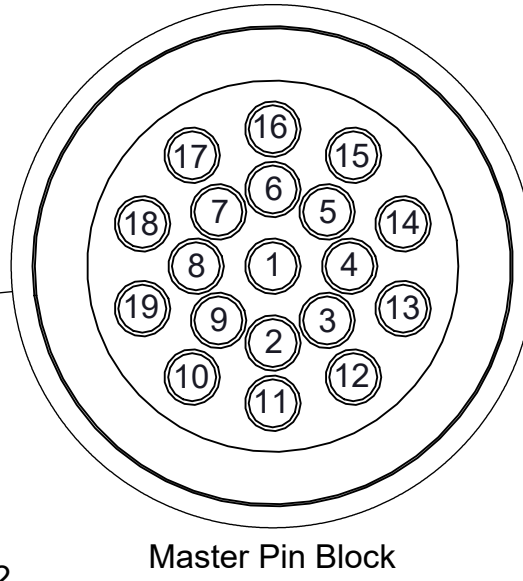
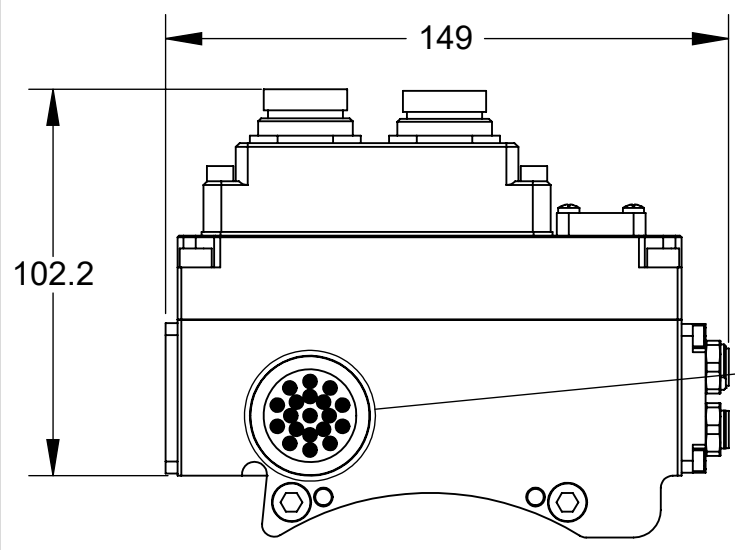
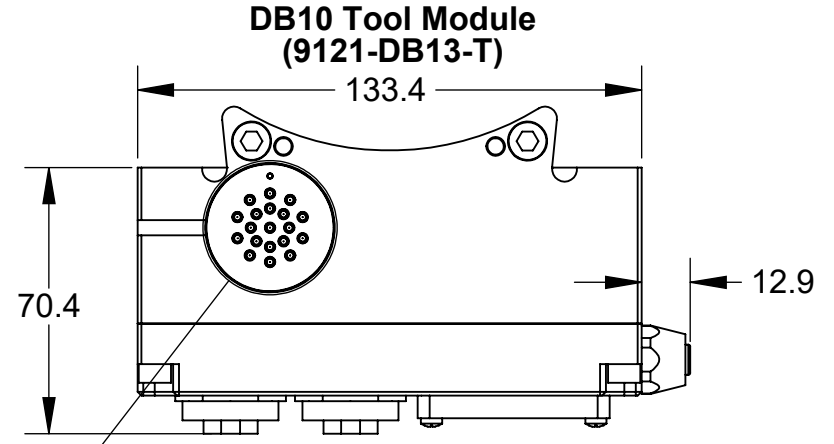
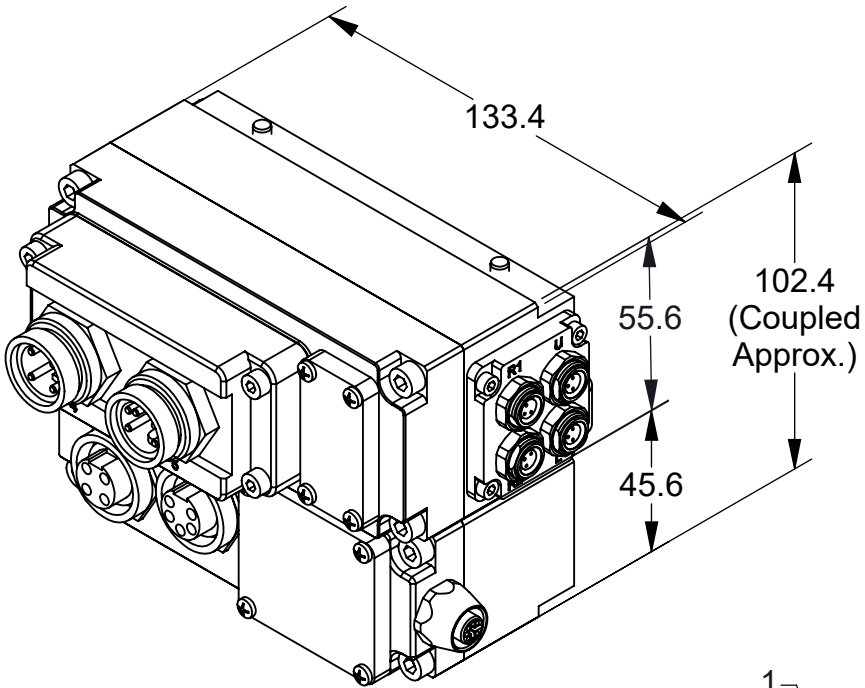
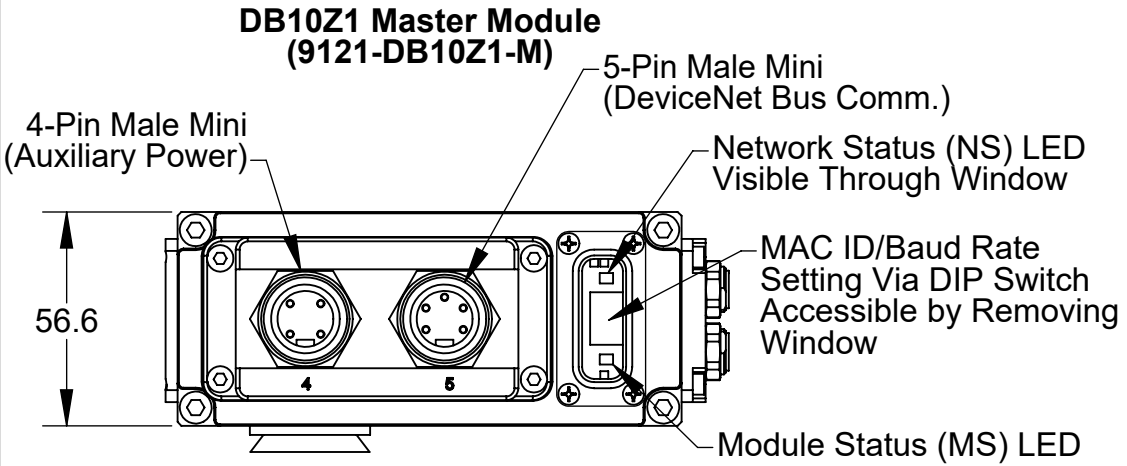


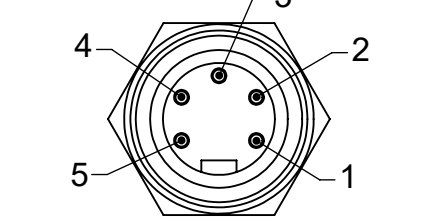
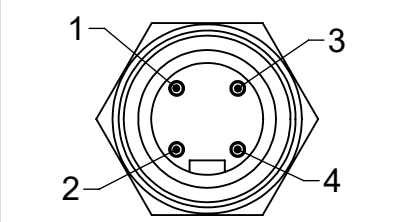
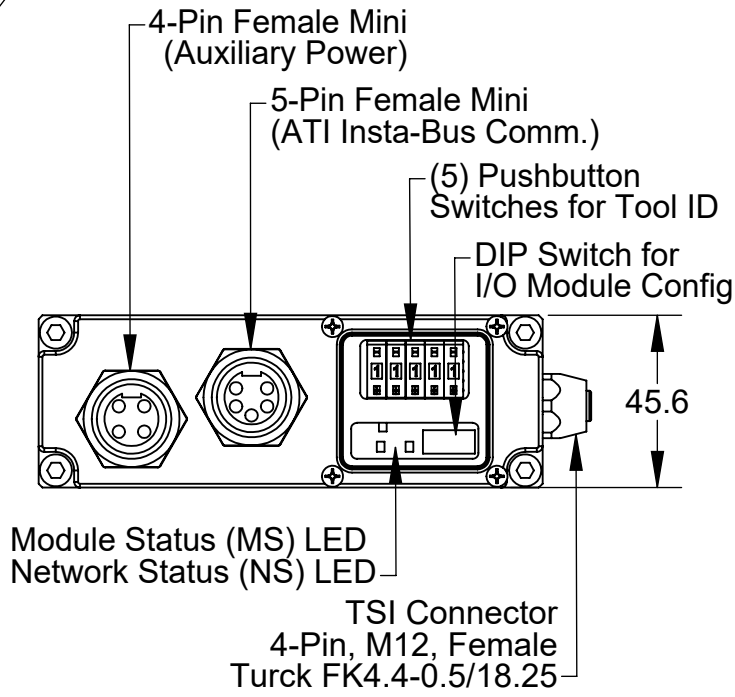
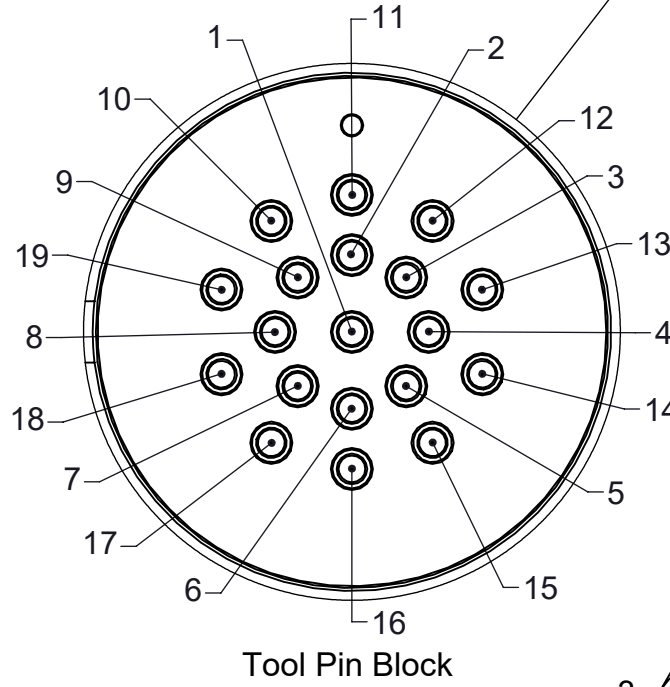
Notes:

1. The modules are shown at sheet scale. All connector face views are shown at a 1:1 scale, except as noted.
2. The 9121-DB13-T module supports the use of a mechanical limit switch for integration with the TSI feature (refer to Sheet 3).
3. Aux (4-Pin) and Bus (5-Pin) Connectors are oriented as shown on the Modules.
4. The DB10Z1 Master module supports only **double-solenoid** valves.

REV.	DESCRIPTION	INITIATOR	DATE
04	ECO 21082; Sheet 3 master side removed BYTE 1 BIT 7 from RTL. Changed BIT 6 to 2 for Latch Energized. Changed BYTE 2 BIT 0 to BYTE 1 BIT 7 for TSRV	DS	6/22/2023



Pin	Description
1	Arc Switch Enable
2	TSIV
3	N/C
4	Drain
5	N/C
6	TSRV
7	CAN_H
8	Aux 1 V-
9	CAN_L
10	Aux 2 V-
11	N/C
12	CAN V+
13	CAN V+ (TSI)
14	Aux 2 V+
15	Aux 1 V+
16	N/C
17	TSI In
18	CAN V-
19	TSI Out

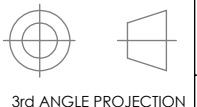


Auxiliary Power Connector	
1	Aux 1 V+
2	Aux 2 V+
3	Aux 2 V-
4	Aux 1 V-

DeviceNet Connector	
1	Drain
2	CAN V+
3	CAN V-
4	CAN_H
5	CAN_L

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.

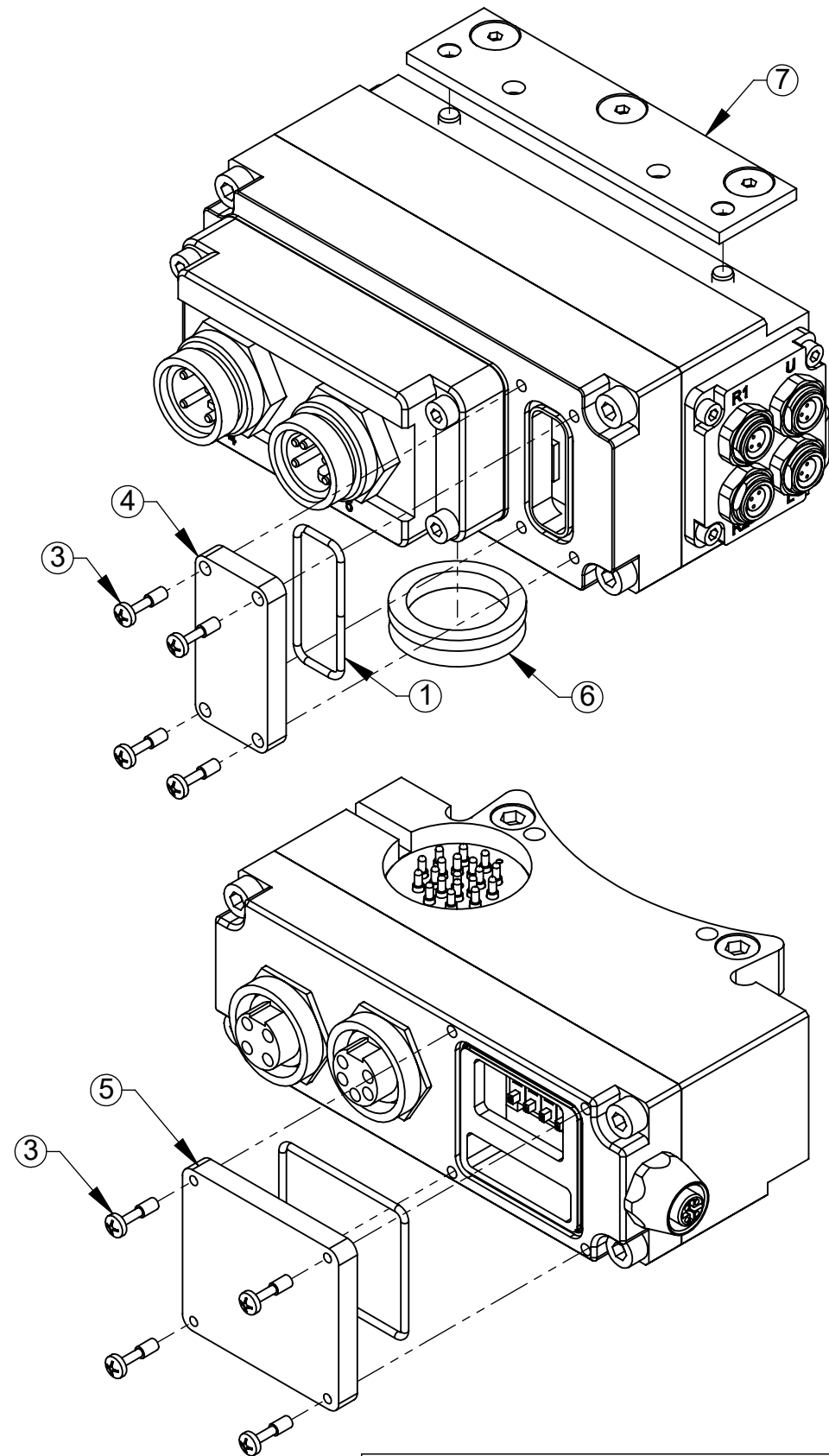


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DRAWN BY: C. Flesock, 8/25/14		TITLE	
CHECKED BY: W. Berrocal, 8/25/14		DB10Z1-M, DB13-T DeviceNet Module Drawing	
PROJECT # 121031-1	SHEET 1 OF 3	SCALE 1:2	SIZE B
DRAWING NUMBER 9630-20-DB10Z1M DB13T		REVISION 04	

DB10Z1-M/DB13-T Serviceable Parts

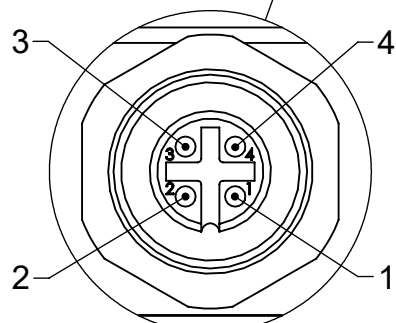


9121-DB10Z1-M/DB13-T SERVICEABLE PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	3410-0001092-01	O-ring, Buna N 70D, AS568-023
2	1	3410-0001021-01	O-Ring AS568-031
3	8	3500-9957012-21	Pan Head M3 Captive Screw M3 X 12
4	1	3700-20-2696	Device Net Master Window, Thick
5	1	3700-20-3058	Insta-Tool Window
6	1	4010-0000030-01	V-Ring Seal V-22A Nitrile
7	1	9005-20-1198	Master Cleat Sub-Assembly

Tool Changer Integrated Proximity
Sensor I/O Connections
4X Turck MFKS 3
(Cables Provided by ATI, Not Shown)

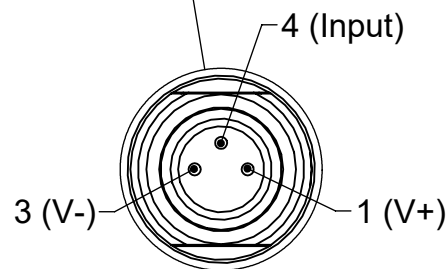
Connector orientation
not guaranteed.

9121-DB13-T



TSI Connector
Turck M12 4-Pin Female
FK4.4-0.5/18.25
Scale 2:1

TSI Connector	
1	CAN V+
2	CAN V+
3	TSI Relay Control
4	TSIV Input

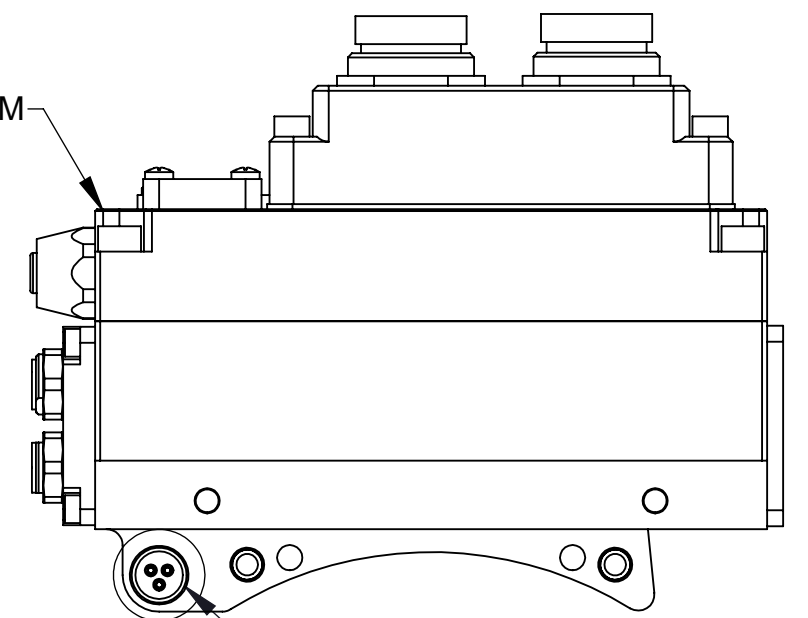


Sensor Input Connection
Typical
Turck MFKS 3
Scale 2:1

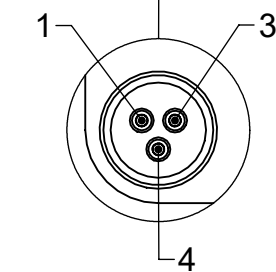
Master Cleat
hidden for
clarity.

9121-DB10Z1-M

9121-DB10Z1-M



Integrated Tool Changer
Valve Connection
(Interfaces with Valve
Adapter Module, Not Shown)

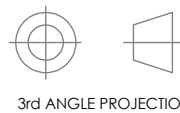


Valve Signal Pin Block
Scale 2:1

Valve Signal Pin Block	
1	V+ (Unlatch)
3	V- (Common)
4	V+ (Latch)

NOTES: UNLESS OTHERWISE
SPECIFIED.

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3rd ANGLE PROJECTION



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PROJECT # 121031-1 SHEET 2 OF 3

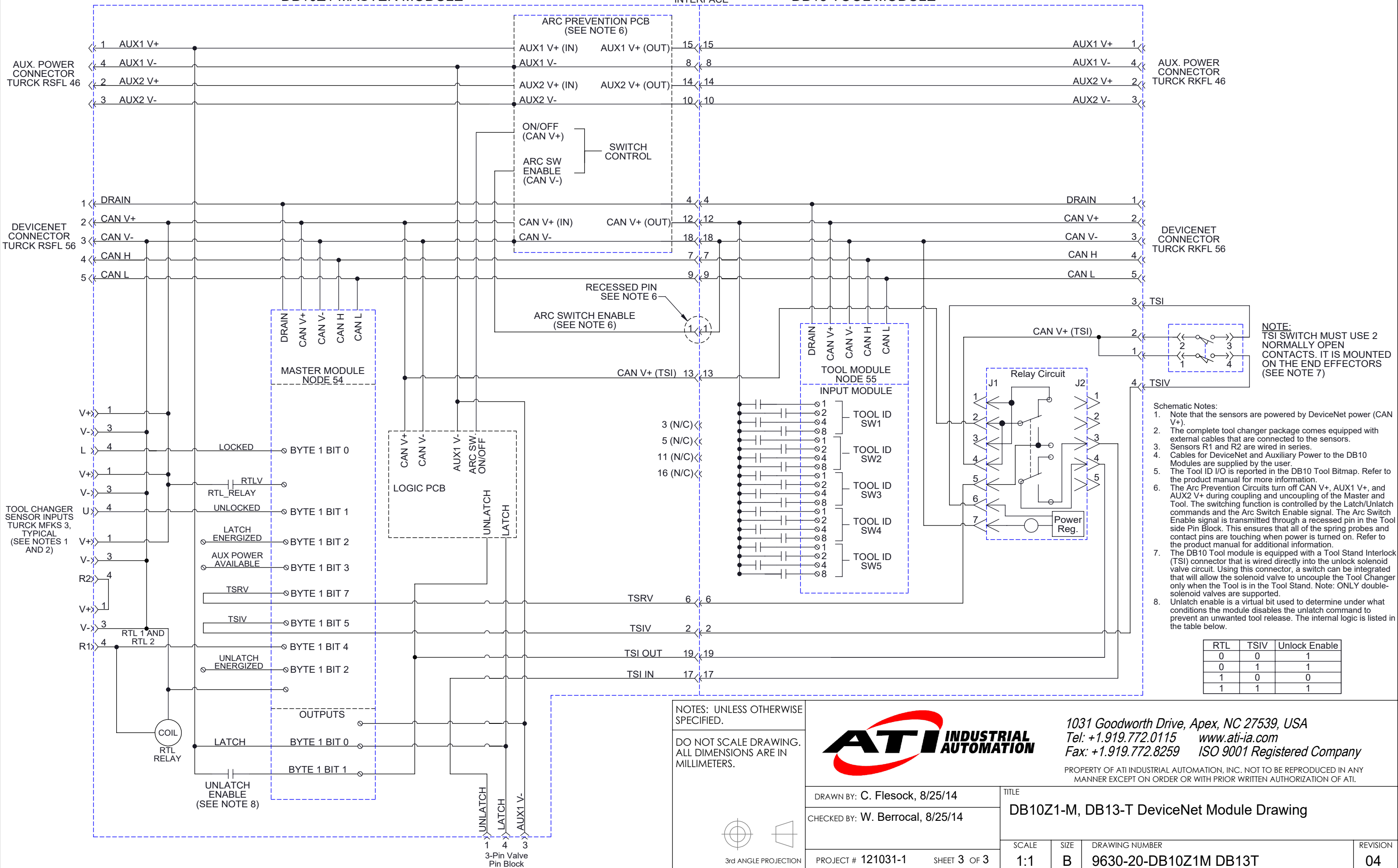
TITLE
DB10Z1-M, DB13-T DeviceNet Module Drawing

SCALE	SIZE	DRAWING NUMBER	REVISION
1:2	B	9630-20-DB10Z1M DB13T	04

DB10Z1 MASTER MODULE

ATI PIN BLOCK INTERFACE

DB13 TOOL MODULE



AUX. POWER CONNECTOR TURCK RKFL 46

DEVICENET CONNECTOR TURCK RSFL 56

DEVICENET CONNECTOR TURCK RKFL 56

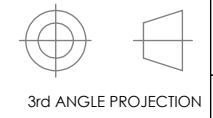
NOTE:
TSI SWITCH MUST USE 2 NORMALLY OPEN CONTACTS. IT IS MOUNTED ON THE END EFFECTORS (SEE NOTE 7)

- Schematic Notes:**
- Note that the sensors are powered by DeviceNet power (CAN V+).
 - The complete tool changer package comes equipped with external cables that are connected to the sensors.
 - Sensors R1 and R2 are wired in series.
 - Cables for DeviceNet and Auxiliary Power to the DB10 Modules are supplied by the user.
 - The Tool ID I/O is reported in the DB10 Tool Bitmap. Refer to the product manual for more information.
 - The Arc Prevention Circuits turn off CAN V+, AUX1 V+, and AUX2 V+ during coupling and uncoupling of the Master and Tool. The switching function is controlled by the Latch/Unlatch commands and the Arc Switch Enable signal. The Arc Switch Enable signal is transmitted through a recessed pin in the Tool side Pin Block. This ensures that all of the spring probes and contact pins are touching when power is turned on. Refer to the product manual for additional information.
 - The DB10 Tool module is equipped with a Tool Stand Interlock (TSI) connector that is wired directly into the unlock solenoid valve circuit. Using this connector, a switch can be integrated that will allow the solenoid valve to uncouple the Tool Changer only when the Tool is in the Tool Stand. Note: ONLY double-solenoid valves are supported.
 - Unlatch enable is a virtual bit used to determine under what conditions the module disables the unlatch command to prevent an unwanted tool release. The internal logic is listed in the table below.

RTL	TSIV	Unlock Enable
0	0	1
0	1	1
1	0	0
1	1	1

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CHECKED BY: W. Berrocal, 8/25/14		DB10Z1-M, DB13-T DeviceNet Module Drawing	
PROJECT # 121031-1	SHEET 3 OF 3	SCALE 1:1	SIZE B
DRAWING NUMBER 9630-20-DB10Z1M DB13T		REVISION 04	