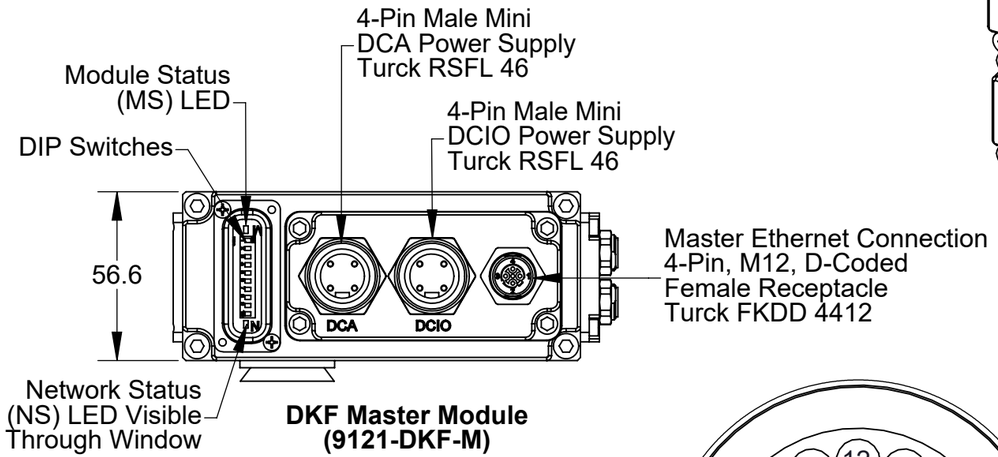
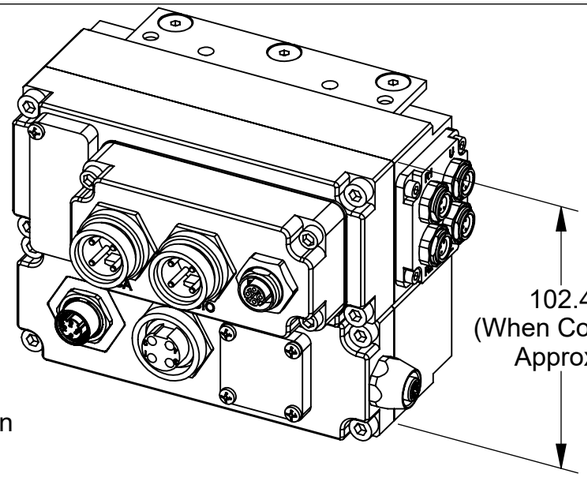
Notes:
1. Reference the manual for information related to DIP switch settings, LED behavior and general product operation.
2. Connectors are oriented as shown unless otherwise specified.
3. Unless otherwise noted, connectors at 1:1 scale, pin blocks at 2:1 scale.
4. Serviceable Parts are listed on Sheet 2. The electrical schematic is shown on Sheet 3.

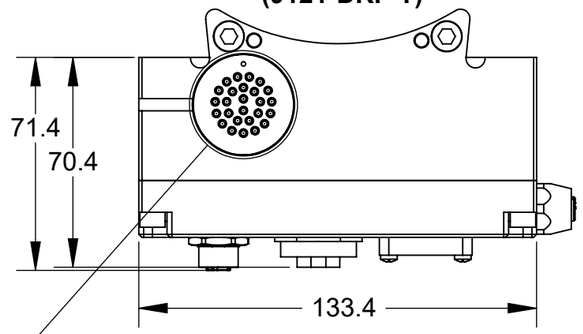
Rev.	Description	Initiator	Date
08	ECO 20363; Changed the Ethernet connector manufacturer part number from Turck FKDD 4412 to Signal 12404-04-064.	TJM	12/8/2021

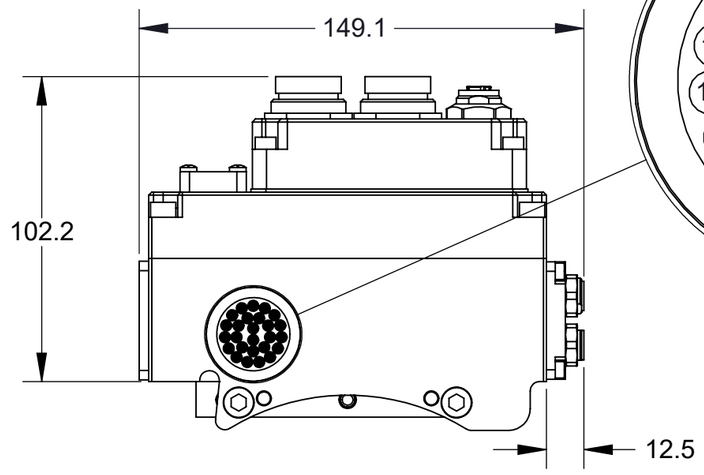


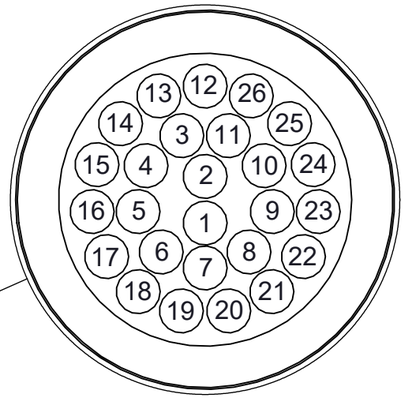
DKF Master Module
(9121-DKF-M)



DKF Tool Module
(9121-DKF-T)

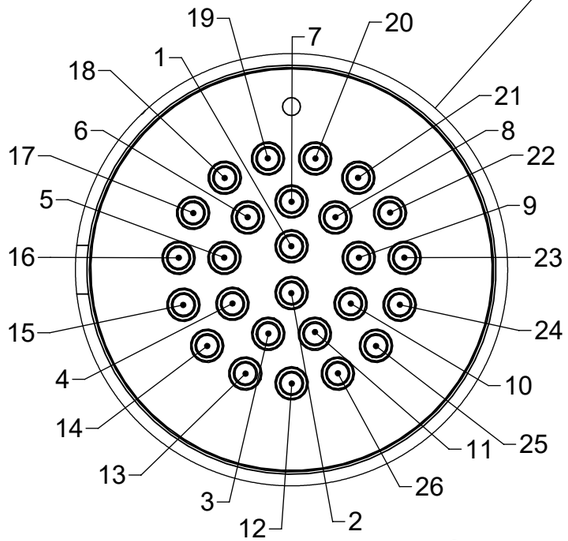




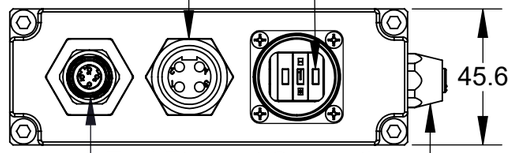


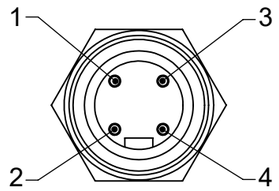
Master Pin Block

Pin	Description
1	Tool Presence In
2	N/C
3	Tx+
4	Aux V+ (Unswitched)
5	Tool Presence Out
6	N/C
7	N/C
8	Rx+
9	Rx-
10	Ethernet Shield
11	N/C
12	TSIV
13	Tx-
14	Tool ID 1
15	Tool ID 2
16	Tool ID 4
17	Tool ID 8
18	Aux V+ (Switched)
19	TSRV
20	N/C
21	Aux V- (Unswitched)
22	TSI Out
23	DCA V-
24	TSI In
25	Aux V- (Switched)
26	N/C



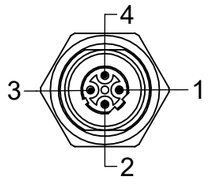
Tool Pin Block





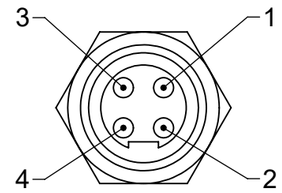
DCA and DCIO Power Mini (Master)
4-Pin Male, Turck RSFL 46

Pin	DCA Power Supply	DCIO Power Supply
1	N/C	Aux V+ (Switched)
2	DCA V+	Aux V+ (Unswitched)
3	DCA V-	Aux V- (Unswitched)
4	N/C	Aux V- (Switched)

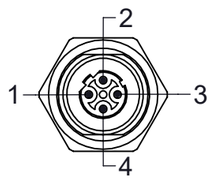


Ethernet (Master)
4-Pin, D-Coded Female
Turck FKDD 4412

Ethernet Connector	
1	Tx+
2	Rx+
3	Tx-
4	Rx-



DCIO Power Supply Mini (Tool)
4-Pin Female, Turck RKFL 46
(See table lower left)



Ethernet (Tool)
4-Pin, D-Coded Female
Signal 12404-04-064
(See table lower left)

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.

3rd ANGLE PROJECTION

ATI INDUSTRIAL AUTOMATION
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Fax: +1.919.772.8259 *ISO 9001 Registered Company*

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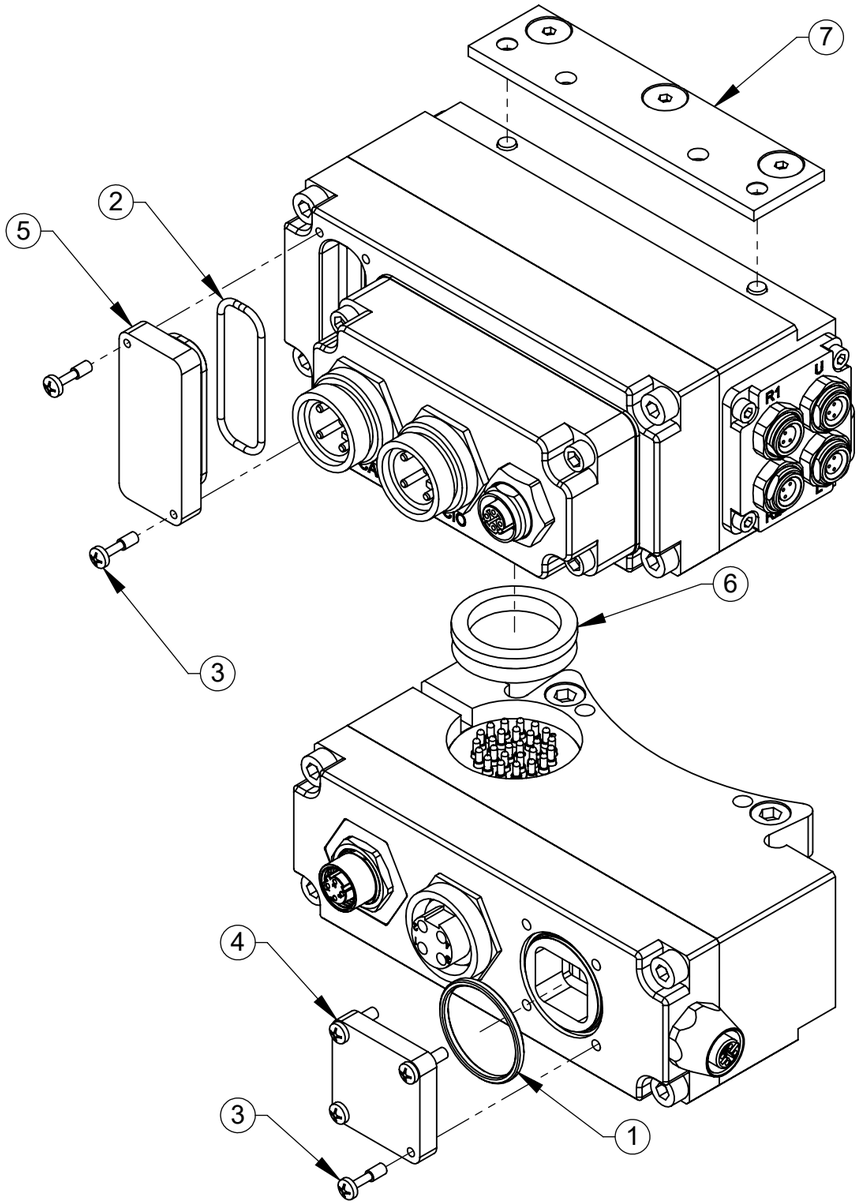
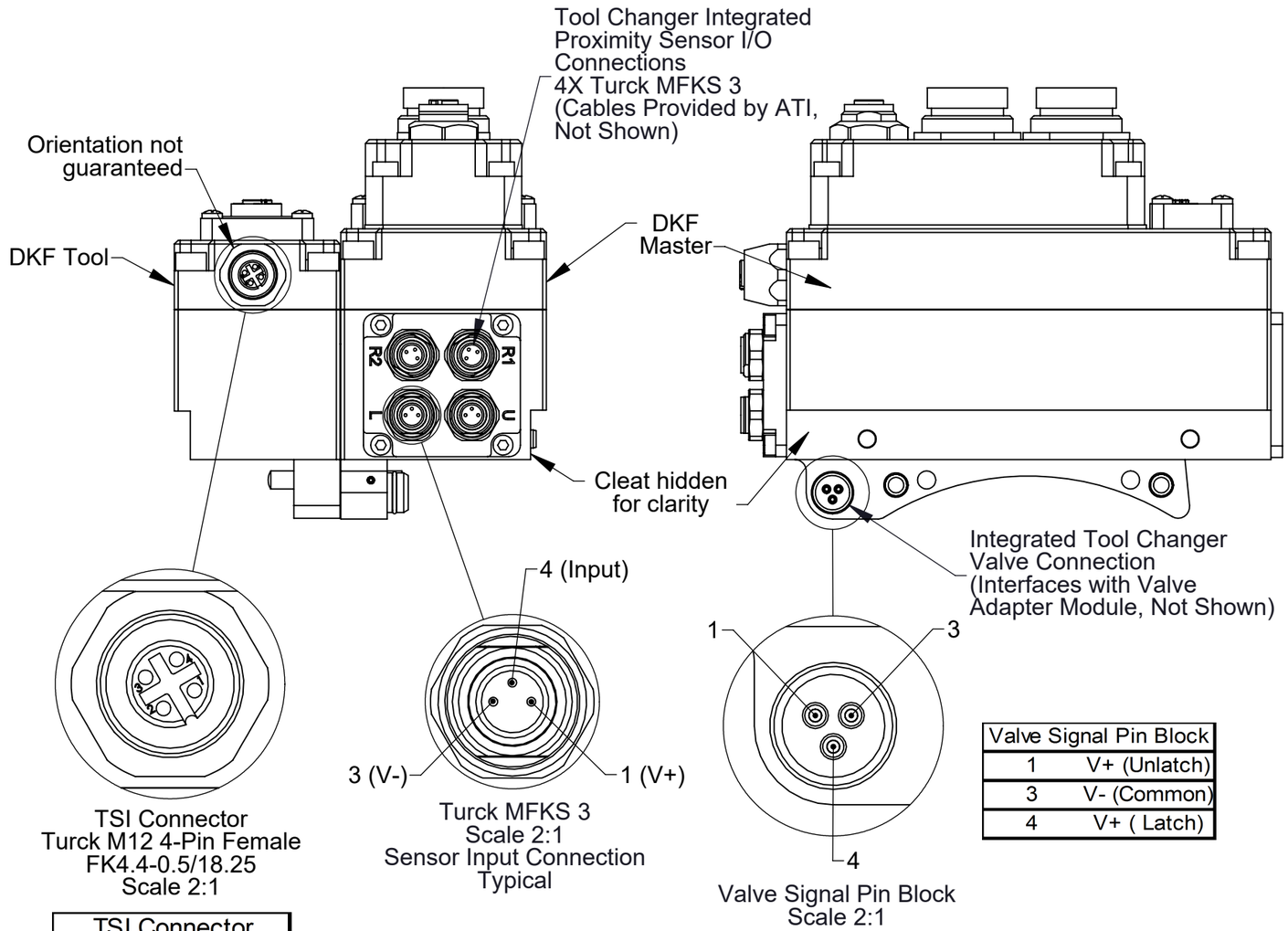
DRAWN BY: W. Berrocal, 5/18/11
CHECKED BY: A. Strotzer, 5/25/11
PROJECT # 101014-6 SHEET 1 OF 3

TITLE: DKF Ethernet Module Customer Drawing

SCALE	SIZE	DRAWING NUMBER	REVISION
1:2	B	9630-20-DKF	08





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

TSI Connector	
1	DCA V+
2	DCA V+
3	TSI
4	TSIV

Turck MFKS 3
Scale 2:1
Sensor Input Connection
Typical

Valve Signal Pin Block
Scale 2:1

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

9121-DKF-M/T SERVICEABLE PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	3410-0001008-01	O-ring AS568A-018
2	1	3410-0001201-01	O-Ring AS568-024
3	6	3500-9957012-21	Pan Head M3 Captive Screw M3 X 12
4	1	3700-20-5844	Tool ID Window
5	1	3700-20-4820	Window, DJ Master, Annular Seal
6	1	4010-0000030-01	V-Ring Seal V-22A Nitrile
7	1	9005-20-1198	Master Cleat Sub-Assembly

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DRAWN BY: W. Berrocal, 5/18/11

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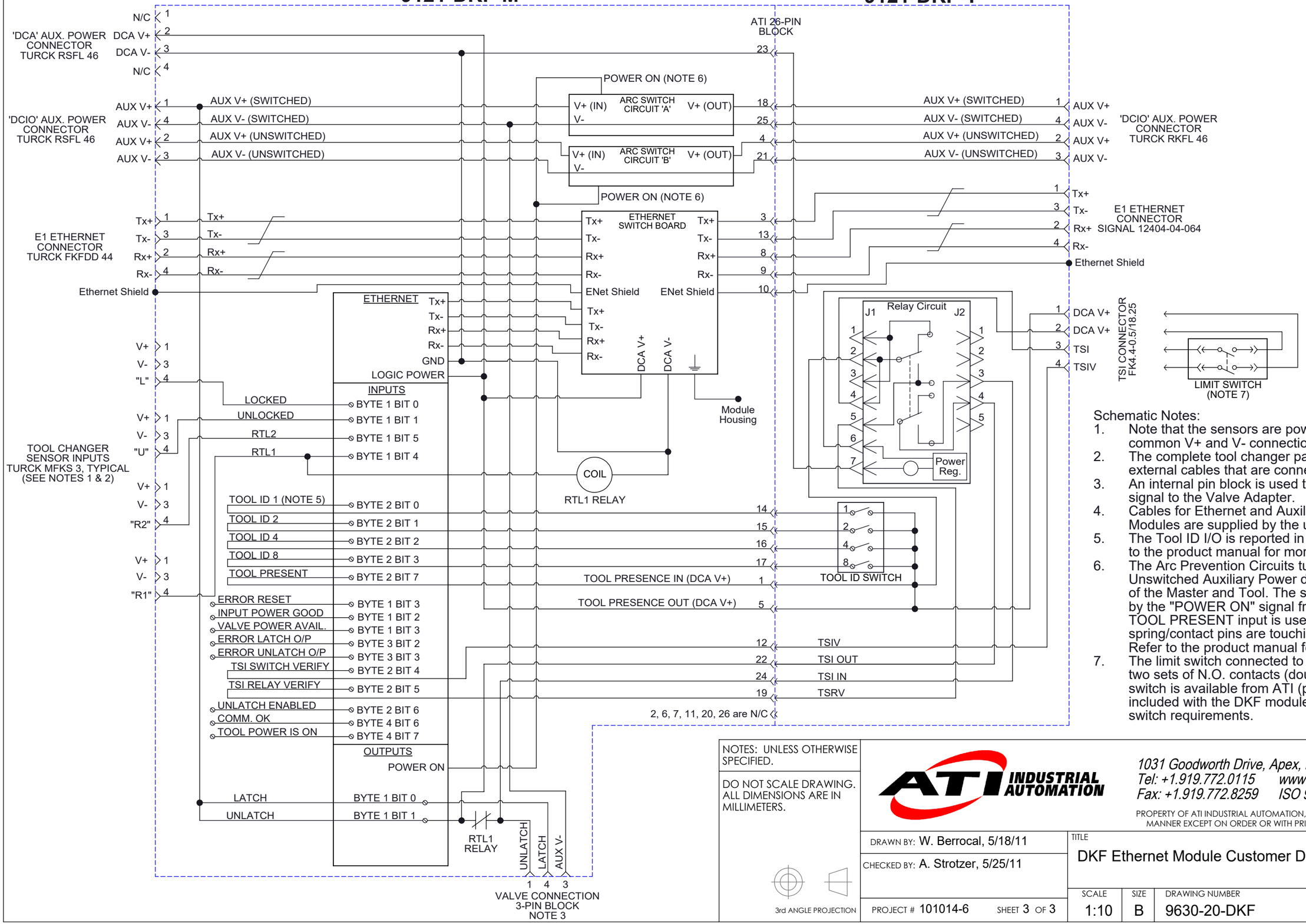
PROJECT # 101014-6 SHEET 2 OF 3

TITLE: DKF Ethernet Module Customer Drawing

SCALE	SIZE	DRAWING NUMBER	REVISION
2:3	B	9630-20-DKF	08



Schematic Notes:

1. Note that the sensors are powered by DCA V+ power. The common V+ and V- connections are not shown here.
2. The complete tool changer package comes equipped with external cables that are connected to the sensors.
3. An internal pin block is used to transmit the Latch/Unlatch signal to the Valve Adapter.
4. Cables for Ethernet and Auxiliary Power to the DKF Modules are supplied by the user.
5. The Tool ID I/O is reported in the DKF Master Bitmap. Refer to the product manual for more information.
6. The Arc Prevention Circuits turn off Switched Auxiliary and Unswitched Auxiliary Power during coupling and uncoupling of the Master and Tool. The switching function is controlled by the "POWER ON" signal from the main PC Board. The TOOL PRESENT input is used to ensure that the spring/contact pins are touching when power is turned on. Refer to the product manual for additional information.
7. The limit switch connected to the TSI connector must have two sets of N.O. contacts (double pole single throw). A limit switch is available from ATI (p/n 9005-20-1165) but is not included with the DKF modules. Contact ATI for specific switch requirements.

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DRAWN BY: W. Berrocal, 5/18/11

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PROJECT # 101014-6 SHEET 3 OF 3

TITLE: DKF Ethernet Module Customer Drawing

SCALE	SIZE	DRAWING NUMBER	REVISION
1:10	B	9630-20-DKF	08