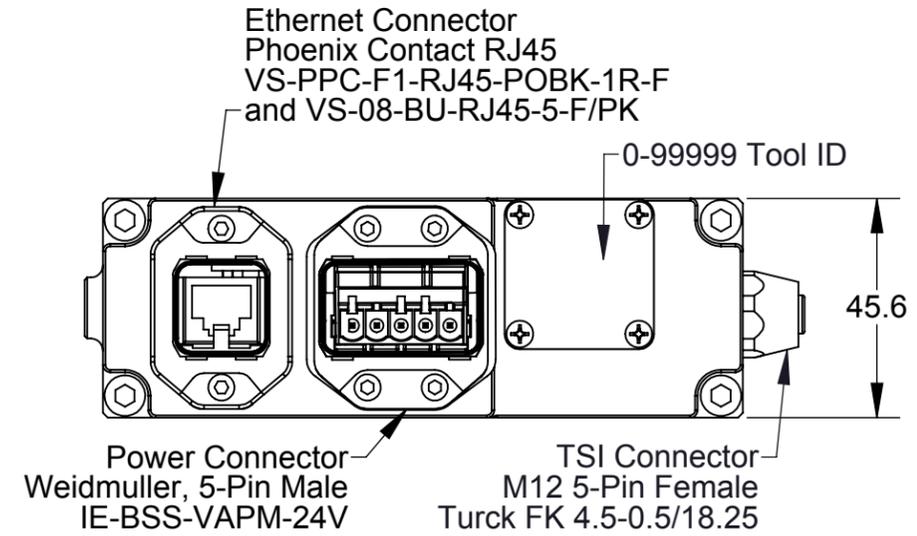
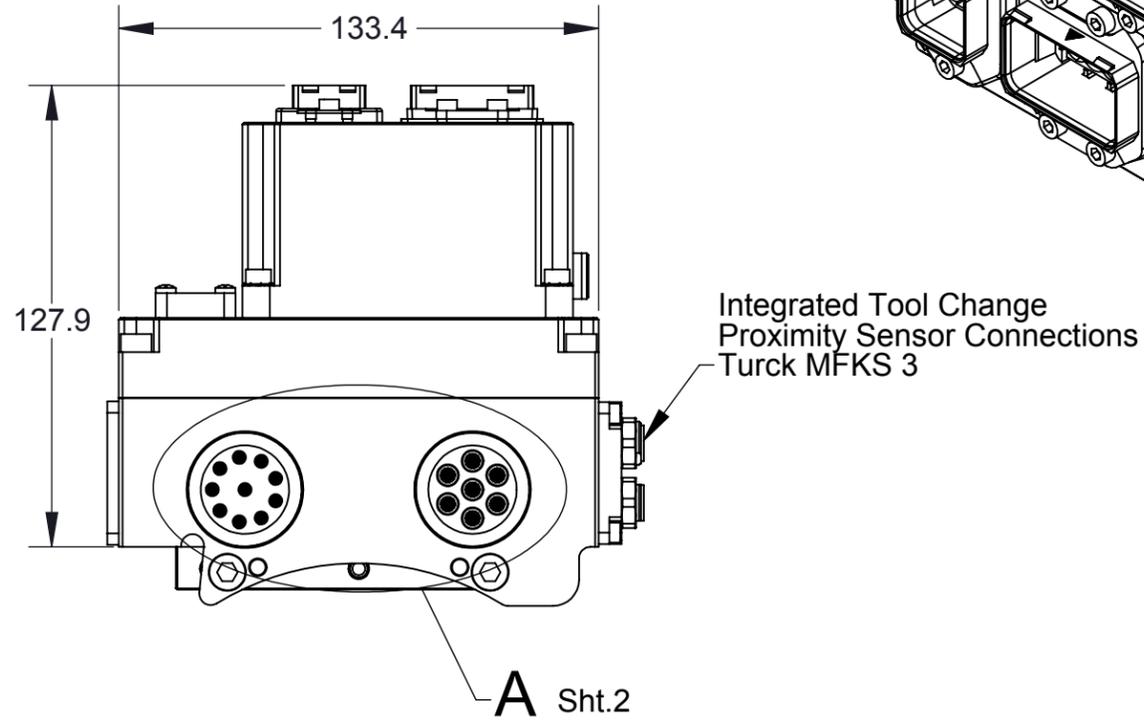
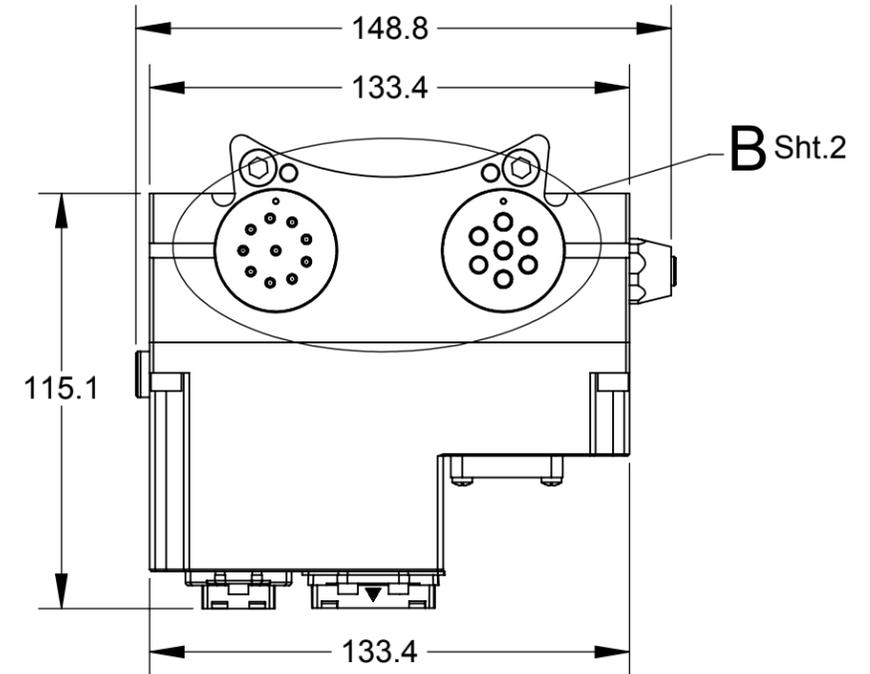
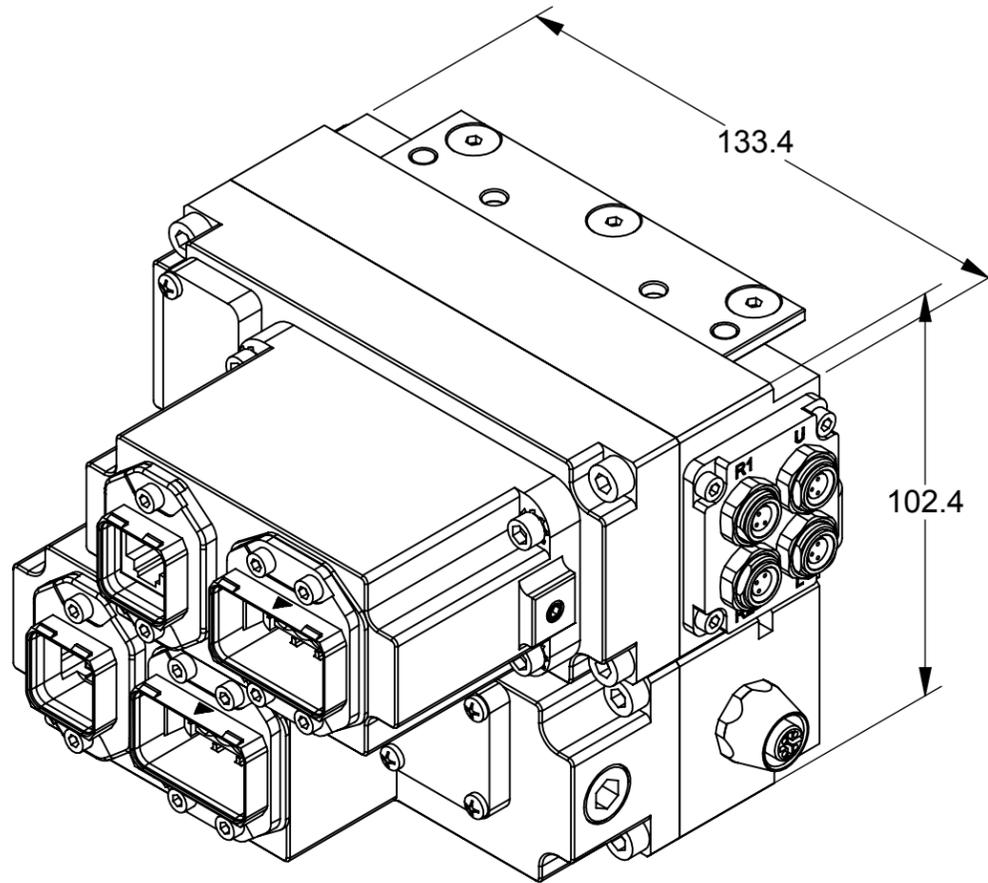
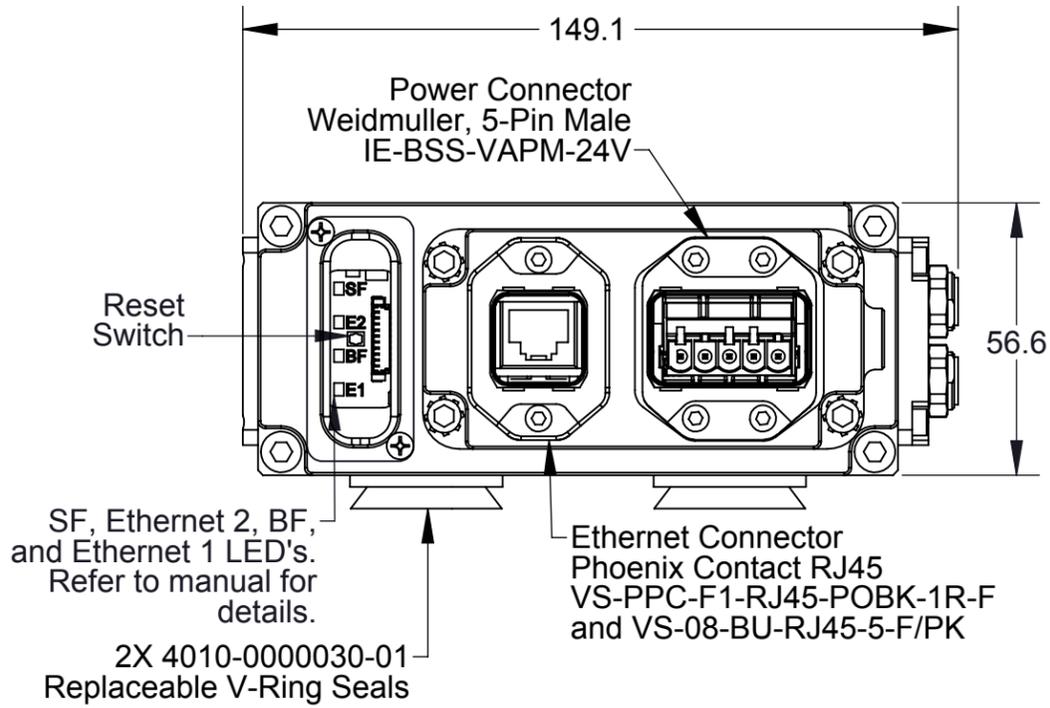


REV.	DESCRIPTION	INITIATOR	DATE
05	ECO 17475: 9121-DL4-M & 9121-DL14-T: Weidmuller 5-Pin Male Power Connector changed to IE-BSS-VAPM-24V was IE-BSS-VAPM-24.	TBC	2/21/2019

9121-DL4-M



9121-DL14-T

NOTES: UNLESS OTHERWISE SPECIFIED.

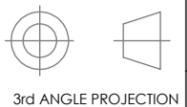
DO NOT SCALE DRAWING.
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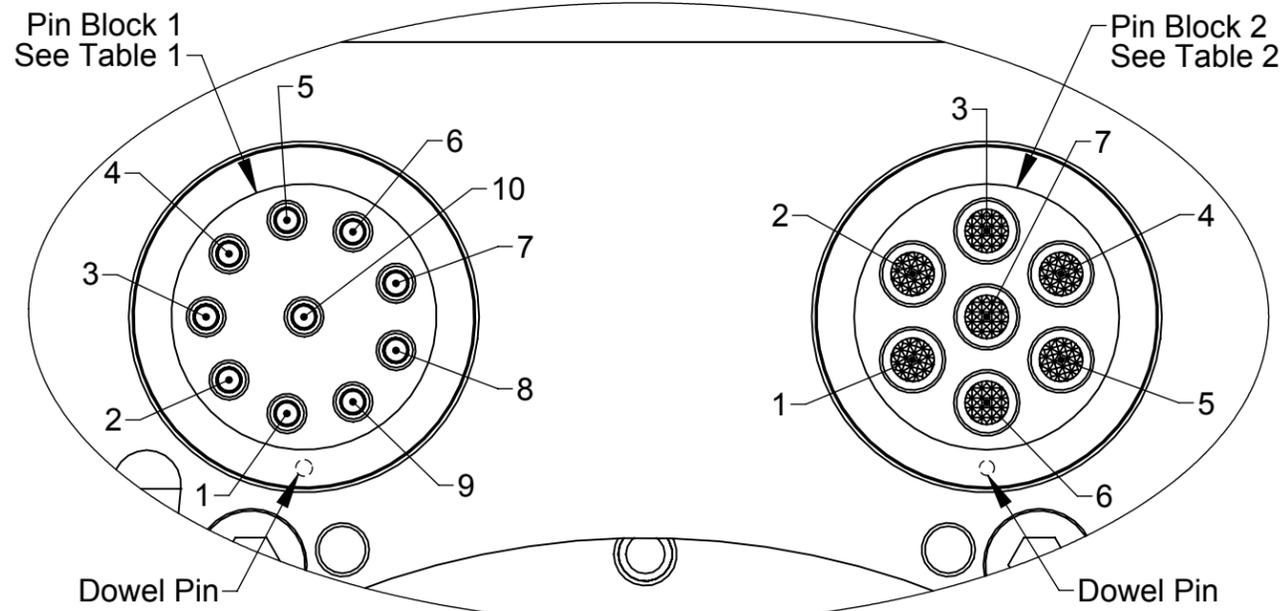
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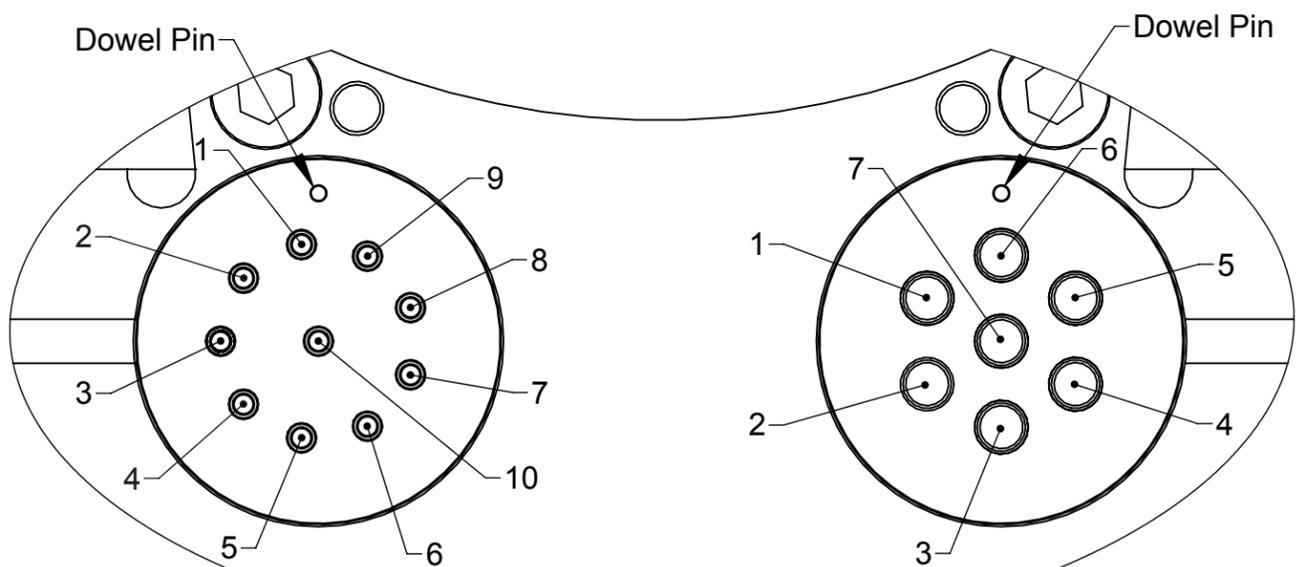
DRAWN BY: A. Takla, 07/13/17		TITLE	
CHECKED BY: W. Berrocal, 08/21/17 F. Alonso, 08/31/2017		DL4 Master / DL14 Tool Module Customer Drawing	
PROJECT # 170706-1 SHEET 1 OF 5	SCALE 1:2	SIZE B	DRAWING NUMBER 9630-20-DL4M DL14T
			REVISION 05



- Notes:
1. Pin block signal assignments shown on Sheet 2.
 2. Connector pin designations shown on Sheet 3.
 3. Electrical schematic of DL4 Master and DL14 Tool shown on Sheet 4.



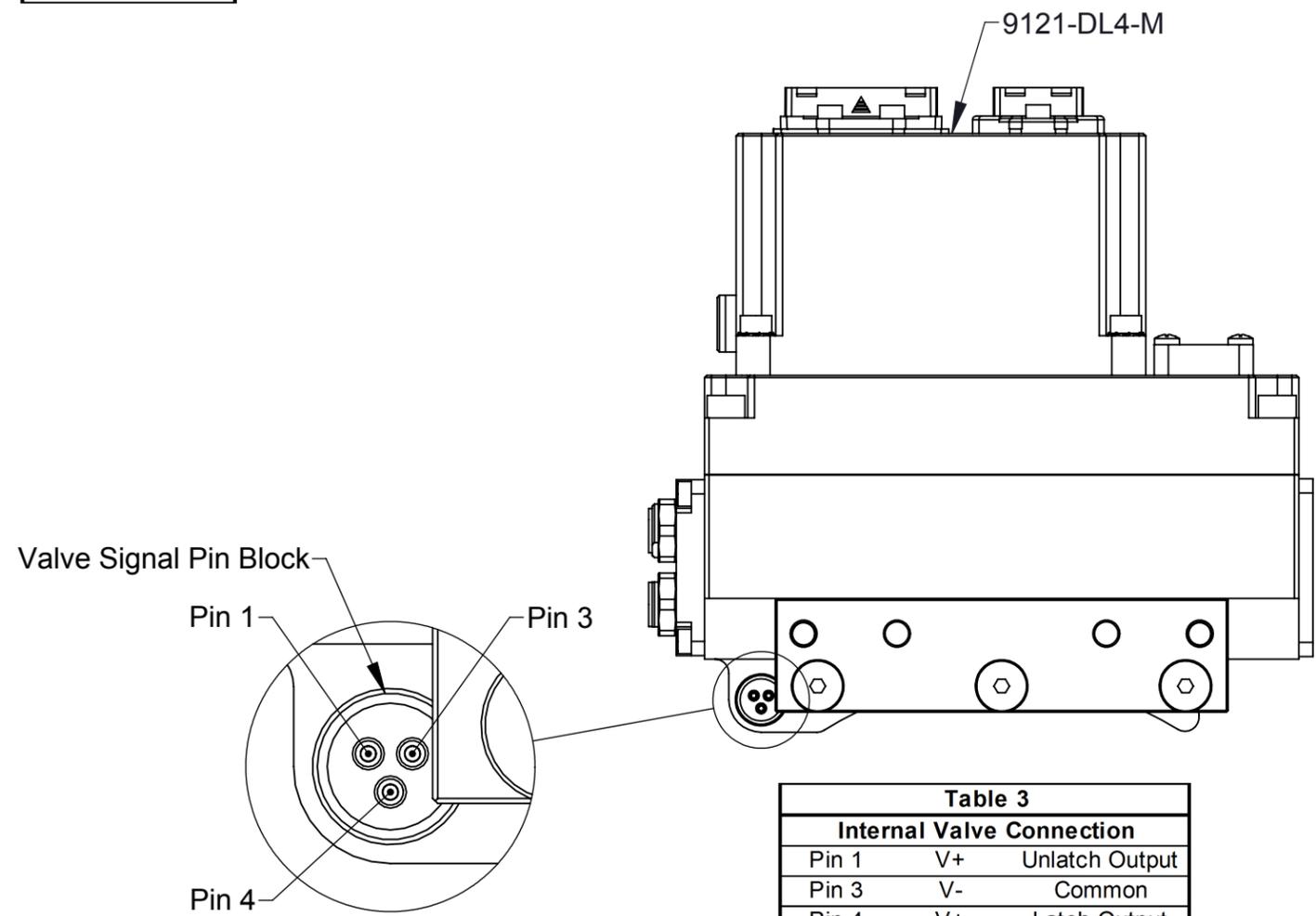
DETAIL A
SCALE 1.5 : 1



DETAIL B
SCALE 1.5 : 1

Table 1	
Pin Block 1	
1	RX1+
2	RX1-
3	RS485+
4	RS485-
5	TSI IN
6	TSRV
7	TX1+
8	TX1-
9	TSI OUT
10	TSIV

Table 2	
Pin Block 2	
1	US1+
2	TOOL_PRESENT
3	US1-
4	US2-
5	FE
6	US2+
7	24V_TH



DETAIL C
SCALE 2 : 1

Table 3		
Internal Valve Connection		
Pin 1	V+	Unlatch Output
Pin 3	V-	Common
Pin 4	V+	Latch Output

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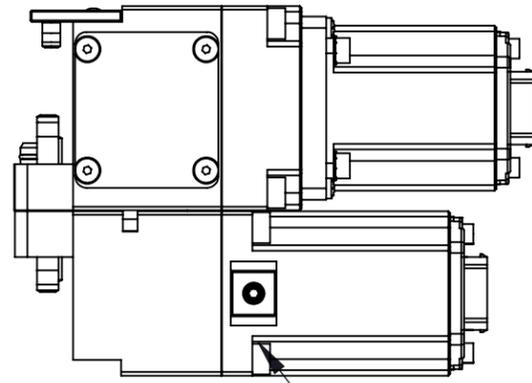
3rd ANGLE PROJECTION



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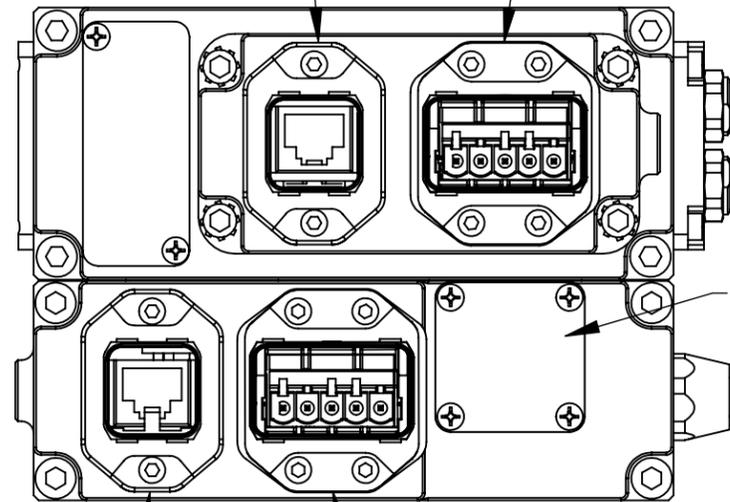
DRAWN BY: A. Takla, 07/13/17		TITLE	
CHECKED BY: W. Berrocal, 08/21/17 F. Alonso, 08/31/2017		DL4 Master / DL14 Tool Module Customer Drawing	
PROJECT #	170706-1	SHEET	OF 5
SCALE	1:2	SIZE	B
DRAWING NUMBER	9630-20-DL4M DL14T		REVISION
			05



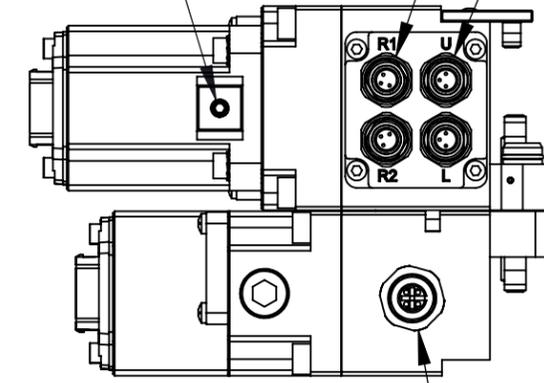
FE Ground Terminal Connection
M5 x 0.8 threaded hole, 9mm deep
Hole is accessed by removing M5
stainless steel set screw plug.

Ethernet Connector
Phoenix Contact RJ45
VS-PPC-F1-RJ45-POBK-1R-F
and VS-08-BU-RJ45-5-F/PK
See Table 5

Power Connector
Weidmuller, 5-Pin Male
IE-BSS-VAPM-24V
See Table 4



FE Ground Terminal Connection
M5 x 0.8 threaded hole, 9mm deep
Hole is accessed by removing M5
stainless steel set screw plug.



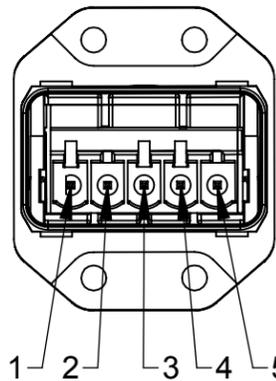
RTL1/RTL2 Proximity
Sensor Connectors

Locked/Unlocked
Sensor Connectors

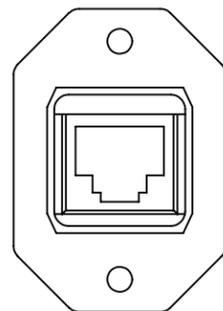
Ethernet Connector
Phoenix Contact RJ45
VS-PPC-F1-RJ45-POBK-1R-F
and VS-08-BU-RJ45-5-F/PK
See Table 5

Power Connector
Weidmuller, 5-Pin Male
IE-BSS-VAPM-24V
See Table 4

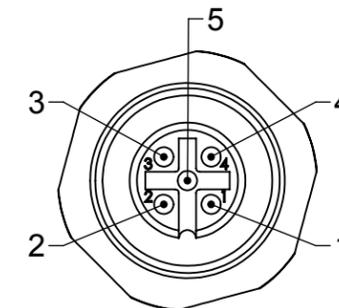
TSI Connector
Turck FK4.5-0.5/18.25
Orientation Not Guaranteed
(See Table 6)



Power Connector, Master and Tool Sides
Weidmuller, 5-Pin Male
IE-BSS-VAPM-24V
Scale 3:2



Ethernet Connector
Phoenix Contact RJ45
VS-PPC-F1-RJ45-POBK-1R-F and
VS-08-BU-RJ45-5-F/PK
Scale 1:1



TSI Connector
M12 5-Pin Female
Turck FK4.5-0.5/18.25
Scale 2:1

Table 6	
TSI Connector	
1	24V_TH
2	TSI1
3	US1-
4	TSI2
5	N/C

Table 4	
Power Connector	
1	US1+ (L1)
2	US1- (N1)
3	US2+ (L2)
4	US2- (N2)
5	FE

Table 5	
Profinet Connector	
1	TX1+
2	TX1-
3	RX1+
4	N/C
5	N/C
6	RX1-
7	N/C
8	N/C

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3rd ANGLE PROJECTION



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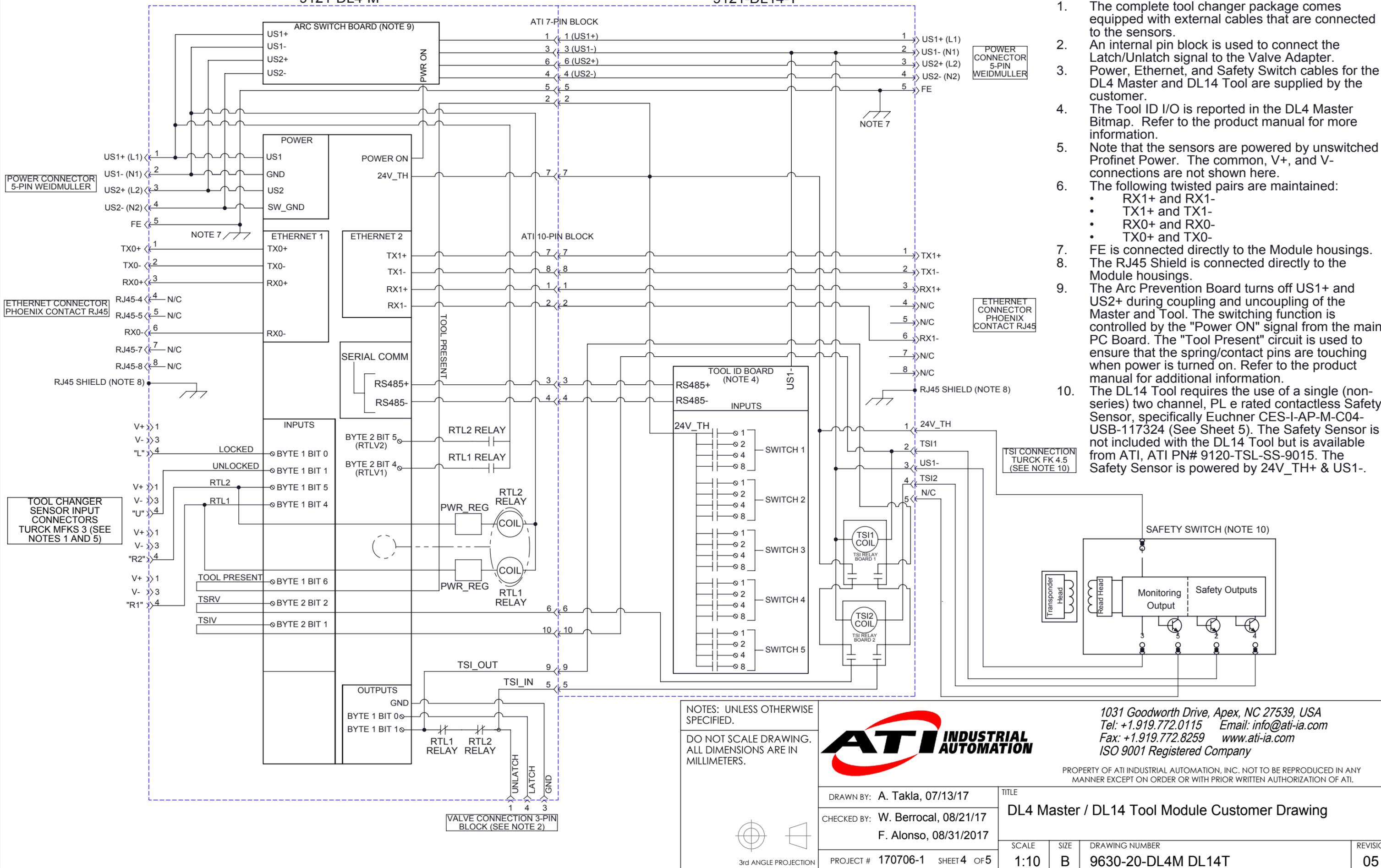
DRAWN BY: A. Takla, 07/13/17		TITLE	
CHECKED BY: W. Berrocal, 08/21/17 F. Alonso, 08/31/2017		DL4 Master / DL14 Tool Module Customer Drawing	
PROJECT #	170706-1	SHEET	3 OF 5
SCALE	1:2	SIZE	B
DRAWING NUMBER		REVISION	
9630-20-DL4M DL14T		05	

**MASTER MODULE
9121-DL4-M**

**TOOL MODULE
9121-DL14-T**

Schematic Notes:

- The complete tool changer package comes equipped with external cables that are connected to the sensors.
- An internal pin block is used to connect the Latch/Unlatch signal to the Valve Adapter.
- Power, Ethernet, and Safety Switch cables for the DL4 Master and DL14 Tool are supplied by the customer.
- The Tool ID I/O is reported in the DL4 Master Bitmap. Refer to the product manual for more information.
- Note that the sensors are powered by unswitched Profinet Power. The common, V+, and V- connections are not shown here.
- The following twisted pairs are maintained:
 - RX1+ and RX1-
 - TX1+ and TX1-
 - RX0+ and RX0-
 - TX0+ and TX0-
- FE is connected directly to the Module housings.
- The RJ45 Shield is connected directly to the Module housings.
- The Arc Prevention Board turns off US1+ and US2+ 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" circuit is used to ensure that the spring/contact pins are touching when power is turned on. Refer to the product manual for additional information.
- The DL14 Tool requires the use of a single (non-series) two channel, PL e rated contactless Safety Sensor, specifically Euchner CES-I-AP-M-C04-USB-117324 (See Sheet 5). The Safety Sensor is not included with the DL14 Tool but is available from ATI, ATI PN# 9120-TSL-SS-9015. The Safety Sensor is powered by 24V_TH+ & US1-.



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PROJECT # 170706-1	SHEET 4 OF 5	SCALE 1:10	SIZE B
DRAWING NUMBER 9630-20-DL4M DL14T		REVISION 05	

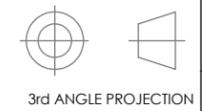
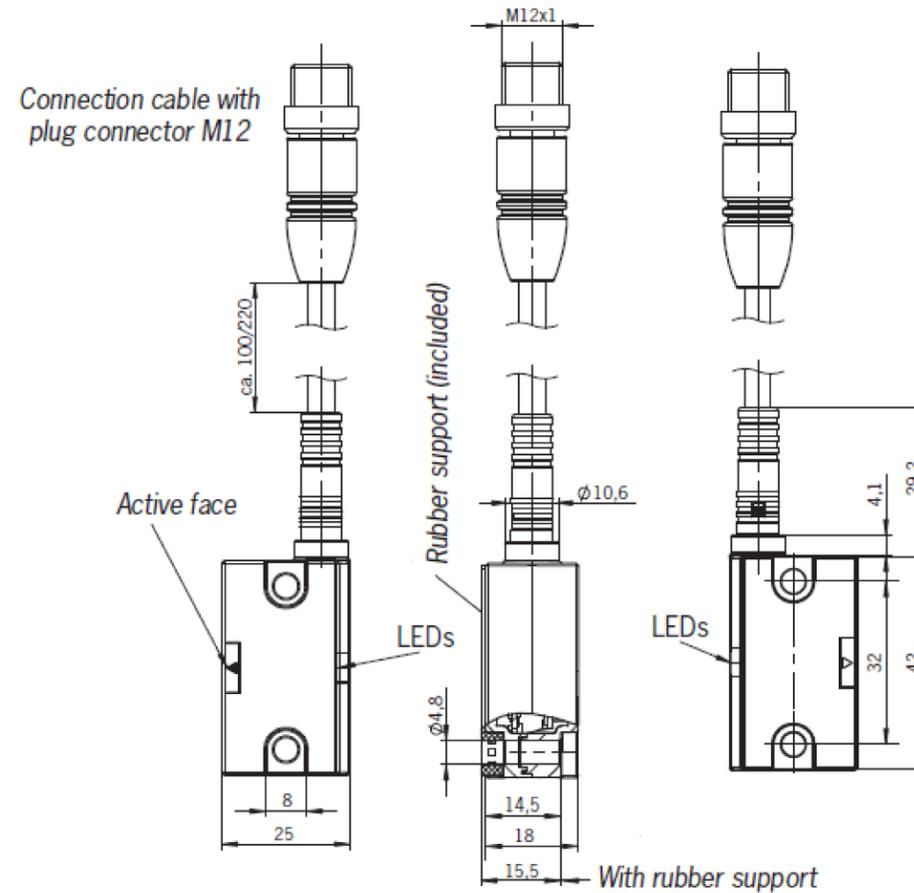


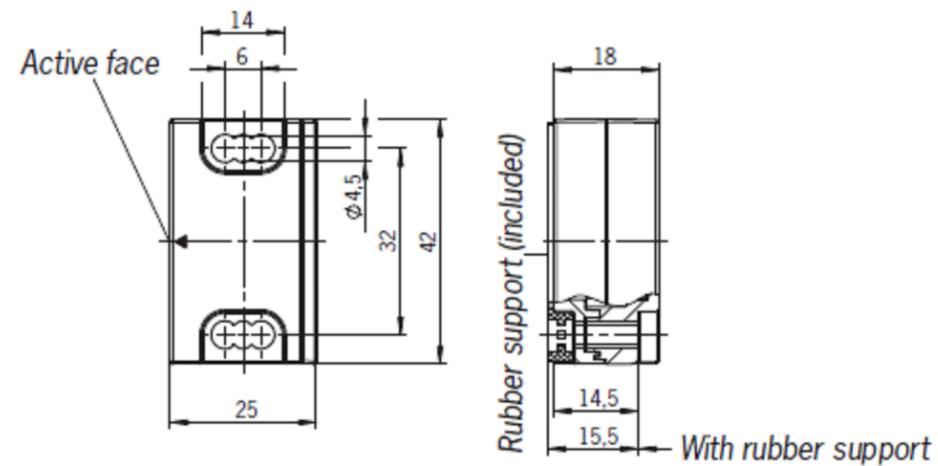


Figure 1: Euchner CES-AP-C04 Series Safety Sensor

Safety Switch: ATI PN# 8600-117324

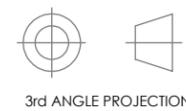


Actuator: ATI PN# 8605-115271



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PROJECT # 170706-1	SHEET 5 OF 5	SCALE 1:10	SIZE B
		DRAWING NUMBER 9630-20-DL4M DL14T	REVISION 05