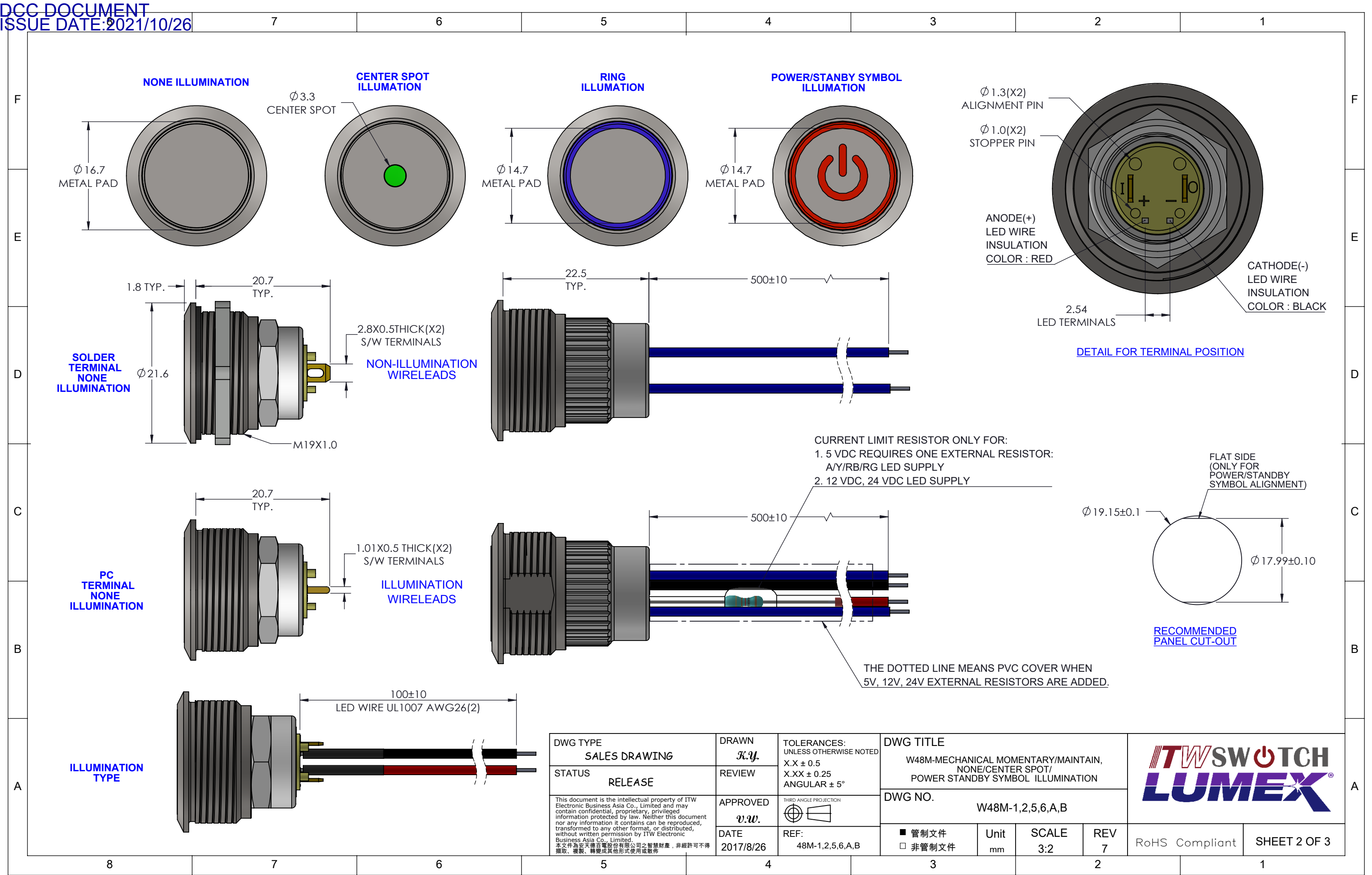


ISSUE DATE:2021/10/26															7	6	5	4	3	2	1								
W48M- X X X X XX																													



[illegible]

D	<u>MECHANICAL CHARACTERISTICS:</u> SWITCH CIRCUITRY: SPST-NO SWITCH ACTION: MOMENTARY AND MAINTAINED BUTTON TRAVEL: 2.3mm [.090] NOMINAL OPERATING FORCE: 306g [3N] NOMINAL CONTACT BOUNCE: 1ms NOMINAL PANEL THICKNESS: 0.5 - 4.5mm[.020 - .177] NUT TORQUE FORCE: MAX11.5 kgf-cm [10 LB-in]
---	---

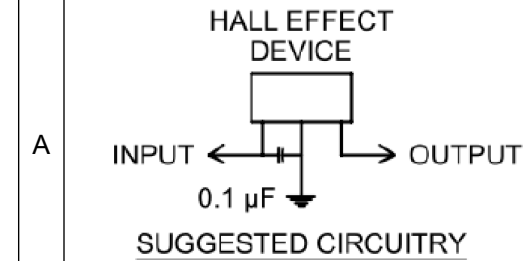
	<u>ENVIROMENTAL SPECIFICATIONS:</u> ACTUATOR INGRESS PROTECTION: IP67 <u>SWITCH LIFE:</u> MOMENTARY: 1,000,000 CYCLES (NOMINAL) MAINTAINED: 50,000 CYCLES (NOMINAL)
--	---

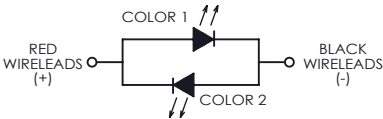
C	OPERATING TEMPERATURE: NON-ILLUMINATION TYPE: -40°C to +85°C [-40°F to +185°F] ILLUMINATION TYPE: -40°C to +85°C [-40°F to +185°F]	
---	--	--

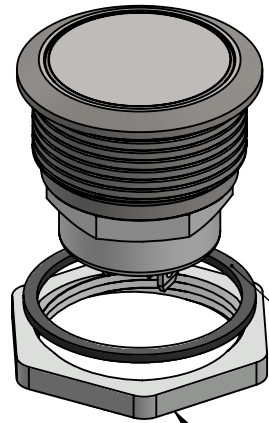
ELECTRICAL SPECIFICATIONS:
 SUPPLY VOLTAGE: 4.2V to 24V, 26.5 MAX
 SUPPLY CURRENT:
 B>Brp, Vcc=12V: 3mA TYP to 8mA MAX
 B>Bop, Vcc=12V: 4mA TYP to 8mA MAX
 OUTPUT LOAD: SINKING (I out MAX = 25mA)
 REVERSE BATTERY VOLTAGE: -30V MAX
 REVERSE BATTERY CURRENT: -50mA MAX

B	<u>LED SPECIFICATIONS:</u> SEE LED SPECIFICATION
---	---

	NON-ILLUMINATION
	NOTE
	1.CURRENT LIMITING RESISTOR IS REQUIRED TO LIMIT LED FORWARD CURRENT TO 20mA
	2. SUPPLY HEX NUT AND SEALING WASHER BULK PACKED.
	3.INNER RESISTOR ONLY FOR LED :RED / BLUE / GREEN / WHITE.

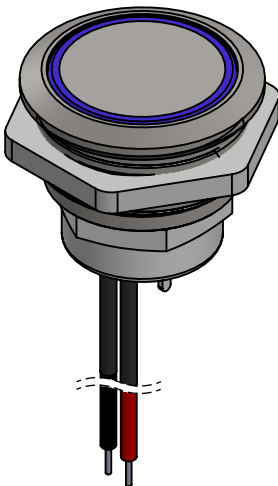


LED SPECIFICATION								
LED CODE	LED SINGLE COLOR		V _f (VDC)	I _f (mA)	CIRCUITRY			
			TYP.					
R	RED		2.0	20				
A	AMBER		2.0	20				
Y	YELLOW		2.0	20				
G	GREEN		3.0	20				
B	BLUE		3.1	20				
W	WHITE		3.3	20				
LED CODE	BICOLOR LED		V _f (VDC)	I _f (mA)	CIRCUITRY			
	COLOR1	COLOR2	TYP.					
RB	RED	BLUE	2.0(RED) 3.3(BLUE)	20				
RG	RED	GREEN	2.0(RED) 3.4(GREEN)	20				
NOTE: Hand Soldering Temperature (4mm above from Body) : 320°C for 3 seconds								
SWITCH TYPE	WIRELEADS SPECIFICATION	SW TERMINALS			LED			
		I	O	G	COLOR 1		COLOR 2	
ILLUMINATION	AWG26/UL1007	BLUE	WHITE	GREEN	RED	BLACK	BLACK	RED
NON-ILLUMINATION		BLUE	WHITE	GREEN	---	---	---	---

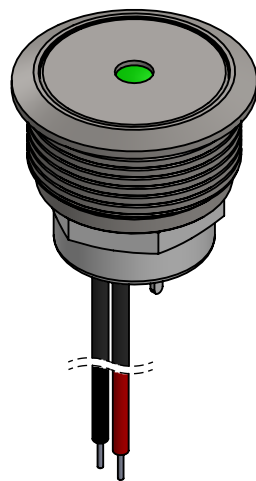


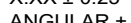
SEALING WASHER
T=0.8
(SUPPLIED IN BULK)

SPECIAL HEX NUT
HEX 22.1, M19*P1.0_
T=2.2
(SUPPLIED IN BULK)

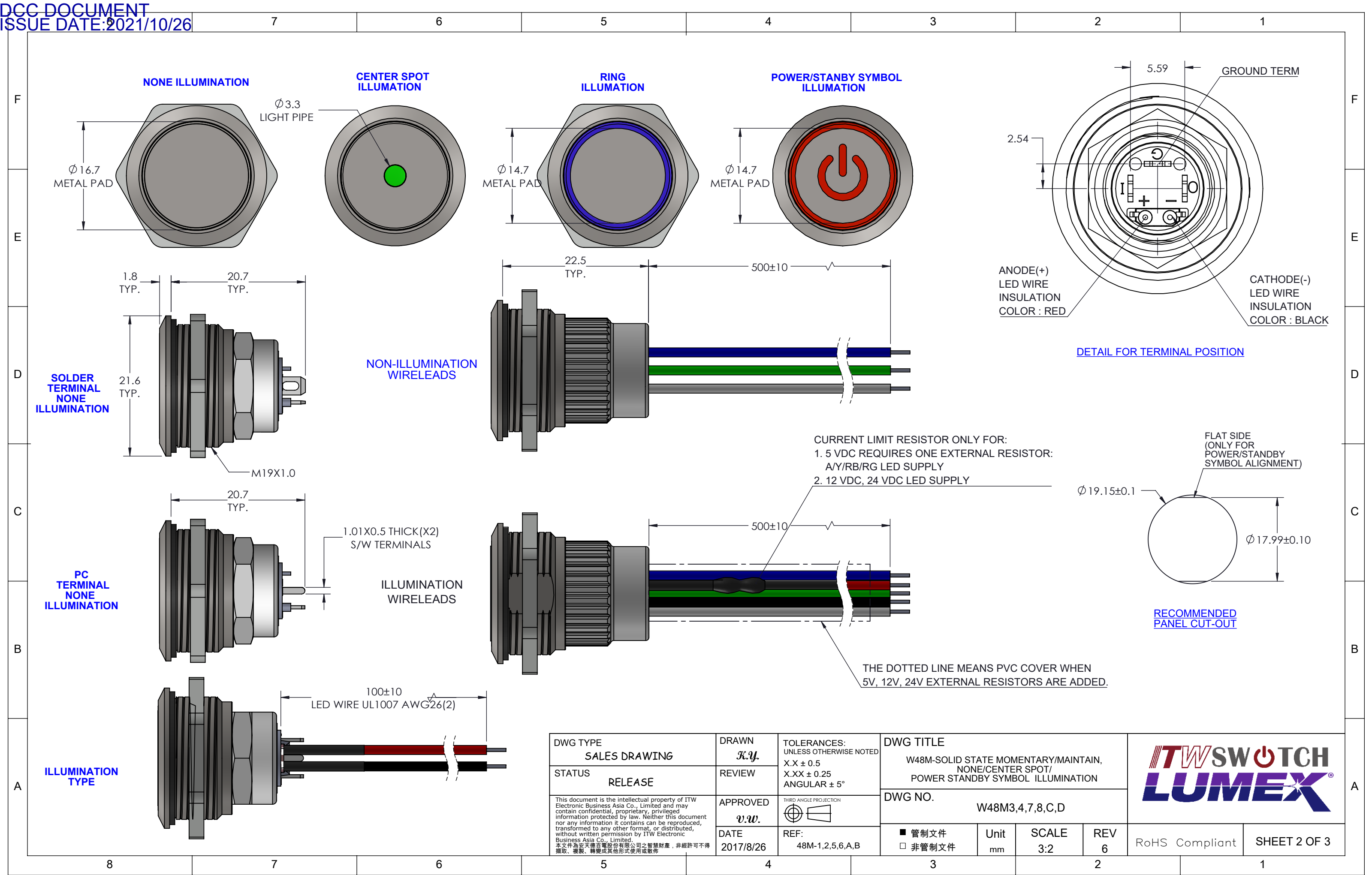


CENTER SPOT ILLUMINATION



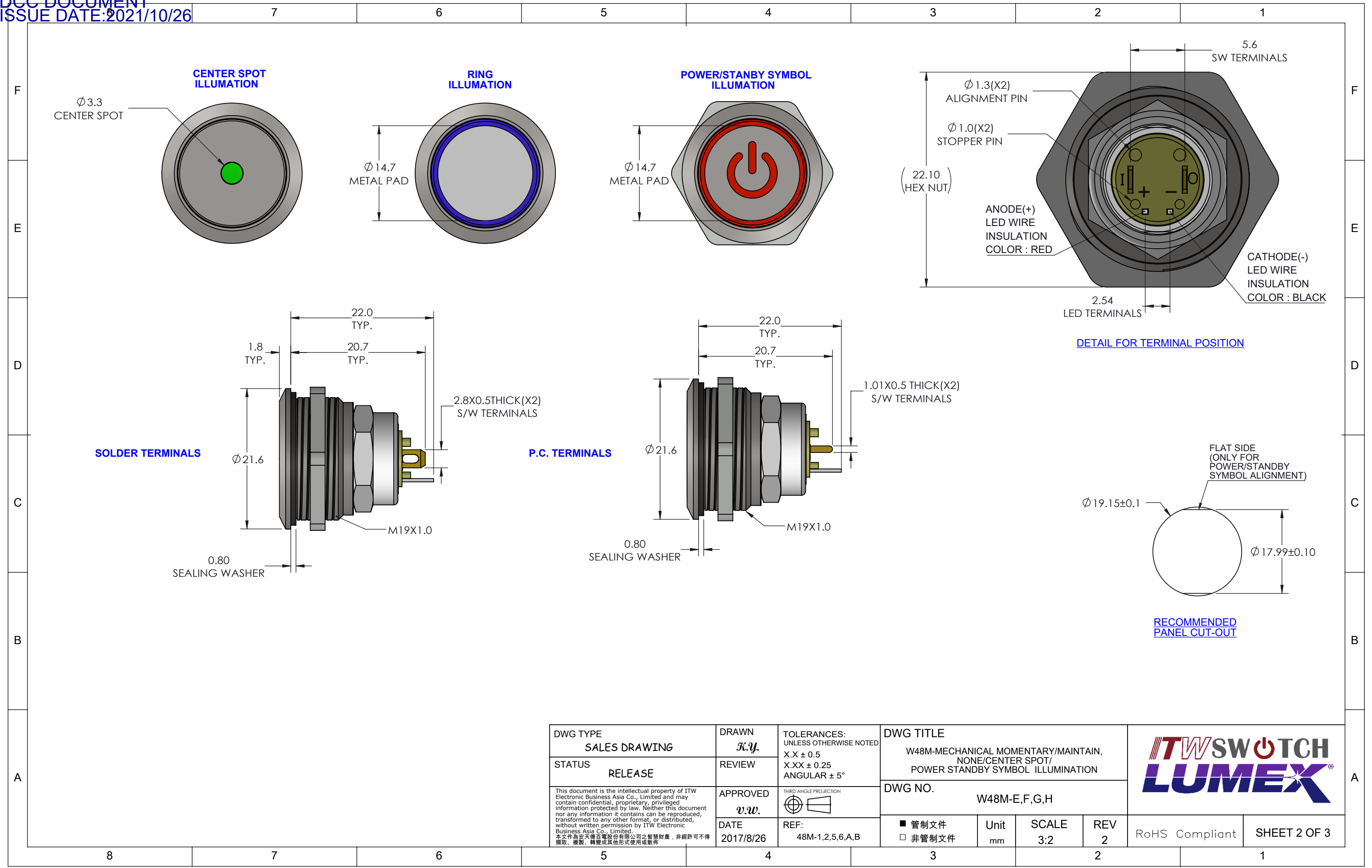
DWG TYPE SALES DRAWING	DRAWN <i>K.Y.</i>	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5	DWG TITLE W48M-SOLID STATE MOMENTARY/MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION					
STATUS RELEASE	REVIEW	X.XX ± 0.25 ANGULAR ± 5°	DWG NO. W48M3,4,7,8,C,D					
This document is the intellectual property of ITW Electronic Business Asia Co., Limited and may contain confidential, proprietary, privileged information protected by law. Neither this document nor any information it contains can be reproduced, transformed to any other format, or distributed, without written permission by ITW Electronic Business Asia Co., Limited. 本文件為安達德百電股份有限公司之智慧財產，非經許可不得擷取、複製、轉變成其他形式使用或散佈	APPROVED <i>v.w.</i>	THIRD ANGLE PROJECTION 	DWG NO. W48M3,4,7,8,C,D				RoHS Compliant SHEET 1 OF 3	
	DATE 2017/8/26	REF: 48M-1,2,5,6,A,B	☒ 管制文件 ☐ 非管制文件	Unit mm	SCALE 3:2	REV 6		





DWG TYPE SALES DRAWING	DRAWN <i>K.Y.</i>	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25 ANGULAR ± 5°	DWG TITLE W48M-SOLID STATE MOMENTARY/MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION						
STATUS RELEASE	REVIEW		DWG NO. W48M3,4,7,8,C,D						
This document is the intellectual property of ITW Electronic Business Asia Co., Limited and may contain confidential, proprietary, privileged information protected by law. Neither this document nor any information it contains can be reproduced, transformed to any other format, or distributed, without written permission by ITW Electronic Business Asia Co., Limited. 本文作為安天德百電股份有限公司之智慧財產，非經許可不得 翻取、複製、轉變成其他形式使用或散佈	APPROVED <i>V.W.</i>	THIRD ANGLE PROJECTION 							
	DATE 2017/8/26	REF: 48M-1,2,5,6,A,B	☒ 管制文件 ☐ 非管制文件	Unit mm	SCALE 3:2	REV 6	RoHS Compliant	SHEET 2 OF 3	

DRAWING DOCUMENT ISSUE DATE:2021/10/26																																																																										
W48M- X X X X XX																																																																										
<table><tr><th>SWITCH FUNCTION CODE</th><th>SWITCH FUNCTION DESCRIPTION</th></tr><tr><td>E</td><td>MECHANICAL,MOMENTARY,SOLDER TERMINAL</td></tr><tr><td>F</td><td>MECHANICAL,MAINTAINED,SOLDER TERMINAL</td></tr><tr><td>G</td><td>MECHANICAL,MOMENTARY, P.C. TERMINAL</td></tr><tr><td>H</td><td>MECHANICAL,MAINTAINED, P.C. TERMINAL</td></tr></table>		SWITCH FUNCTION CODE	SWITCH FUNCTION DESCRIPTION	E	MECHANICAL,MOMENTARY,SOLDER TERMINAL	F	MECHANICAL,MAINTAINED,SOLDER TERMINAL	G	MECHANICAL,MOMENTARY, P.C. TERMINAL	H	MECHANICAL,MAINTAINED, P.C. TERMINAL	<table><tr><th>HOUSING MATERIAL CODE</th><th>HOUSING DECRIPTION</th></tr><tr><td>1</td><td>STAINLESS STEEL</td></tr><tr><td>2</td><td>ZINC ALLOY, CHROME PLATED</td></tr></table>		HOUSING MATERIAL CODE	HOUSING DECRIPTION	1	STAINLESS STEEL	2	ZINC ALLOY, CHROME PLATED	<table><tr><th>ILLU. TYPE CODE</th><th>ILLUMINATION TYPE DESCRIPTION</th></tr><tr><td>1</td><td>CENTER SPOT ILLUMINATION</td></tr><tr><td>2</td><td>RING ILLUMINATION</td></tr><tr><td>3</td><td>POWER/STANDBY SYMBOL ILLUMINATION</td></tr></table>		ILLU. TYPE CODE	ILLUMINATION TYPE DESCRIPTION	1	CENTER SPOT ILLUMINATION	2	RING ILLUMINATION	3	POWER/STANDBY SYMBOL ILLUMINATION	<table><tr><th>LED COLOR CODE</th><th>LED COLOR</th></tr><tr><td>A</td><td>AMBER</td></tr><tr><td>R</td><td>RED</td></tr><tr><td>Y</td><td>YELLOW</td></tr><tr><td>B</td><td>BLUE</td></tr><tr><td>G</td><td>GREEN</td></tr><tr><td>W</td><td>WHITE</td></tr><tr><td>RB</td><td>RED/BLUE</td></tr><tr><td>RG</td><td>RED/GREEN</td></tr></table>		LED COLOR CODE	LED COLOR	A	AMBER	R	RED	Y	YELLOW	B	BLUE	G	GREEN	W	WHITE	RB	RED/BLUE	RG	RED/GREEN	<table><tr><th>LED INLET VOLTAGE CODE</th><th>LED INLET VOLTAGE</th></tr><tr><td>IF BLANK*</td><td>(SEE NOTE)</td></tr><tr><td>05</td><td>5V</td></tr></table>		LED INLET VOLTAGE CODE	LED INLET VOLTAGE	IF BLANK*	(SEE NOTE)	05	5V																	
SWITCH FUNCTION CODE	SWITCH FUNCTION DESCRIPTION																																																																									
E	MECHANICAL,MOMENTARY,SOLDER TERMINAL																																																																									
F	MECHANICAL,MAINTAINED,SOLDER TERMINAL																																																																									
G	MECHANICAL,MOMENTARY, P.C. TERMINAL																																																																									
H	MECHANICAL,MAINTAINED, P.C. TERMINAL																																																																									
HOUSING MATERIAL CODE	HOUSING DECRIPTION																																																																									
1	STAINLESS STEEL																																																																									
2	ZINC ALLOY, CHROME PLATED																																																																									
ILLU. TYPE CODE	ILLUMINATION TYPE DESCRIPTION																																																																									
1	CENTER SPOT ILLUMINATION																																																																									
2	RING ILLUMINATION																																																																									
3	POWER/STANDBY SYMBOL ILLUMINATION																																																																									
LED COLOR CODE	LED COLOR																																																																									
A	AMBER																																																																									
R	RED																																																																									
Y	YELLOW																																																																									
B	BLUE																																																																									
G	GREEN																																																																									
W	WHITE																																																																									
RB	RED/BLUE																																																																									
RG	RED/GREEN																																																																									
LED INLET VOLTAGE CODE	LED INLET VOLTAGE																																																																									
IF BLANK*	(SEE NOTE)																																																																									
05	5V																																																																									
MECHANICAL CHARACTERISTICS: SWITCH CIRCUITRY: SPST-NO-DB (CONTACT FORM X) SWITCH ACTION: MOMENTARY AND MAINTAINED (PER CHART) BUTTON TRAVEL: 2.3mm [.090] NOMINAL OPERATING FORCE: 306g [3N] NOMINAL CONTACT BOUNCE: 1ms NOMINAL PANEL THICKNESS: 0.5 - 4.5mm[.020 - .177] CONTACTS: GOLD PLATED NUT TORQUE FORCE: MAX11.5 kgf-cm [10 LB-in] ENVIROMENTAL SPECIFICATIONS: ACTUATOR INGRESS PROTECTION: IP67 OPERATING TEMPERATURE: NON-ILLUMINATION TYPE: -40℃ to +85℃ [-40°F to +185°F] ILLUMINATION TYPE: -40℃ to +85℃ [-40°F to +185°F] ELECTRICAL SPECIFICATIONS: CURRENT RATING: MOMENTARY: 250mA@12VDC, 100K cycles 150mA@28VDC, 150K cycles 100mA@48VDC, 100K cycles 10mA@12VDC, 1,000K cycles MAINTAINED : 50,000 CYCLES NOMINAL DIELECTRIC STRENGTH: 1,000VAC INSULATION RESISTANCE: 1G OHM CONTACT RESISTANCE: 50m OHMS MAX INITIAL LED SPECIFICATIONS: SEE LED SPECIFICATION NOTE 1.CURRENT LIMITING RESISTOR IS REQUIRED TO LIMIT LED FORWARD CURRENT TO 20mA 2. SUPPLY HEX NUT AND SEALING WASHER BULK PACKED. 3.INNER RESISTOR ONLY FOR LED :RED / BLUE / GREEN / WHITE. <table><tr><th colspan="5">LED SPECIFICATION</th></tr><tr><th rowspan="2">LED CODE</th><th rowspan="2">LED SINGLE COLOR</th><th>Vf(VDC)</th><th rowspan="2">If (mA)</th><th rowspan="2">CIRCUITRY</th></tr><tr><th>TYP.</th></tr><tr><td>R</td><td>RED</td><td>2.0</td><td>20</td><td rowspan="6"></td></tr><tr><td>A</td><td>AMBER</td><td>2.0</td><td>20</td></tr><tr><td>Y</td><td>YELLOW</td><td>2.0</td><td>20</td></tr><tr><td>G</td><td>GREEN</td><td>3.0</td><td>20</td></tr><tr><td>B</td><td>BLUE</td><td>3.1</td><td>20</td></tr><tr><td>W</td><td>WHITE</td><td>3.3</td><td>20</td></tr><tr><th rowspan="2">LED CODE</th><th colspan="2">BICOLOR LED</th><th>Vf(VDC)</th><th rowspan="2">If (mA)</th><th rowspan="2">CIRCUITRY</th></tr><tr><th>COLOR1</th><th>COLOR2</th><th>TYP.</th></tr><tr><td>RB</td><td>RED</td><td>BLUE</td><td>2.0(RED) 3.3(BLUE)</td><td>20</td><td rowspan="2"></td></tr><tr><td>RG</td><td>RED</td><td>GREEN</td><td>2.0(RED) 3.4(GREEN)</td><td>20</td></tr><tr><td colspan="5">NOTE: Hand Soldering Temperature (4mmabove from Body) : 320℃ for 3 seconds</td></tr></table> POWER ILLUMINATION SEALING WASHER T=0.8 (SUPPLIED IN BULK) SPECIAL HEX NUT HEX 22.1, M19*P1.0 T=2.2 (SUPPLIED IN BULK) RING ILLUMINATION CENTER SPOT ILLUMINATION														LED SPECIFICATION					LED CODE	LED SINGLE COLOR	Vf(VDC)	If (mA)	CIRCUITRY	TYP.	R	RED	2.0	20		A	AMBER	2.0	20	Y	YELLOW	2.0	20	G	GREEN	3.0	20	B	BLUE	3.1	20	W	WHITE	3.3	20	LED CODE	BICOLOR LED		Vf(VDC)	If (mA)	CIRCUITRY	COLOR1	COLOR2	TYP.	RB	RED	BLUE	2.0(RED) 3.3(BLUE)	20		RG	RED	GREEN	2.0(RED) 3.4(GREEN)	20	NOTE: Hand Soldering Temperature (4mmabove from Body) : 320℃ for 3 seconds				
LED SPECIFICATION																																																																										
LED CODE	LED SINGLE COLOR	Vf(VDC)	If (mA)	CIRCUITRY																																																																						
		TYP.																																																																								
R	RED	2.0	20																																																																							
A	AMBER	2.0	20																																																																							
Y	YELLOW	2.0	20																																																																							
G	GREEN	3.0	20																																																																							
B	BLUE	3.1	20																																																																							
W	WHITE	3.3	20																																																																							
LED CODE	BICOLOR LED		Vf(VDC)	If (mA)	CIRCUITRY																																																																					
	COLOR1	COLOR2	TYP.																																																																							
RB	RED	BLUE	2.0(RED) 3.3(BLUE)	20																																																																						
RG	RED	GREEN	2.0(RED) 3.4(GREEN)	20																																																																						
NOTE: Hand Soldering Temperature (4mmabove from Body) : 320℃ for 3 seconds																																																																										
<table><tr><td>DWG TYPE SALES DRAWING</td><td>DRAWN K.Y.</td><td>TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25 ANGULAR ± 5°</td><td colspan="2">DWG TITLE W48M-MECHANICAL MOMENTARY/MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION</td><td colspan="4" rowspan="2"></td></tr><tr><td>STATUS RELEASE</td><td>REVIEW</td><td>THIRD ANGLE PROJECTION </td><td colspan="2">DWG NO. W48M-E,F,G,H</td></tr><tr><td colspan="3">This document is the intellectual property of ITW Electronic Business Asia Co., Limited and may contain confidential, proprietary, privileged information protected by law. Neither this document nor any information it contains can be reproduced, transformed to any other format, or distributed, without written permission by ITW Electronic Business Asia Co., Limited. 本文作為宏天電子電股份有限公司之智慧財產，非經許可不得擷取、複製、轉變成其他形式使用或散佈。</td><td>APPROVED v.w.</td><td>REF: 48M-1,2,5,6,A,B</td><td> ■ 管制文件 □ 非管制文件 </td><td>Unit mm</td><td>SCALE 3:2</td><td>REV 2</td><td>RoHS Compliant</td><td>SHEET 1 OF 3</td></tr></table>														DWG TYPE SALES DRAWING	DRAWN K.Y.	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25 ANGULAR ± 5°	DWG TITLE W48M-MECHANICAL MOMENTARY/MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION						STATUS RELEASE	REVIEW	THIRD ANGLE PROJECTION 	DWG NO. W48M-E,F,G,H		This document is the intellectual property of ITW Electronic Business Asia Co., Limited and may contain confidential, proprietary, privileged information protected by law. Neither this document nor any information it contains can be reproduced, transformed to any other format, or distributed, without written permission by ITW Electronic Business Asia Co., Limited. 本文作為宏天電子電股份有限公司之智慧財產，非經許可不得擷取、複製、轉變成其他形式使用或散佈。			APPROVED v.w.	REF: 48M-1,2,5,6,A,B	■ 管制文件 □ 非管制文件	Unit mm	SCALE 3:2	REV 2	RoHS Compliant	SHEET 1 OF 3																																				
DWG TYPE SALES DRAWING	DRAWN K.Y.	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25 ANGULAR ± 5°	DWG TITLE W48M-MECHANICAL MOMENTARY/MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION																																																																							
STATUS RELEASE	REVIEW	THIRD ANGLE PROJECTION 	DWG NO. W48M-E,F,G,H																																																																							
This document is the intellectual property of ITW Electronic Business Asia Co., Limited and may contain confidential, proprietary, privileged information protected by law. Neither this document nor any information it contains can be reproduced, transformed to any other format, or distributed, without written permission by ITW Electronic Business Asia Co., Limited. 本文作為宏天電子電股份有限公司之智慧財產，非經許可不得擷取、複製、轉變成其他形式使用或散佈。			APPROVED v.w.	REF: 48M-1,2,5,6,A,B	■ 管制文件 □ 非管制文件	Unit mm	SCALE 3:2	REV 2	RoHS Compliant	SHEET 1 OF 3																																																																



DWG TYPE SALES DRAWING	DRAWN K.Y.	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25 ANGULAR ± 5°	DWG TITLE W48M-MECHANICAL MOMENTARY/MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION					
STATUS RELEASE	REVIEW		DWG NO. W48M-E,F,G,H					
This document is the intellectual property of ITW Electronic Business Asia Co., Limited and may contain confidential, proprietary, privileged information protected by law. Neither this document nor any information it contains can be reproduced, transformed to any other format, or distributed, without written permission by ITW Electronic Business Asia Co., Limited. 本文件為安達德百電股份有限公司之智慧財產，非經許可不得 擷取、複製、轉變成其他形式使用或散佈			THIRD ANGLE PROJECTION 					
			DATE 2017/8/26	REF: 48M-1,2,5,6,A,B	☒ 管制文件 ☐ 非管制文件	Unit mm	SCALE 3:2	REV 2