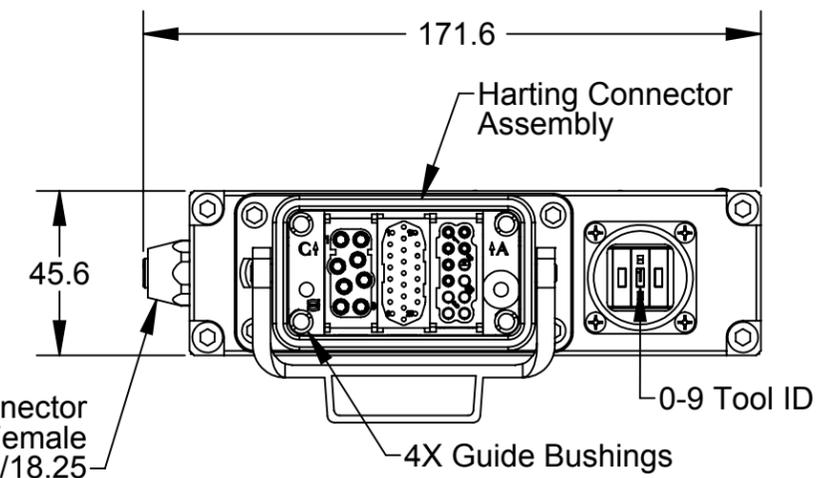
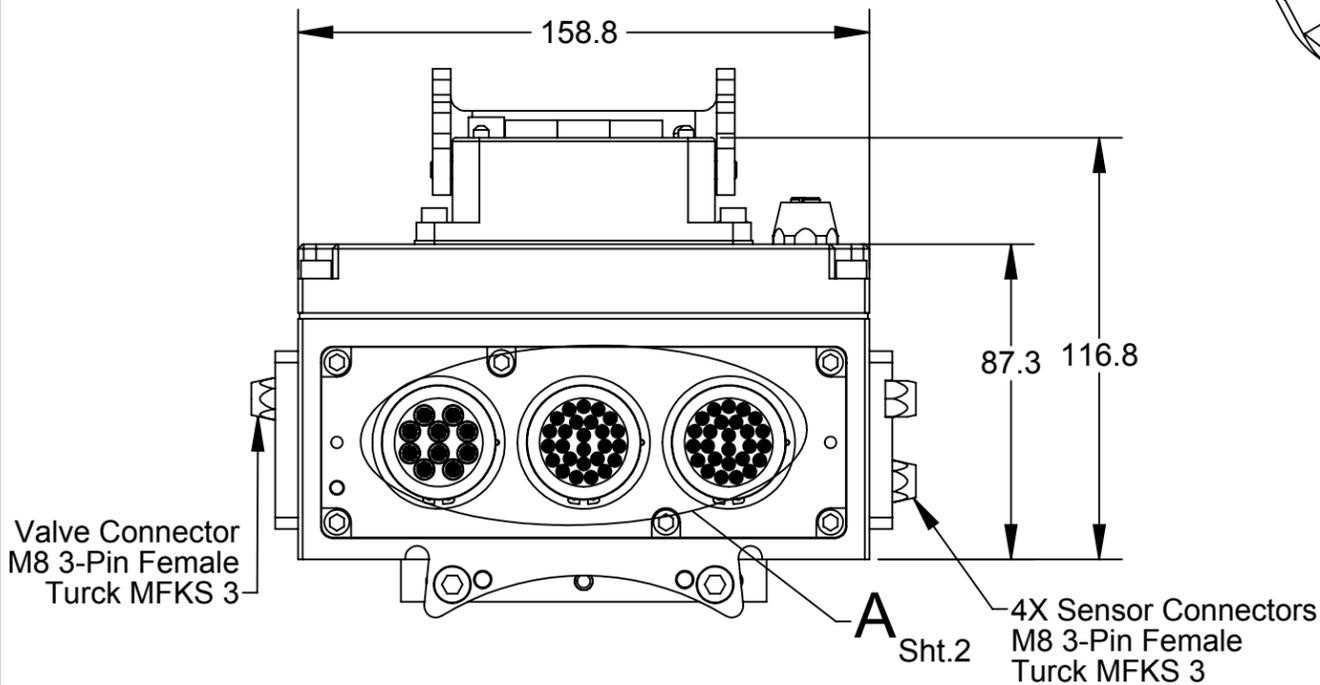
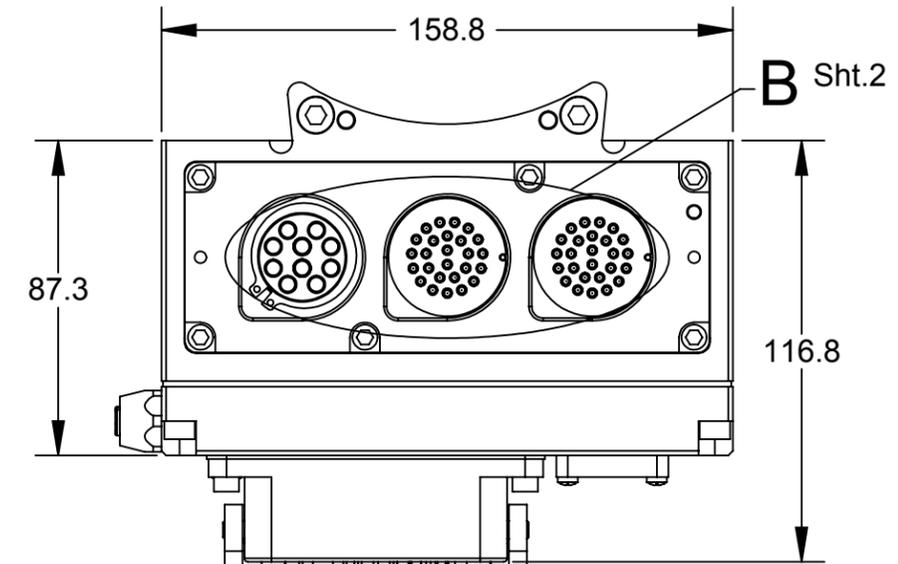
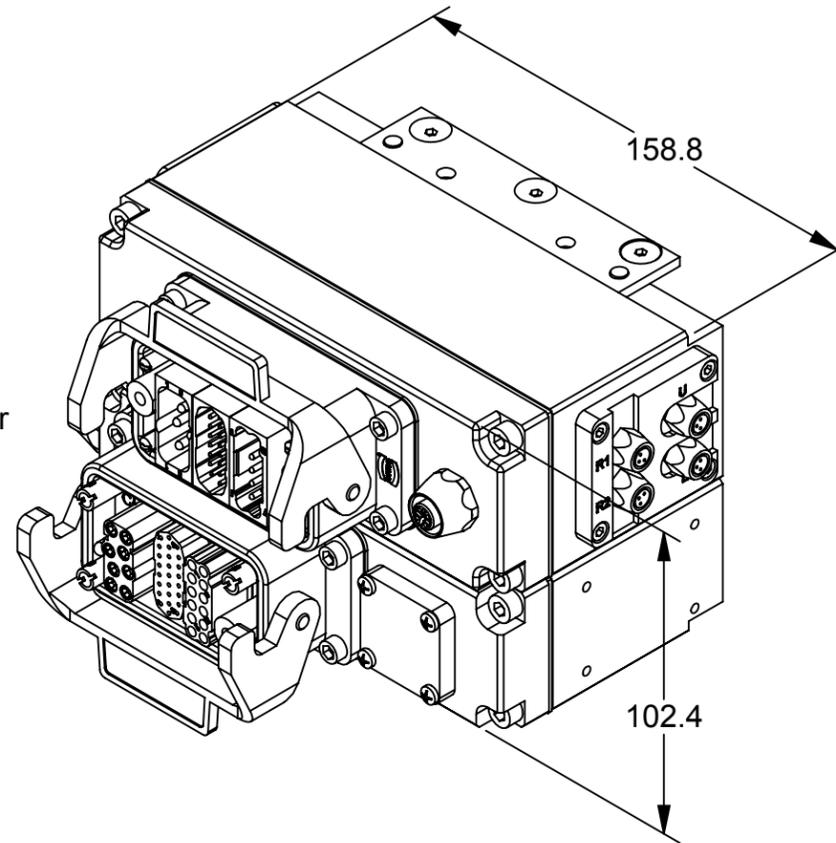
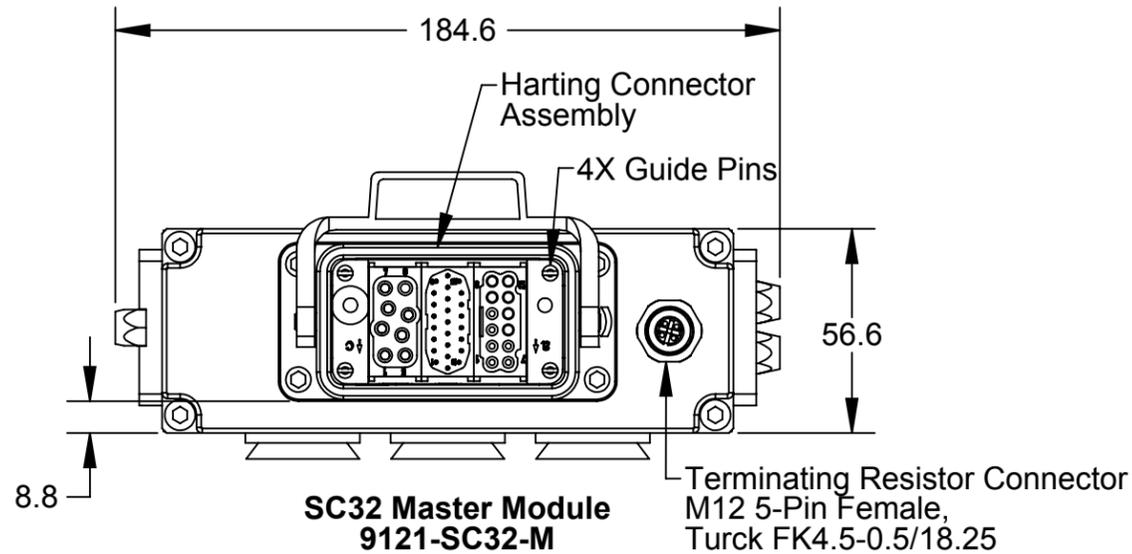




"DANGER!" - Electrical Shock Hazard

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.

Rev.	Description	Initiator	Date
05	ECO 18205: Sheet 4: Added Note 11 "Tool-ID Switch is rated for 0.1A / 30VDC.	TBC	9/4/2019



- Notes:
1. Pin Block pin assignment information on Sheet 2.
 2. Connector details and pin assignment information on Sheet 3.
 3. Electrical schematic and functional notes on Sheet 4.

NOTES: UNLESS OTHERWISE SPECIFIED.

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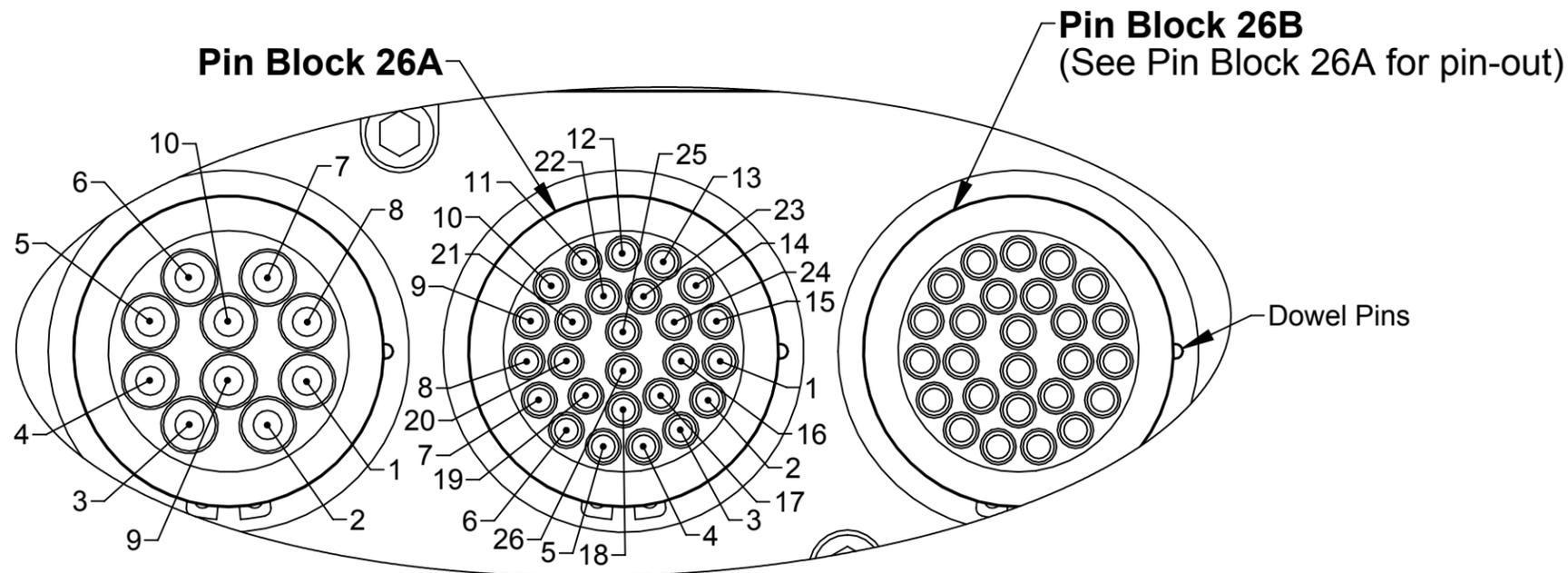
3rd ANGLE PROJECTION



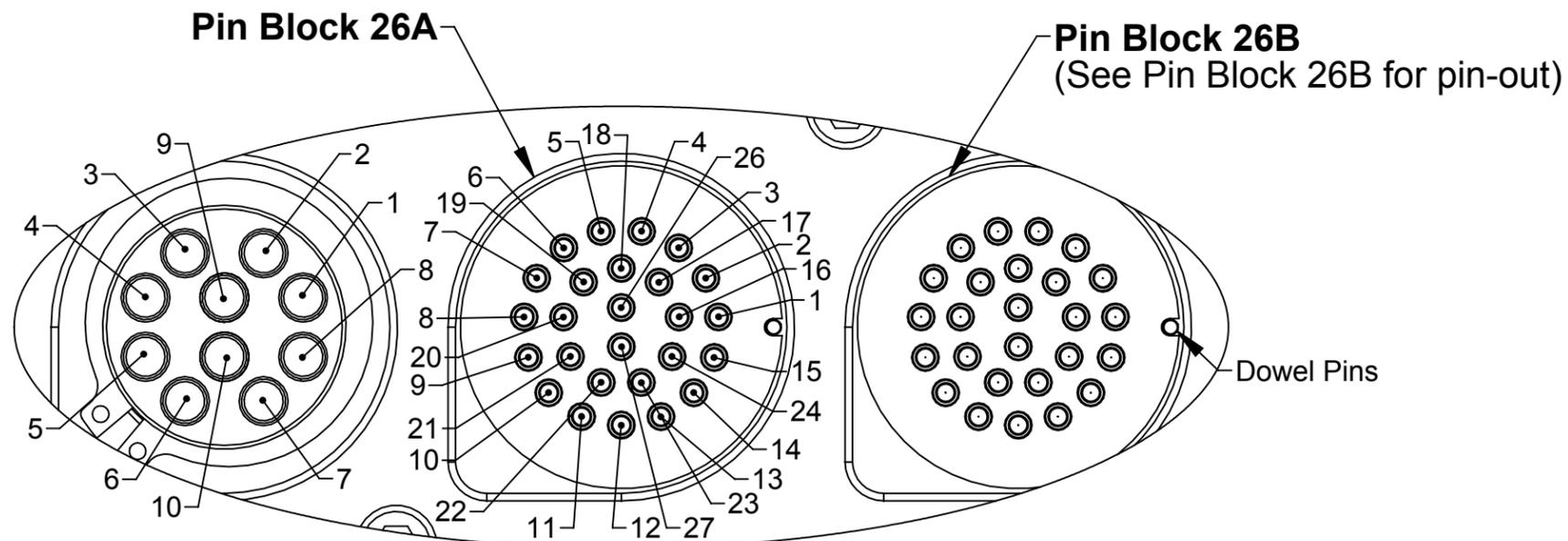
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CHECKED BY: W.Berrocal, 12/16/16 F. Alonso, 1/27/17		Servo Module	
PROJECT # 161214-1 SHEET 1 OF 4	SCALE 1:2	SIZE B	DRAWING NUMBER 9630-20-SC32M SC25T
			REVISION 05



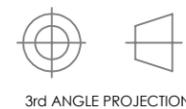
Master Side Pin Blocks
 Scale 3:2



Tool Side Pin Blocks
 Scale 3:2

NOTES: UNLESS OTHERWISE SPECIFIED.

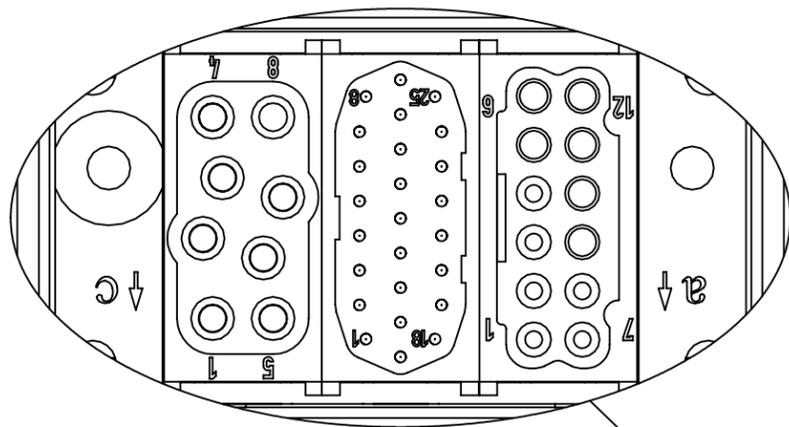
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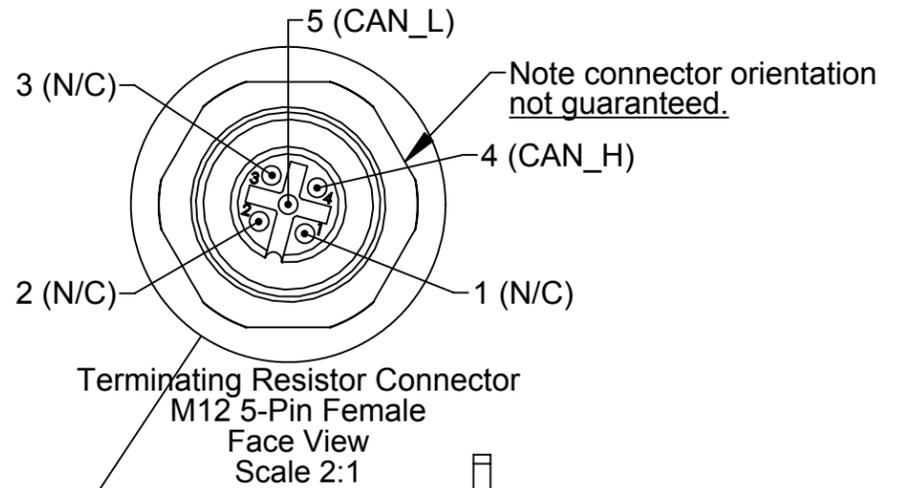
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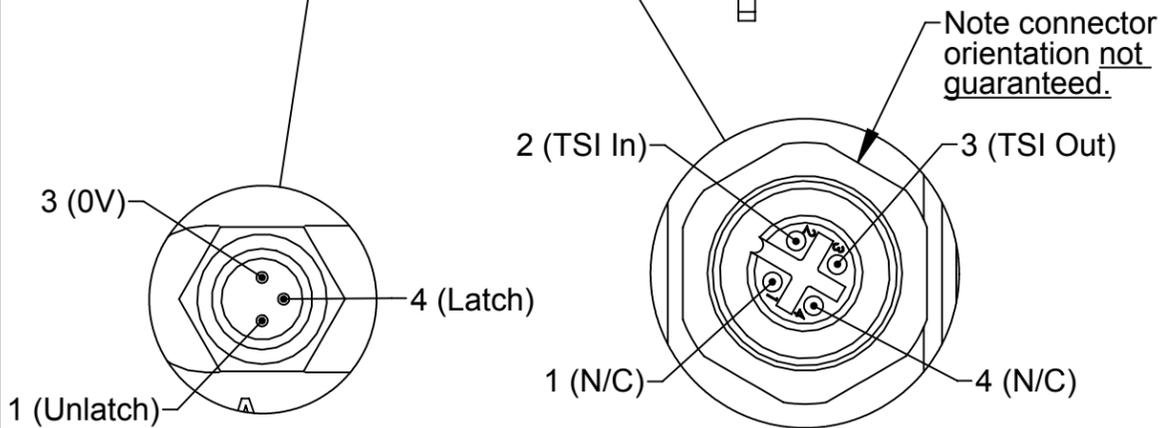
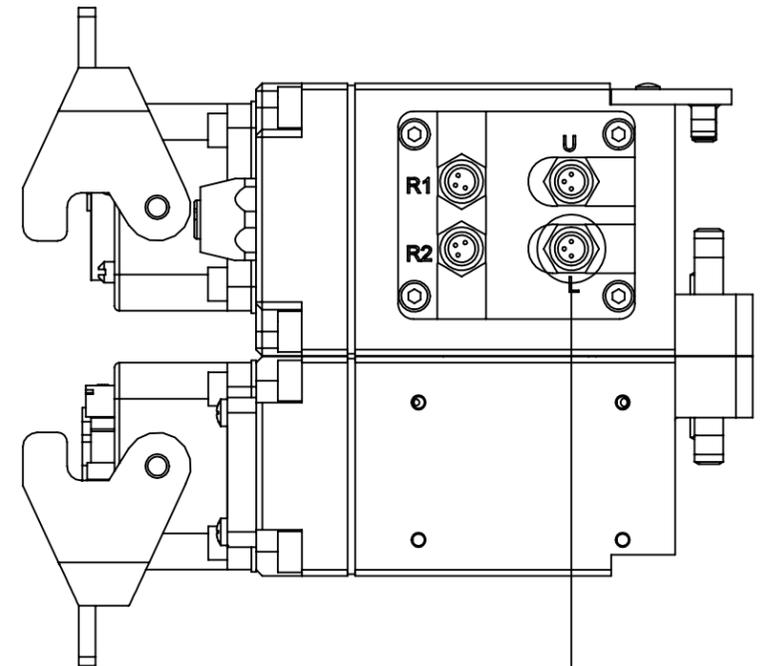
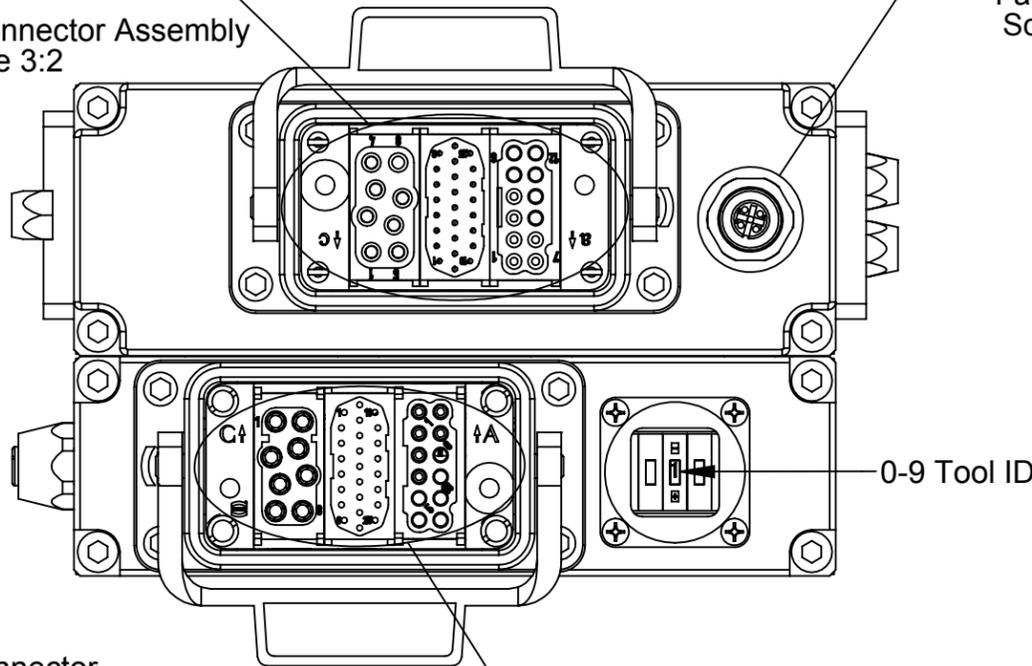
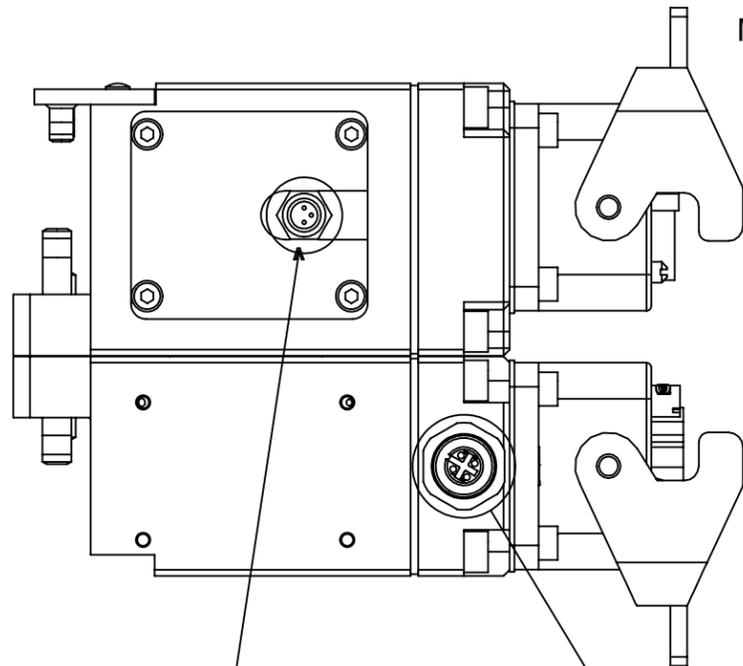
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CHECKED BY: W.Berrocal, 12/16/16 F. Alonso, 1/27/17		Servo Module	
PROJECT # 161214-1	SHEET 2 OF 4	SCALE 1:2	SIZE B
		DRAWING NUMBER	REVISION
		9630-20-SC32M SC25T	05



Master Harting Connector Assembly
Scale 3:2

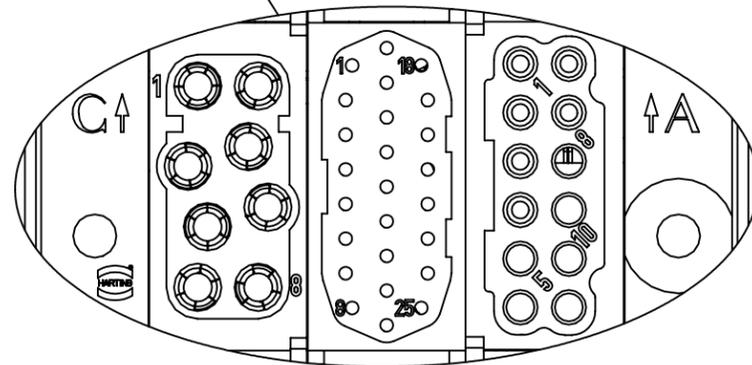


Terminating Resistor Connector
M12 5-Pin Female
Face View
Scale 2:1

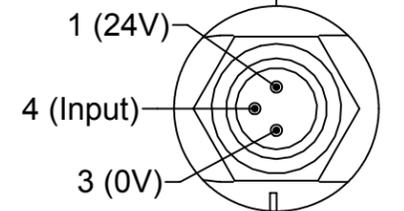


Valve Connector
M8 3-Pin Female
Face View
Scale 2:1

TSI Connector
M12 4-Pin Female
Face View
Scale 2:1



Tool Harting Connector Assembly
Scale 3:2



Sensor Connectors
4X M8 3-Pin Female
Face View
Scale 2:1

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F. Alonso, 1/27/17

PROJECT # 161214-1 SHEET 3 OF 4

TITLE

Servo Module

SCALE
1:5

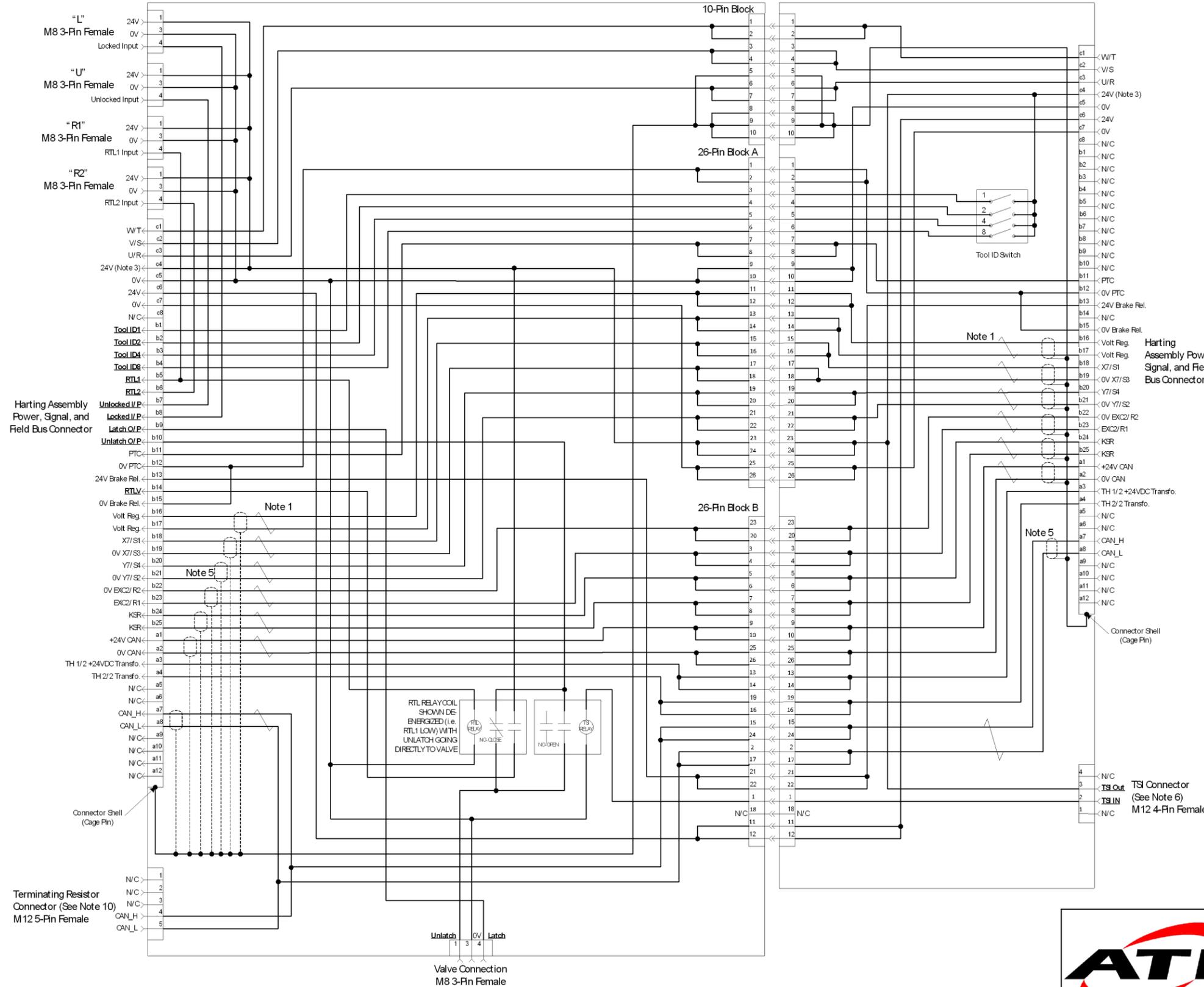
SIZE
B

DRAWING NUMBER
9630-20-SC32M SC25T

REVISION
05

9121-SC32-M

9121-SC25-T



Schematic Notes:

- The indicated wire pairs are twisted in the Master and Tool modules.
- ATI Tool Changer control and sensor signals are identified as bold and underlined.
- IMPORTANT:** 24V power is required for the Lock, Unlock, Ready-to-Lock sensors, and Tool ID. Therefore it is recommended that the 24V power on pin c4 be unswitched.
- Cables for Harting connectors are supplied by the customer.
- The indicated wire pairs are shielded in the Master and Tool. The shields are connected to FE via the Harting Connector Shell (Cage Pin).
- The Tool Stand Interlock (TSI) circuit is provided to ONLY allow tool release while in the stand or storage location as indicated by actuation of a customer-integrated switch. It is suggested that the customer integrate a single pole, single throw (Normally Open, spring return) limit switch to work with this feature. The limit switch should be mounted to the end effector in such a way that the switch is closed only when the tool is in the stand or storage location.
- The SC32 Control Module is compatible with double solenoid control valves only.
- Refer to Table 1 for the Tool ID output (Note: Use pin c4 of the Harting Connector (Master Side) as common). A maximum of 10 unique Tool ID are available.
- If Device Net bus signals are utilized, a terminating resistor can be connected to the 5-Pin M12 Connector on the Master Module.
- The RTL1 sensor is very important to the operation of the TSI feature and should be monitored for failure. The RTL1V input is provided for fault monitoring of this circuit. Please consult the product manual for operation and fault monitoring recommendation.
- Tool-ID Switch is rated for 0.1A / 30VDC.

Table 1: Tool ID Output

Switch Position	Harting Connector (Master)			
	b4	b3	b2	b1
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1



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F. Alonso, 1/27/17		SCALE	SIZE
PROJECT # 161214-1 SHEET 4 OF 4		1:10	B
		DRAWING NUMBER	REVISION
		9630-20-SC32M SC25T	05