

## \*\*COMPLETE THIS FORM TO INITIATE SUPPLIER SCOUTING\*\*

### MEPNN Supplier Scouting Opportunity Synopsis

\*The submitting entity (MEP Center, requesting company, federal/state agency, other) agrees to notify NIST MEP of the status of actions taken as a result of this scouting instance within 30 days after receiving a results report. Notification should be via email to [scouting@nist.gov](mailto:scouting@nist.gov), indicating the following:

- Contact with matches identified in report complete and supply contract awarded, process complete
- Contact with matches identified in report complete and no supply contract awarded, process complete
- Contact with matches identified in report complete and supply negotiations underway, process in progress
- Contact with matches identified in report underway; supply negotiations not yet begun; process in progress
- Contact with matches identified in report not yet begun, process in progress
- Contact with matches identified in report will not occur within the next 6-months, process complete

Cable Assemblies

Item to be Scouted

\_\_\_\_\_ days  
Opportunities will be posted for 30 days unless specified

Please describe the item application/ the end use of item.\* Provide the item number if applicable: (N95 Mask vs Protective Mask).

Cable Assemblies used in robotics applications.

2021-115

Supplier Scouting Number (NIST MEP use)

Scouting customer/product NAICS Code, if known

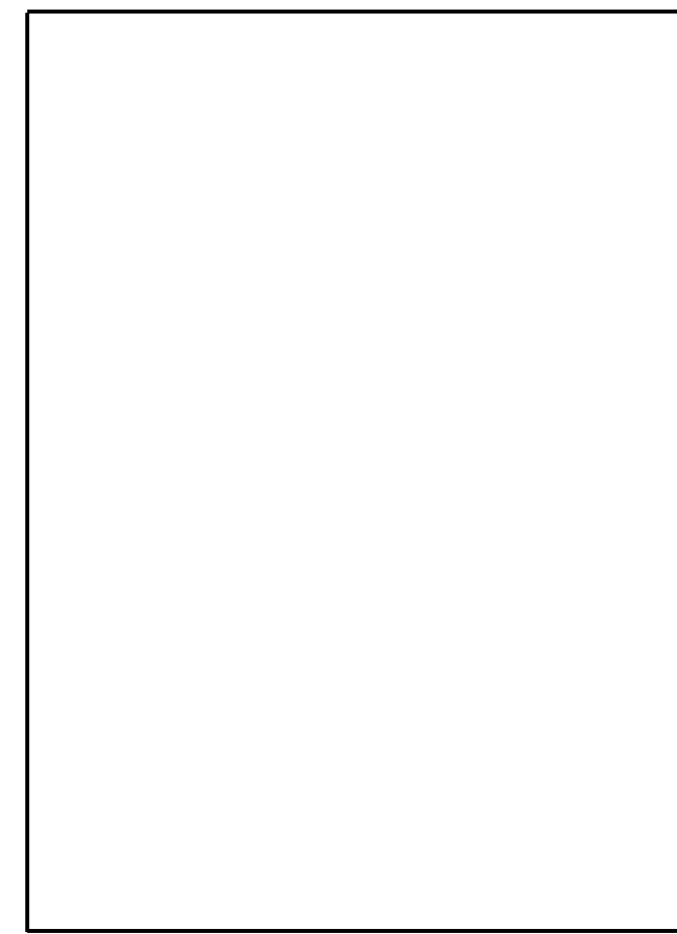
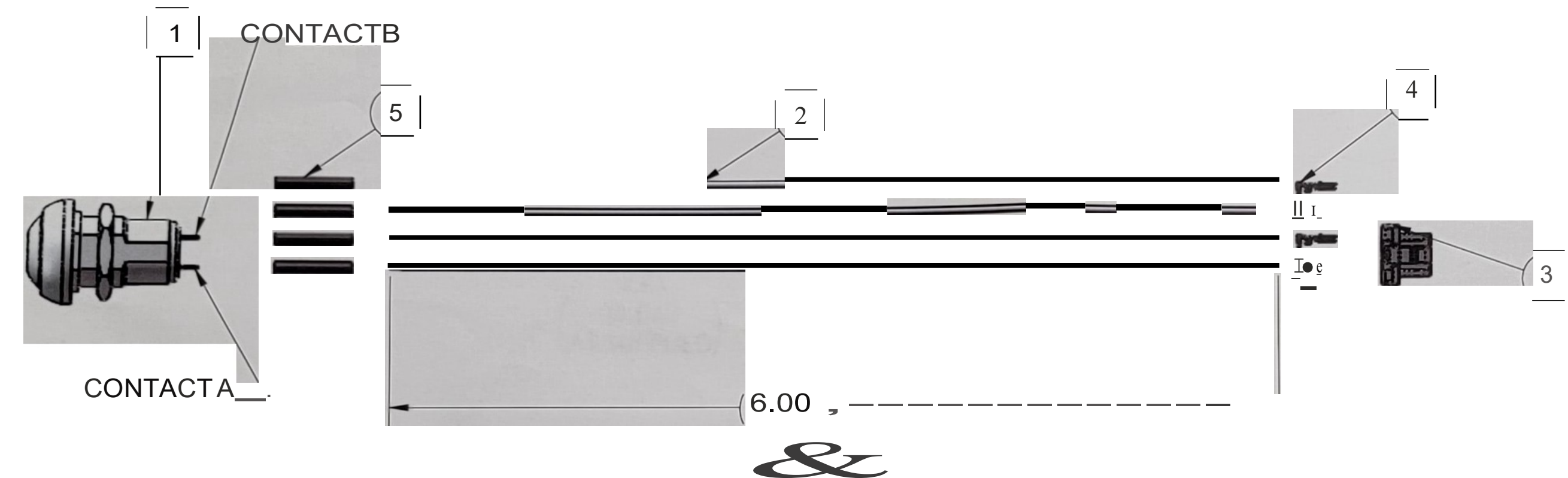
<b>TECHNICAL INFORMATION:</b>	<b>1. Supplier Information</b>	<b>a. Type of supplier being sought*</b>
		<input checked="" type="checkbox"/> <b>Manufacturer</b> <input type="checkbox"/> <b>Contract Manufacturer</b> <input type="checkbox"/> <b>Distributor</b> <input type="checkbox"/> <b>Other</b> _____
	<b>2. Summary of Technical Specifications and Performance Requirements:</b>	<b>b. Reason for scouting submission*</b>
		<input type="checkbox"/> <b>2<sup>nd</sup> Supplier</b> <input type="checkbox"/> <b>Price</b> <input type="checkbox"/> <b>Re-shore</b> <input type="checkbox"/> <b>Past supplier no longer available</b> <input checked="" type="checkbox"/> <b>New Product Startup</b> <input type="checkbox"/> <b>Other</b> _____
<b>a. Describe the manufacturing processes (elaborate to provide as much detail as possible).*</b>		
see additional comments section		
<b>b. Provide dimensions / size / tolerances / performance specifications for the item.*</b>		
10AWG to 32AWG crimps and splicing. All dimensions for heat shrink, cable lengths, and other physical dimensions will be provided in the drawing. Quality inspections must be made per the dimensions in the drawing.		
<b>c. List required materials needed to make the product, including materials of product components.*</b>		
Please reference attached prints and pictures. All other information will be provided upon request during the quoting process.		

2. Summary of Technical Specifications and Performance Requirements cont:	<p><b>d. Are there applicable certification requirements?*</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please explain</p>
	<p><b>e. Are there applicable regulations?*</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please explain</p>
	<p><b>f. Are there any other standards, requirements, etc.?*</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please explain</p>
	<p><b>g. Additional Comments: Is there other information that would impact the item's performance or usefulness? Please explain.</b></p> <p>Manufacturing processes: Design cable assemblies that are simple single conductor cables with crimps, to 20+ conductor, varying gauges size, and integrated with several cots and machined components with varying heat shrink and sheathing needs.</p>
	<p><b>3a. Estimated potential business volume (i.e., # Units Per Day, Month, Year) *:</b></p> <p>Prototyping of 1-5 pieces per job Production of 1-25+ pieces per job various complexities</p>
	<p><b>b. Estimated target price / unit cost information (flexible and negotiable <u>not</u> accepted) *:</b></p> <p>will vary based upon complexity and turnaround time</p>
	<p><b>a. When is it needed by? (Immediate, 30 Days, 6 months, etc.)*</b></p> <p>Company has both short term and medium-term requirements. Suppliers need to be prepared to quote and provide available capacity for 3, 5, 10, 15 and 20+ day turnaround (delivery to customer).</p> <p><b>b. Describe packaging requirements (i.e., individually/group packaging)*</b></p> <p>At a minimum each item to be labeled with part number and revision number. Orders to be shipped complete and no short shipments will be allowed unless authorized by customer in advance.</p> <p><b>c. Where will this item be shipped? *</b></p> <p>Pittsburgh, PA</p>
<p><b>5. Additional Comments:</b></p> <p>Is there other information you would like to include?</p>	

Photos or diagrams of the item (helpful but not required).

ITEM NO.	MANUFACTURER	PART NUMBER	DESCRIPTION	QTY.
1	APEM	IPR1SAD2LOG	Push Button Laich Switch	1
2	RE2MCOTS		24 AWG Wire	4
3	Molex	502578-0400	Clik Mole Housing, 4 Pin Single Row, 1.5mm Pitch	1
4	Molex	502579-1000		
5	RE2MCOTS		Clik-Mole Crimp Terminal, 1.5mm Pitch, 20-28 AWG, Gold Plated	
			Heat Shrink	

REV.	ECN	DESCRIPTION	DATE	REV BY	CHECKED BY
1	N/A	INITIAL RELEASE	8/26/15	JG	MCC
2	N/A	CHANGE CONTACT FROM TIN TO GOLD PLATED, ADDED IPC STANDARD TO NOTE	4/28/2016	JJG	FFC
3	N/A	UPDATED NOTE 3, UPDATED PINOUT TABLE, UPDATED HEAT SHRINK MATERIAL IN BOM	8/23/2016	JJG	FFC
4	N/A	CHANGED WIRE LENGTH FROM 2.5" TO 6"	7/12/2019	CD	JJG



PIN OUT		
ITEM0	ITEMG_)	TWIST
CONTACTA	PIN 1	2 TWISTS/INCH
CONTACTB	PIN 2	
LONG LEAD -t	PIN 3	2 TWISTS/INCH
SHORT LEAD -	PIN 4	

REVISION

- NOTES:
- CUT LED LEADS FROM ITEM0 TO .25"
  - SOLDER ITEM (D TO LED LEADS AND LUGS OF ITEM0
  - USE MOLEX CRIMP TOOL 63819-4600 WITH MODULAR CRIMP HEAD 63819-4670
  - ALL CABLE ASSEMBLIES AND HARNESSSES SHALL BE MANUFACTURED AND INSPECTED ACCORDING TO IPC/WHMA-A-620B, CLASS 2 DEDICATED SERVICE ELECTRONIC PRODUCTS STANDARD.

ALL DIMENSIONS ARE IN INCHES  
UNLESS OTHERWISE SPECIFIED:  
FRACTIONS X/X ! 1/16"  
DECIMAL .x ! .025  
DECIMAL .xx ± .010  
DECIMAL .xxx ! .005  
ANGLES !.50  
BREAK ALL SHARP EDGES

<b>Pushbutton Switch with Connector</b>		
CREATED DATE: oan6/2015	DESIGNED BY:	SHEET SCALE: I
DRAWING SIZE "B" SHEET 1 OF 1	PART NO.	REV. 4

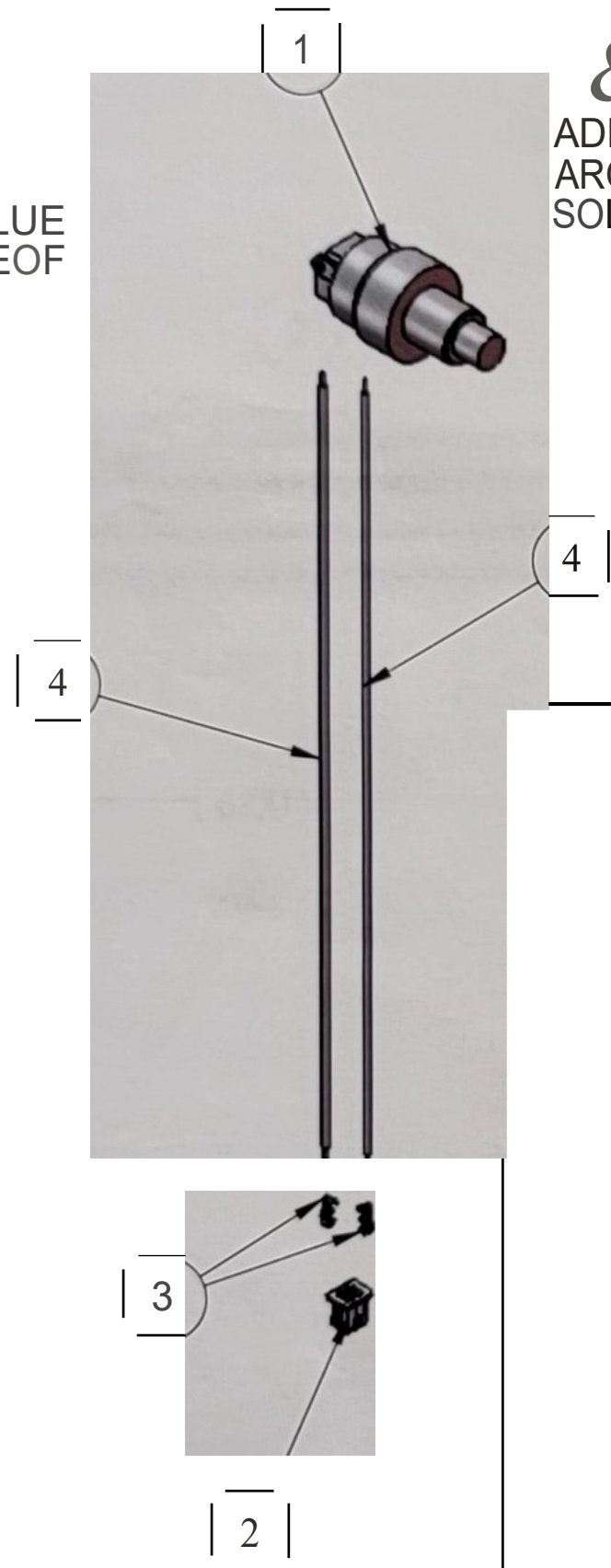
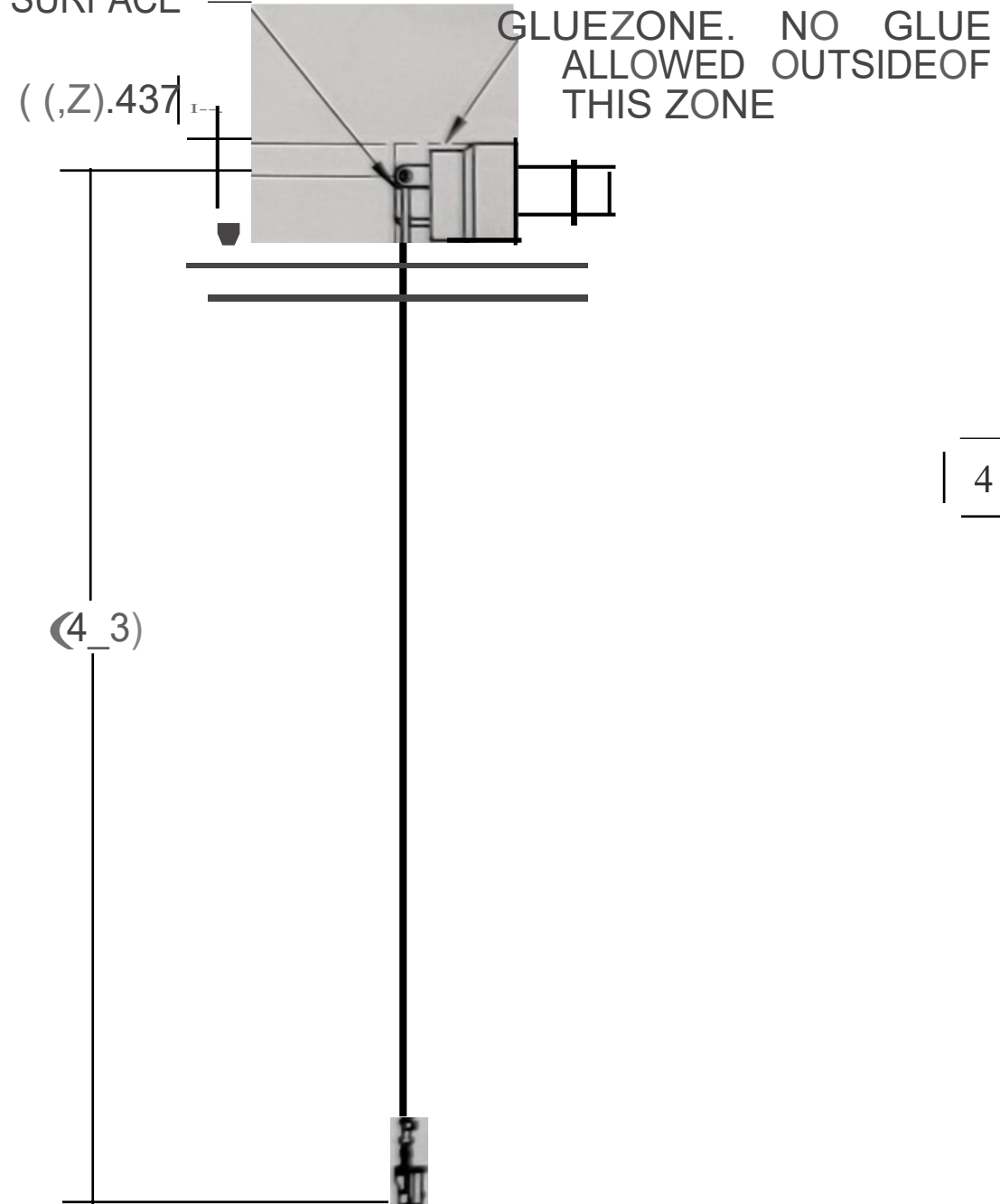
MATERIAL	N/A
CONDITION	N/A
FINISH	N/A



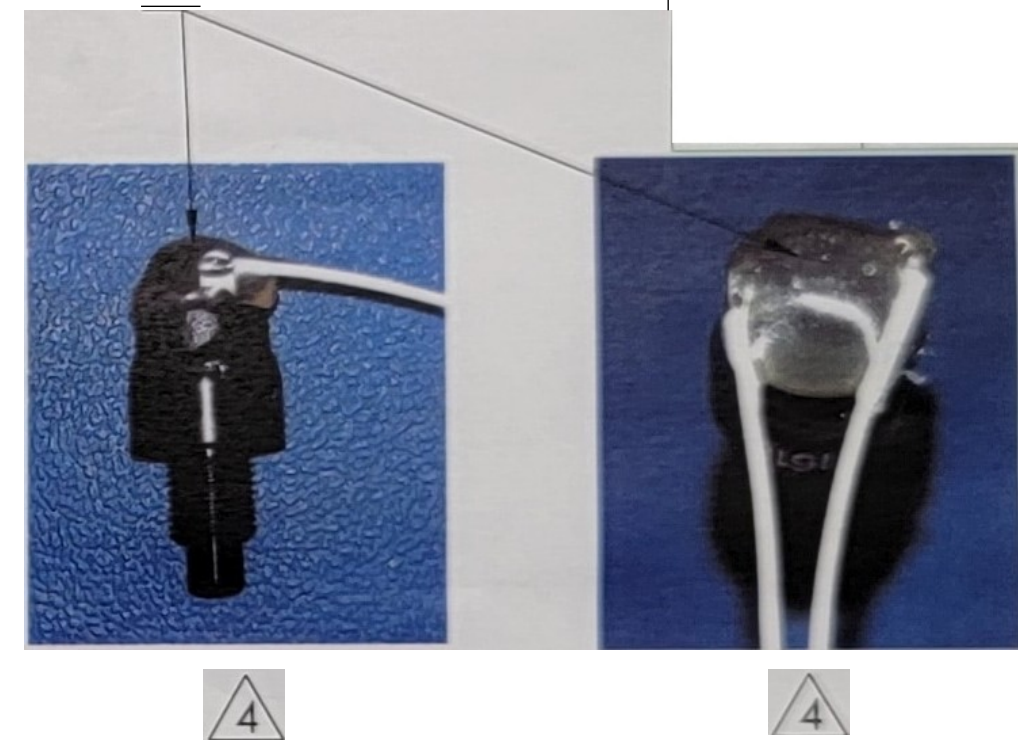
ITEM NO.	MANUFACTURER	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	OTTO	P7-571 I22	Sealed Subminiature Pushbutton Switch	N/A	1
2	Molex	51021-0200	PicoBlade, 2Pin, CrimpHousing	Thermoplastic Resin	1
3	Molex	500798100	Crimp Terminal	N/A Alphowire	2
4			28 AWG Wire 2, Teflon	6820-WHOOS	2

REV	DESCRIPTION	DATE	REV BY	APPROVED
1	INITIAL RELEASE	8/26/15	JG	MGC
2	ADD IPC STANDARD NOTE	6/17/2016	JJG	FFC
3	CHANGED ORIENTATION OF WIRES TO BE PERPENDICULAR TO SWITCH	8/5/2016	JJG	FFC
4	ADD PICTURES FOR BETTER DETAIL OF HOT GLUE	9/20/2016	JJG	FFC

GLUE ZONE FLUSH WITH THIS SURFACE



&  
ADD HOT GLUE(MCMASTERCARR 7518A55) AROUND TERMINALS AND WIRES AFTER SOLDERING FOR STRAIN RELIEF AS SHOWN



PIN OUT	
ITEM0	ITEMG)
PIN 1	PIN 1
PIN 2	PIN 2

REVISION

NOTES:  
 1\_ USE MOLEX CRIMP TOOL 63819-0400  
 2\_ SOLDER ITEM 0 TO ITEM0  
 3\_ ALL CABLE ASSEMBLIES AND HARNESSSES SHALL BE MANUFACTURED AND INSPECTED ACCORDING TO **IPC/WHMA-A-620B, CLASS2 DEDICATED SERVICE ELECTRONIC PRODUCTS** STANDARD

UNLESS OTHERWISE SPECIFIED:  
 FRACTIONS XIX ±.060  
 DECIMAL .X : .025  
 DECIMALS .XX : .010  
 DECIMALS .XXX t  
 ANGLES 15°  
 BREAK ALL SHARP EDGES  
 SURFACES TO BE 125 RMS MAX  
 SCALE: 1:1 NOT TO SCALE  
 UNITS: INCHES

PROJECT		PROJECT
DATE	8/26/2015	FILENAME
REVISION	4	PART NUMBER
		DESCRIPTION
		MATERIAL
		FINISH
		DRAWING SIZE
		SHEET 1 of 1



