

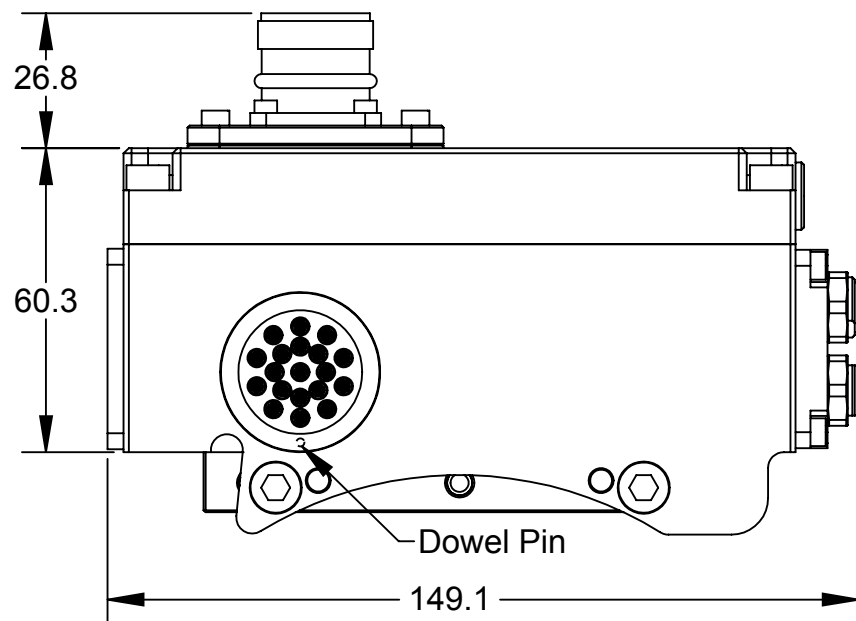
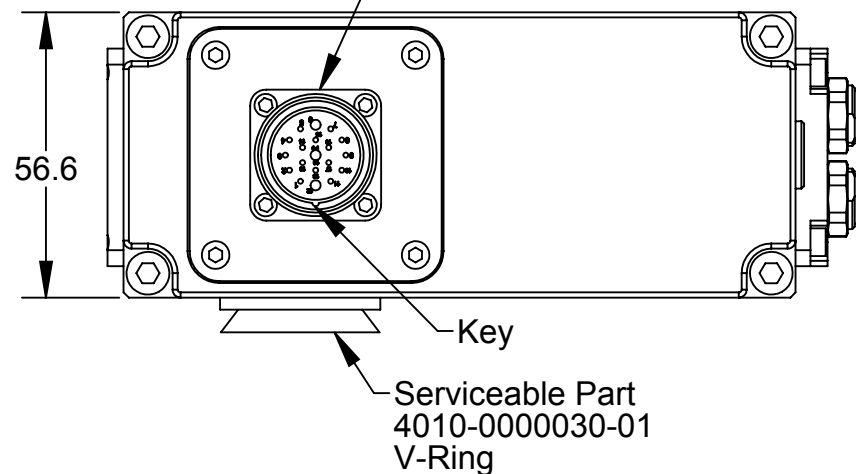
**"DANGER!" - Electrical Shock Hazard**

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
03	Eco 17874; Changed Tool Side Connector Height Dimension from 31.1 to 37; Changed Female Connector Manufacturing Part Number from Pheonix Contact RC-1RS1N12Y300 to Intercontec ADFA558FR92000151000; Updated Electrical Shock Note.	CF	4/18/2019

**9121-VB19-M  
Master Module**

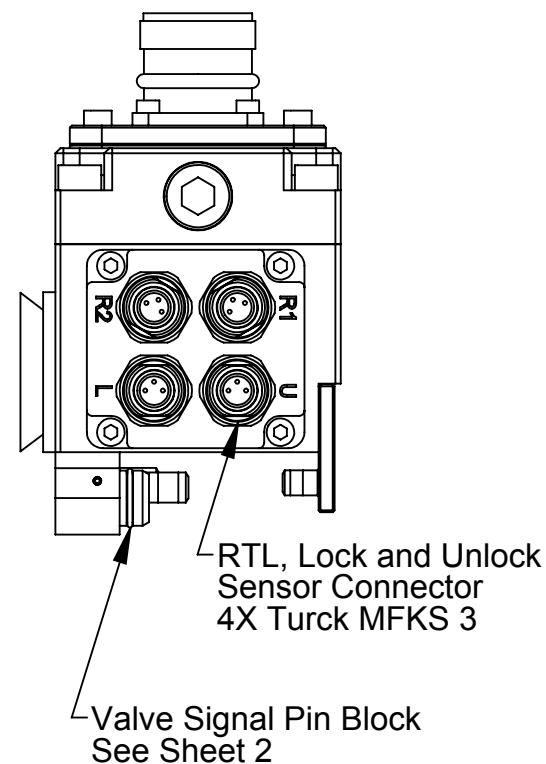
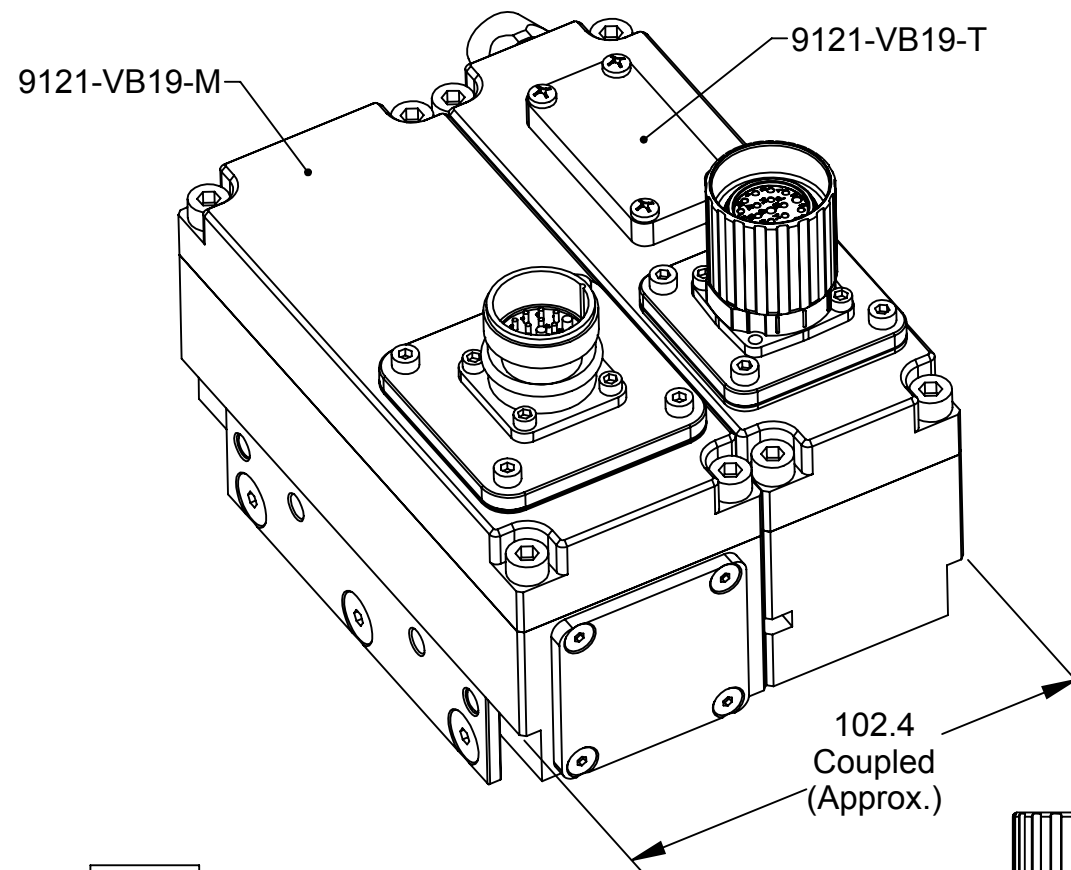
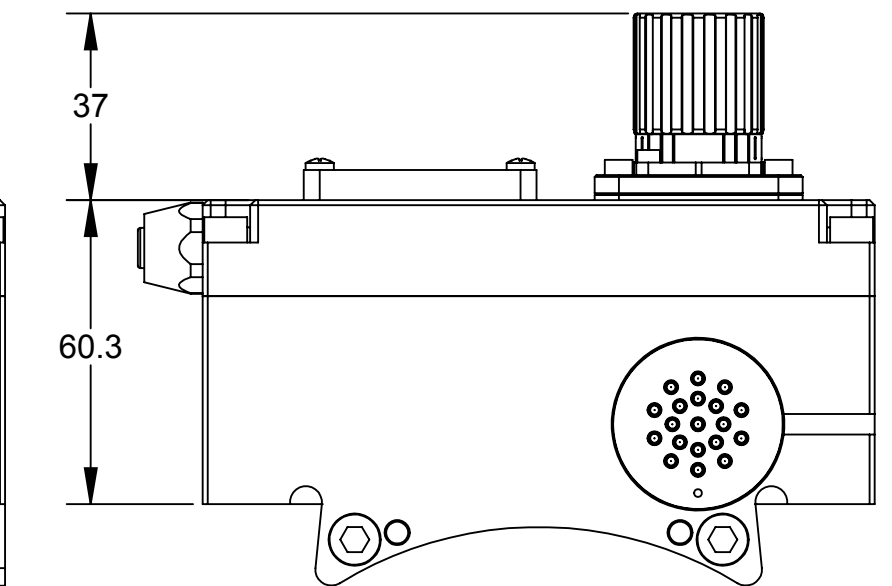
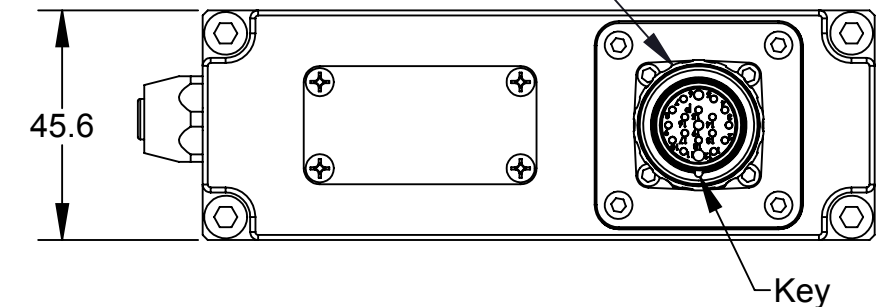
Pheonix Contact  
RC-19P1N122300  
M23, 19-Pin  
Male Connector



**9121-VB19-T  
Tool Module**

**9121-VB19-T  
Tool Module**

Intercontec  
ADFA558FR92000151000  
M23, 19-Pin  
Female Receptacle



- Notes:
1. Module Electrical rating: 24VDC signal, 5A/250V Pass through.
  2. See Sheets 2 and 3 for Customer Interface information.
  3. See Sheet 4 for module wiring schematic.
  4. Customer approval of electrical schematic is required.
  5. Customer is to approve connector selection and orientation.

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.



3rd ANGLE PROJECTION



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DRAWN BY: P.Luczka, 11/17/14		TITLE	
CHECKED BY: W.Berrocal, 11/19/14 F.Alfonso, 11/20/14		VB19 Discrete Signal Module Customer Drawing	
PROJECT #	141114-5	SHEET	1 OF 5
SCALE	2:3	SIZE	B
DRAWING NUMBER	9630-20-VB19	REVISION	03

**9121-VB19-M  
Master Module**

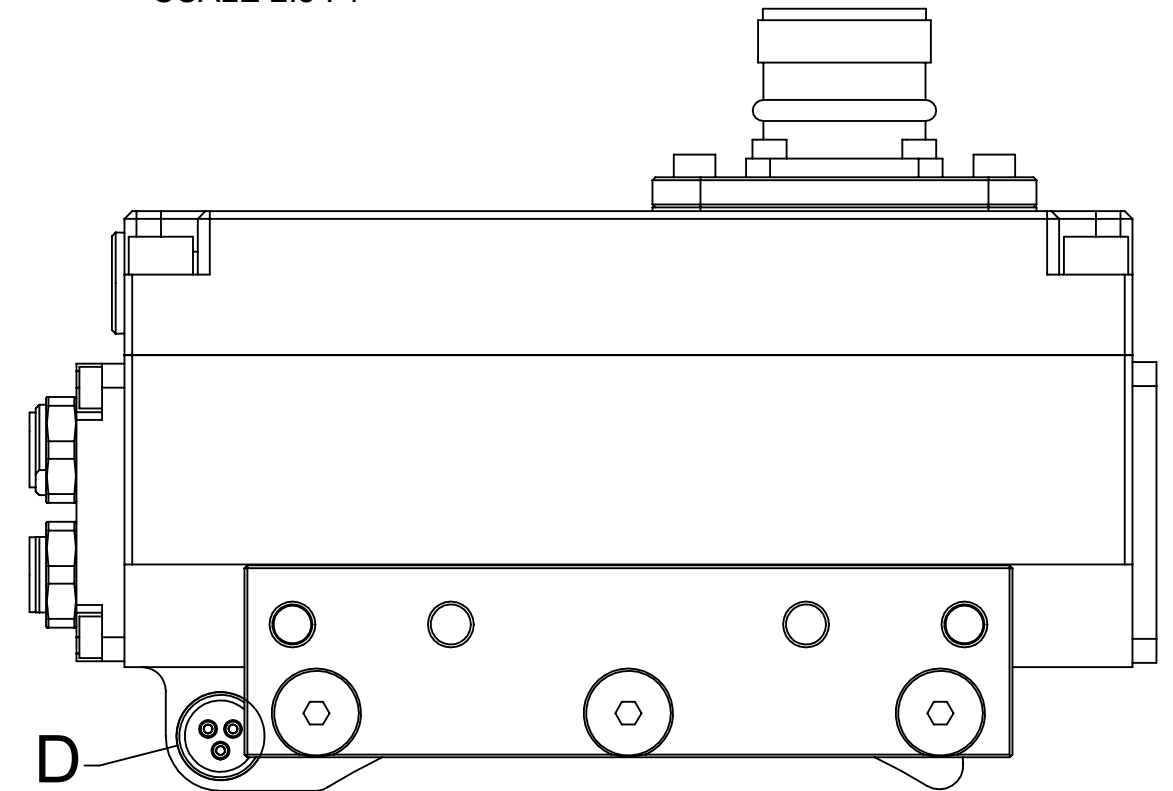
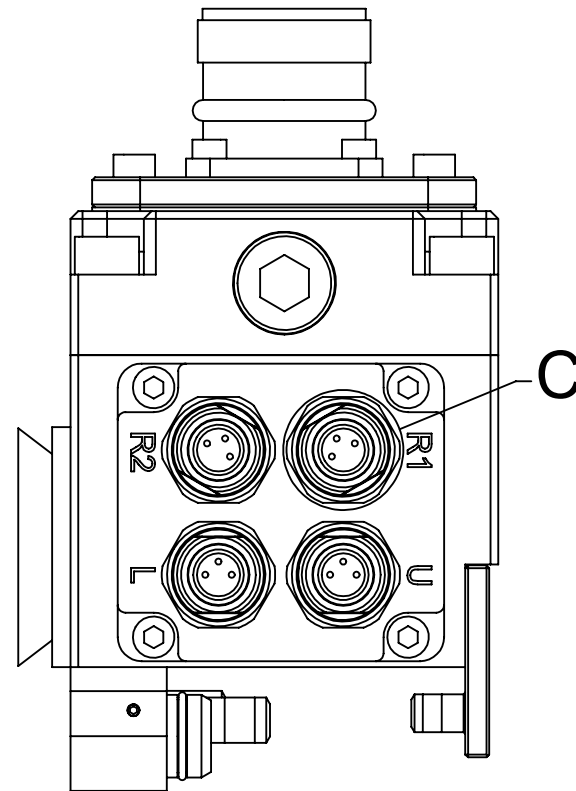
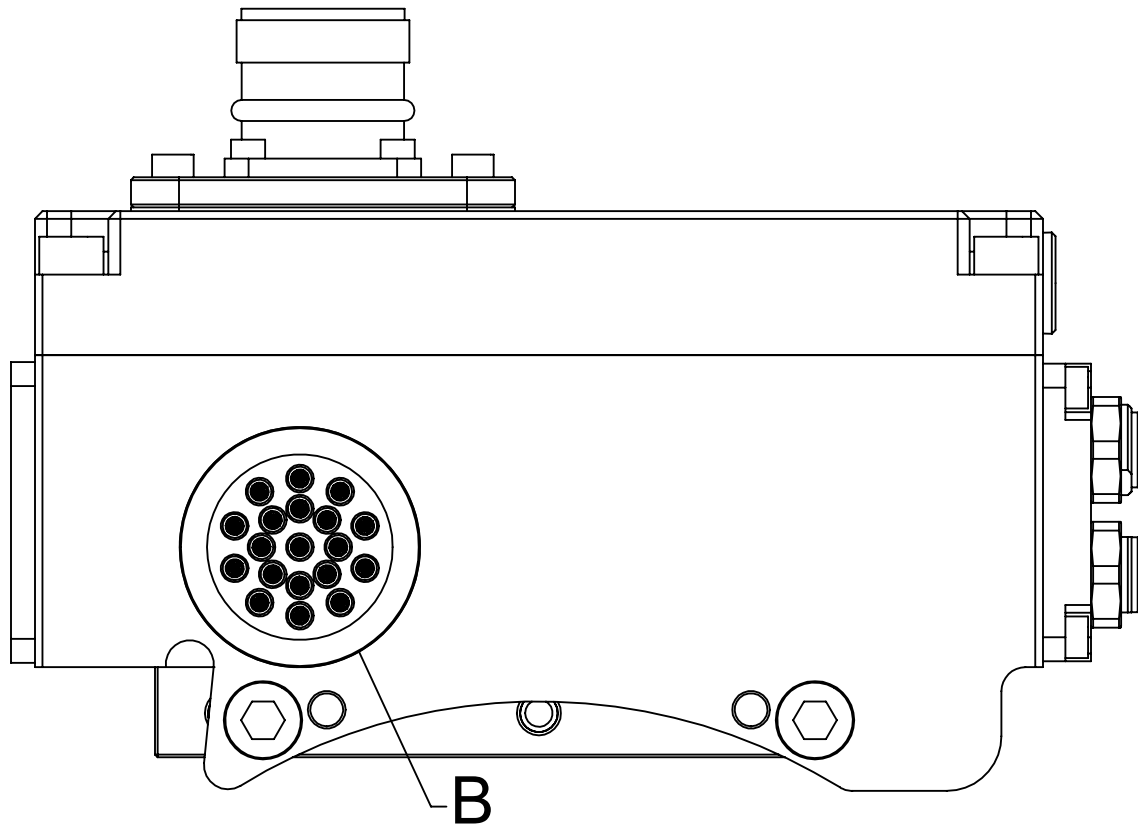
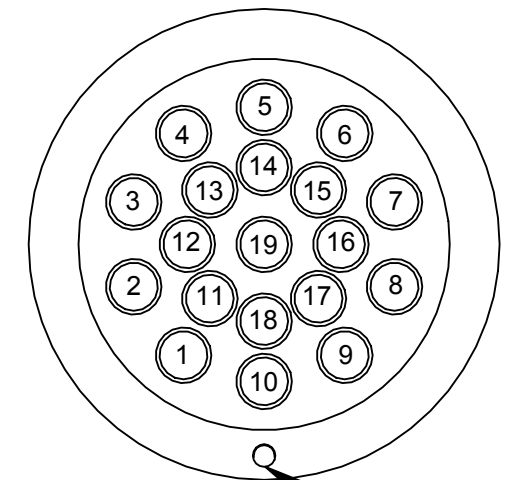
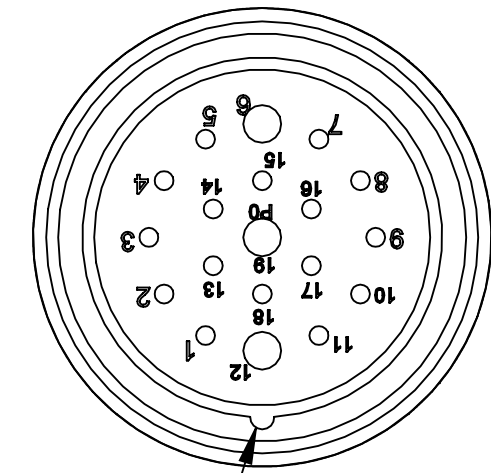
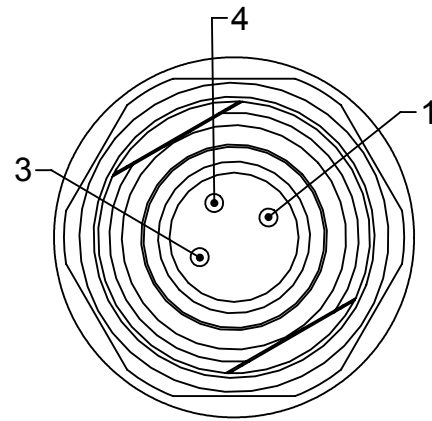
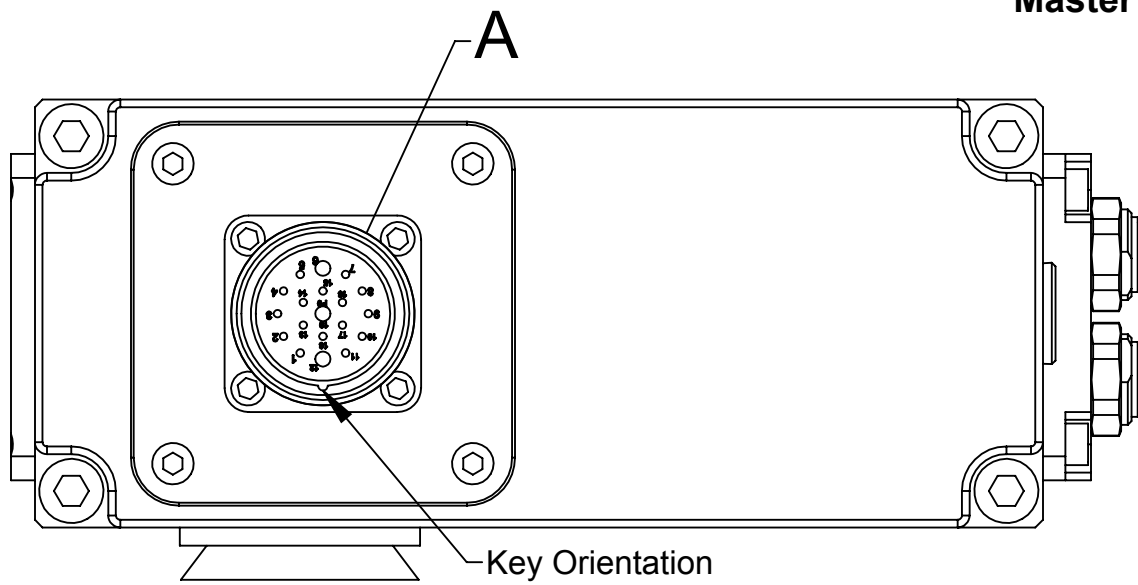
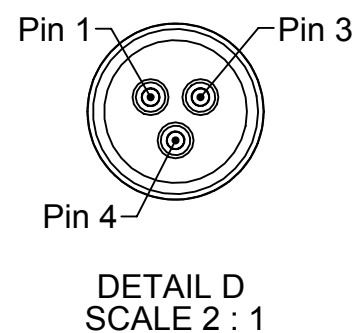


Table 1 Valve Signal Pin Block		
Pin 1	V+	Unlatch Output
Pin 3	V-	Common
Pin 4	V+	Latch Output



NOTES: UNLESS OTHERWISE SPECIFIED.

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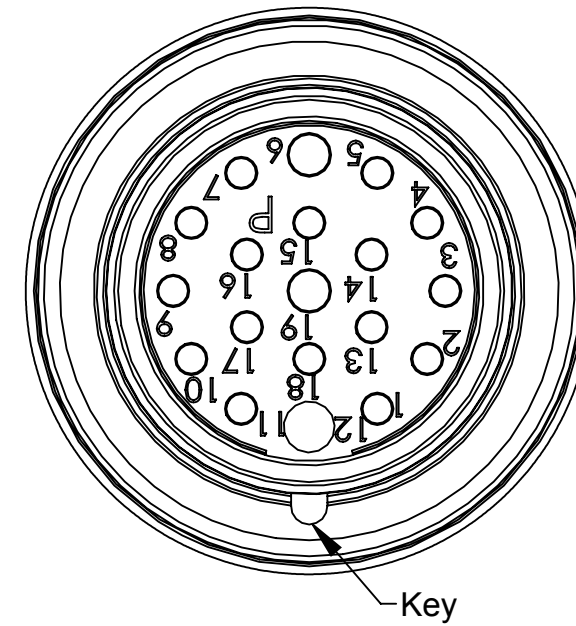
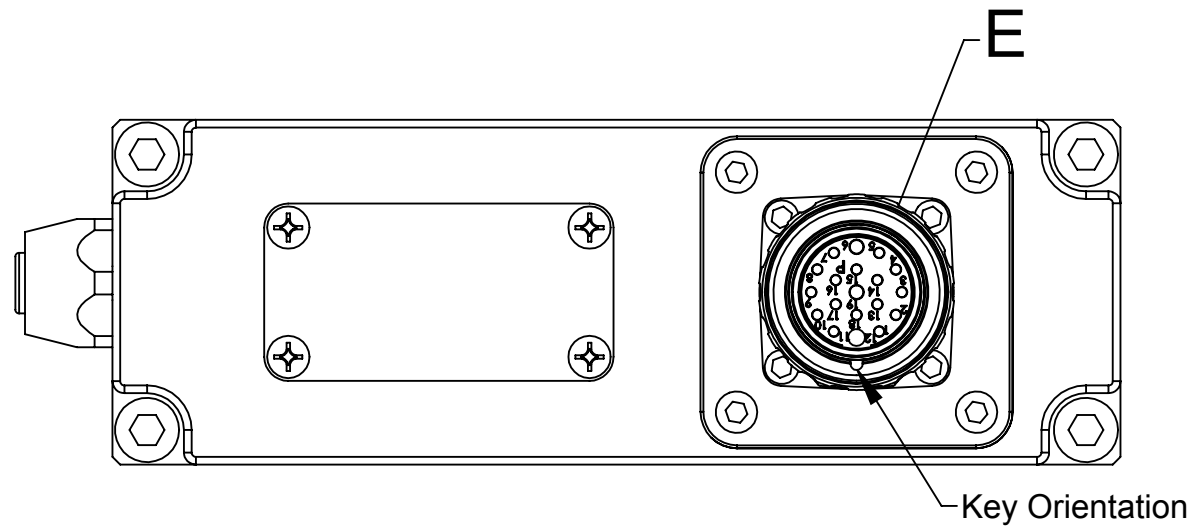


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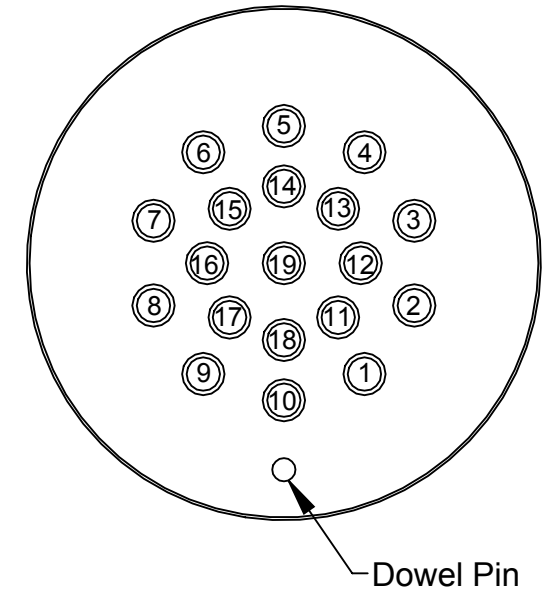
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PROJECT # 141114-5	SHEET 2 OF 5	SCALE 1:2	SIZE B
		DRAWING NUMBER 9630-20-VB19	REVISION 03

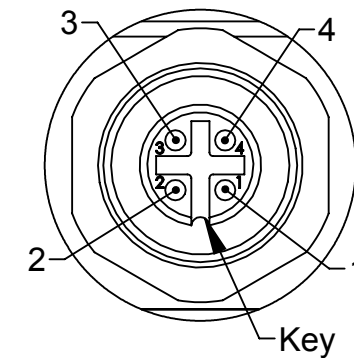
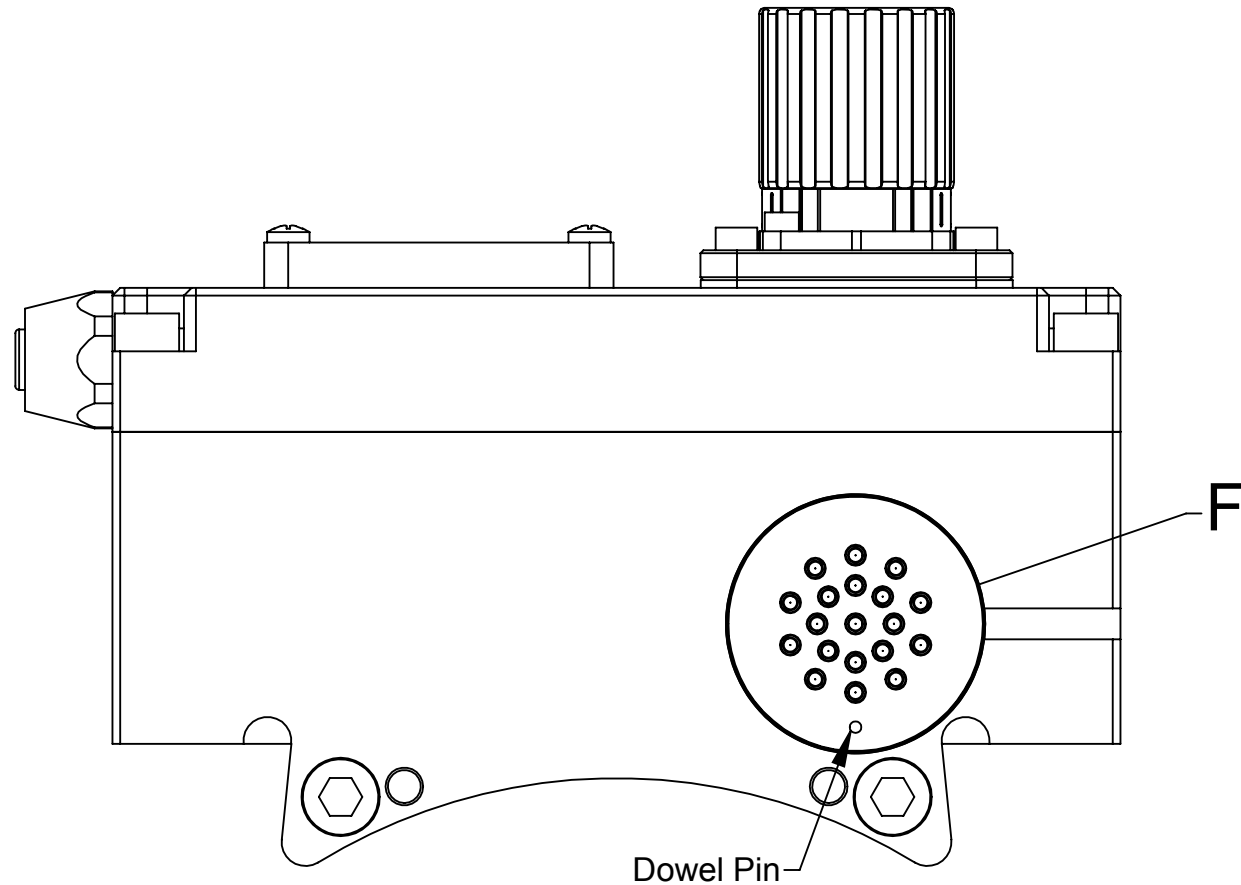
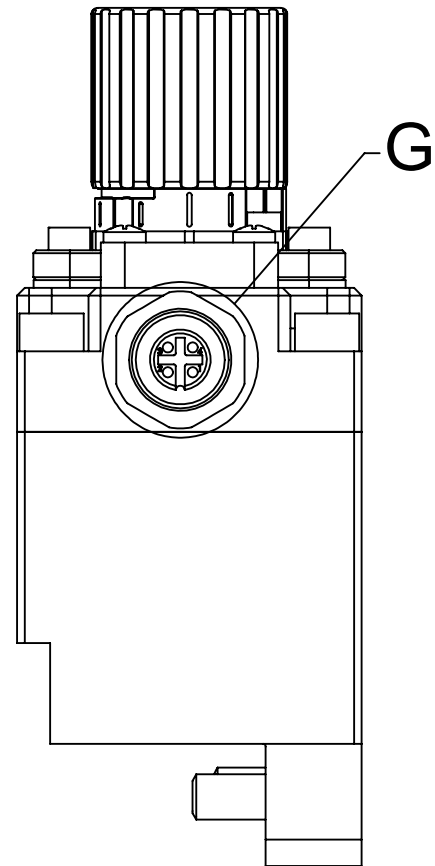
**9121-VB19-T  
Tool Module**



Intercontec  
ADFA558FR92000151000  
M23, 19-Pin Female Connector  
DETAIL E  
SCALE 3 : 1



ATI 19-Pin Block  
DETAIL F  
SCALE 2 : 1



TSI Connector  
Turck FK4.4-0.5/18.25  
DETAIL G  
SCALE 2 : 1

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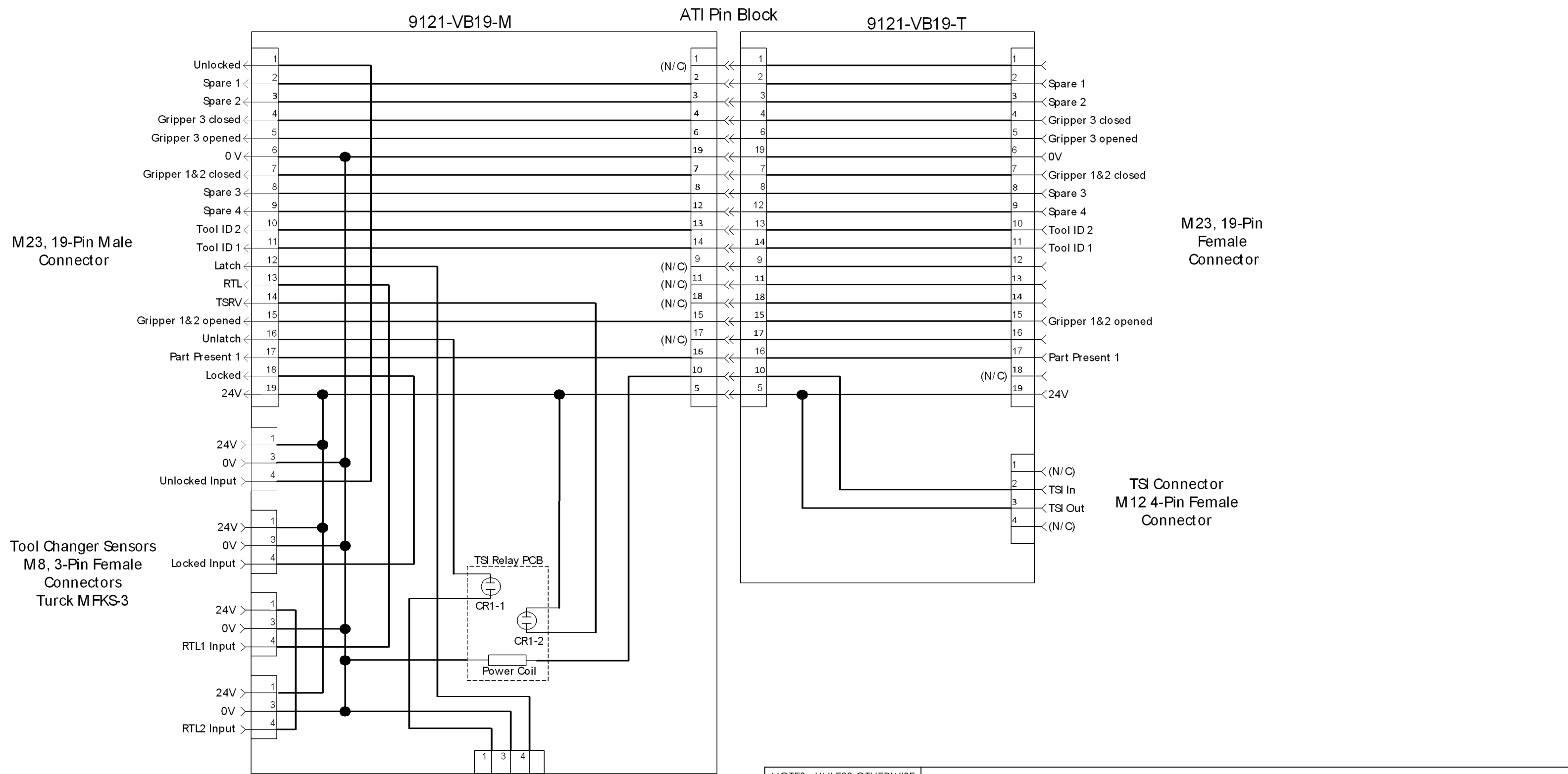
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PROJECT #	141114-5	SHEET	3 OF 5	REVISION
SCALE	1:2	SIZE	B	DRAWING NUMBER
				9630-20-VB19
				03



M23, 19-Pin Male Connector

M23, 19-Pin Female Connector

Tool Changer Sensors  
M8, 3-Pin Female Connectors  
Turck MFKS-3

TSI Connector  
M12 4-Pin Female Connector

Valve Connection  
3-Pin Internal Pin Block

NOTES: UNLESS OTHERWISE SPECIFIED.

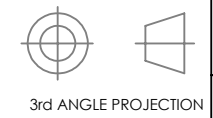
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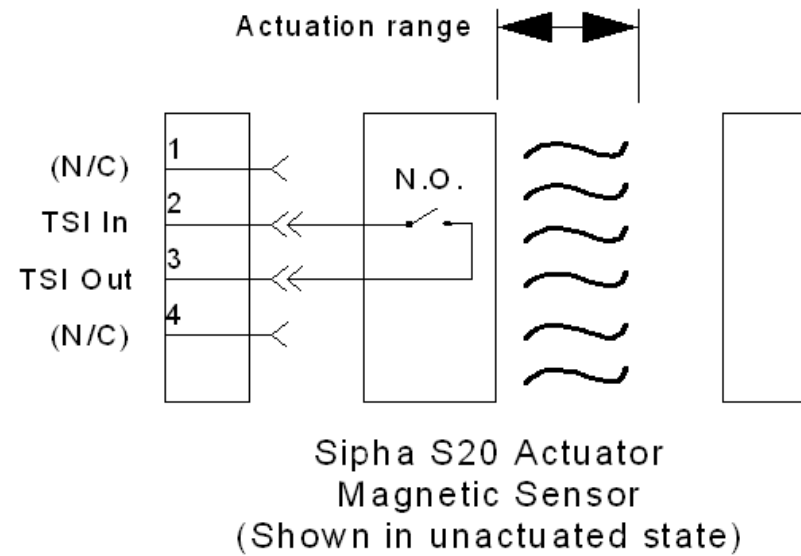
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Notes:  
1. Pin 19 on the ATI Pin Block is First-to-Mate and Last-to-Break contact, recommended as ground.



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PROJECT # 141114-5	SHEET 4 OF 5	SCALE 1:2	SIZE B
		DRAWING NUMBER 9630-20-VB19	REVISION 03

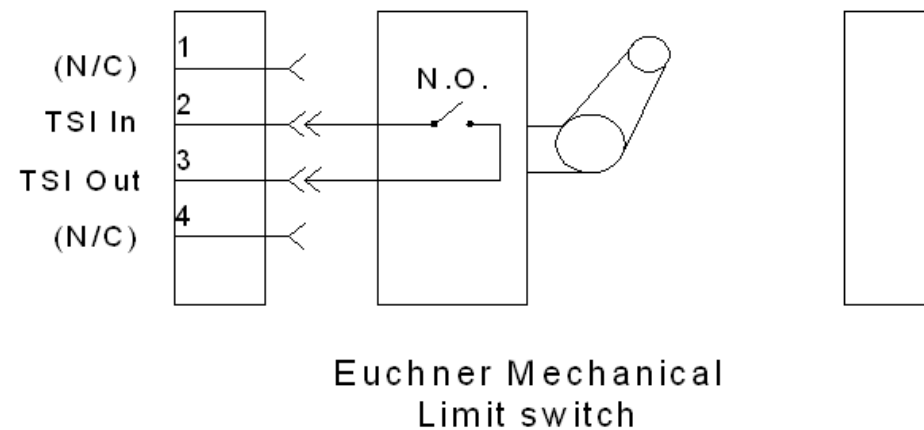
TSI Connector  
Turck FK4.4-0.5/18.25  
4-Pin Female Connector



Magnetic Sensor Notes:

- With RFID and magnetically based safety sensors, the unlock circuit will be completed when the sensor is in close proximity to the actuator. With the actuator mounted on the tool stand, the sensor will insure that a Tool can only be released at the tool stand.
  - ATI part numbers for the Allen-Bradley Sipa magnetic sensor are as follows:
    - Sipa S22/S20 Sensor and Actuator: 8600-440N-S32023-01
    - Sipa S22 Sensor Only: 8600-440N-S32023
    - Sipa S20 Actuator Only: 8605-440N-A32020
- Note: The Sipa sensor comes pre-assembled with a 3m long cable and M12, 5-pin connector.

TSI Connector  
Turck FK4.4-0.5/18.25  
4-Pin Female Connector

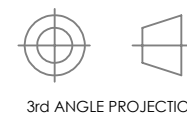


Mechanical Limit Switch Notes:

- Using a mechanical limit switch, the unlock circuit will be completed only when the switch has been actuated by a Tool Stand mounted cam or trip dog. It is suggested that a single pole, single throw (Normally Open, spring return) limit switch is utilized. The limit switch should be mounted to the end effector in such a way that the switch is "made" only when the Tool is in the stand or storage location.
- The limit switch is connected to the VB12 Master module via the 5-pin M12 connector (the cable to the limit switch is not included).
- ATI part number for the recommended Euchner limit switch is as follows:
  - Euchner Safety Switch NZ1HS-3131-M: 8510-9909999-01

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PROJECT #	141114-5	SHEET	5	OF 5
SCALE	1:1	SIZE	B	DRAWING NUMBER
				9630-20-VB19
				REVISION
				03