

1 Push-Pull Emergency Stops (Compliant with IEC 60947-5-5)

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- Two- and three-position
- Non-illuminated
- LONC contact block

10250T579C47-71X



Two-Position Push-Pull Units

Operator Position ^①

Pull	Push	Button Type/Color	Lamp	Type	Voltage	Catalog Number
X	0	40 mm red—illuminated	Incandescent	Transformer	120 Vac/Vdc	10250T563C47-71X
X	0	40 mm red—illuminated EMERG. STOP	Incandescent	Transformer	120 Vac/Vdc	10250T563C53-71X
X	0	40 mm red—illuminated EMERG. STOP	LED	Transformer	120 Vac/Vdc	10250T563LED06-71X
X	0	40 mm red—illuminated	Incandescent	Full voltage	24 Vdc	10250T579C47-71X
X	0	40 mm red—illuminated EMERG. STOP	Incandescent	Full voltage	24 Vdc	10250T579C53-71X
X	0	40 mm red—illuminated	Incandescent	Resistor	120 Vac/Vdc	10250T580C47-71X
X	0	40 mm red—illuminated EMERG. STOP	Incandescent	Resistor	120 Vac/Vdc	10250T580C53-71X
X	0	40 mm red—illuminated	Incandescent	Transformer	24 Vac	10250T589C47-71X
X	0	40 mm red—illuminated EMERG. STOP	Incandescent	Transformer	24 Vac	10250T589C53-71X
X	0	40 mm red—illuminated EMERG. STOP	LED	Transformer	24 Vac	10250T589LED06-71X
X	0	40 mm red—illuminated	LED	Transformer	24 Vac	10250T589LRD06-71X
X	0	40 mm red—illuminated EMERG. STOP	LED	Full voltage	24 Vdc	10250T597LED24-71X
X	0	40 mm red—illuminated EMERG. STOP	LED	Full voltage	120 Vac/Vdc	10250T597LED2A-71X
X	0	40 mm red—illuminated	LED	Full voltage	24 Vdc	10250T597LRD24-71X
X	0	40 mm red—illuminated	LED	Full voltage	120 Vac/Vdc	10250T597LRD2A-71X
X	0	40 mm red	—	—	—	10250T5B62-71X
X	0	40 mm red	—	—	—	10250T5B63-71X
X	0	65 mm red	—	—	—	10250T5J62-71X
X	0	65 mm red	—	—	—	10250T5J63-71X

Note

^① X = closed circuit, 0 = open circuit.

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Two-Position Push-Pull Units**Operator Position ^①****Pull****Push****Button Type/Color ^②****Contact Type****Mounting Location****A****B****Catalog Number ^②****Two-Position Maintained Push, Maintained Pull****10250T5B62-1X**

O

X

40 mm/red

1NO

**10250T5B62-1X**

X

O

1NC

**10250T5B63-1X**

O

X

40 mm engraved
EMERG. STOP/red

1NO

**10250T5B63-1X**

X

O

1NC

**10250T5J63-1X**

O

X

65 mm aluminum engraved
EMERG. STOP/red

1NO

**10250T5J63-1X**

X

O

1NC

**10250ED1080-2**

O

X

65 mm aluminum engraved
EMERG. STOP/red

1NO

**10250ED1080-2**

X

O

1NC

Special security
jumbo mushroom head**Button and Color Selection****Color****Suffix Code****Catalog Number****Standard****Standard—40 mm**

Red

B62**10250TB62**

Red (EMERG. STOP)

B63**10250TB63**

Green

B61**10250TB61**

Black

B60**10250TB60**

Blue

B64**10250TB64****Jumbo Mushroom Head****Jumbo Mushroom Head ^③
(Anodized) Aluminum—65 mm**

Red

J62**10250TJ62**

Red (EMERG. STOP)

J63**10250TJ63**

Green

J61**10250TJ61**

Black

J60**10250TJ60**

Yellow

J64**10250TJ64****Notes**^① X = closed circuit, O = open circuit.^② To order different type or color buttons, substitute the underlined characters with appropriate suffix code from the table.
Example: 10250T5B64-1X.^③ Anodized aluminum head is not suitable for use in ultraviolet light applications.

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

10250T_

**Three-Position Push-Pull Units****Operator Position ^①**

			Button Type/Color ②	Contact Type	Mounting Location		Catalog Number ②
					A	B	
Maintained Push, Momentary Pull							
X	0	0	40 mm/black	1NC			10250T9B60-3X
X	X	0	40 mm/red	1NC			10250T9B62-3X
			40 mm engraved EMERG. STOP/red				10250T9B63-3X
Momentary Push, Momentary Pull							
X	0	0	40 mm/black	1NC			10250T4B60-3X
X	X	0	40 mm/red	1NC			10250T4B62-3X
0	0	X	40 mm/black	1NO			10250T10B60-1X
X	0	0	40 mm/red	1NC			10250T10B62-1X

Button and Color Selection

Color	Suffix Code	Catalog Number
Standard — 40 mm		
Red	B62	10250TB62
Red (EMERG. STOP)	B63	10250TB63
Green	B61	10250TB61
Black	B60	10250TB60
Blue	B64	10250TB64
Jumbo Mushroom Head ^③ (Anodized) Aluminum — 65 mm		
Red	J62	10250TJ62
Red (EMERG. STOP)	J63	10250TJ63
Green	J61	10250TJ61
Black	J60	10250TJ60
Yellow	J64	10250TJ64

Notes

^① X = closed circuit, 0 = open circuit.

^② To order different type or color buttons, substitute the underlined characters with appropriate suffix code from the table.
Example: 10250T5B64-1X.

^③ Anodized aluminum head is not suitable for use in ultraviolet light applications.

Illuminated Push-Pull Units

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

- LED or incandescent
- Full voltage, resistor or transformer type
- Two-position maintained

Two-Position Push-Pull Operator**Two-Position Illuminated Maintained Push, Maintained Pull****Operator Position ①**

Maintained—Pull	Maintained—Push	Lamp	Type	Voltage	Contact Type	Mounting Location A	Mounting Location B	LED/Lamp Number	Red Standard Push-Pull Catalog Number ②
O	X	LED	Full Voltage	24 Vac/Vdc	1NO			Bayonet base	10250T597LRD24-1X
X	O			120 Vac/Vdc	1NC				10250T597LRD2A-1X
				24 Vac					10250T589LRD06-1X
				120 Vac					10250T563LRD06-1X
O	X	Incandescent	Full voltage	24 Vac/Vdc	1NO			#757	10250T579C47-1X
X	O			120 Vac/Vdc	1NC			120MB	10250T580C47-1X
				24 Vac				#755	10250T589C47-1X
				120 Vac					10250T563C47-1X

10250ED137_**Jumbo Lens Illuminated E-Stops**

Lamp	Button Type/Color	Type	Voltage	Contact Type	Catalog Number
LED	Two-position illuminated maintained push/pull— 50 mm jumbo lens/red	Full voltage	24 Vac/Vdc	1NO 1NC	10250ED1375
LED	Three-position illuminated momentary push/pull— 50 mm jumbo lens/red	Full voltage	24 Vac/Vdc	1NC 1NC	10250ED1376
LED	Three-position illuminated momentary push/pull— 50 mm jumbo lens/red	Full voltage	24 Vac/Vdc	1NO 1NC	10250ED1377
LED	Three-position illuminated maintained push/momentary pull— 50 mm lens/red	Full voltage		1NO 1NC	10250ED1378





Notes

① X = closed circuit, O = open circuit.

② To order different type or color lens, substitute the underlined characters with appropriate suffix code from table on next page. Example: 10250T579C63-1X.
For LEDs with different voltages see ordering example on **Page V7-T1-207**.

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Lens and Color Selection

	Color	Incandescent Suffix Code	LED Suffix Code	Catalog Number
Standard 	Standard—40 mm			
	Red	C47	RD	10250TC47
	Red (EMERG. STOP)	C53	ED	10250TC53
	Green	C48	GD	10250TC48
	Blue	C49	LD	10250TC49
	Amber	C50	AD	10250TC50
	White	C51	WD	10250TC51
	Clear	C52	CD	10250TC52
Side-Lighted Aluminum 	Side-Lighted Aluminum—40 mm ^①			
	Red	C57	RS	10250TC57
	Red (EMERG. STOP)	C63	ES	10250TC63
	Green	C58	GS	10250TC58
	Blue	C59	LS	10250TC59
	Amber	C64	AS	10250TC64
	Yellow	C60	YS	10250TC60
	White	C61	WS	10250TC61
Aluminum Transparent Center 	Aluminum Transparent Center—40 mm ^①			
	Red	C65	RH	10250TC65
	Green	C66	GH	10250TC66
	Amber	C67	AH	10250TC67
Jumbo Lens 	Jumbo Lens—50 mm			
	Red	—	—	10250TC77

Note^① Clear anodized aluminum and colored lens.

UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Three-Position Push-Pull Operator**Three-Position Illuminated Momentary Push, Momentary Pull****Operator Position ①**

Momentary—Pull	Maintained—Intermediate	Momentary—Push	Lamp	Type	Voltage	Contact Type	Mounting Location	LED/Lamp Number	Red Standard Push-Pull Catalog Number ③
							A B		
0	0	X	LED	Full voltage	24 Vac/Vdc	1NO		Bayonet base	10250T1097LRD24-1X
X	0	0			120 Vac	1NC			10250T1097LRD2A-1X
				Transformer	24 Vac				10250T1089LRD06-1X
					120 Vac				10250T1063LRD06-1X
X	0	0		Full voltage	24 Vac/Vdc	1NC		Bayonet base	10250T497LRD24-3X
X	X	0			120 Vac	1NC			10250T497LRD2A-3X
				Transformer	24 Vac				10250T489LRD06-3X
					120 Vac				10250T463LRD06-3X
0	0	X	Incan-descent	Full voltage	24 Vac/Vdc	1NO		#757	10250T1079C47-1X
X	0	0		Resistor	120 Vac	1NC		120MB	10250T1080C47-1X
				Transformer	24 Vac			#755	10250T1089C47-1X
					120 Vac				10250T1063C47-1X
X	0	0		Full voltage	24 Vac/Vdc	1NC		#757	10250T479C47-3X
X	X	0		Resistor	120 Vac	1NC		120MB	10250T480C47-3X
				Transformer	24 Vac			#755	10250T489C47-3X
					120 Vac				10250T463C47-3X

Three-Position Push-Pull Operator**Three-Position Illuminated Maintained Push, Momentary Pull****Operator Position ①**

Momentary—Pull	Maintained—Intermediate	Momentary—Push	Lamp	Type	Voltage	Contact Type	Mounting Location	LED/Lamp Number	Red Standard Push-Pull Catalog Number ②
							A B		
X	0	0	LED	Full voltage	24 Vac/Vdc	1NC		Bayonet base	10250T997LRD24-3X
X	X	0			120 Vac	1NC			10250T997LRD2A-3X
				Transformer	24 Vac				10250T989LRD06-3X
					120 Vac				10250T963LRD06-3X
X	0	0	Incan-descent	Full voltage	24 Vac/Vdc	1NC		#757	10250T979C47-3X
X	X	0		Resistor	120 Vac	1NC		120MB	10250T980C47-3X
				Transformer	24 Vac			#755	10250T989C47-3X
					120 Vac				10250T963C47-3X

Notes

① X = closed circuit, 0 = open circuit.

② To order different type or color lens, substitute the underlined characters with appropriate suffix code from table on **Page V7-T1-202**.Example: 10250T1079C53-1X. For LEDs with different voltages see ordering example on **Page V7-T1-207**.③ To order different type or color lens, substitute the underlined characters with appropriate suffix code from table on **Page V7-T1-202**.Example: 10250T979C53X. For LEDs with different voltages see ordering example on **Page V7-T1-207**.

Potentiometers

UL (NEMA) Type 3, 3R, 4, 12, 13

**Vertical or Horizontal
One-Hole Mounting** ①**Potentiometer with Knob and Standard Dial Plate—Linear Type $\pm 10\%$**

Potentiometer Ohms	Catalog Number
2 Watt (60V Max.) Single Potentiometer with Standard Aluminum Dial Plate ②③	
1000	10250T331
2500	10250T332
5000	10250T338
10000	10250T333
25000	10250T334
50000	10250T335
Operator only ④	10250T330
Alternative—black plastic large legend with standard markings	E34LP99

Notes

- ① Shown with standard aluminum dial plate.
- ② Large dial plate with space for legend is available at no charge. To order, add suffix **36** to catalog number. Example: 10250T331**36**. To order separately, see footnote ③ below.
- ③ Large dial plate has space at top for 15 letters. 3/32 in high. For custom stamped legend plates, order legend plate as separate item **10250TR30** and specify stamping.
- ④ For use with commercially purchased potentiometers having shaft dimensions per dimension drawing on **Page V7-T1-251**.

Push-Pull Operators

An illuminated push-pull pushbutton unit, arranged for one-hole mounting, can replace two pushbuttons and a pilot light or the non-illuminated form can replace two pushbuttons. These units are available in three basic types:

- **Maintained**—(Two-position). Maintains in the pulled or pushed position until manually actuated to the opposite mode.
- **Momentary**—(Three-position). Spring returns to an intermediate position when pulled or pushed and released.
- **Momentary Pull, Maintained Push**—(Three-position). Spring returns to intermediate position when pulled. Maintains in pushed position until manually returned to intermediate (ready to reset) position. Maintained stop holds circuit open and will prevent other series connected operators from starting the system.

The operators, buttons, contact blocks, etc., are offered as building block components that can be intermixed to satisfy many requirements. This minimizes the need for a varied and costly inventory.

Two-Position Maintained Push-Pull^①



Typical Applications

Control	Line—Diagram	Operator	Circuits	Operator Mode
Three-wire three-position momentary		Momentary push and pull 10250T4	2NC contact block 10250T3	
Two-wire two-position maintained		Momentary push and pull 10250T10	1NO-1NC contact block 10250T1	
Three-wire momentary pull maintained push		Maintained push and momentary pull 10250T9	2NC contact block 10250T3	

Notes

A and **B** circuits shown in the application illustrations are defined in the "Application Guide" on the following page.

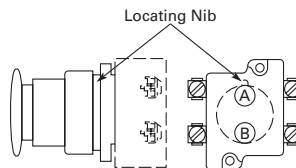
^① Shown without button on lens.

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Application Guide

To assist in the selection of contact blocks, the sketch to the right shows pictorially by symbols **A** and **B** locations of contact circuits after assembly of contact blocks

and adapter to the operator. The table below shows the effect of the push and pull operations on either NO or NC contacts. (X = contact closed, O = contact open).

Contact Circuit Locations

10250T579C47-71X

Push-Pull Operator Components**Operator Position and Circuit Arrangement****Contact Block Mounting Location**

Type of Operator	A		B		A		B		A		B		Contact Block ①	Catalog Number
Two-Position Operator without Lens														
Maintained push-pull	O	or	O	No intermediate position			X	or	X	1NO 1NC		10250T5		
	X		X				O		O					
	O	O	X				X	2NO						
	X	X	O				O	2NC						
Maintained push-pull with anti-theft jumbo mushroom	O	or	O	No intermediate position			X	or	X	1NO 1NC		10250ED1080		
	X		X				O		O					
	O	O	X				X	2NO						
	X	X	O				O	2NC						
Three-Position Operator without Lens														
Momentary push-pull	O	or	O	O	or	O	X	or	O	1NO 1NC		10250T4 ①		
	X		X	O		X	O		O					
	O	O	O	X	O	O	2NO							
	X	X	O	X	O	O	2NC							
Maintained push-momentary pull	O	or	O	O	or	O	X	or	O	1NO 1NC		10250T9 ①		
	X		X	O		X	O		O					
	O	O	O	X	O	O	2NO							
	X	X	O	X	O	O	2NC							
Momentary push-pull	O	or	O	O	or	O	X	or	X	1NO 1NC		10250T10 ①		
	X		X	O		O	O		O					
	O	O	O	X	O	X	2NO							
	X	X	O	O	O	O	2ND							

Note

① Maximum of two blocks, four circuits. Special function contact blocks shown on **Page V7-T1-237** CANNOT be used with three-position push-pull operators 10250T4, 10250T9 or 10250T10.

Push-Pull Light Units, Lenses and Buttons**Ordering Example with One Composite Number**

Non-illuminated:

10250T5 + 10250TB62 + 10250T1 = **10250T5B62-1X**

Incandescent:

10250T5 + 10250T79 + 10250TC47 + 10250T1 = **10250T579C47-1X**

LED:

10250T5 + 10250T97L + 10250TC47 + Voltage code + 10250T1 = **10250T597LRD24-1X**

06—6 Vac/Vdc

60—60 Vac/Vdc

12—12 Vac/Vdc

2A—120 Vac

24—24 Vac/Vdc

2D—120 Vdc

48—48 Vac/Vdc

Light Units for Illuminated Push-Pull Devices

Light Unit Type	Type	Voltage	LED/Lamp Number	Catalog Number
LED (LEDs not included) ^①	Full voltage	—	Bayonet base	10250T97L
	Transformer	24		10250T89L
	AC only	120		10250T63L
	50/60 Hz	208		10250T64L
		240		10250T65L
		277		10250T82L
		380		10250T66L
		480		10250T67L
		600		10250T68L
Incandescent	Full voltage	6		10250T69
	AC or DC	12		10250T70
		24/28		10250T79
		32		10250T83
	Resistor	120	120MB	10250T80
	AC or DC	240		10250T81
	Transformer	24	#755	10250T89
	AC only	120		10250T63
	50/60 Hz	208		10250T64
		240		10250T65
		277		10250T82
		380		10250T66
		480		10250T67
		600		10250T68

Note^① These units do not include lamps. Order LED separately to match lens color, see **Page V7-T1-241**.