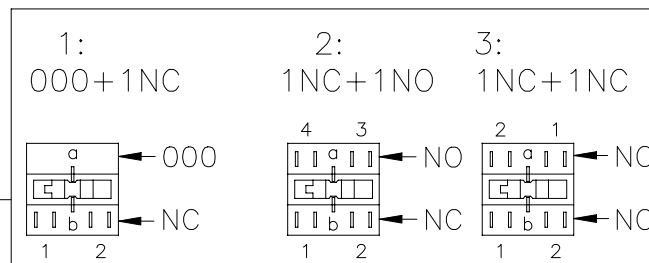


TE SMART PART NUMBER:

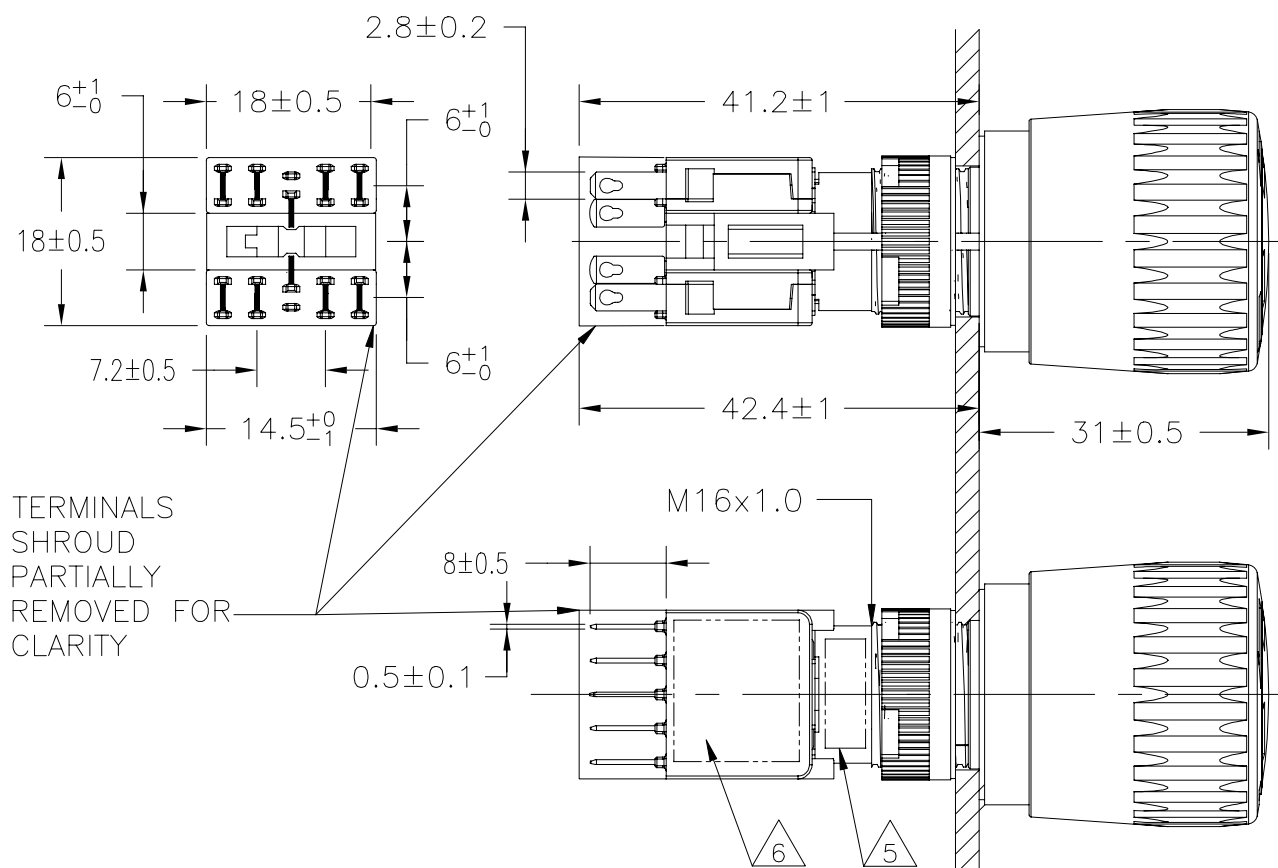
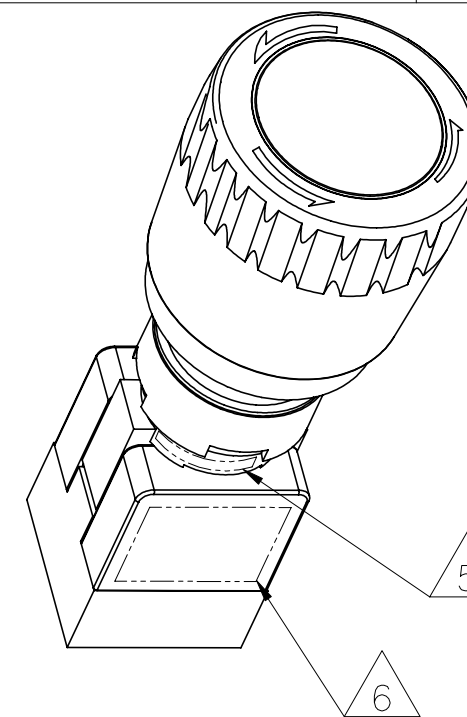
PBES16L R

LAMP: SEE TABLE, SHEETS 4 AND 5

FUNCTION

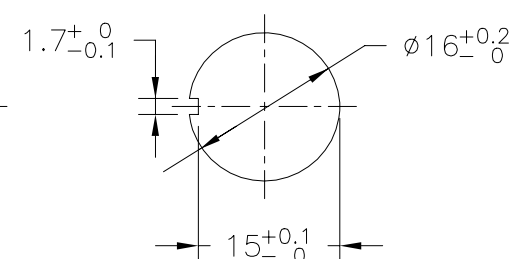


REVISIONS				
P	LTR	DESCRIPTION	DATE	DWN APVD
1		NEW DRAWING	24DEC2020	GSK AS

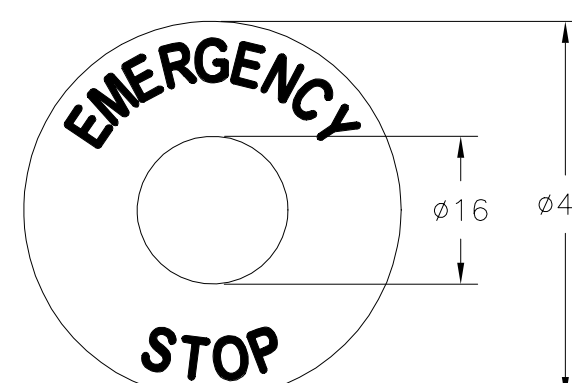


TERMINALS SHROUD PARTIALLY REMOVED FOR CLARITY

LAMP TERMINALS

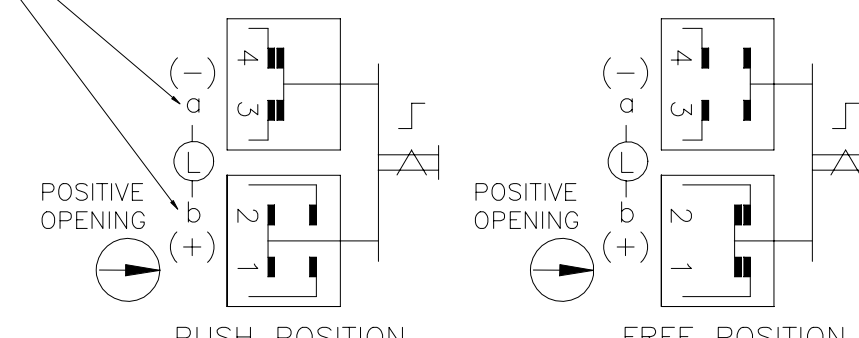


MOUNTING HOLE



IDENTIFICATION PLATE

PRELIMINARY



FUNCTION DIAGRAM FOR 2: 1NC+1NO

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 24DEC2020 SATHISH KUMAR G	TE Connectivity	
		CHK 24DEC2020 ALEXANDER, SHARPE		
DIMENSIONS: mm		APVD 24DEC2020 ALEXANDER, SHARPE	NAME SWITCH, EMERGENCY STOP, PBES16L SERIES, 28MM DIAMETER WITH LAMP OPTIONS, PUSH TO LOCK, LEFT TURN TO RELEASE, 16MM PANEL DIAMETER	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		PRODUCT SPEC	RESTRICTED TO	
0 PLC ± -		APPLICATION SPEC	SIZE	CAGE CODE
1 PLC ± -			A3	00779
2 PLC ± -			DRAWING NO	
3 PLC ± -			C-2381880	
4 PLC ± -			RESTRICTED TO	
ANGLES ± -			-	
MATERIAL		WEIGHT	CUSTOMER DRAWING	
FINISH			SCALE	SHEET
			NTS	1 of 5
				REV 1

PRODUCT SPECIFICATIONS :

- MECHANICAL LIFE : > 100,000 OPERATIONS
- ELECTRICAL LIFE : > 50,000 OPERATIONS
- MOTION TOLERANCE : < 20 OPERATIONS / MINUTE
(MECHANICAL AND ELECTRICAL LIFE)
- DEGREE OF PROTECTION : IP 65
- PANEL THICKNESS : 0.5 mm TO 5 mm
- MOUNTING TORQUE : 1.1 N-m
- MAX. INSULATION VOLTAGE : 1500VAC, 60Hz, 10mA, 1MINUTE
- INSULATION RESISTANCE : 100 MΩ @ 500VDC, 100mA, 1MINUTE
- STORAGE TEMPERATURE : -40°C TO +85°C
- OPERATING TEMPERATURE : -25°C TO +55°C
(-25°C TO +70°C WITHOUT LAMP)
- CONTACT RESISTANCE : ≤ 50 mΩ (INITIAL)
- OPERATING FORCES : PUSH-LOCK 20⁺⁰₋₁₀ N, TURN-RESET 0.06 N-m
- OPERATING TRAVEL : PUSH-LOCK 3.6⁺⁰_{-0.6}mm, TURN-RESET CCW 30°
- POLLUTION DEGREE : 3
- CONDITIONAL SHORT-CIRCUIT CURRENT: 1000A
- ELECTRICAL RATINGS:

RATED INSULATION VOLTAGE (<i>U_i</i>)	300V	
CONVENTIONAL ENCLOSED THERMAL CURRENT (<i>I_{the}</i>)	5A	
RATED OPERATIONAL VOLTAGE (<i>U_e</i>)	125V	250V
UTILIZATION CATEGORY	RATED OPERATIONAL CURRENT (<i>I_e</i>)	
AC-15	3	1.5
DC-13	0.22	0.11

U_{imp} : 2.5kV

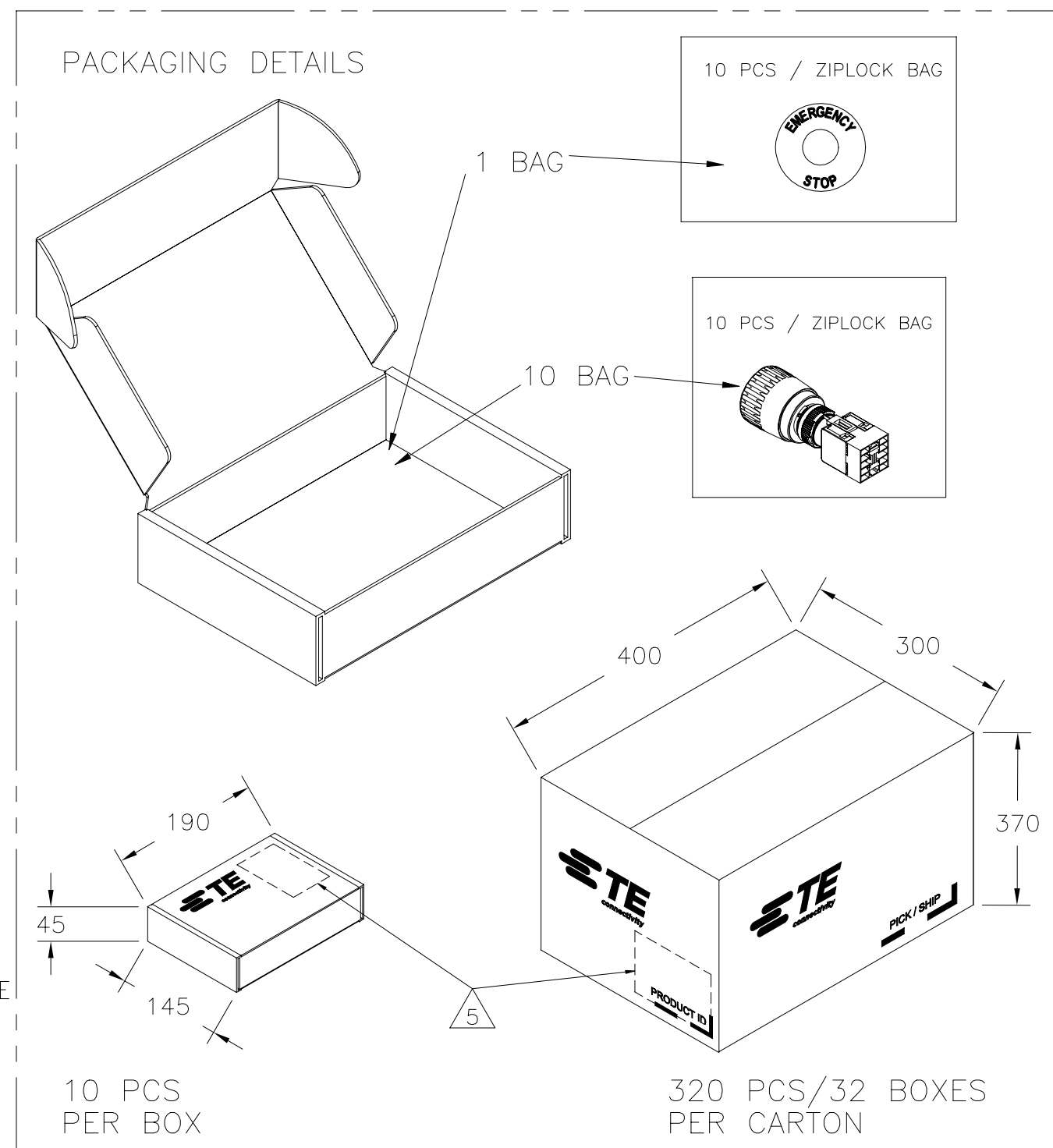
APPLICABLE STANDARDS : EN/IEC 60947-5-1, EN/IEC 60947-5-5

MATERIALS :

- ① ACTUATOR HOUSING : POLYPHTHALAMIDE (UL94-V0), BLACK
- ② CONTACT BLOCK HOUSING : POLYPHTHALAMIDE (UL94-V0)/
POLYBUTYLENE TEREPHTHALATE (UL94-V0),BLACK/WHITE
- ③ ACTUATOR : POLYAMIDE (UL94-V0), RED
- ④ GASKET : RUBBER, BLACK
- TERMINAL / CONTACT : COPPER ALLOY WITH SILVER ALLOY, Au PLATED
- ⑤ MOUNTING RING : POLYCARBONATE, PC(UL94-V0), BLACK

REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

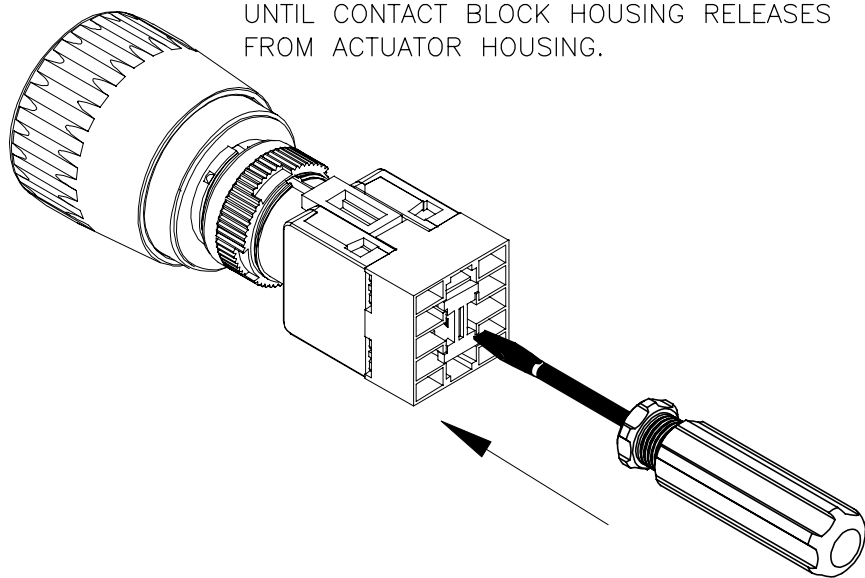
PACKAGING DETAILS



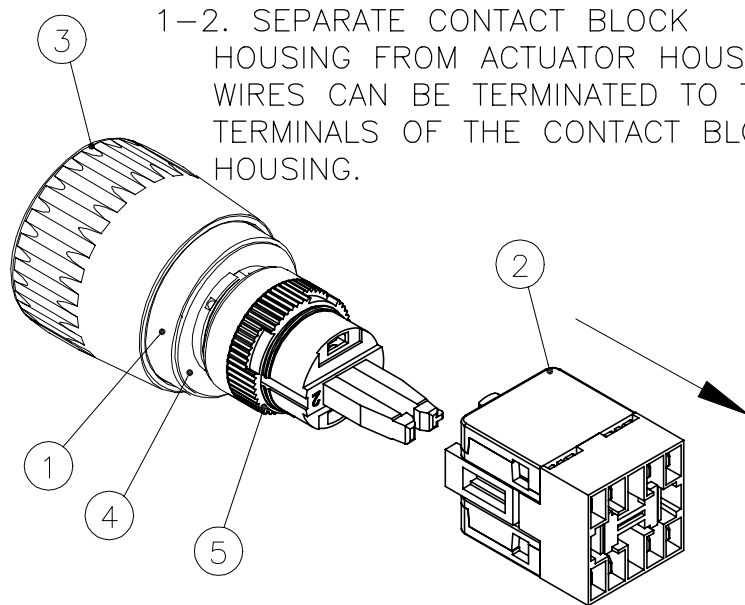
PRELIMINARY

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 24DEC2020 SATHISH KUMAR G	STE TE Connectivity		
		CHK 24DEC2020 ALEXANDER, SHARPE			
		APVD 24DEC2020 ALEXANDER, SHARPE	NAME SWITCH, EMERGENCY STOP, PBES16L SERIES, 28MM DIAMETER WITH LAMP OPTIONS, PUSH TO LOCK, LEFT TURN TO RELEASE, 16MM PANEL DIAMETER		
DIMENSIONS: mm		PRODUCT SPEC	RESTRICTED TO		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPLICATION SPEC	SIZE CAGE CODE DRAWING NO		
0 PLC ± -		—	A3 00779 C-2381880		
1 PLC ± -		—	SCALE NTS SHEET 2 OF 5 REV 1		
2 PLC ± -		—			
3 PLC ± -		—			
4 PLC ± -		—			
ANGLES ± -		—			
MATERIAL		WEIGHT			
FINISH		CUSTOMER DRAWING			

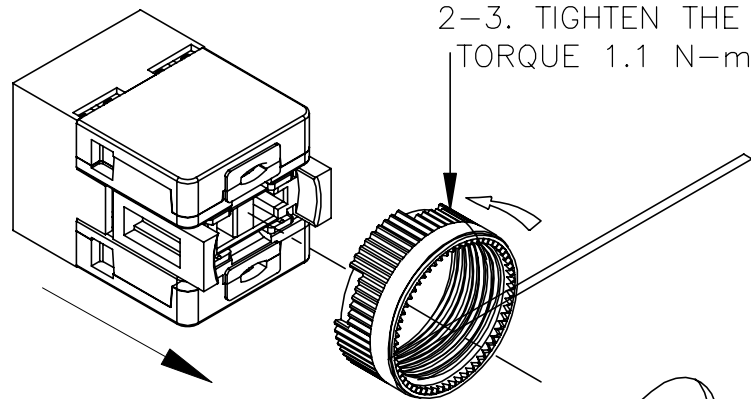
1-1. DEPRESS RELEASE TAB WITH SCREWDRIVER UNTIL CONTACT BLOCK HOUSING RELEASES FROM ACTUATOR HOUSING.



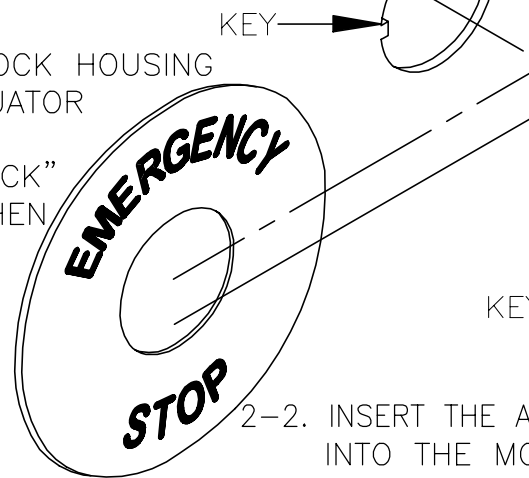
1-2. SEPARATE CONTACT BLOCK HOUSING FROM ACTUATOR HOUSING. WIRES CAN BE TERMINATED TO THE TERMINALS OF THE CONTACT BLOCK HOUSING.



2-3. TIGHTEN THE MOUNTING RING, TORQUE 1.1 N-m.



3-1. INSTALL THE CONTACT BLOCK HOUSING TO THE ACTUATOR HOUSING. AUDIBLE "CLICK" SOUNDED WHEN SEATED.

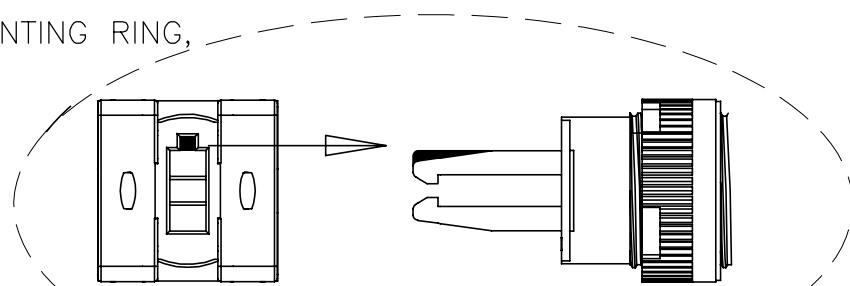


2-2. INSERT THE ACTUATOR HOUSING INTO THE MOUNTING HOLE.

2-1. POSITION IDENTIFICATION PLATE OVER THE MOUNTING HOLE.



3-1A. ALIGN THE INNER SLOT TO THE RIB ON THE PLASTIC HOOK WHILE ASSEMBLING THE CONTACT BLOCK HOUSING WITH THE ACTUATOR HOUSING.



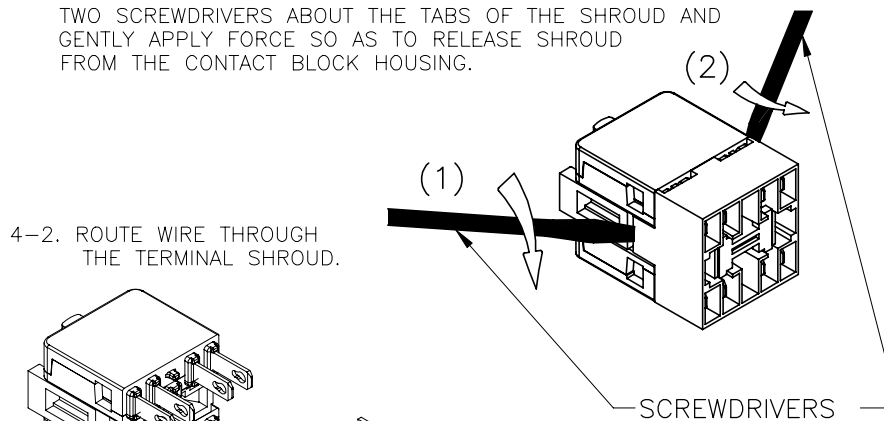
PRELIMINARY

REVISIONS

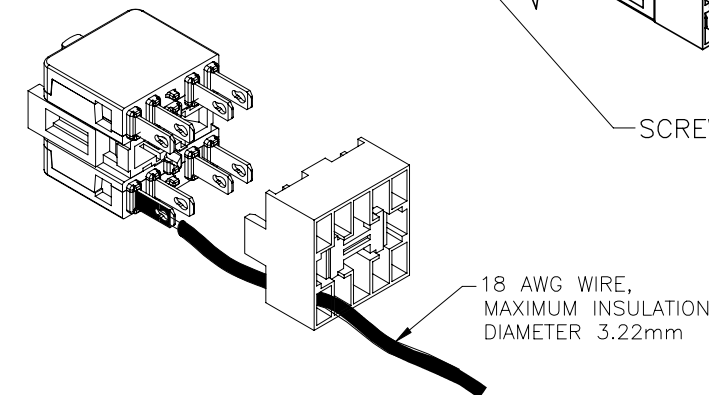
P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

SOLDER TERMINATIONS:

4-1. REMOVE TERMINAL SHROUD--AFFIX TWO SCREWDRIVERS ABOUT THE TABS OF THE SHROUD AND GENTLY APPLY FORCE SO AS TO RELEASE SHROUD FROM THE CONTACT BLOCK HOUSING.



4-2. ROUTE WIRE THROUGH THE TERMINAL SHROUD.



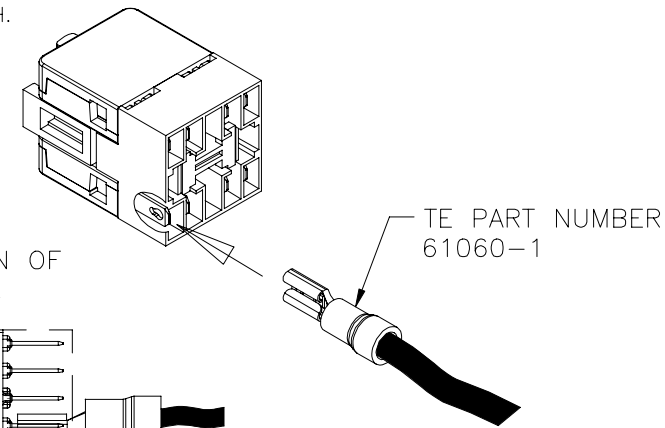
4-3. SOLDER WIRES TO TERMINALS. SOLDERING TEMPERATURE IS 360°C FOR 3 SECONDS.

FASTON TERMINAL TERMINATION:

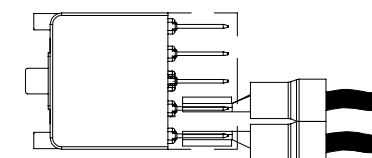
NOTED LAMP TERMINALS ARE LABELED A- AND B+

4-1. CRIMP TE FASTON RECEPTACLE 110 SERIES TERMINAL PART NUMBER 61060-1 TO 18 AWG WIRE, MAXIMUM INSULATION DIAMETER 2.54MM

4-2. MATE THE TERMINAL TERMINATED TO WIRE TO THE TERMINAL OF THE SWITCH.



4-3. ORIENTATION OF TERMINALS.




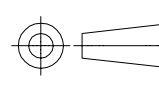
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 24DEC2020 SATHISH KUMAR G	TE Connectivity	
		CHK 24DEC2020 ALEXANDER, SHARPE		
		APVD 24DEC2020 ALEXANDER, SHARPE	NAME SWITCH, EMERGENCY STOP, PBES16L SERIES, 28MM DIAMETER WITH LAMP OPTIONS, PUSH TO LOCK, LEFT TURN TO RELEASE, 16MM PANEL DIAMETER	
DIMENSIONS: mm		TOLERANCES UNLESS OTHERWISE SPECIFIED:	PRODUCT SPEC	
		0 PLC ± -	APPLICATION SPEC	
		1 PLC ± -	WEIGHT	
		2 PLC ± -	SIZE A3	
		3 PLC ± -	CAGE CODE 00779	
		4 PLC ± -	DRAWING NO C-2381880	
		ANGLES ± -	RESTRICTED TO	
MATERIAL -		FINISH -	SCALE NTS	
			SHEET 3 of 5	
			REV 1	
			CUSTOMER DRAWING	

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

FUNCTION	LAMP RATING	LAMP TYPE	DESCRIPTION	TE SMART PART NUMBER	TE PART NUMBER ⁵
000 + 1NC	6VAC/DC 40mA	INCANDESCENT	PBES16 28 INCA 6V AC/DC 40mA 000 1NC	PBES16L1NR	2381880-1
	6V AC/DC 200mA	INCANDESCENT	PBES16 28 INCA 6V AC/DC 200mA 000 1NC	PBES16L1HR	2381880-2
	14V AC/DC 40mA	INCANDESCENT	PBES16 28 INCA 14V AC/DC 40mA 000 1NC	PBES16L1OR	2381880-3
	14 V AC/DC 80mA	INCANDESCENT	PBES16 28 INCA 14 V AC/DC 80mA 000 1NC	PBES16L1IR	2381880-4
	28V AC/DC 40mA	INCANDESCENT	PBES16 28 INCA 28V AC/DC 40mA 000 1NC	PBES16L1JR	2381880-5
	33V AC/DC 35mA	INCANDESCENT	PBES16 28 INCA 33V AC/DC 35mA 000 1NC	PBES16L1MR	2381880-6
	48V AC/DC 25mA	INCANDESCENT	PBES16 28 INCA 48V AC/DC 25mA 000 1NC	PBES16L1KR	2381880-7
	60V AC/DC 20mA	INCANDESCENT	PBES16 28 INCA 60V AC/DC 20 mA 000 1NC	PBES16L1LR	2381880-8
	6V DC 28mA	LED	PBES16 28 LED 6V DC 28mA 000 1NC	PBES16L1AR	2381880-9
	12V DC 19mA	LED	PBES16 28 LED 12V DC 19mA 000 1NC	PBES16L1BR	1-2381880-0
	12 to 24V AC/DC 11mA	LED	PBES16 28 LED 12 TO 24V AC/DC 11mA 000 1NC	PBES16L1DR	1-2381880-1
	24V DC 12mA	LED	PBES16 28 LED 24V DC 12 mA 000 1NC	PBES16L1CR	1-2381880-2
	120V AC 7mA	LED	PBES16 28 LED 120V AC 7mA 000 1NC	PBES16L1ER	1-2381880-3
	110V AC 1.3mA	NEON	PBES16 28 NEON 110V AC 000 1NC	PBES16L1FR	1-2381880-4
220V AC 1.3mA	NEON	PBES16 28 NEON 220V AC 000 1NC	PBES16L1GR	1-2381880-5	
1NC + 1NO	6VAC/DC 40mA	INCANDESCENT	PBES16 28 INCA 6VAC/DC 40mA 1NC 1NO	PBES16L2NR	1-2381880-6
	6V AC/DC 200mA	INCANDESCENT	PBES16 28 INCA 6V AC/DC 200mA 1NC 1NO	PBES16L2HR	1-2381880-7
	14V AC/DC 40mA	INCANDESCENT	PBES16 28 INCA 14V AC/DC 40mA 1NC 1NO	PBES16L2OR	1-2381880-8
	14 V AC/DC 80mA	INCANDESCENT	PBES16 28 INCA 14 V AC/DC 80mA 1NC 1NO	PBES16L2IR	1-2381880-9
	28V AC/DC 40mA	INCANDESCENT	PBES16 28 INCA 28V AC/DC 40mA 1NC 1NO	PBES16L2JR	2-2381880-0
	33V AC/DC 35mA	INCANDESCENT	PBES16 28 INCA 33V AC/DC 35mA 1NC 1NO	PBES16L2MR	2-2381880-1
	48V AC/DC 25mA	INCANDESCENT	PBES16 28 INCA 48V AC/DC 25mA 1NC 1NO	PBES16L2KR	2-2381880-2
	60V AC/DC 20mA	INCANDESCENT	PBES16 28 INCA 60V AC/DC 20 mA 1NC 1NO	PBES16L2LR	2-2381880-3
	6V DC 28mA	LED	PBES16 28 LED 6V DC 28mA 1NC 1NO	PBES16L2AR	2-2381880-4
	12V DC 19mA	LED	PBES16 28 LED 12V DC 19mA 1NC 1NO	PBES16L2BR	2-2381880-5
	12 to 24V AC/DC 11mA	LED	PBES16 28 LED 12 TO 24V AC/DC 11mA 1NC 1NO	PBES16L2DR	2-2381880-6
	24V DC 12mA	LED	PBES16 28 LED 24V DC 12 mA 1NC 1NO	PBES16L2CR	2-2381880-7
	120V AC 7mA	LED	PBES16 28 LED 120V AC 7mA 1NC 1NO	PBES16L2ER	2-2381880-8
	110V AC 1.3mA	NEON	PBES16 28 NEON 110V AC 1NC 1NO	PBES16L2FR	2-2381880-9
220V AC 1.3mA	NEON	PBES16 28 NEON 220V AC 1NC 1NO	PBES16L2GR	3-2381880-0	

PRELIMINARY

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN 24DEC2020 SATHISH KUMAR G	 TE Connectivity
		CHK 24DEC2020 ALEXANDER, SHARPE	
DIMENSIONS: mm		APVD 24DEC2020 ALEXANDER, SHARPE	NAME SWITCH, EMERGENCY STOP, PBES16L SERIES, 28MM DIAMETER WITH LAMP OPTIONS, PUSH TO LOCK, LEFT TURN TO RELEASE, 16MM PANEL DIAMETER
		PRODUCT SPEC -	
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± - 1 PLC ± - 2 PLC ± - 3 PLC ± - 4 PLC ± - ANGLES ± -		APPLICATION SPEC -	SIZE A3
MATERIAL -		FINISH -	CAGE CODE 00779
		WEIGHT -	DRAWING NO C-2381880
CUSTOMER DRAWING			RESTRICTED TO -
SCALE NTS			SHEET 4 of 5
			REV 1

P	LTR	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

FUNCTION	LAMP RATING	LAMP TYPE	DESCRIPTION	TE SMART PART NUMBER	TE PART NUMBER ⁵
1NC + 1NC	6VAC/DC 40mA	INCANDESCENT	PBES16 28 INCA 6VAC/DC 40mA 1NC 1NC	PBES16L3NR	3-2381880-1
	6V AC/DC 200mA	INCANDESCENT	PBES16 28 INCA 6V AC/DC 200mA 1NC 1NC	PBES16L3HR	3-2381880-2
	14V AC/DC 40mA	INCANDESCENT	PBES16 28 INCA 14V AC/DC 40mA 1NC 1NC	PBES16L3OR	3-2381880-3
	14 V AC/DC 80mA	INCANDESCENT	PBES16 28 INCA 14 V AC/DC 80mA 1NC 1NC	PBES16L3IR	3-2381880-4
	28V AC/DC 40mA	INCANDESCENT	PBES16 28 INCA 28V AC/DC 40mA 1NC 1NC	PBES16L3JR	3-2381880-5
	33V AC/DC 35mA	INCANDESCENT	PBES16 28 INCA 33V AC/DC 35mA 1NC 1NC	PBES16L3MR	3-2381880-6
	48V AC/DC 25mA	INCANDESCENT	PBES16 28 INCA 48V AC/DC 25mA 1NC 1NC	PBES16L3KR	3-2381880-7
	60V AC/DC 20mA	INCANDESCENT	PBES16 28 INCA 60V AC/DC 20 mA 1NC 1NC	PBES16L3LR	3-2381880-8
	6V DC 28mA	LED	PBES16 28 LED 6V DC 28mA 1NC 1NC	PBES16L3AR	3-2381880-9
	12V DC 19mA	LED	PBES16 28 LED 12V DC 19mA 1NC 1NC	PBES16L3BR	4-2381880-0
	12 to 24V AC/DC 11mA	LED	PBES16 28 LED 12 TO 24V AC/DC 11mA 1NC 1NC	PBES16L3DR	4-2381880-1
	24V DC 12mA	LED	PBES16 28 LED 24V DC 12 mA 1NC 1NC	PBES16L3CR	4-2381880-2
	120V AC 7mA	LED	PBES16 28 LED 120V AC 7mA 1NC 1NC	PBES16L3ER	4-2381880-3
	110V AC 1.3mA	NEON	PBES16 28 NEON 110V AC 1NC 1NC	PBES16L3FR	4-2381880-4
220V AC 1.3mA	NEON	PBES16 28 NEON 220V AC 1NC 1NC	PBES16L3OR	4-2381880-5	
000 + 1NC	NO LAMP	NO LAMP	PBES16 28 NO LAMP 000 1NC	PBES16L10R	4-2381880-6
1NC + 1NO	NO LAMP	NO LAMP	PBES16 28 NO LAMP 1NC 1NO	PBES16L20R	4-2381880-7
1NC + 1NC	NO LAMP	NO LAMP	PBES16 28 NO LAMP 1NC 1NC	PBES16L30R	4-2381880-8

⁶ PART MARKING:
 FUNCTION TERMINAL BLOCK 000 FUNCTION TERMINAL BLOCK NC FUNCTION TERMINAL BLOCK NO

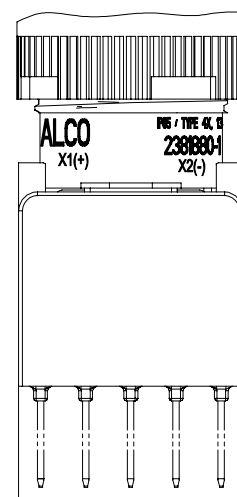
NOTES:

1. COMPLIANCE: THE CURRENT STATEMENT OF COMPLIANCE IS AVAILABLE AT TE.COM.
2. NAME PLATE IS PACKAGED SEPARATELY FROM THE SWITCH.
3. AGENCY CONFORMANCE - UL AND TUV,
- ⁴ REFERENCE TE PACKAGING LABELS FOR AGENCY INFORMATION.

⁵ PART MARKING:
 ACTUATOR LABEL MARKING:

ALCO IP65/TYPE 4X.13 X1(+)
 X2(-) □-2381880-□ X2(-)

↑
 TE PART NUMBER,
 SEE TABLE, SHEETS 4 OF 5 AND 5 OF 5



PRELIMINARY

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DIMENSIONS: mm		CHK 24DEC2020 ALEXANDER, SHARPE			
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0 PLC ± -		PRODUCT SPEC		SIZE	
1 PLC ± -		APPLICATION SPEC		CAGE CODE	
2 PLC ± -		WEIGHT		DRAWING NO	
3 PLC ± -		CUSTOMER DRAWING		RESTRICTED TO	
4 PLC ± -		SCALE NTS		SHEET 5 OF 5	
ANGLES ± -		SHEET 5 OF 5		REV 1	
FINISH		A3 00779		C-2381880	