

WTSA48M -

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SWITCH FUNCTION CODE	SWITCH FUNCTION DESCRIPTION
1	MECHANICAL,MOMENTARY,SOLDER TERMINAL
A	MECHANICAL,MOMENTARY,NO/NO WIRELEADS
C	MECHANICAL,MOMENTARY,NC/NC WIRELEADS
E	MECHANICAL,MOMENTARY,NC/NO WIRELEADS

HOUSING MATERIAL CODE	HOUSING DECSRIPTION
1	STAINLESS STEEL
2	ZINC ALLOY, CHROME PLATED
3	AL ALLOY ANODIZED BLACK

CAP CODE	CAP DESC.	LED COLOR CODE	LED COLOR
HT	CLEAR	N	NONE
		R	RED
		B	BLUE
		G	GREEN
		Y	YELLOW
		A	AMBER
W	WHITE		
COLOR CAP CODE	CAP DESC.	LED CODE	LED COLOR
HR	RED	N	NONE
HG	GREEN	L	ILLUMINATION
HY	YELLOW		

ICON CODE	ICON DESCRIPTION
0	BLANK
1	ON (IEC 60417-5264)
2	ON/OFF (IEC 60417-5010)
3	POWER STANDBY (IEC60417-5009)

LED INLET VOLTAGE CODE		LED INLET VOLTAGE
NON-WIRELEADS	IF BLANK*	(SEE NOTE)
WIRELEADS	IF BLANK*	(SEE NOTE)
	05	5V
	12	12V
	24	24V

ANY CODE	DESCRIPTION
IF BLANK*	NA
XXX	PER CUSTOMER SPECIAL REQUEST

MECHANICAL CHARACTERISTICS:
SWITCH CIRCUITRY: SPDT-DB
SWITCH ACTION: MOMENTARY (PER CHART)
PRE-TRAVEL: 1.27 mm NOMINAL
OVER-TRAVEL: 0.254 mm NOMINAL
TOTAL TRAVEL: 1.524 mm NOMINAL
OPERATING FORCE: 525 g [5.15 N] NOMINAL
RELEASEING FORCE: 340 g [3.45 N] NOMINAL
PANEL THICKNESS: 0.5 - 4.5mm
CONTACTS: SILVER
NUT TORQUE FORCE: MAX. 11.5 kgf*cm [10 LB*in]

ELECTRICAL LIFE:
5A@28VDC, 5A@125/250VAC , 25K CYCLES NOMINAL

MECHANICAL LIFE:
MOMENTARY: 1,000,000 CYCLES NOMINAL

ENVIROMENTAL SPECIFICATIONS:
OPERATING TEMPERATURE: -40°C to +85°C[-40°F to +185°F]
IP67 COMPLIANT

ELECTRICAL SPECIFICATIONS:
DIELECTRIC STRENGTH: 1,000VAC
INSULATION RESISTANCE: 1G OHM
CONTACT RESISTANCE:
NON-WIRELEAD 50m OHMS MAX. INITIAL
WIRELEADS 250m OHMS MAX. INITIAL

LED SPECIFICATIONS:
SEE LED SPECIFICATION

CERTIFICATION: UL 61058

* NOTE:
1.SUPPLY HEX NUT AND SEALING WASHER BULK IN PACKED

SPDT-DB SCHEMATIC

LED SPECIFICATION				
LED CODE	LED	CIRCUITRY	Vf(VDC)	If (mA)
	Color		Color	
R	RED		1.8 ~ 2.5	20
B	BLUE		2.8 ~ 3.5	20
G	GREEN		2.8 ~ 3.5	20
Y	YELLOW		1.8 ~ 2.5	20
W	WHITE		2.8 ~ 3.5	20

Notes:
Hand Soldering Temperature (4mm above from Body) : 300°C for 3 seconds

WIRELEADS SPECIFICATION					
WIRELEADS TYPE	WIRELEADS SPECIFICATION	SW TERMINAL	SW TERMINAL	LED COLOR	
		NO	NC	+	-
ILLUMINATION	SW :AWG24 / UL1007 LED: AWG26/UL1007	BLUE	YELLOW	RED	BLACK
NON-ILLUMINATION		BLUE	YELLOW	-	-

SEALING WASHER
T=0.80
(SUPPLIED IN BULK)

SPECIAL HEX NUT
HEX 22.1 ,T=2.3
(SUPPLIED IN BULK)

DWG TYPE
SALES DRAWING

STATUS
RELEASE

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DRAWN
c.c.

REVIEW
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APPROVED
v.w.

REF:
WSA48-1,A,C,E

TOLERANCES:
UNLESS OTHERWISE NOTED
X.X ± 0.5
X.XX ± 0.2
ANGULAR ±1°

THIRD ANGLE PROJECTION

DWG TITLE
WTSA48M-MECHANICAL MOMENTARY, NONE/
CENTER SPOT/RING/POWER-STANDBY
ILLUMINATION

DWG NO.
WTSA48M-1,A,C,E

管制文件
非管制文件

Unit
mm

SCALE
2 : 1

REV
1

RoHS Compliant

SHEET 1 OF 3

DWG TYPE SALES DRAWING	DRAWN e.e.	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.2 ANGULAR ±1°	DWG TITLE WTS48M-MECHANICAL MOMENTARY, NONE/ CENTER SPOT/RING/POWER-STANDBY ILLUMINATION							
STATUS RELEASE	REVIEW --									
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	REF: WSA48-1,A,C,E	☒ 管制文件 ☐ 非管制文件		Unit mm	SCALE 2 : 1	REV 1	RoHS Compliant	SHEET 3 OF 3		

WTS48M—

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SWITCH FUNCTION CODE	SWITCH FUNCTION DESCRIPTION
2	MECHANICAL, MAINTAIN, SOLDER TERMINAL
B	MECHANICAL, MAINTAIN, NO/NO WIRELEADS
D	MECHANICAL, MAINTAIN, NC/NC WIRELEADS
F	MECHANICAL, MAINTAIN, NO/NC WIRELEADS

HOUSING MATERIAL CODE	DECSRIPTION
1	STAINLESS STEEL
2	ZINC ALLOY CHROME PLATED
3	AL ALLOY ANODIZED BLACK

CAP CODE	CAP DESCRIPTION	LED COLOR CODE	LED COLOR
HT	CLEAR	N	NONE
		R	RED
		B	BLUE
		G	GREEN
		Y	YELLOW
		A	AMBER
W	WHITE		
COLOR CAP CODE	CAP DESCRIPTION	LED CODE	LED COLOR
HR	RED	N	NONE
HG	GREEN	L	ILLUMINATION
HY	YELLOW		

ICON CODE	ICON DESCRIPTION
0	BLANK
1	ON (IEC 60417-5264)
2	ON/OFF (IEC 60417-5010)
3	POWER STANDBY (IEC60417-5009)

LED INLET VOLTAGE CODE		LED INLET VOLTAGE
NON-WIRELEADS	IF BLANK*	FOLLOW LED SPECIFICATION
WIRELEADS	IF BLANK*	FOLLOW LED SPECIFICATION
	05	5V
	12	12V
	24	24V

ANY CODE	DESCRIPTION
IF BLANK*	NA
XXX	PER CUSTOMER SPECIAL REQUEST

MECHANICAL CHARACTERISTICS:
SWITCH CIRCUITRY: SPDT-DB
SWITCH ACTION: MAINTAINED (PER CHART)
PRE-TRAVEL: 1.27 mm NOMINAL
OVER-TRAVEL: 0.254 mm NOMINAL
TOTAL TRAVEL: 1.524 mm NOMINAL
OPERATING FORCE: 525 g [5.15N] NOMINAL
RELEASEING FORCE: 340 g [3.45N] NOMINAL
PANEL THICKNESS:
MOUNT: 0.5-4.5mm
CONTACTS: SILVER
NUT TORQUE FORCE: MAX 11.5 kgf*cm [10 LB*in]

ELECTRICAL LIFE:
5A@28VDC, 5A@125/250VAC , 25K CYCLES NOMINAL

ENVIROMENTAL SPECIFICATIONS:
OPERATING TEMPERATURE: -40 °C to +85 °C[-40 °F to +185 °F]
IP67 COMPLIANT

ELECTRICAL SPECIFICATIONS:
DIELECTRIC STRENGTH: 1,000VAC
INSULATION RESISTANCE: 1G OHM
CONTACT RESISTANCE:
NON-WIRELEAD 50m OHMS MAX INITIAL
WIRELEADS 250m OHMS MAX INITIAL

LED SPECIFICATIONS:
SEE LED SPECIFICATION

CERTIFICATION: UL 61058

* NOTE:
1.SUPPLY HEX NUT AND SEALING WASHER BULK IN PACKED

LED SPECIFICATION					
LED CODE	LED Color	CIRCUITRY	Vf(VDC) Color	If (mA)	
R	RED		1.8 ~ 2.5	20	
B	BLUE		2.8 ~ 3.5	20	
G	GREEN		2.8 ~ 3.5	20	
Y	YELLOW		1.8 ~ 2.5	20	
W	WHITE		2.8 ~ 3.5	20	

Notes:
Hand Soldering Temperature (4mm above from Body) : 300°C for 3 seconds

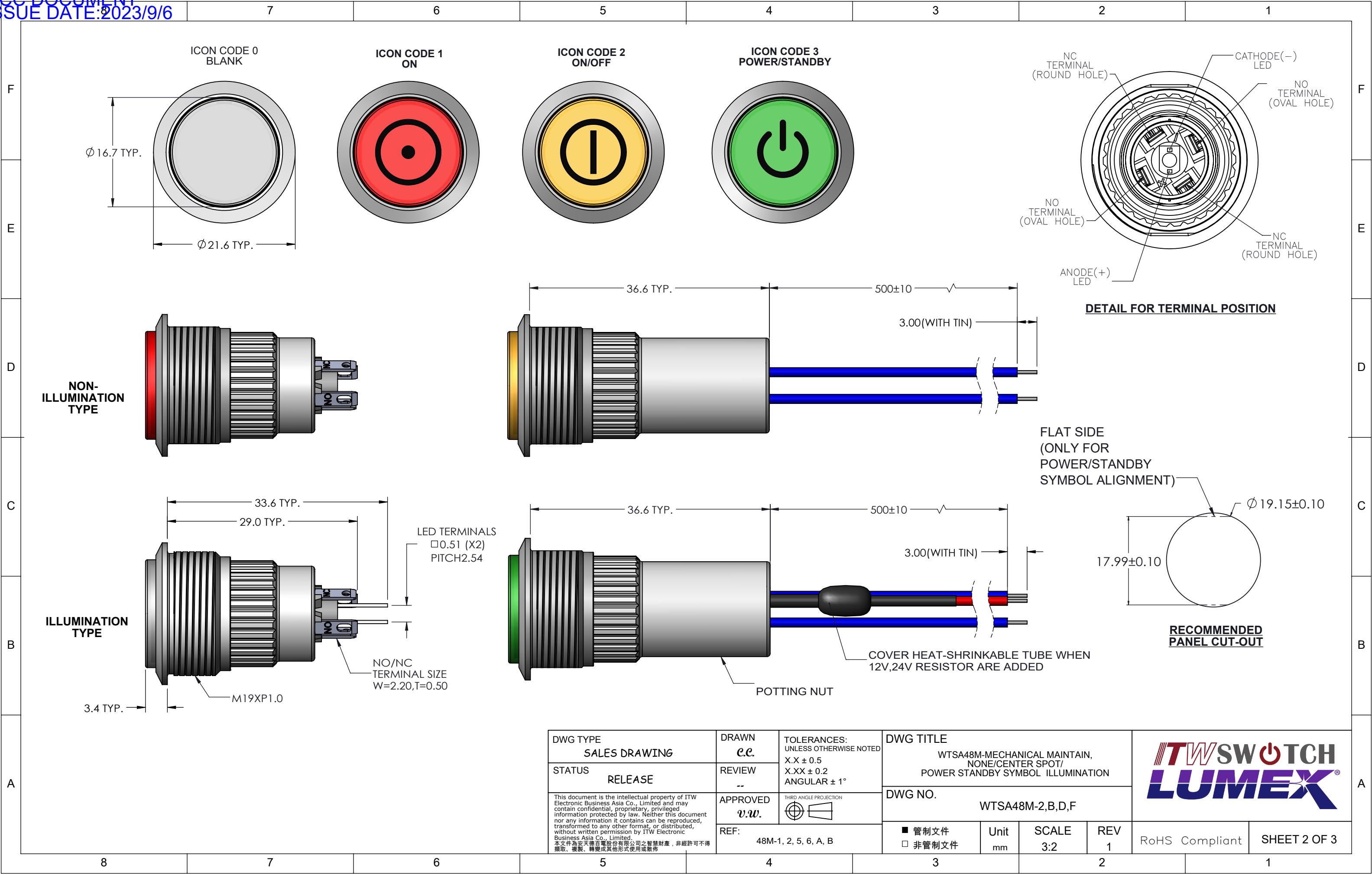
WIRELEADS SPECIFICATION					
WIRELEADS TYPE	WIRELEADS SPECIFICATION	SW TERMINAL	SW TERMINAL	LED	
		NO	NC	+	-
ILLUMINATION	AWG24 / UL1007	BLUE	YELLOW	RED	BLACK
NON-ILLUMINATION		BLUE	YELLOW	-	-

SEALING WASHER
T=0.80
(SUPPLIED IN BULK)

SPECIAL HEX NUT
HEX 22.1 ,T=2.3
(SUPPLIED IN BULK)

DWG TYPE	DRAWN	TOLERANCES:	DWG TITLE	
SALES DRAWING	e.e.	UNLESS OTHERWISE NOTED	WTS48M-MECHANICAL MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION	
STATUS	REVIEW	X.X ± 0.5 X.XX ± 0.2 ANGULAR ± 1°	DWG NO.	
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	REF:		管制文件 非管制文件	Unit mm
	48M-1, 2, 5, 6, A, B		SCALE 3:2	REV 1

SHEET 1 OF 3	
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DWG TYPE SALES DRAWING	DRAWN e.e.	TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.2 ANGULAR ± 1°	DWG TITLE WTS48M-MECHANICAL MAINTAIN, NONE/CENTER SPOT/ POWER STANDBY SYMBOL ILLUMINATION							
STATUS RELEASE	REVIEW --		DWG NO. WTS48M-2,B,D,F							
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	REF: 48M-1, 2, 5, 6, A, B									
			☒ 管制文件 ☐ 非管制文件	Unit mm	SCALE 3:2	REV 1	RoHS Compliant		SHEET 3 OF 3	