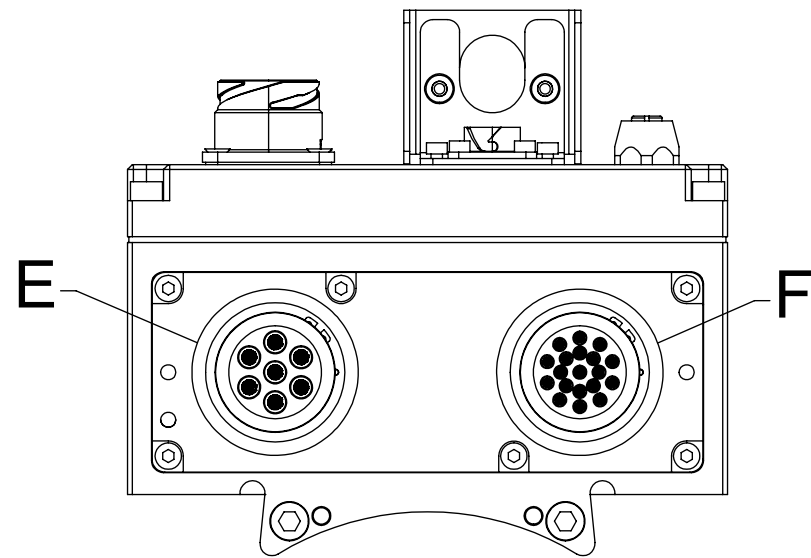
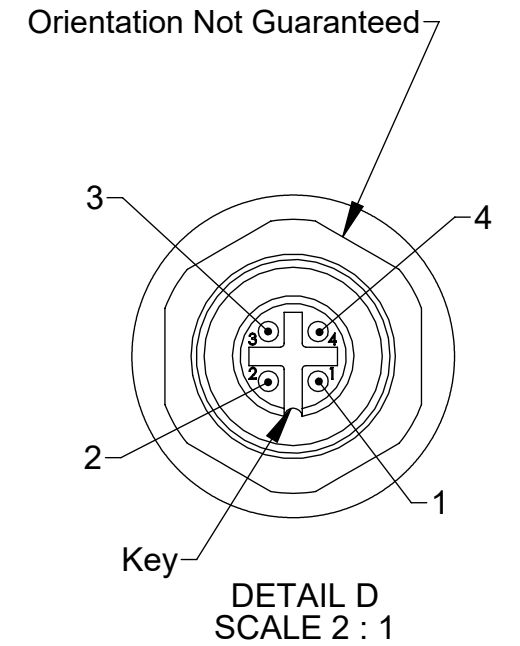
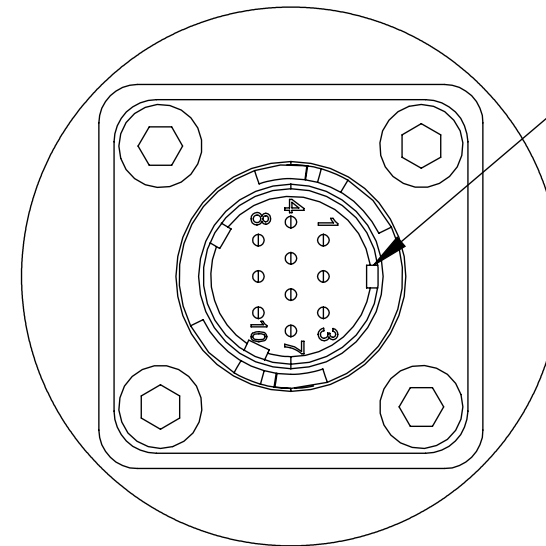
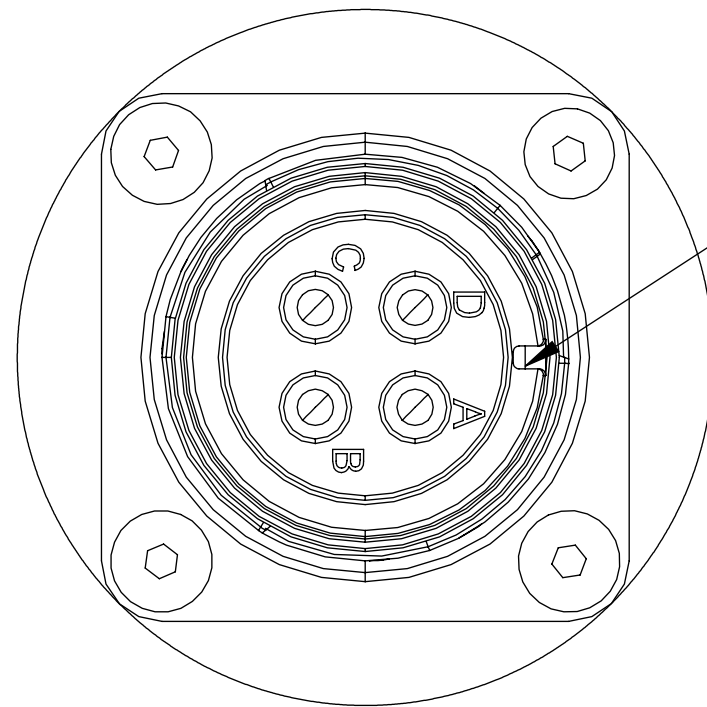
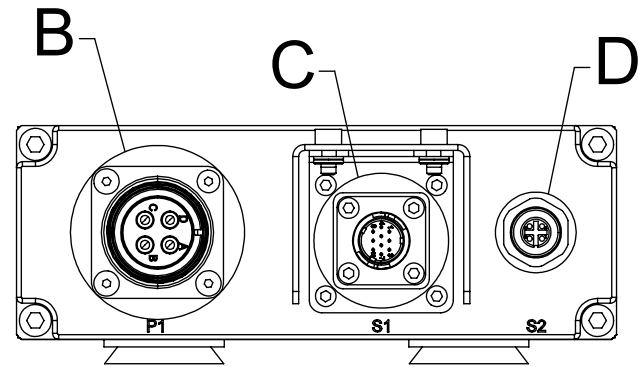
SCALE  
1:2

SIZE  
B

DRAWING NUMBER  
9630-20-EF64

REVISION  
04P

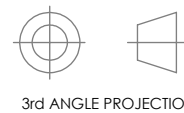
# 9121-EF64-M



- NOTES:  
 1. Retaining rings hidden in Detail Views E and F for dowel pin clarity.

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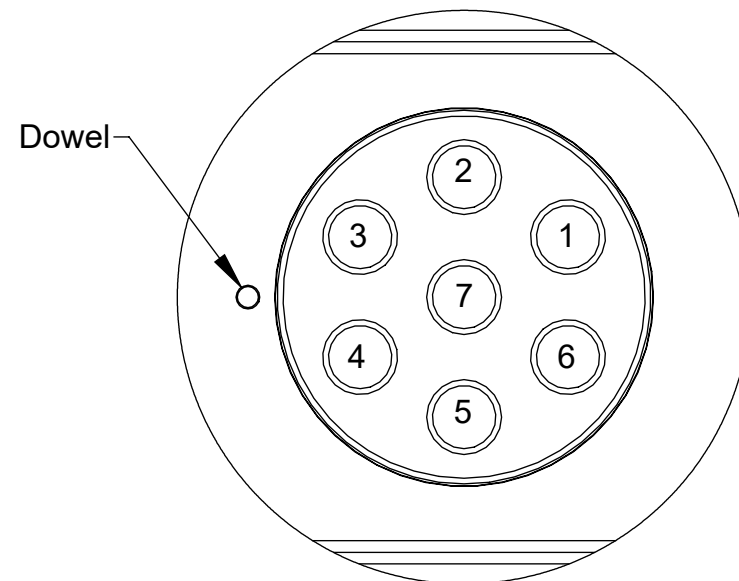
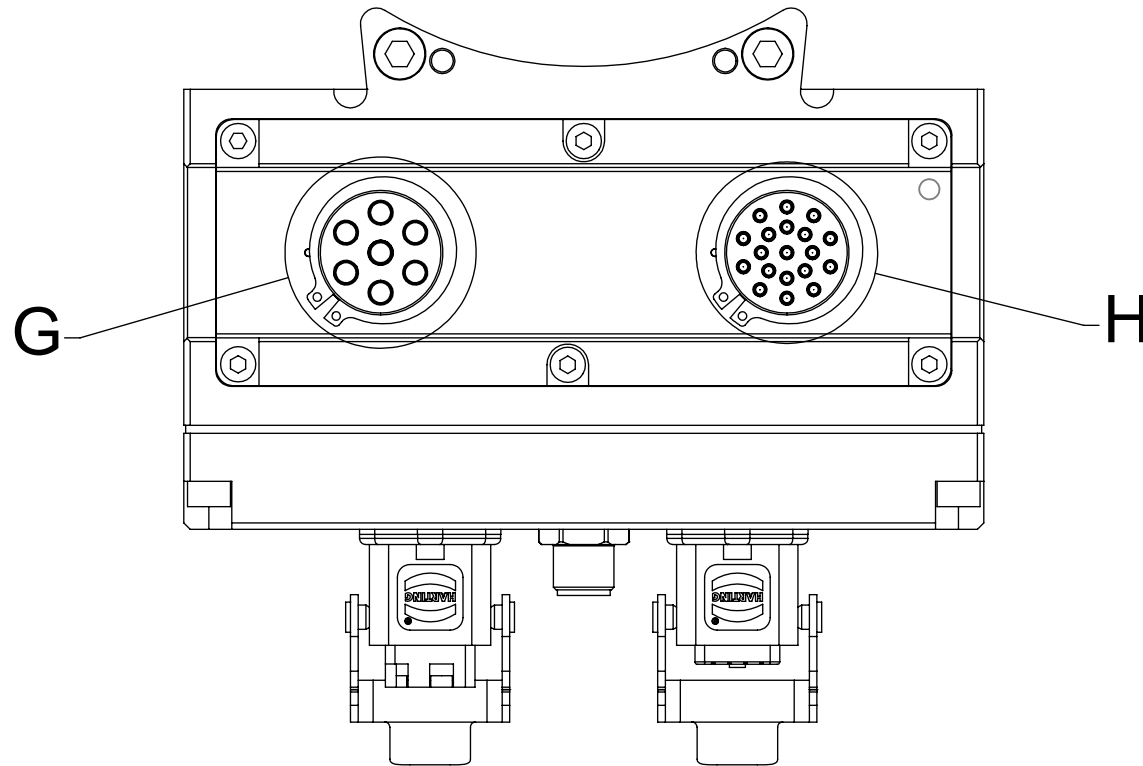
CHECKED BY: M. Newell, 02/04/2023

TITLE  
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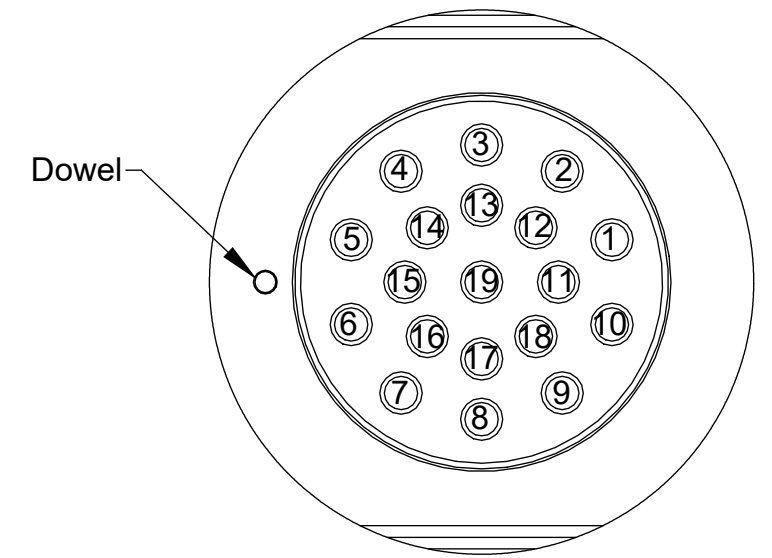
PROJECT # 221004-1 SHEET 3 OF 5

SCALE	SIZE	DRAWING NUMBER	REVISION
1:2	B	9630-20-EF64	04P

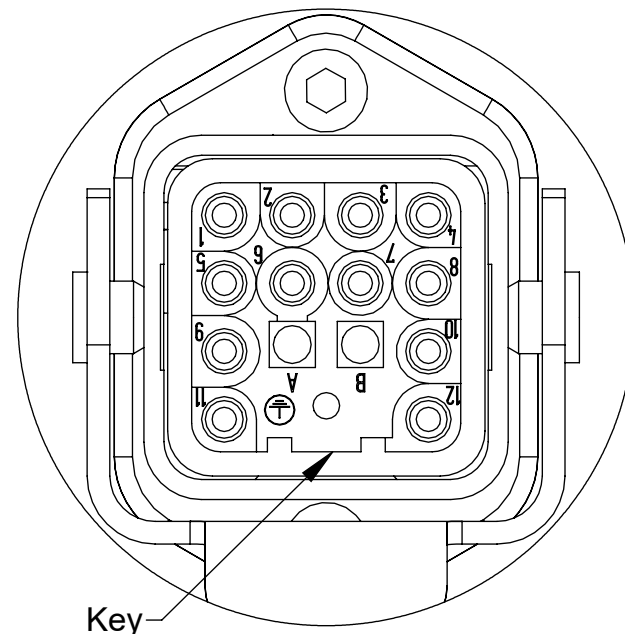
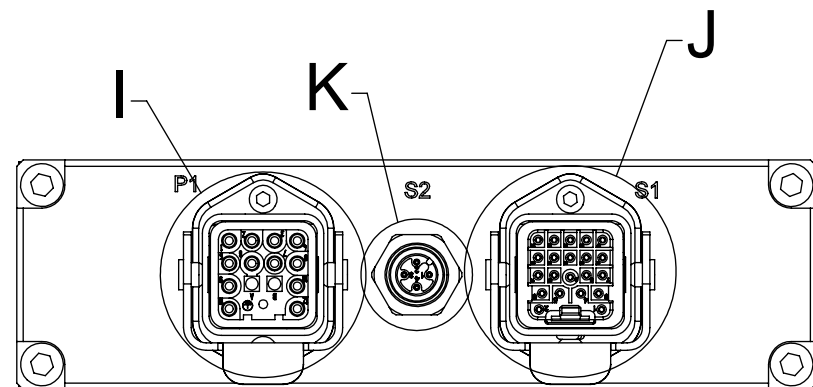
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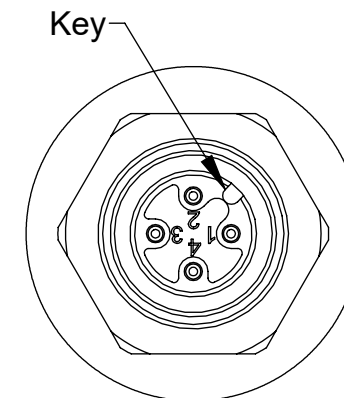
DETAIL G  
SCALE 2 : 1



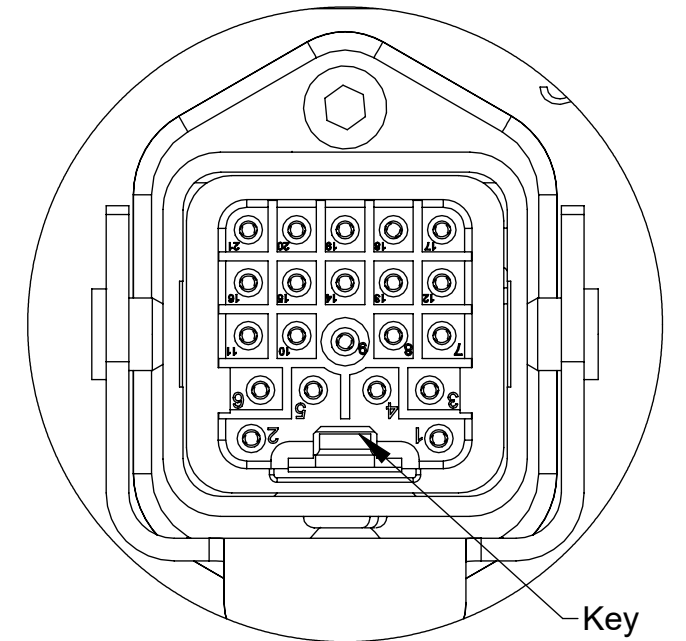
DETAIL H  
SCALE 2 : 1



DETAIL I  
SCALE 2 : 1



DETAIL K  
SCALE 2 : 1



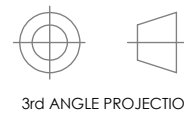
DETAIL J  
SCALE 2 : 1

**NOTES:**

- Retaining rings hidden in Detail Views G and H for dowel pin clarity.

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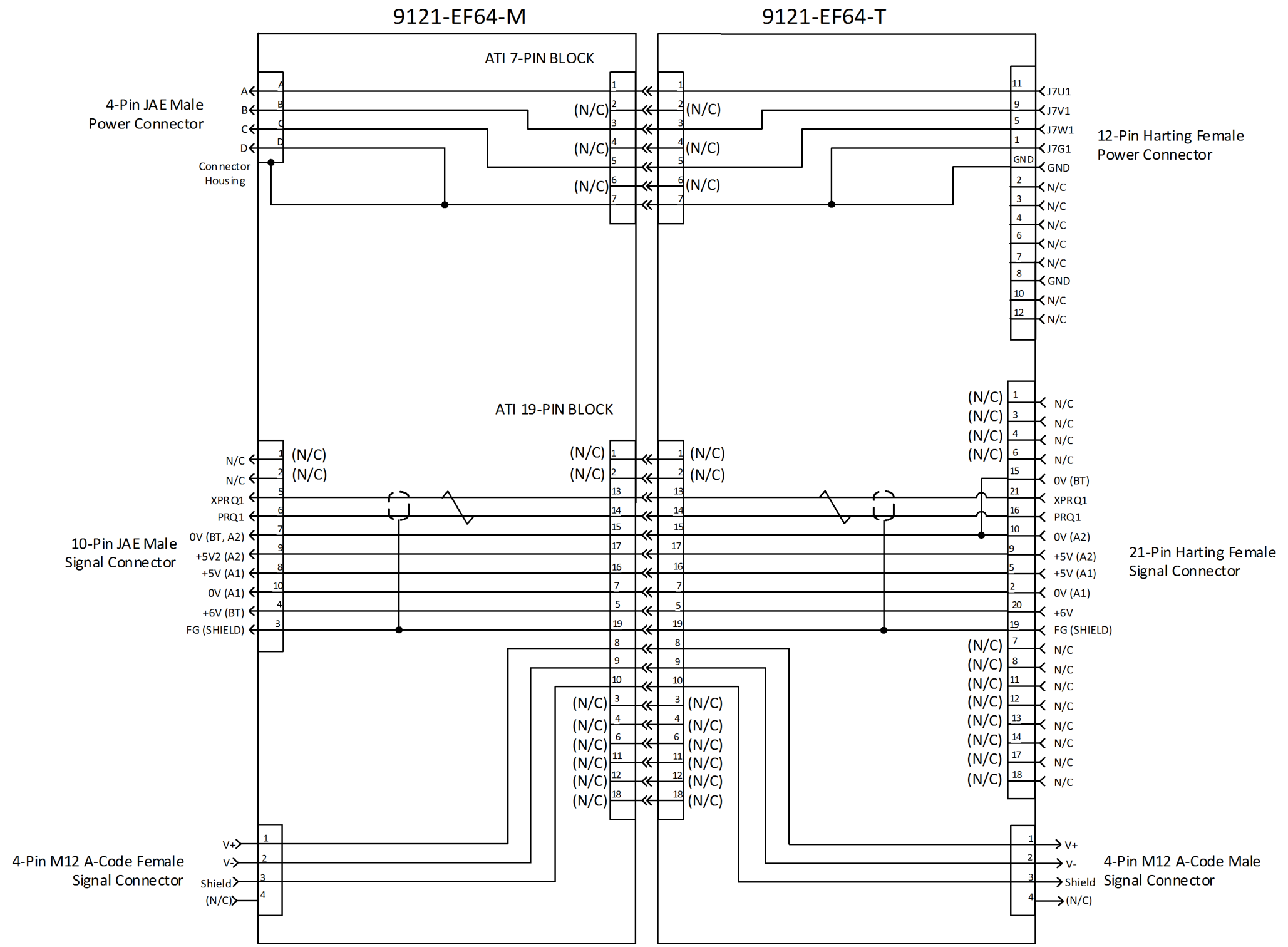
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TITLE

EF64 Servo Module Customer Drawing

PROJECT # 221004-1 SHEET 4 OF 5

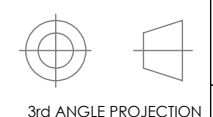
SCALE	SIZE	DRAWING NUMBER	REVISION
1:2	B	9630-20-EF64	04P



- Notes:
1. Pin 7 of the 7 Pin Block are the first-to-make, last-to-break.
  2. Pin 19 of the 19 Pin Block are the first-to-make, last-to-break.
  3. The indicated wire pairs are twisted and shielded.
  4. Power circuit rating: 10A / 400Vmax
  5. Singal 1 circuit rating (cable): 2.1A / 50Vmax
  6. Signal 1 circuit rating (discrete wire): 3A / 50VMax
  7. Signal 2 circuit rating: 4A / 250Vmax

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CHECKED BY: M. Newell, 02/04/2023		EF64 Servo Module Customer Drawing	
PROJECT # 221004-1	SHEET 5 OF 5	SCALE 1:2	SIZE B
DRAWING NUMBER 9630-20-EF64		REVISION 04P	