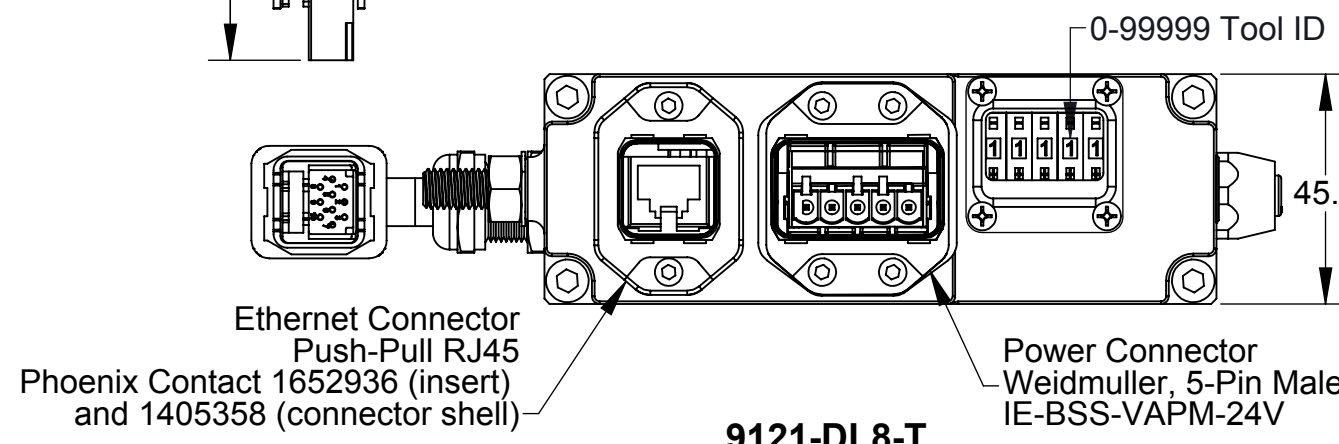
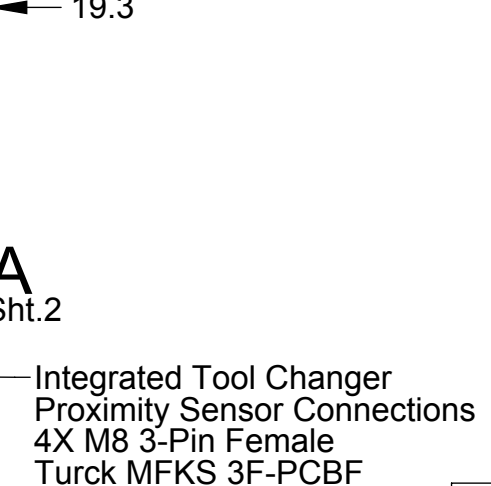
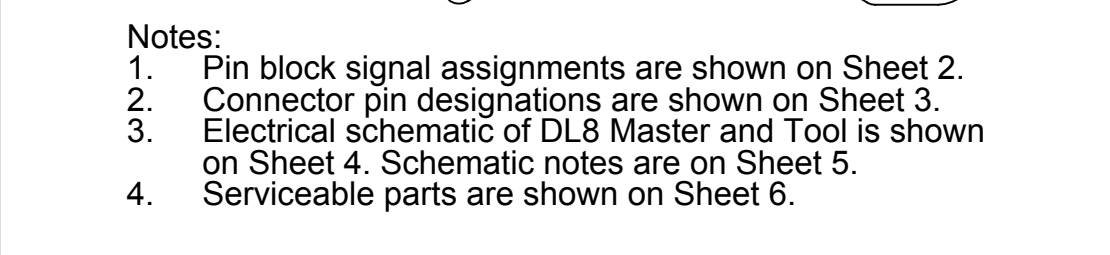
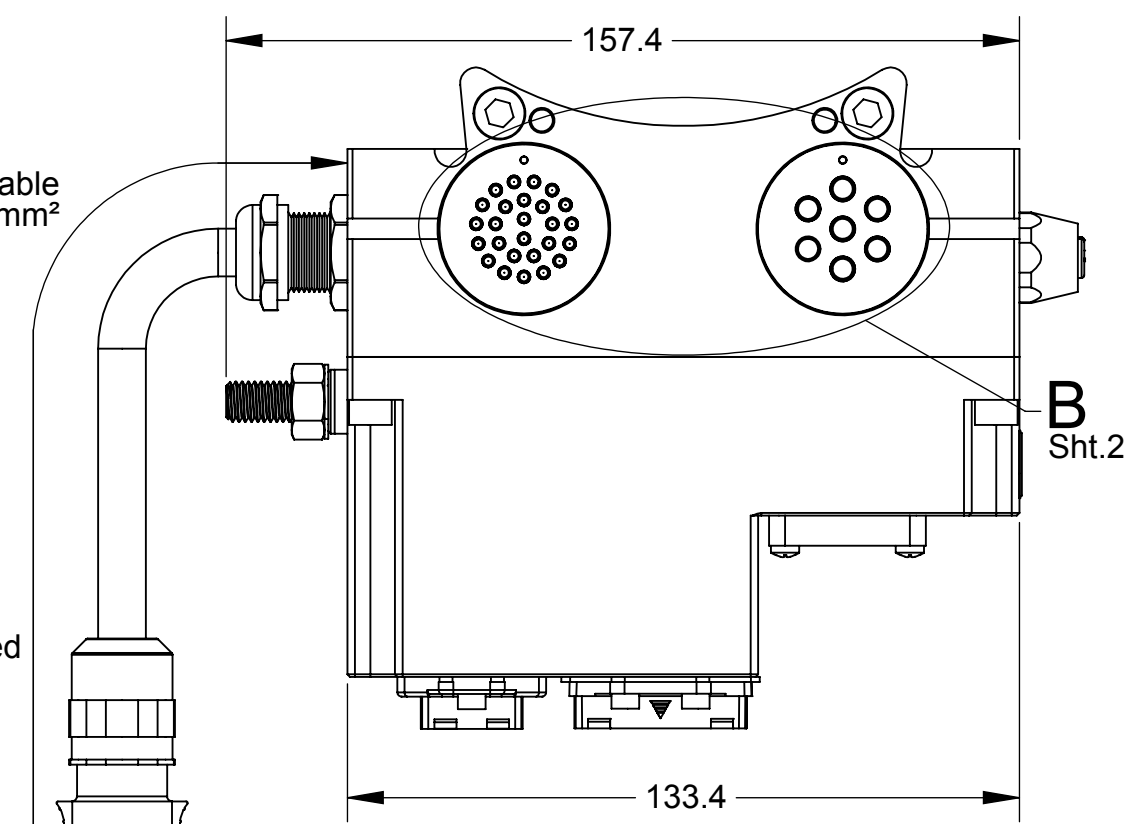
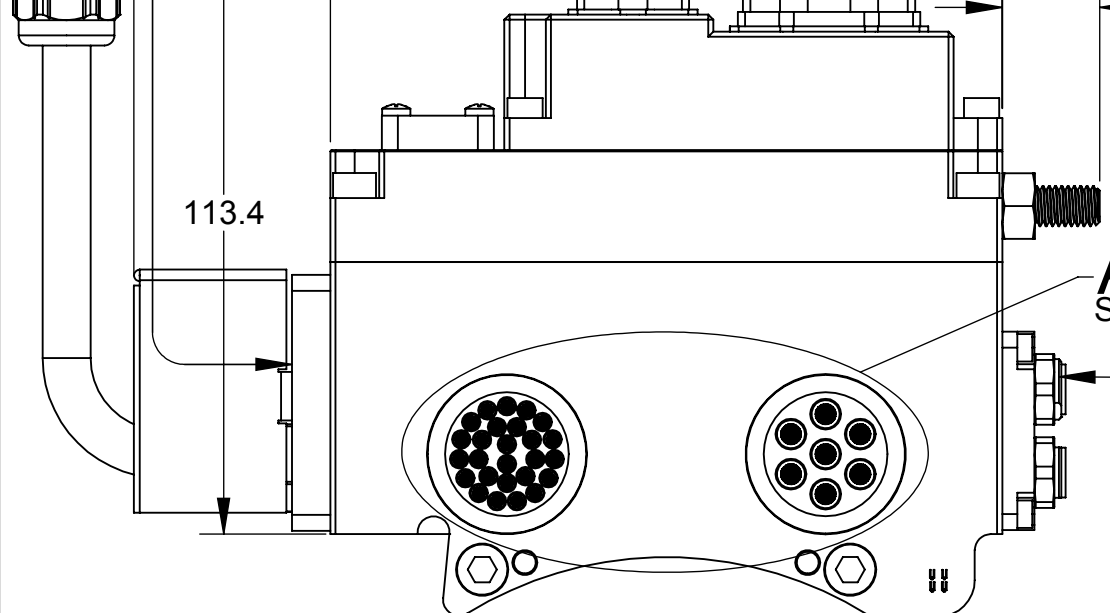
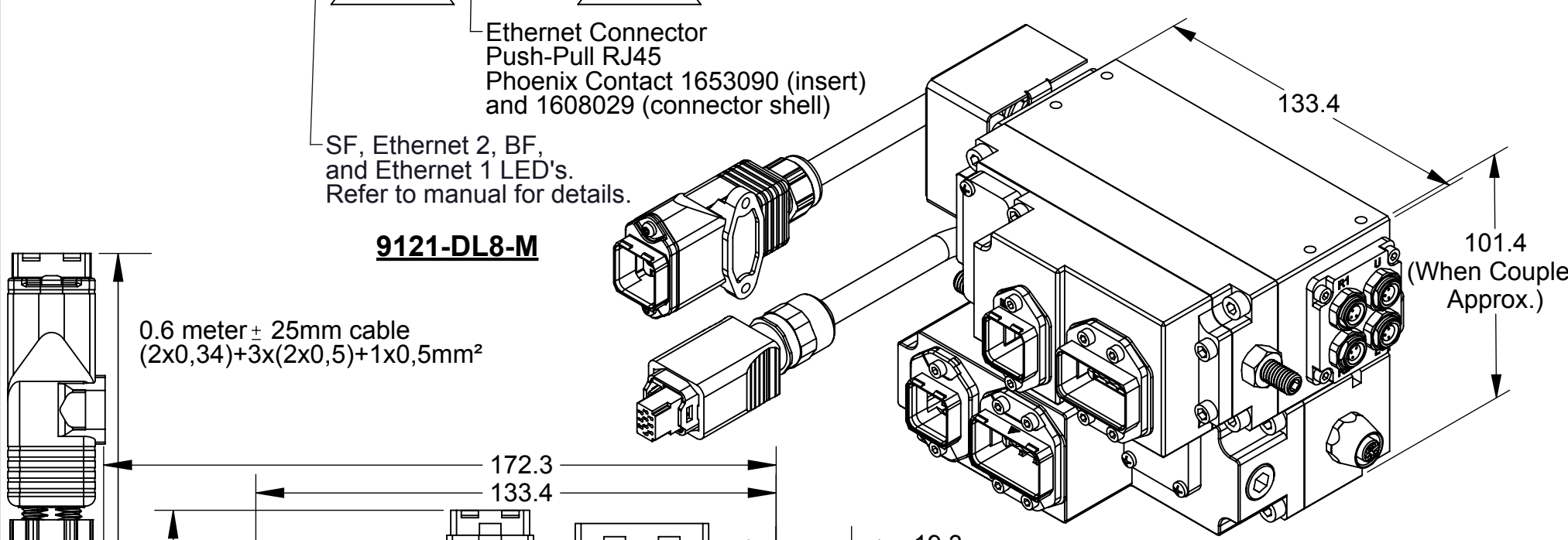
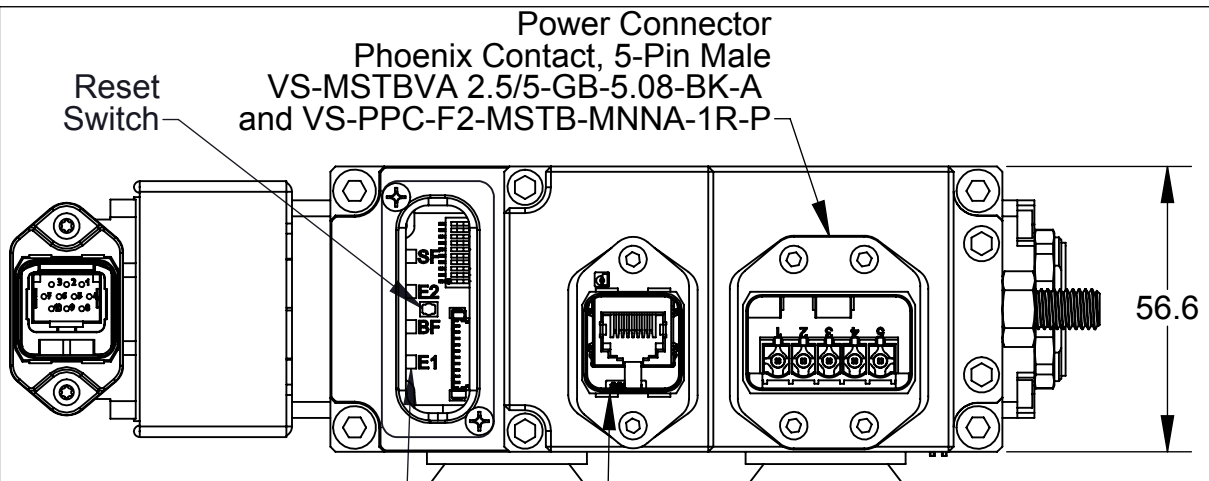


Rev.	Description	Initiator	Date
08	ECO 17475: 9121-DL8-T: Weidmuller 5-Pin Male Power Connector changed to IE-BSS-VAPM-24V was IE-BSS-VAPM-24.	TBC	2/18/2019



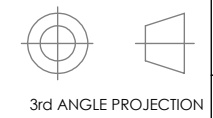
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- Notes:
1. Pin block signal assignments are shown on Sheet 2.
 2. Connector pin designations are shown on Sheet 3.
 3. Electrical schematic of DL8 Master and Tool is shown on Sheet 4. Schematic notes are on Sheet 5.
 4. Serviceable parts are shown on Sheet 6.



DRAWN BY: W. Berrocal, 8/21/15		TITLE	
CHECKED BY: F. Alonso, 10/7/15		DL8 Profinet Module Customer Drawing	
PROJECT # 150819-1 SHEET 1 OF 6	SCALE 1:2	SIZE B	DRAWING NUMBER 9630-20-DL8
			REVISION 08

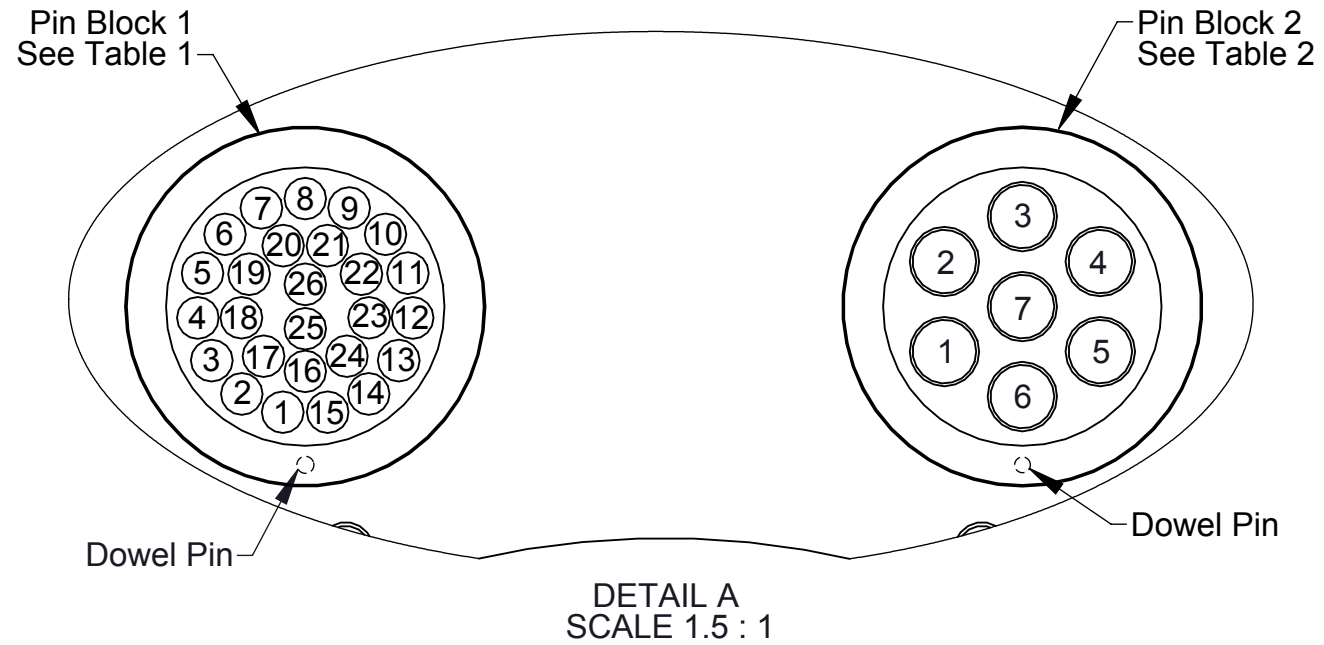


Table 1 Pin Block 1	
1	10-Pin_4
2	N/C
3	10-Pin_2
4	10-Pin_1
5	24V_TH
6	TX+
7	TX+
8	SSO_1
9	RX+
10	RS485+
11	RX+
12	SSO_2
13	N/C
14	10-Pin_6
15	10-Pin_5
16	10-Pin_8
17	10-Pin_9
18	10-Pin_10
19	TX-
20	TX-
21	RX-
22	RS485-
23	RX-
24	10-Pin_7
25	24V_GND
26	10-Pin Shield

Table 2 Pin Block 2	
1	AP_US1+
2	TOOL_PRESENT
3	US1-
4	US2-
5	FE
6	AP_US2+
7	24V_TH

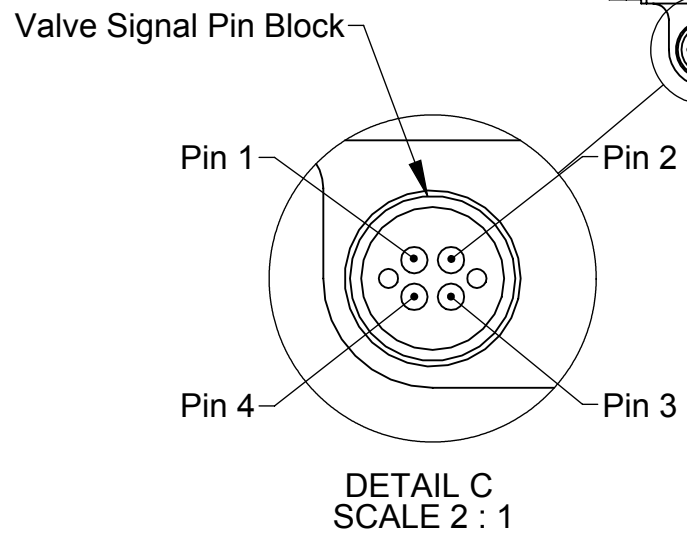
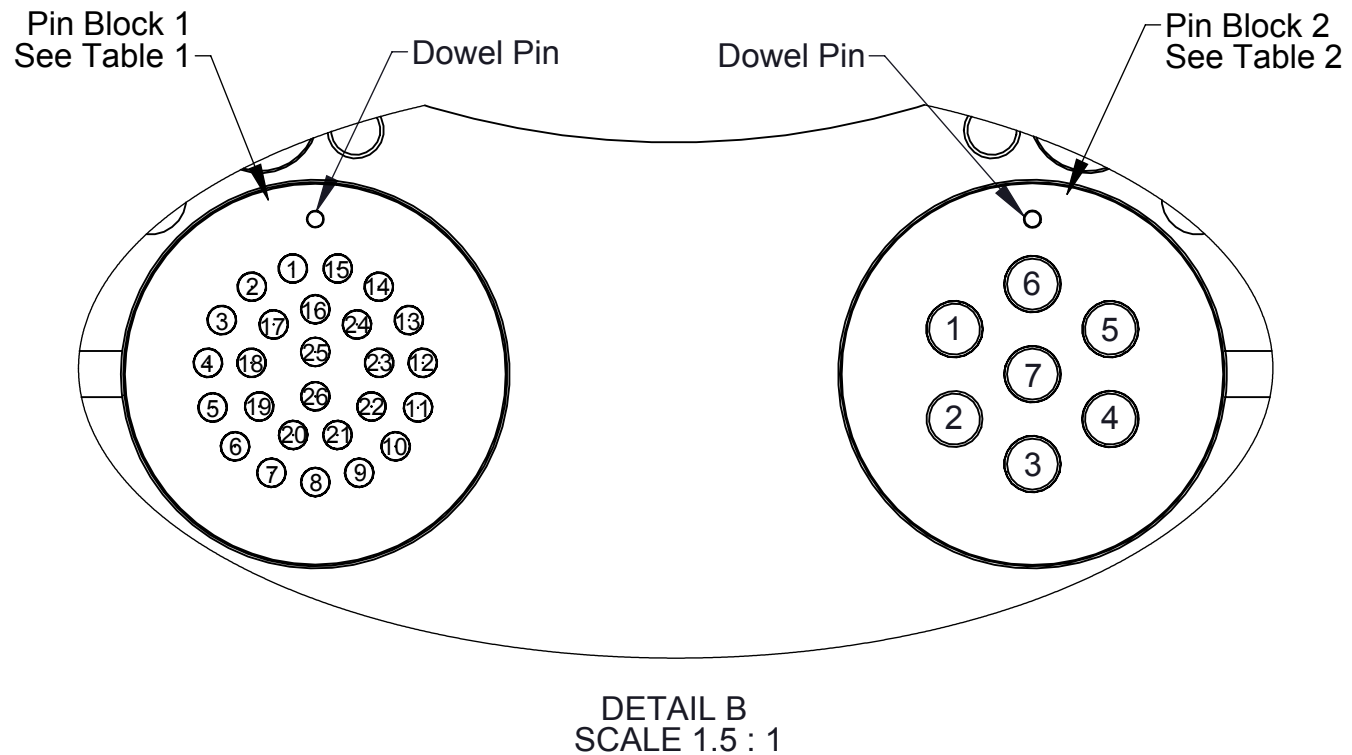
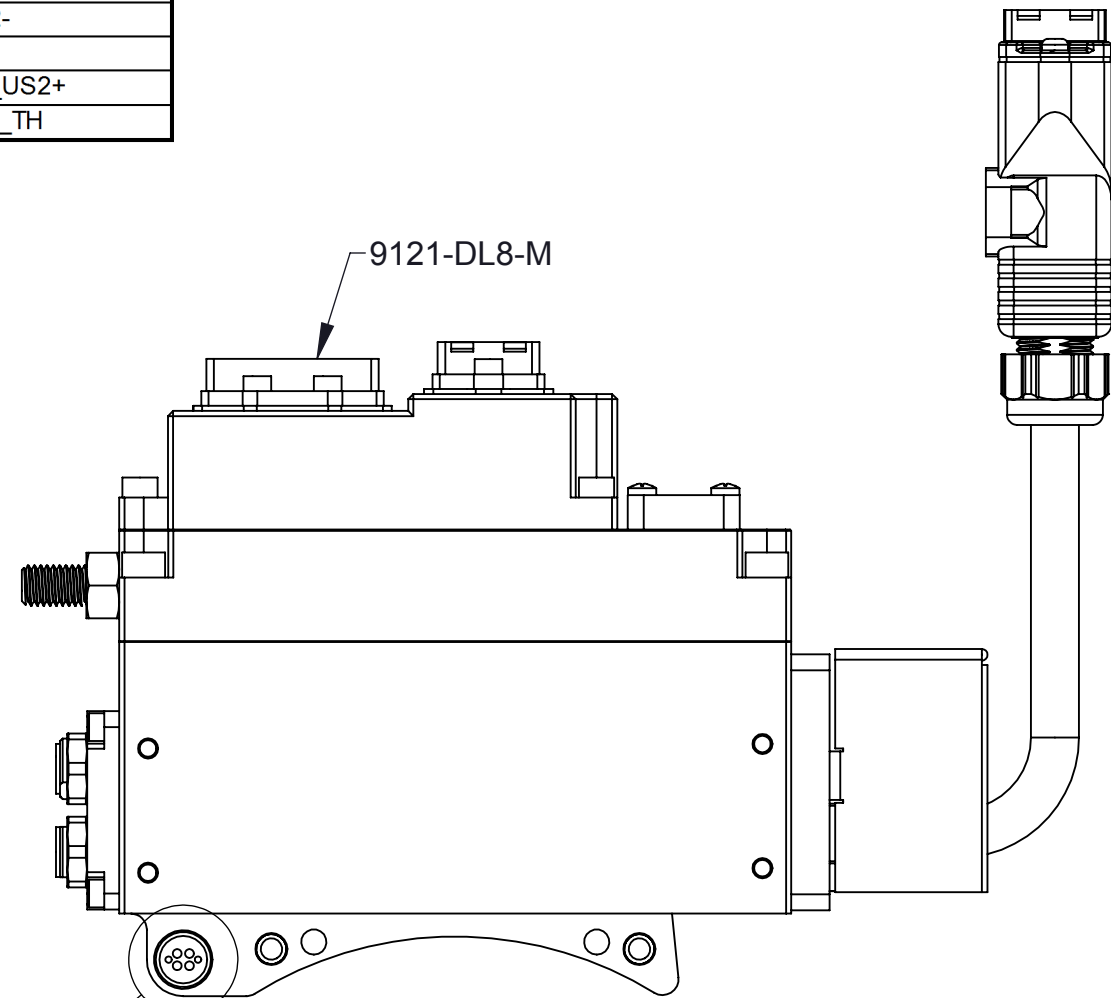
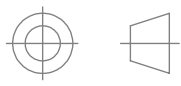


Table 3 Internal Valve Connection	
Pin 1	Latch
Pin 2	Unlatch 2
Pin 3	Unlatch 1
Pin 4	US2 -

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TITLE

DL8 Profinet Module Customer Drawing

PROJECT # 150819-1 SHEET 2 OF 6

SCALE
1:2

SIZE
B

DRAWING NUMBER
9630-20-DL8

REVISION
08

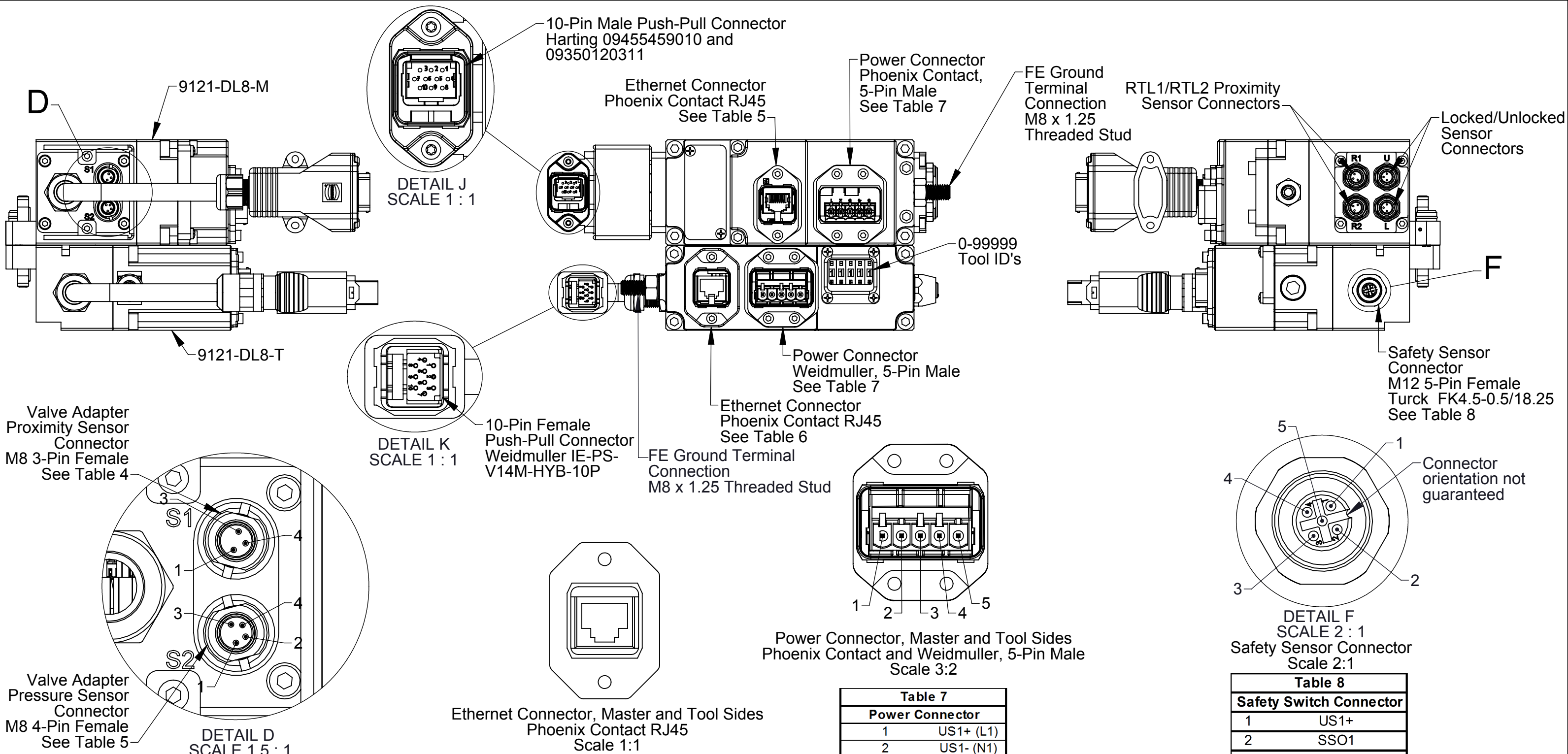


Table 4
Valve Adapter Proximity Sensor

1	US1+
3	US1-
4	Input

Table 5
Valve Adapter Pressure Sensor Connector

1	+5V
2	Pressure Output+
3	Pressure Output-
4	GND_5V

Table 6
Profinet Connector

1	TX1+
2	TX1-
3	RX1+
4	RJ45_4 (N/C)
5	RJ45_5 (N/C)
6	RX1-
7	RJ45_7 (N/C)
8	RJ45_8 (N/C)

Table 7
Power Connector

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

Table 8
Safety Switch Connector

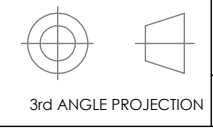
1	US1+
2	SSO1
3	US1-
4	SSO2
5	N/C

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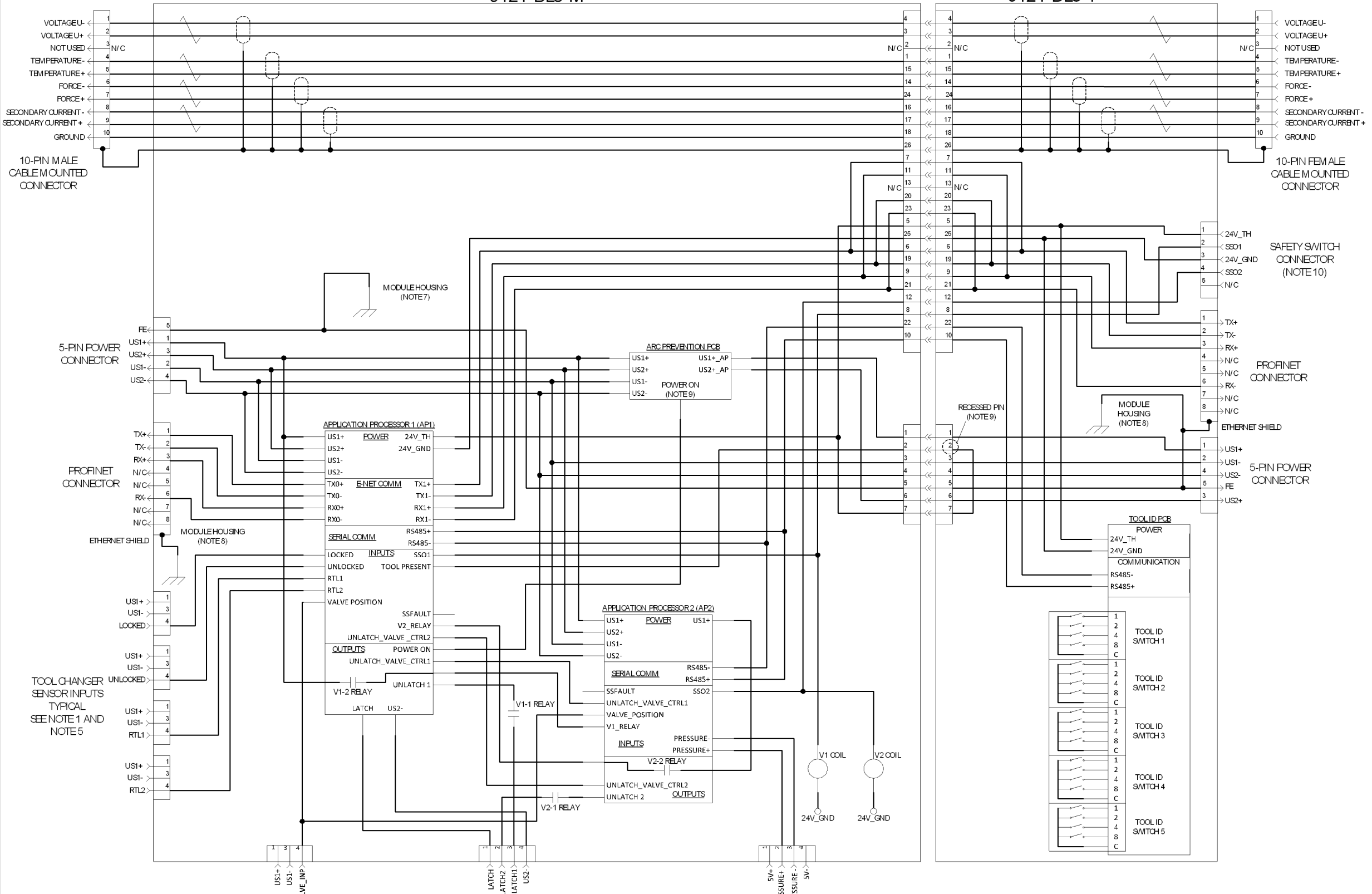


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PROJECT # 150819-1 SHEET 3 OF 6

TITLE DL8 Profinet Module Customer Drawing			
SCALE 1:2	SIZE B	DRAWING NUMBER 9630-20-DL8	REVISION 08

9121-DL8-M

9121-DL8-T



VALVE ADAPTER PROXIMITY
SENSOR CONNECTION
M8 3-PIN FEMALE (NOTE 12)

VALVE CONNECTION
4-PIN INTERNAL PIN BLOCK
NOTE 2

PRESSURE SENSOR
CONNECTION
M8 4-PIN FEMALE (NOTE 11)

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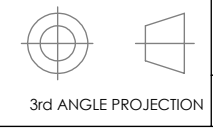
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PROJECT # 150819-1 SHEET 4 OF 6

TITLE
DL8 Profinet Module Customer Drawing

SCALE	SIZE	DRAWING NUMBER	REVISION
1:10	B	9630-20-DL8	08



Schematic Notes:

1. The complete tool changer package comes equipped with external cables that are connected to the sensors. The DL8 modules must be used with Valve Adapters employing two valves and diagnostic monitoring via pressure and proximity sensors (ex. 9121-JR4-M, 9121-JU4-M, etc.).
2. An internal pin block is used to connect the Latch/Unlatch signal to the Valve Adapter.
3. Power, Ethernet, and Safety Switch cables for the DL8 Modules are supplied by the customer.
4. The Tool ID I/O is reported in the DL8 Master Bitmap. Refer to the product manual for more information.
5. Note that the R1, R2, L, and U sensors are powered by unswitched (US1) Profinet Power. The common US1+ and US1- connections are not shown here.
6. The Ethernet (TX and RX) signals are transmitted over twisted pairs.
7. FE is connected directly to the Module housings.
8. The RJ45 Shield is connected directly to the Module housings.
9. 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.
10. The 9121-DL8-M module requires the use of a two channel, PL e rated contactless Safety Sensor, specifically, Euchner CES-AP-C01-CH-SB-106798 or CES-I-AP-M-C04-USB-117324 (reference Figures 1 and 2). The Safety Sensor is not included with the DL8 but is available from ATI. The Safety Sensor is powered by 24V US1 current limited (24V_TH) Profinet power.
11. The Valve Adapter pressure sensor is supplied 5V (unswitched) from AP2. The pressure sensor provides an analog input to the DL8.
12. The Valve Adapter proximity sensor is powered from unswitched (US1) Profinet power.
13. The DL8 module employs a dual channel safety circuit to prevent an unsafe tool unlatch. An extensive description of the safety system is provided in the DL8 Operation Manual: 9620-20-C-DL8.

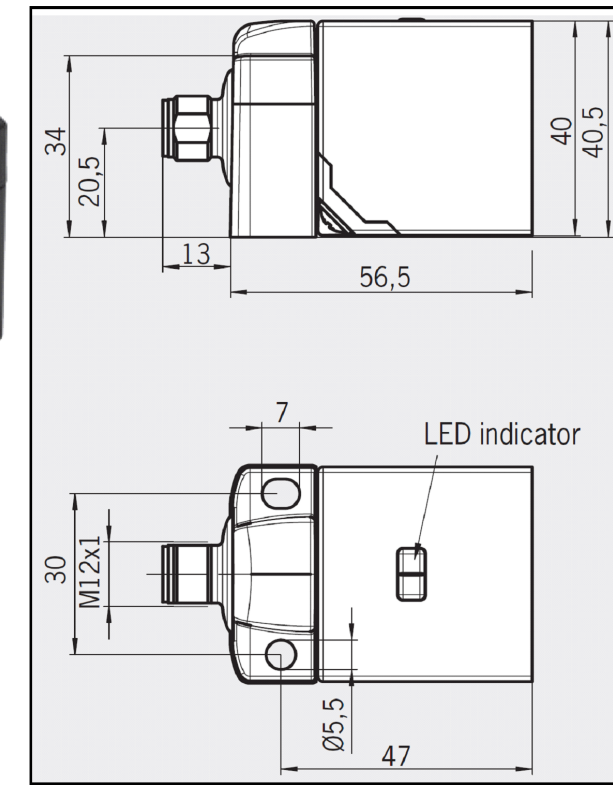


Figure 1: Euchner CES-AP-C01 Series Safety Sensor

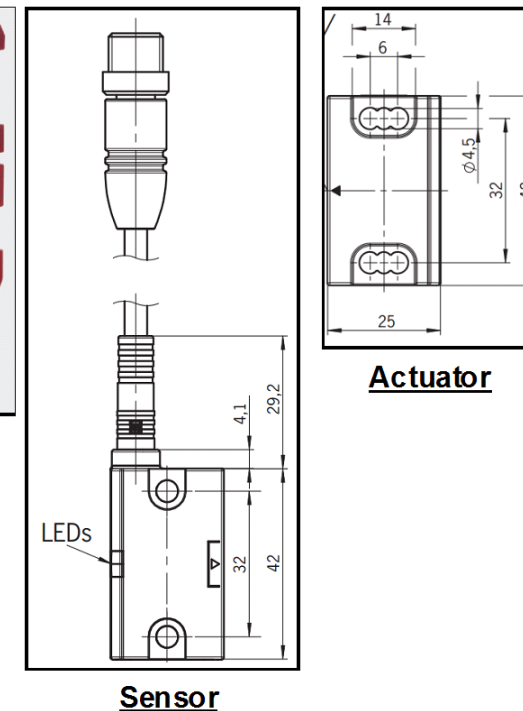
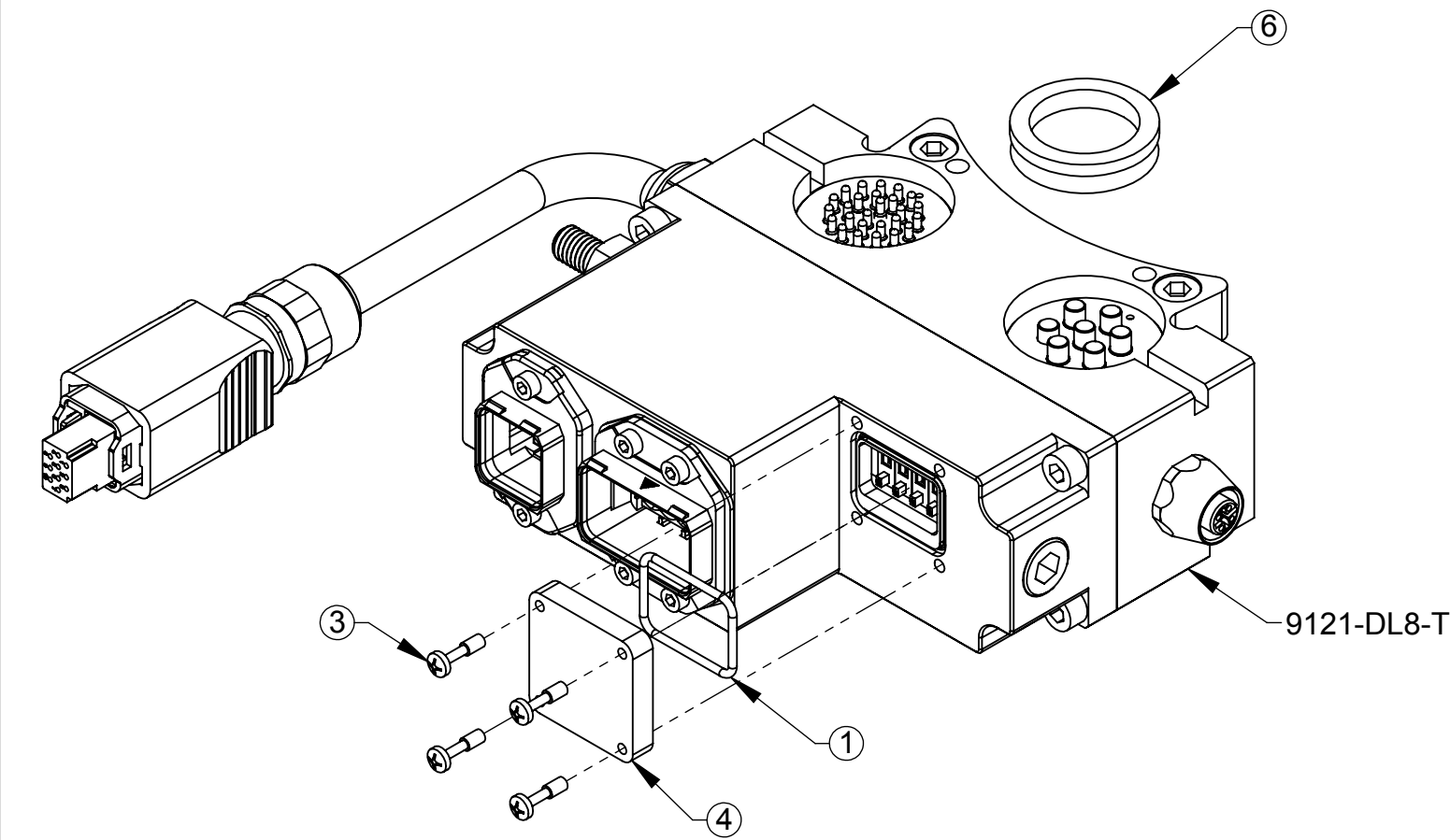
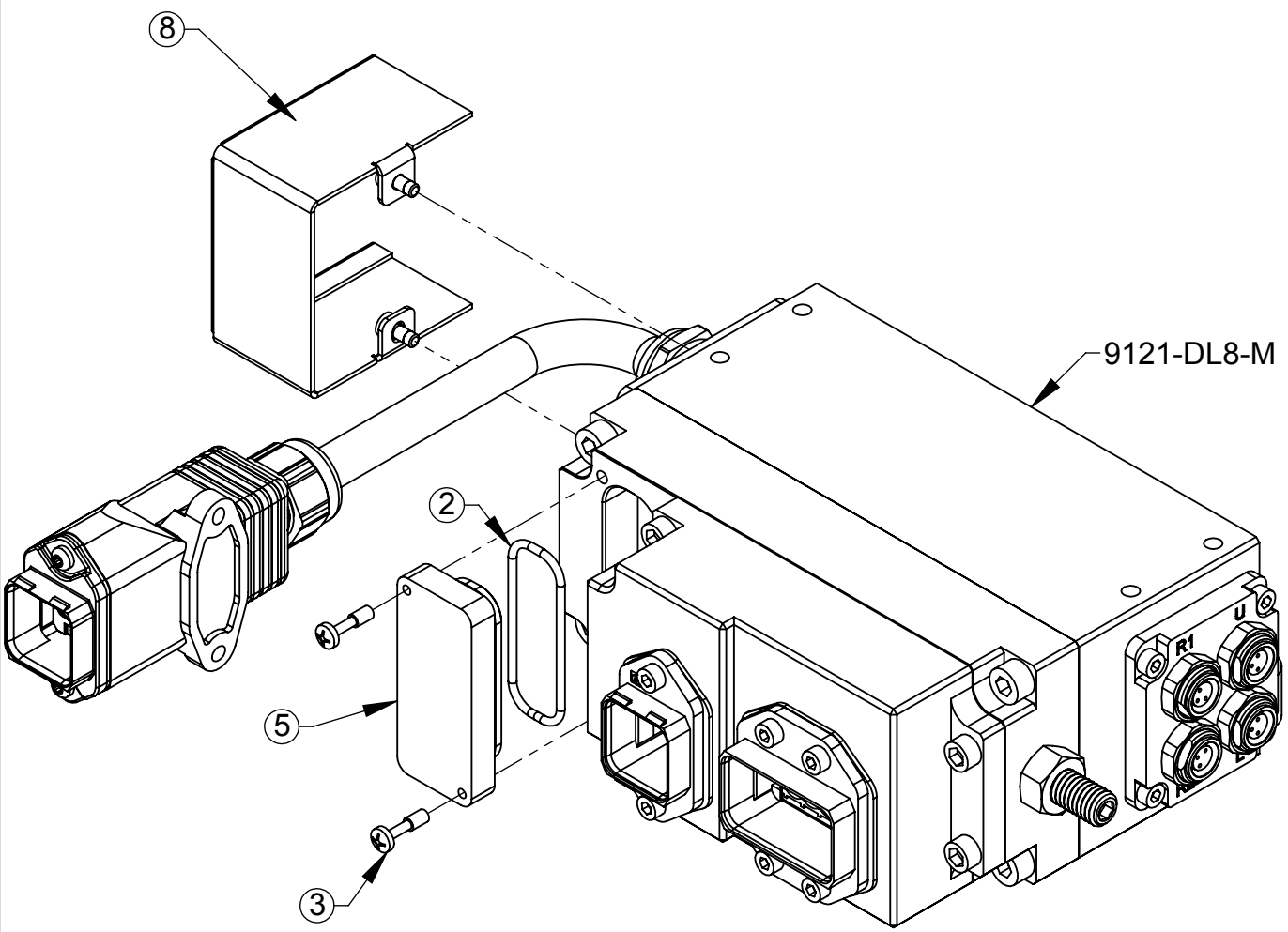


Figure 2: Euchner CES-AP-C04 Series Safety Sensor

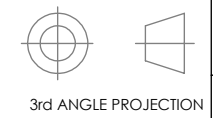
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 3rd ANGLE PROJECTION	PROJECT # 150819-1 SHEET 5 OF 6	SCALE 1:10	SIZE B	DRAWING NUMBER 9630-20-DL8	REVISION 08

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9121-DL8-M/T SERVICEABLE PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	3410-0001091-01	O-ring, AS568-019
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	2	4010-0000030-01	V-Ring Seal V-22A Nitrile
7	1	9005-20-1199	Tool Cleat Sub-Assembly
8	1	9005-20-2517	Diagnostic Sensor Guard

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PROJECT #	150819-1	SHEET	OF 6
SCALE	1:2	SIZE	B
DRAWING NUMBER	9630-20-DL8	REVISION	08